Pellis Intelligent Survival Suit

The Pellis Intelligent Survival Suit is a variant of Galactic Horizon's Padded Armour Layer that is designed to function as its own standalone multirole armour system. It was designed and developed by Galactic Horizon in YE 40.

About the Pellis Intelligent Survival Suit

The Pellis is a suit of smart armour that was designed to bridge the gap between power armour and regular body armour. The system is tough, adaptive and portable – making it a fine addition to any collection.

Pellis Intelligent Survival Suit	
Nomenclature:	GH-M4-4T
Designer:	Galactic Horizon
Manufacturer:	Galactic Horizon
Weight:	15kg unarmoured/150kg armoured
Pricing:	3,500KS
Armour Rating	
Base Suit:	Tier 2, Medium Personnel
Armis Configuration:	Tier 4, Light Armour

Appearance

The Pellis Intelligent Survival Suit is a black polymer bodysuit with sections of grey paneling on the limbs and chest region and small nodal valves visible in evenly spaced-out sections across the suit; additionally, the chest and shoulders are noticeably more padded due to containing the Pellis' Honeycomb Fabricators. The material the suit is made from closely resembles a soft rubber that hugs the wearer's body like a second skin and provides support to the chest and groin region. There is a flexible and comfortable zipper hidden behind a vertical flap along the back of the suit.

A layer of conductive and cushioning gel sits between the outer and innermost layers of the Pellis that acts as a communications and power transfer medium for the suit and its nanomachines; in addition, the gel layer provides shielding and acts as a pressure suit during high-g manoeuvres.

The Pellis has boots with integrated magnetic soles, gloves with hardened knuckles implemented into them, and a flat and featureless helmet that can fold away to form a hardened collar around the wearer's neck. The Pellis is skin-tight and is only able to be worn over thin undergarments or bare skin - thus it has a low enough profile to fit under armour and clothing, even with the helmet deployed underneath another helmet.

Armis Configuration

When in the “Armis” configuration, the entirety of the suit is covered in a layer of armoured ADNR (Aggregated Diamond Nanorods) reinforced Durandium Alloy plates that protect the user without sacrificing mobility.

Avem Configuration

When in the “Avem” configuration, the Pellis resembles a wingsuit - with a semi-translucent polymer membrane between the limbs that act as wings.

Pisces Configuration

When in the “Pisces” configuration, the suit gains polymer flippers and fins and smooths out the Pellis' silhouette with sections of polymer to become more streamlined.

Donning and Doffing the Armour

Before it is worn, the Pellis is an oversized bodysuit in the style of the intended species that the wearer steps into legs-first before pulling the suit up to the waist.[1)] The wearer's hands should then be put through the sleeves of the suit and into the gloves; usually, this causes the chest portion of the suit to sit up against the wearer’s own chest – and locking the collar causes the suit to seal itself along the back seam and begin tightening up against the wearer’s body. This experience can be somewhat unsettling if one is not expecting it as the suit most notably presses up against the wearer’s groin and chest - but not uncomfortably so - to reduce drag.

The helmet is deployed hands-free via the gutted Aurora Synaptic Controller Interface that lines the Pellis' collar; alternatively, there is a small latch at the front of the neck to deploy or retract the low-profile helmet.

To take off the suit, firmly depress a button underneath either side of the collar and pull away - this causes the suit to loosen up and expand, making it easy to be stepped back out of.

Advantages

- An adaptive, low-profile suit of exo-atmospheric rated body armour that is able to perform well in most scenarios - especially covert operations or scouting parties.
- The three Honeycomb Fabricators help speed up the production process when more nanomachines need to be fabricated.

Drawbacks

- The suit can only work in one configuration at a time - hybrid forms and custom inputs will void the suit's warranty and most likely damage its systems beyond repair.
- Damaged nanobots cannot be re-used and instead must be replaced by newly fabricated ones.

Mobility

The Pellis is quite light-weight and flexible and also provides small measured electric shocks to its conductive layer of gel strips in order to stimulate them and cause them to expand or contract - thus providing a set of synthetic muscles that effectively double the user's physical capabilities, whether it be them running twice as fast as they could butt-naked or being able to lift twice as much[2)] and fall twice as far without injury; additionally, it takes some of the fatigue out of the wearer's actions and allows them to exert greater amounts of effort for longer periods of time.

Avem Mobility Configuration

For species who don't have the means of naturally achieving flight, the Pellis' nanobots can arrange themselves into a flexible membrane that forms 'wings' from the inner arms to the sides of the body and between the wearer's legs. When the user needs to slow, they can deploy the suit's parachute module and call any undamaged nanobots back to the suit for later deployment.

Piscis Mobility Configuration

In this configuration, the Pellis' nanobots add flippers and fins to the suit in order to increase speed when swimming; in addition, the suit's surface is also streamlined to decrease drag. Once deactivated, any undamaged nanobots can return back to the Pellis' gel layer for later use.

- **Ground Speed (Running):** Up to 2x the wearer's base running speed.
- **Atmospheric Speed (Unassisted Gliding, 1G Environment):** Can vary from 60km/h (37.2823 mi/h) to 400km/h (248.548 mi/h) depending on various conditions and whether the wearer wants to plummet or glide.

Armor Size

Height	Wearer's Height +1cm
Width	Wearer's Width +1cm
Length	Wearer's Length, +2cm to chest
Weight	25kg unarmoured/150kg armoured

Damage Capacity Stats

See Damage Rating (Version 3) for an explanation of the damage system.

- Pellis Intelligent Survival Suit: Tier 2, Medium Personnel
- Armis Configuration: Tier 4, Light Armour

Controlling the Armour

A gutted and streamlined ASCI lines the suit's collar/helmet and is how the suit's various functions are controlled; the suit's nanobot functionality, however, cannot be accessed without having the helmet extended out over the user's head. In collar-mode, the helmet can either be extended via the ASCI's sensors or the suit's manual helmet latch at the front of the suit's neck.

History

In YE 40 Galactic Horizon delved deeper into combining nanotechnology with armour after the success of their Sensory Smart Coating. They built up various designs and prototypes that used the Padded Armour Layer as the base layer – which is what the suit was intended to do.

The project eventually evolved into the Pellis Intelligent Survival Suit: a suit of smart armour that enhanced the wearer's physical capabilities and features additional multirole nanomachine functionality.

Systems

Below are sections detailing various aspects of the Pellis Intelligent Survival Suit's various systems.

Armour

The Pellis Suit is made out of two layers of tough and flexible polymer - that have been woven with a para-aramid material for added strength - and a third intermediate layer of conductive gel strips (contained within an electromagnetic pulse-hardened membrane) that sits in between the two aforementioned layers of polymer, thus providing a decent amount of protection against against most small-arms fire and unarmored infantry weapons.

The suit's true protective capabilities, however, become apparent when the Armis configuration is activated, as the Pellis releases a swarm of nano-machines that traverse the suit's gel-layer and deploy themselves via the nodal valves. Once deployed on the Pellis' outer surface, the nanobots begin to expand and harden into a layer of ADNR (Aggregated Diamond Nanorods) reinforced Durandium Alloy armour that can take more abuse than the base suit.

The plating covers most areas a more conventional suit of armour would wear without hampering mobility, the armour is somewhat thicker on the outside of limbs and tapers inwards especially near

joints to not limit the wearer's range of movement in any way.

Camouflage

The suit's three Honeycomb Fabricators are hard-coded with the capability to produce the nanomachines used in Galactic Horizon's Sensory Smart Coating, providing the suit with a degree of optical and sensory camouflage.

Life Support

The Pellis contains a somewhat rudimentary yet effective life-support system in the form of a rebreather system over the wearer's mouth that can recycle their breath to provide up to forty-eight hours of recycled air before beginning to degrade exponentially. The chest section of the suit's gel membrane is thinner in two spots on the wearer's chest to work as heart-paddles and a small bladder can provide MultiMendFoam through pores in the Pellis' innermost layer, mixing with air in the suit to harden and seal off any wounds or breaches in it.

The suit also keeps the wearer at a comfortable temperature, shields them from radiation, and functions as a pressure suit during high-g manoeuvres.

Parachute

A streamlined and compact version of the Rip-Pod Parachute System sits between the Pellis' shoulders and is positioned to not restrict the movement of most back-mounted limbs. It can safely slow the suit down from terminal velocity and re-pack itself after use.

Power Systems

The Pellis Intelligent Survival Suit has two individual power systems: each Honeycomb Fabricator is powered by its own compact aether reactor, while a bioelectric generator converts the wearer's bodily heat into enough power to keep the suit itself and its systems - Honeycomb Fabricator and nanomachine control aside - running.

The suit can be powered indefinitely provided that the aforementioned systems remain functional.

Sensors and Communications

The suit's helmet contains a low-profile version of Galactic Horizon's own MOASS and a basic communications system taken from the HeCC that gives it a satellite uplink (if available), peer-to-peer relay, and a standard radio transceiver with 1 light-year's worth of rangel; vision modes available to the Pellis include low light vision, infra-red, thermal, a standard optical zoom feature capable of up to 100x

magnification, and a laser range finder.

Nanobot Functionality

The three included Honeycomb Faricators produce nanobots and release them into the suit's gel layer, from where they travel throughout the Pellis and are released through its nodal valves as needed. The nanobots are powered and fed data via contact with each other and the suit.

Each nanobot is meant to be sacrificial; if they suffer any damage then they will be discarded and replaced with fresh nanobots at a rate of 18 (6 per Honeycomb) cubic centimeter's worth of nanobots per second.

Transformation Times

The following table displays how long it takes the Pellis Intelligent Survival Suit to transform from one configuration into another.

1. Find your current configuration along the first column from the left.
2. Find your desired configuration along the second row from the top.
3. Follow the row and column until you are given a number. That number is how long it takes the Pellis to transform.

Let's say I'm currently in the Armis configuration and want to know how long it takes to transform into the Piscis configuration. I locate the Armis configuration in the first column from the left (my current configuration) and then locate the Piscis configuration along the second row from the top (my desired configuration). I follow the row and column and am given the value of 2. This means that it takes 2 seconds for the Pellis to transform from the Armis configuration into the Piscis configuration.

Transformation Times (in seconds)				
Starting / Ending Config.	**Base**	**Armis**	**Avem**	**Piscis**
Base	-	3	1	1
Armis	3	-	2	2
Avem	1	2	-	1
Pisces	1	2	1	-

Weapons

The Pellis has very little in the way of built-in weaponry - it has hardened knuckles that work alongside the suit's strength enhancement to deliver rather devastating punches to personnel-grade protection, but not much else.

Hardpoints

In addition to the mounting point on the chest and each shoulder where the suit's three Honeycomb Fabricators are mounted, the Pellis has the following hardpoints:

- **Lower Back:** For small packs and equipment.
- **Right Thigh:** For small pouches, tools, or a small weapon.
- **Left Thigh:** For small pouches, tools, or a small weapon.

OOC Notes

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1)
Variations are available for Elysians, Kodians, Nekovalkyrja, Separa'Shan, etc.
2)
negating the armour's weight