Lo-M1-3 (SDI-M3) Hunter Powered Suit

"So let me get this straight. You want me to strap on some barely-tested flying suit of armor, looking like it came out of some fairy tale, made by an alien crackpot who got the idea from watching ancient cartoons? Sounds like fun." - Chief Warrant Officer Mauro 'Soul Savior' Komodo Lmanel Lorath Self Defense Force, Nyli II Military Base

For most of YE 29, and years before that, Fusegu Mora, better known by his nom du guerre of Stalwart Defender, had been working on powered armor prototypes to sell for cheap production to one of the larger corporations, perhaps Setsuna Mechworks or NovaCorp. These prototypes were referred to as SDI-X1 Stalwart Defender, SDI-X2 Grey Seraphim, and SDI-X3 Night Stalker, and for the most part, were a half-realized dream kept at bay by Stalwart's limited knowledge of armor technology.

By the end of YE 29, these prototypes stood at a completion rate of about 40%, with the plans themselves calling for materials and techniques that Stalwart didn't have available to him, in addition to many technical details he didn't have the information for. The fact that the prototypes themselves were contained on Stalwart's mothballed Sojourner was of little help.

Assistance came in the form of Miles Gunn, designer of certain KFY variant systems, who assisted with the completion of the three prototypes and the mass production stripdown plans. The mass production versions, known as Knight, Valkyrie, and Hunter, were perfected and passed on to the Lorath for study. Due to available fabrication techniques and the prototypes' general lightweight nature when compared to the Winter Frame, they were thought appropriate as infantry units that could be rapidly produced and deployed, in addition to requiring less training than a Winter or an import armor.

The Hunter itself, although the third conceived prototype and technically the third in the series, was the first to see production. Because its role is the most flexible and it is capable of admirable performance in both terrestrial and space environments, and requires the least training to use effectively. Thanks to its IWACS system, positioned within 'rabbit ears' on the unit's head, it works best in squads - what one unit knows, the others know, with minimal latency. With the fast data processing of the Xtal interface and a custom ARIA-based processor, knowledge can be applied immediately to situational assessment with no delay. Communication is strong and cuts through many forms of ECM.

In short, the Hunter's revolution is not in weaponry or thrust or in protection, but in a style of warfare that absolutely demands group tactics; indeed, a lone Hunter is at a huge disadvantage when facing any other known armor, but several can use their enhanced situational awareness to achieve victory through tactical superiority. In addition, the Lorath are far more capable of using flight effectively thanks to their instinctual knowledge of it.

Notably, though the three units initially resembled, albeit superficially, the combat units from Cybernetic Armor Kusanagi (of which Stalwart has always been fond of), Stalwart was inspired to build the actual armor plating of the units from very elaborate ancient Lorath plate designs, of which one was kept upon the Maras and of which further were researched. Though a more spartan design based on Stalwart's original sketches could have been created, the production units retained the elaborate look, representing a paradigm shift in military aesthetic and doctrine. Despite this, due to customizeability, Hunter units produced for different customers can have a very distinctly different look, even while retaining all the same basic parts.

Statistical Information

Internal Nomenclature: B3 Hunter Multienvironment Powered Suit Initial Rollout Date: YE 30 Primary Customers: Lorath Self Defense Force, House Funnyen Secondary Customers: None at this time Designers: Stalwart Defense Industries (Stalwart Defender, Miles Gunn, ARIA Type 0), Lorath Matriarchy Manufacturers: Lorath Matriarchy Production: 1 Prototype (Night Stalker), 100 Preproduction (for testing and training purposes), Mass Production on an order-by-order basis Class: Powered suit, or 'Aphrodite-class Battlesuit' (according to Stalwart), designed to be worn over M38 Battledress Cost: See later section.

Height: Pilot's Height + ~40cm (non-Funnyen variants) Mass: 200lb Power Source: Microfusion Reactor, emergency biological power pack Running speed: 65km/h (average) Air speed (1G, 1 atmosphere of pressure): 750 km/h during limited flight, 800 during very-low-altitude bursts Space speed (normal conditions): ~0.11g Jump Distance (1g, 1 atmosphere): 3m altitude without thrusters (assuming pilot of human strength) Useful Range: Theoretically unlimited so long as hydrogen is available; practically limited to the pilot's stamina.

IWACS Effective Range: Approx. 100km, though the awareness range can be larger if there are several units that can be used as relays; theoretical maximum useful range is several lightseconds IWACS ECM Capability: Intelligent jamming systems at high-power multi-frequency bands; limited to lightspeed communications Optical Range (using H-type optics, main visor cam, and wideband sensors): Sensor resolution of 100 gigapixels (total), wavelengths from 300 GHz to 30 PHz (software-filtered) Sensor Range: Practical range of about 1 light-second (for the farthest-reaching system), extended using IWACS system Operating System: Xtal 2.23g Processing Capability: Non-SI LNV ARIA processor

Systems Breakdown

Standard Armament

This information only applies to production Hunter units produced for the Funnyen and LSDF. Export and preproduction units may have different weapons and mounting slots.

Fixed Armament

Armament that is fixed to the unit.

Leg Micromissiles

Within the leg units, the Hunter stores micromissile units, 10 per leg. These missiles are designed to use a variety of warheads, including antimatter warheads, but usually use electromagnetic tracking that locks onto active electronic systems; along with a heat-based backup.

Uses standard Lorath missile munitions (minimissile size), but can be adapted to use local variants at an additional fee.

Superheated Gloves

Gloves designed as an absolute last-resort weapon when nothing else is left, these gloves are designed to make punches fiercer. While they won't help too much against most enemies, it does give an additional boost to the formidable strength enhancement the armor provides. Damage Rating 1.

Optional Armament

Armament that is specific to the Hunter unit, but is not specifically fixed to the unit. The unit is usually deployed with this armament, but can be stripped of it.

FMG-1 Plasma Grenade

A relatively simple grenade - a ball of highly compressed gas with a catalyst. When thrown, the gas is allowed to violently release, and at the same time is heated to the point of a plasma state. Useful for clearing out hallways and such. Stores six standard in the side skirt armor, three on each side. Damage Rating 5.

FMB-1H Superheated Blade

Based on the 'Searing Blade' Traditional Melee Weapon System, the Lorath's trademark melee weapon, one is distributed standard with each Hunter unit. While the traditional production of such blades is performed by artisans, these blades are mass produced based on SDI straight longsword designs, and use composite materials designed for cheap production. Funnyen and LSDF operators usually replace the standard issue weapon with one based on their custom blade, and are in fact encouraged to do so.

FMB-2 Ion Projection Saber

A unique weapon designed exclusively for the SDI-X armors. Magnetic containment is used to contain a trail of high-power ions in a straight blade about a meter long. This weapon does not deal damage in the traditional sense, but it is highly disruptive to electronic systems, femtomachines, cybernetics, and the nervous system of most humanoids. By linking two deactive FMB-2 blades together, one can use the weapons as an EMP grenade. Two of these weapons are mounted standard on the skirt armor of the Hunter. Damage Rating effectively 8 against shielding, 0 against armor. Disrupts operation of electronic systems such as computers, particularly in units already damaged. DR 1 against organic targets, or targets with insufficient armor.

Backup Knife

Stored in the backpack of the unit is a standard survival blade with a monomolecular edge. Obviously this isn't meant to see much use as a weapon, but stranger things have happened, and it has the general utility that such a knife provides. Damage Rating 1.

Compatible Armament

Weapons which the Hunter is compatible with in its default configuration - that is, the Hunter is designed to carry these weapons on the hip, and additional ammo (if applicable). For obvious reasons, these are all SDI designs. Any energy weapons listed can recharge ammo packs while they are connected to the unit.

- FMR-1 Stalwart Enforcer
- FMS-1 Stalwart Special
- FMS-1X Modded Special
- FMS-2 Stalwart Suppressor
- FMS-3 Electron Shooter

Export units may be modified to use local weapons at an additional fee.

Standard Mounting Slots

Skirt Armor (right): 3x plasma grenade, 2x Suppressor ammo pack OR 2x Special ammo pack OR 2x Electron ammo pack OR 1x Modded ammo pack, 1x ion saber, 1x rifle Skirt Armor (left): 3x plasma grenade, 2x Suppressor ammo pack OR 2x Special ammo pack OR 2x Electron ammo pack OR 1x Modded ammo pack, 1x ion saber, 1x searing blade Hip Slot (right): 1x handgun, 3x Enforcer ammo pack Backpack: 1x survival knife

Engines

The Hunter uses a variety of engine systems to provide sustained flight performance in atmosphere and vacuum environments; all of these systems use fusion byproducts as fuel. Engines are assisted using a variety of dampening and gravcontrol systems allowing greater fuel efficiency and reducing strain on the operator.

Lift Panels

On the rear of the unit, electromagnetic-based hover engines are used to provide lift, allowing the unit to fly with relatively little energy input. The mesh-like system allows fusion plasma to flow through the panels, providing acceleration. These panels fold down to more easily store the unit, or when combat situation deems it necessary.

Leg Engines

Mounted in the legs and 'feet', these powerful engines are meant to operate as jump assist and attitude control, using the pilot's own legs as a thrust vectoring system. These engines are what give the Hunter the form it has - due to the hardware required it extends the unit's height considerably.

Braking Jets

At the front of the unit are two braking engines designed to provide raw thrust to reverse direction in space and atmosphere. Lacking many of the features of more expensive military armors, the Hunter relies on traditional maneuvering tactics such as this.

Braking jet thrust is approximately 50% of the lift panel thrust.

Vernier Jets

Lining the unit are tiny injection verniers used for attitude control and stability, allowing additional maneuverability in space environments and additional thrust under gravity.

Computer Systems

ARIA LNV Type

The advanced ARIA processing technology has reached its way into every piece of Lorath military technology since its introduction. Derivatives based on the production model ARIA Type 2 are used in situations beyond the original purpose of the system - the test data received in the Type 1 program broadened the capabilities of the architecture considerably, especially in the area of networking.

The ARIA LNV is a nonvolitional processing system running Xtal v2.23g, specially developed by the ARIA prototype for use in the SDI-X armors. Highly extensible, the Xtal system provides a cheerful voice interface and direct neural interlink with the pilot, sorting IWACS data and optimizing for combat situation.

The LNV processor represents one of the largest departures from the original Night Stalker prototype, and a true advancement - the Night Stalker operating off of a more limited embedded system, increasing latency considerably and reducing data optimization.

Communications Systems

IWACS System

The IWACS system is the lynchpin of the Hunter package. Simply put, it is a real-time network system that does two things - first, it shares data between IWACS units in range: targeting data, visual data, sensor data, everything possible is shared in the network to allow a hivemind-like awareness of the battle situation. This information is shared using lightspeed-type communications on traditional electromagnetic signals, along with a coded neutrino carrier wave, allowing redundancy and minimal latency with wideband information transfer. To assist in information distribution in limited-comm situations, information priority is based on rank, where officers' information is taken as higher priority than those of lower rank.

Secondly, IWACS is designed to perform ECM and information denial to the enemy, preventing communications between enemy units to allow for the Hunter-based squad to have the advantage in available information. This ECM and denial, however, is based on the enemy utilizing lightspeed communications, and that the enemy's computer system is known.

Standard Hunter units mount a standard-priority system - transmitting and receiving data at the same rate and priority. Other systems of receive and transmit-priority exist but as of yet only exist in Hunter preproduction test units.

An Example Combat

Unit A and Unit B are Hunter units operating in a survey situation. They receive each other's information, as well as that of the carrier that deployed them. This allows both units to cover each other's blind spots.

Unit B spots a pirate stealth ship hiding behind an asteroid using visual sensors, but is not in a firing position. Unit A, receiving this information, moves to cover and using the targeting information provided by Unit B, releases a salvo of antimatter-warhead micromissiles.

While this is happening, Unit A notes on radar that Demon PAs are approaching, but doesn't have the time to react due to his position. In response, Unit B, who is in a better position, targets the enemy with his rifle and fires, protecting Unit A from certain death.

The damaged ship attempts to deploy the rest of its PAs but at this point it's too late - the carrier has gone into firing position and released a torpedo salvo, based on the data received from the mothership. Thanks to the real-time data received from Units A and B, the carrier has been able to detect the ship, despite the ship being invisible to its sensors at its previous position.

FTL Comm System

For traditional communications, subspace signaling is available. Due to size concerns, bandwidth is limited and only standard signals can be sent, usually in distress situations. This system, of course, does not function in interdiction situations, and due to lack of available space has a limited range.

Sensor Systems

The Hunter's sensors are all packaged in the helmet, to consolidate systems and reduce latency. Despite this the systems are highly redundant and powerful, providing a good field of vision to the unit.

H-type Optics

The primary optical sensor, a triangle on the unit's forehead providing a panoramic view in front of the unit. High-resolution optical systems filtered through software, using an internal organic lens the unit can zoom in and out on targets, track their movement, and keep tack on their position to get optimal accuracy.

Visor Sensor

The secondary optical sensor, this visor goes over where the eyes are, using a transparent light-sensing mesh. This mesh allows passive capturing of photons, continually processed to provide a standard human range of vision.

This mesh also operates as secondary HUD, assuming the neural link system is inactive for whatever reason. In the event of sensors being disabled the mesh allows the operator of the unit to see freely.

As another note, this mesh can display holographic images the other way as well. While this can be used as a primitive projector system, its primary use is displaying holographic glowing 'eyes' against a black background, providing differentiation between enlisted soldiers and officers.

Wideband Sensors

Two auxiliary sensors are mounted on either side of the helmet, the sensor 'strip' providing vision to each. Mounted on swivels, the unit can scan areas up and down relative to the unit's current plane, as well as providing constant vision left and right. The system's other purpose is to scan for higher and lower wavelengths than the other optical sensors, albeit at lower resolution.

This system also contains sensors for non-EM phenomena - gravitic and aetheric sensors to detect large objects, gravitic engines, and unprotected aether reactors.

Armor Materials

The Hunter's armor materials are the primary source of its cost-effective nature, giving extremely high performance for the weight and production costs involved.

Ceramic Composite

To reduce construction costs and to eliminate weight concerns, the Hunter uses a ceramic composite armor that provides high protection for its mass. Using more traditional armor materials along with the lightweight, flexible ceramics, the overall weight of the unit is highly reduced, increasing maneuverability and speed. Damage Rating 5.

Laminate Coating

Due to cost and power distribution concerns, the SDI armors could not mount energy shielding, greatly reducing their protective properties. The solution was only found in Sourcian technology - using special self-repairing materials, one could coat an armor material in a layer of ablative material that evaporated upon contact from energy weapons. This proprietary system, while highly effective against all manner of energy weapons, is useless against solid munitions. Laminate coating is not used on the B and BE variants. This is a major advantage over the prototypes, which have since had laminate applied. Damage Rating 7 versus energy rounds, 0 versus solid rounds. Not applicable on B and BE variants.

Variations

Variation	Internal Designation	Standard Designation	Notes	
Prototype 'Night Stalker'	SDI-X3	St-M1-3X	See later section.	
Preproduction Model	SDI-Y3	Lo-M1-3Y	The armor plating may be modified in appearance before production (though not after, as about 50% of it is integrated into the frame) - most of the preproduction units were assigned to individual pilots who chose to customize their unit's look. Many of these units were referred to by the test teams by the pilot's offworld name, and others were given names of their own that served as callsigns.	
LSDF Production Model	SDI-M3A	Lo-M1-3a	The standard production model for the LSDF. Appropriate for Lmanel and New Tur'lista with minimal reconfiguration.	
LSDF Second Production Model	SDI-M3B	Lo-M1-3b	Alternate LSDF production model. Lacks wing plating. Suitable for specially bred Helashio. Armor plating is made of cheaper materials - these troops are often considered expendable.	
Funnyen Variant	SDI-M3A+	Lo-M1-3a+	Model appropriate for Funnyen. Much larger to accommodate larger heights. Engines more powerful to accommodate increased mass.	
Human Variant	SDI-M3H	Lo-M1-3h	Model appropriate for humans and similar species (Helashio, Neko, 'Spacer). Extremely limited production at this time, but the designs are available in case they are needed.	

Variation	Internal Designation	Standard Designation	Notes
Export Variants	SDI-M3HE, SDI- M3AE, SDI- M3BE	Lo-M1-3he, Lo- M1-3ae, Lo- M1-3be	Export models. These models do not come with any weapons whatsoever (though bundle offers exist). IWACS equipment, considered a state secret, is severely reduced in capability. This is similar to Stalwart's original intent - an extremely low-cost armor for whoever wishes for one. The variants as listed are human-type, Lorath-type (Elysian), and low-cost type respectively. Because there are no weapons, this armor is available to civilians.

Export Price Charts

Variation	Base Cost	Bundle Cost²⁾
AE	3000 KS	4000 KS
HE	3200 KS	4200 KS
BE	2500 KS	3500 KS

Prices listed are for individual units only. For bulk orders or licencing deals, contact the Matriarchy or SDI directly.

Prototype Unit: SDI-X3 Night Stalker

The third SDI-X unit, known as Night Stalker, was designed as a long-range stealthy powered armor for both space and atmospheric use. While the prototype does not differ too much from the production versions (particularly the H variant), it has certain interesting mission roles that the standard Hunter lacks. Most of the differences are due to cost concerns in terms of export production.

The most striking difference between Night Stalker and the production Hunter is stealth capability. While the Hunter uses some forms of stealth, the Night Stalker made it its primary function. The unit is designed for near silent running, only using its engines when required thanks to computer control. Using radar-absorbent materials, subspace comm jamming, and active visual stealth techniques, the Night Stalker lives up to its name by being a hidden killer. The paint job reflects this, primarily reflective black, and the optics glow an ominous red.

The primary weapon of the Night Stalker was what would eventually become the Modded Special, and the three firing modes reflect that - the individual firing modes providing stealthy advantage, and the dual mode providing power for nonstealthy operations. In addition, the Night Stalker mounted additional fixed armaments - vulcan casters on both forearms (which formed the eventual basis of the Enforcer) and a pulse caster on the right collar. A primitive Searing Blade-type weapon was mounted as well, forming the physical basis for the standard blade deployed with the unit. The Metal Storm was also developed for this unit, as well as what formed the basis for the Positron Accelerator Cannon.

Other than the obvious change in armor styling, there are other changes in appearance. Rather than the forehead H-type optics, the Night Stalker used a monoeye sensor in the middle of the visor sensors, providing additional visual acuity in the forward view but less visual coverage. Upon the unit's left

shoulder is a strange emblem resembling a 2D barcode, on the right the SDI logo. Underneath the emblem is the phrase, in English, 'Though I walk through the valley of the shadow of death, I have no fear, for you are with me.' Upon the unit's rifle, it is written, again in english, 'Lead me here to you...'

Unlike the other two prototype units, intended for Stalwart and Aria, it is unknown who was intended to pilot this unit, and also unlike the other two units, testing of the Night Stalker was mostly done in secret. Most of the rumors were of a Yamataian woman with fiery curls and bangs over her eyes, usually described as 'the nicest woman they'd ever met'.

Currently, the unit is unaccounted for. In the SDI inventory manifest, the status of the Night Stalker armor is officially listed as 'on loan'.

Table of Selected Preproduction Units

Production Number	Variant	Name	Emblem	Notes
LDM-657	А	Muramasa	-	Deployed on an LSDF ship to undergo combat testing. Pilot mounts a Combined Particle Cannon. Unique styling.
CTU-024	AE	Lightspeed	-	Used for non-IWACS combat training for future pilots. Standard Lorath styling.
IVT-105	А	Soul Savior	-	Used on Nyli II for testing of alternate IWACs schemes. Uses a transmit-priority IWACS unit with a specialized helmet. Unique styling.
VFA-113	A+	Angelbird	-	Funnyen test unit. Produced to test potential wing structures for the Valkyrie model. Standard Lorath styling.
KFA-431	Н	Liberator	-	Humanoid test unit. Rear engines replaced with hardpoint racks. Research unit for the Knight production model. Standard Lorath styling.
AXG-003	В	Fate Goddess	-	Assigned to a winged formfactor ARIA unit to test structural limits and combat performance; lighter, safety-reduced B model is used for the purpose of accurate testing. Utilizes a GS-1 positron rifle. Unique styling.
LMV-312	A+	Crimson V	-	Fairly standard unit used in SDI's marketing department to promote export sale. Unique styling.
FPM-573	Н	Hunter Alpha	-	The first full production Hunter. Assigned to the Maras on direct order of Stalwart. Uses styling of the prototype Night Stalker.

Definition of Designators

LDM: Limited Deployment Model. Deployed in battlefield conditions to gain real combat data. CTU: Combat Training Unit. Meant for advance training in armored operations. Forms the vast majority of the production units. IVT: IWACS Variant Test. Modified to use alternate IWACs loadouts. Two units produced,

also used in general testing. VFA: Valkyrie First Attempt. Tests systems to be used on the Valkyrie model. Four units produced. KFA: Knight First Attempt. Test systems to be used on the Knight model. Four units produced. AXG: Aria Experimental Guidance. Gathers data to determine the limits of the design and possible improvements/cost-cutting measures for the production model. One unit produced. LMV: Licenced Model V. Semi-nonsense designator, these units are used by SDI's marketing department to promote the Hunter abroad. LMV units are generally built with flashier styling than usual. One of these units is currently used to produce a children's show, *Armored Soldier Kamen V*. Seven units produced, one for each production variant. FPM: Final Production Model. The serial number on all production units.

Promotional Initiatives

Due to the Hunter's low cost and ease of use, SDI has moved for a large promotional initiative to promote not only the Hunter, but the future Valkyrie and Knight units. Promotional units for each type are marketed using the LMV variants, each of which uses different styling based on the aesthetics of different races and militaries. Except for the Funnyen-variant 'Crimson V', used in local promotions, each of these units has been modified to utilize local weapons as well.

Marketing has focused on several venues. The primary venue has been of course for militaries and other similar groups, but there have been other roles marketed as well:

- A low-cost, high-performance EVA suit for cargo workers.
- A sport PA for enthusiasts to own, one more user-friendly and higher-tech than the Demon and other civilian-legal PAs.
- In less than reputable areas of space, an armor more capable than current standbys, legally purchasable.
- For police forces, to use the low-cost BE variant as a SWAT suit.

Naturally, a large portion of the promotion has focused on bundle deals with Stalwart weapons. The Hunter comes with no weapons standard, but bundle deals exist - for a small additional fee, one can receive, with their armor:

- 6 FMB-2 ion sabers
- 1 FMB-1H plasma blade
- 18 FMG-1 plasma grenades
- 1 FMR-1 Stalwart Enforcer, with additional ammo packs.
- Any of the compatible SDI weapons, with additional ammo packs.

For the same fee, one can have the Hunter's skirt armor modified to mount local weapons, rather than the imported weapons - often a necessity where the import weapons are illegal or subject to prohibitive tariffs.

Due to the modifiable armor styling, Hunters can look vastly different from one another, albeit maintaining all the major features (rabbit-ear antennae, lift panels, braking jets). Custom armor styling is extremely inexpensive, allowing everyone who wishes to have Hunter units that look unique.

1)

DR is taken into account in the same manner as shields, but only against energy weapons. Against solid

munitions, treat the DR of the laminate as 0. $\,$

2)

See later 'Promotional Initiatives' section.

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