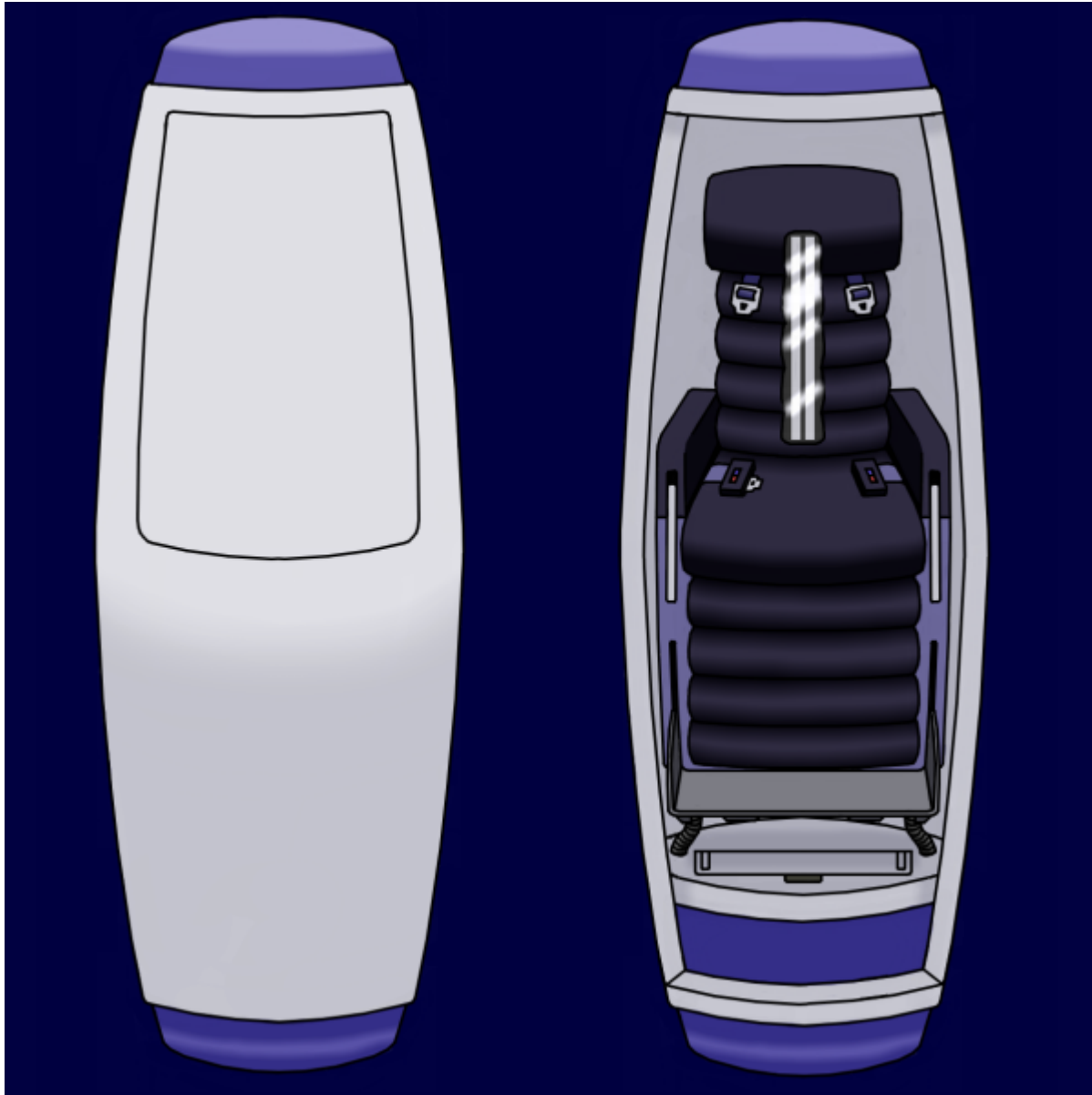# Type 32 Pilot Pod

The Type 32 Pilot Pod is a cockpit designed to both improve the pilot's survivability and allow a standardized cockpit design for various models of Mecha and Starfighter. The system is designed to allow full telepathic piloting. It should be noted that the computer system is stored in this cockpit, which can be ejected from the craft it is attached to if said craft is sufficiently disabled.

About the Type 32 Pilot Pod

As Project THOUGHT entered its second phase, a standardized cockpit was needed which could be used with the various models tested and ensure survivability if anything went wrong. As work progressed, it evolved into a planned feature for future production models.

When it was decided to make the Pilot Pod into the primary cockpit system for Project THOUGHT, the following goals were set:

- Minimal volume and profile (to minimize potential damage to pilot and maximize the ability of the pod to evade unwanted detection if deployed)
- Adjustable internal seat to switch between Mecha and Starfighter configurations
- Volumetric Panoramic Monitor based on Active Camouflage and Volumetric Windows
- Make many self-contained systems with existing Power Armor and Escape Pod technology (life support, stasis, PSC, computing, etc)
- Integrate computer core into ejectable cockpit rather than the Mecha itself
- Optionally pilot without tactile interface and load panoramic data directly into digital brain (full telepathic piloting)
- Run selected elements of the THOUGHT Software Package as well as an AIES Virtual machine within a CIES or EIES
- Make the unit able to store as many pieces of personal weaponry and survival items as the pilot is likely to possibly need

Due to a need for superior video and audio processing, the Immersion System was later added as a software upgrade in YE 33.

The result is a 1.8 meter long rounded cylindrical structure which is slightly wider in the middle than at the ends. Its simplicity combined with its shape and its thickness give it slightly better armor protection than a standard Power Armor; but unless a Spacesuit is worn, a single puncture can kill the pilot due to decompression if the hull breach sealant between the armor layers fails. The Pilot Pod actually uses a number of existing systems found in units such as the Ke-M2-2D "Mindy II" Power Armor and the Star Army Escape Pod, Type 30. Due to the lack of weapons, however, the maximum shield output is improved over the Mindy.

It should be noted that due to the shape of the pod being made to look like an undetonated torpedo to fool enemy forces, it is sometimes unofficially referred to as a "Pilot Coffin" by test pilots. It is made primarily of Yamataium with Yarvex sheets along the inside. If adopted by the Yamatai Star Empire, Xiulurium coating would also be used on the outside. However, such a coating can't be independently produced by Project THOUGHT.

Statistical Information

Government: Possibly Yamatai Star Empire in future Organization: Project THOUGHT, possibly Star Army of Yamatai and Ketsurui Fleet Yards in future Type: Ejectable Cockpit Class: PT-X3200, possibly Ke-X3200 Designer: Kage Yaichiro Manufacturer: Project THOUGHT possibly Star Army of Yamatai and Ketsurui Fleet Yards in future Production: Mass Production after unknown number of initial prototypes

Crew: 1 Maximum Capacity: 2 in cases of emergency (very cramped, may affect performance)
Appearance: Rounded cylinder with tapered ends and a widened midsection

Width: 0.7m Height: 1.8m **Mass:** 100kg (220lbs) net weight, 280kg (616lbs) maximum recommended load.

Speeds

Sublight: .375c in a vacuum **FTL:** 2500c **Atmospheric:** Mach 1.8 at Earth sea level **Underwater:** 70mph (112kph)

Range: Indefinite due to Aether Generator and primarily Yamataium construction. Life Support can support a pilot's needs for 20 days, **and** support a pilot in stasis indefinitely. Lifespan: Undefined, recommended systems check once every 5 years, OS and Hardware upgrades as-needed.

Note: The Pilot Pod shares many of the same propulsion systems as the Ke-M2-2D "Mindy II" Power Armor for the sake of standardization and reduction in cost, though it is not recommended for the same kinds of missions. It lacks any dedicated weapons or weapon mounting ports. While it can ignore gravity, this is mostly intended to allow the pod to act as an FTL and STL-capable vehicle to improve chances of survival.

Damage Capacity

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

- Hull: 10 SP (Mecha Scale)
- Shields: 10 (Threshold 2)

Compatibility

The Pilot Pod is compatible with an array of species, though to bring out the most advanced features and elements, an NH-model with a SPINE interface is required. An NH-27 can, however, pilot the machine with the transceivers without any loss in combat capability. It should be noted that it is possible to deactivate the other control systems in software to force the use of the SPINE interface and the Type 33 Star Army Communications Network Encryption System.

Race	Tactile (if Enabled)	Transceivers (if Enabled)	SPINE
Nepleslian	Compatible	Incompatible (Analog)	Incompatible (Analog)
Human	Compatible	Incompatible (Analog)	Incompatible (Analog)
NH-17 Nekovalkyrja	Compatible	Disabled in Software	Incompatible
NH-22C Yamataian	Compatible	Compatible	Incompatible
NH-27 Nekovalkyrja	Compatible	Compatible	Incompatible
NH-29	Compatible	Compatible	Compatible
Minkan	Compatible	Compatible	Incompatible
Minkan (Upgraded)	Compatible	Compatible	Compatible
Nekovalkyrja, Type 33	Compatible	Compatible	Compatible

Control Methods

There are two methods of controlling this pod, and the systems it is connected to. One is the Conventional Interface, in which multipurpose consoles extend and flip from the arms of the pilot's chair, and the pilot uses them to control the unit while watching his or her environment on the volumetric panoramic display. If improved security is desired, this method of control can be disabled at the software level so that an NH-series brain is required. The other is the THOUGHT Interface, where SPINE or Mental Transceivers built into the chair allow a direct connection with the Compact Integrated Electronics System (CIES) and the THOUGHT Software Package; allowing the pilot to see, feel, and move via the suit as if it were part of their body, with numerous additional micromanaging options and benefits. The mental transcievers can also be disabled, making some units use a SPINE and Type 33 Star Army Communications Network Encryption System exclusively. The Immersion System helps to manage vision and audio, further enhancing the experience, but adding a learning curve for the most advanced options – especially for those not used to Neko-style Skin Vision.

The Conventional Interface is intended for pilots who are not accustomed to or are for some reason unable to utilize the THOUGHT Interface, or for some reason prefer the more conventional Starfighter-like control system. This system can be disabled in software for security reasons, is more rigid in the control it allows, and while it can parse the controls in a way that allows such a pilot to control the unit, it does so at a cost of effectiveness and capability. **Someone using the Conventional Interface will never be able to fully utilize the full potential of a system designed for the THOUGHT Interface.** Due to this, the THOUGHT Interface comes more highly recommended, especially when controlling more complex craft such as Mecha and for the sake of security. Some people who pilot Starfighter models which have been refitted to use the Pilot Pod prefer this mode of operation, however.

The THOUGHT Interface is intended to deliver an experience similar to that of a Star Army Power Armor, but notably enhanced and with many limitations removed. The pilot uses a bidirectional mental link with the CIES and THOUGHT Software Package (filtered by the PSC) to allow them sensory and motor control of the machine, as if it were actually their body. Other options are possible as well, though it takes a notable degree of practice to unlock the true potential of this mode. The capabilities the THOUGHT Interface allows are designed to be only limited by the design of the unit controlled, and the pilot's skills. It can be controlled by thought alone – with no tactile input whatsoever.

Systems Descriptions

Frame, Armor, and Stealth Systems

The hull of the Pilot Pod is constructed of two layers of Yamataium, to provide the best possible mix of protection and the recovery from wear and tear. The inside has a Yarvex mesh to help protect the pilot from shrapnel. In between the layers of Yamataium is actually a fluid which expands into an airtight foam seal rapidly in the presence of vacuum, to prevent decompression should the hull be penetrated. A Spacesuit is recommended, though not required, as the protection is actually similar to that allowed by some military-grade Power Armors. This is all built atop a Yamataium modified ellipsoid frame designed for sustaining stresses and rapid acceleration from almost any direction – a necessity in the applications for which this system will be used. There is a supplemental hull of equal thickness and design separating the cockpit area from the compact Base Compartment – which contains the propulsion and shield systems.

Active Camouflage

Much like the on the Mindy and in Volumetric Windows, Active Camouflage technology is used – though the use of the technology on the far less complex surface makes it more efficient both in use of power and in the complexity of processing of the images shown. At times it is prudent to completely hide the pod, but making it look like a charred and undetonated torpedo is also an acceptable tactic. The system, like that of the Mindy 2A, can display false images up to 2 meters away, and can also emulate the red-collision avoidance strips present on the Mindy if needed.

Panoramic Volumetric Display

The same technology as used in Volumetric Windows is used on the inside of the hull, as a three-dimensional holographic display giving the pilot the ability to see any targets if they aren't able to utilize the more advanced control capabilities of the THOUGHT Software Package. It is usually only one way (the pilot looking out) unless the pilot intentionally makes the hull transparent to the outside. The only blind spot is the chair itself, which the pilot is sitting in, and any consoles extended from the arms of said chair. This is included to allow non-NH-22C Yamataian or Nekovalkyrja pilots without digital brains to pilot the machine. Unlike using normal screens on the walls, the holographic displays can be viewed accurately from any angle. This is also responsible for the ambient light within the Pilot Pod and can be very finely adjusted. It automatically compensates for the brightness of stars.

Scalable Graviton Beam Projector

Installed on the upper rear of the pod is a Ke-R3200/PT-M1-R3200 Scalable Graviton Beam Projector, though its output is relatively light. It is only capable of towing things slightly larger than itself, such as to tow another damaged pod out of the hot zone, and is mostly designed to allow the pod to "stick" to a surface.

This comes into play when the Pod is deployed; and gives it the option of getting to a nearby SAoY ship, going through a brief hole in the CFS made by the ship to allow admittance, securing itself to the ship's hull quickly, and stay there until retrieval is possible. It is also meant to allow the pod to adhere to chunks of debris or to asteroids. By using the Active Camouflage and minimizing power output by shutting down nonessential systems, it can made the Pilot Pod yet harder to detect if concealment is desired.

Shielding and Stasis Cluster

The shielding lost by removing the Mindy's hemosynthetic interior has been replaced by a compact group of systems built into the uppermost part of the Pilot Pod. Like everything else, these are obscured from view by the volumetric display when in use. This cluster of emitters is tied to the Compact Integrated Electronics System (CIES) and protects against electrostatic, electromagnetic, gravitic, and radioactive threats – as well as providing protection against the Pilot Pod's own CFS. In addition to these generic protections is the installation of the Conformal PSC Device from the Mindy 2A and the Stasis system from

the already compact Star Army Escape Pod, Type 30. Please note that an approved space suit will also provide the needed protections. The simplicity of these systems and their already small size are what allow them to be installed in such a small space – as well as the compartmentalizing of the stasis systems and the bio/ESS scanner(the scanner has been placed in the headrest).

Conformal PSC Device

The Ke-M2-E2902 PSC (Psionic Signal Controller), also imported from the Mindy 2A, is a form of psionic and telepathic protection, capable of nullifying all such activity. The device can selectively allow channels to permit secure telepathic operation and to maintain communication even under psionic attack. The PSC is safe enough to remain active at all times. The field generated by the PSC protects the entire Pilot Pod, and extends only two inches out past the surface of the hull (thus, it will not create an obvious psionic "dead zone").

Stasis

The stasis systems are pulled not from the Mindy 2A, but from the Type 30 Escape Pod. They are are a simple-yet-efficient construct designed to use low power and are able to be run indefinitely using the Aether generator. The unit can be set to disengage the stasis once a ship is detected in the area, when planet fall is made, or to leave the occupant under. Any person in the Pilot Pod will be put in stasis with this system, though the stasis/ESS bio scanners can only act upon the person whose head is on the headrest.

Base Compartment

The Base Compartment is a section at the foot-end of the cockpit, which is dedicated to containing the Aether Generator and Capacitor and the Continuum Distortion Drive/Combined Field System. It has a hull just as thick and made of the same parts as the full hull separating it from the cockpit chair, thought it can be accessed via a sliding access panel for maintenance or repair if the CFS is deactivated. This further protects the pilot from negative effects as a result of the system.

Aether Generator and Capacitor System

The Ke-M2-G2901 Aetheric Generator and Capacitor System is the exact same as the one found in the tried and true Ke-M2-2D "Mindy II" Power Armor, powering many some of the same systems. However, as it does not have to power all the weapons of the original Power Armor, it is not fully utilized. Some of the added power is added to the shield capacity by default, though the speed of the propulsion systems has not been modified in any way. It is possible to reallocate power to other systems as needed.

Continuum Distortion Drive/Combined Field System

The Pilot Pod uses a Continuum Distortion Drive/Combined Field System. In effect, the CFS sustains a small "pocket universe" around the pod by nesting electromagnetic and electrostatic fields. The combined field can serve a number of purposes, in this instance propulsion and shielding. It is usually left idling when inside a Mecha or Starfighter, ready for the pod to eject and deploy at a moment's notice.

Propulsion

The pod propels itself at speeds many times the speed of light by generating continuum distortions in the CFS and nesting them to create asymmetric peristaltic fields. This allows the pod to travel thousands of times the speed of light. Distortion based systems allow the pod to stop or move nearly instantly because the pod has not "moved" in the traditional sense.

Shielding

The Combined Field System also protects the Pilot Pod from scalar attacks. Note that an active CFS can cause lethal harm to an unshielded organic within 2 meters of the pod. The pod itself is designed with shielding systems protecting its occupant from these risks. **Do not use around your starship, unshielded life forms, or ammunition.**
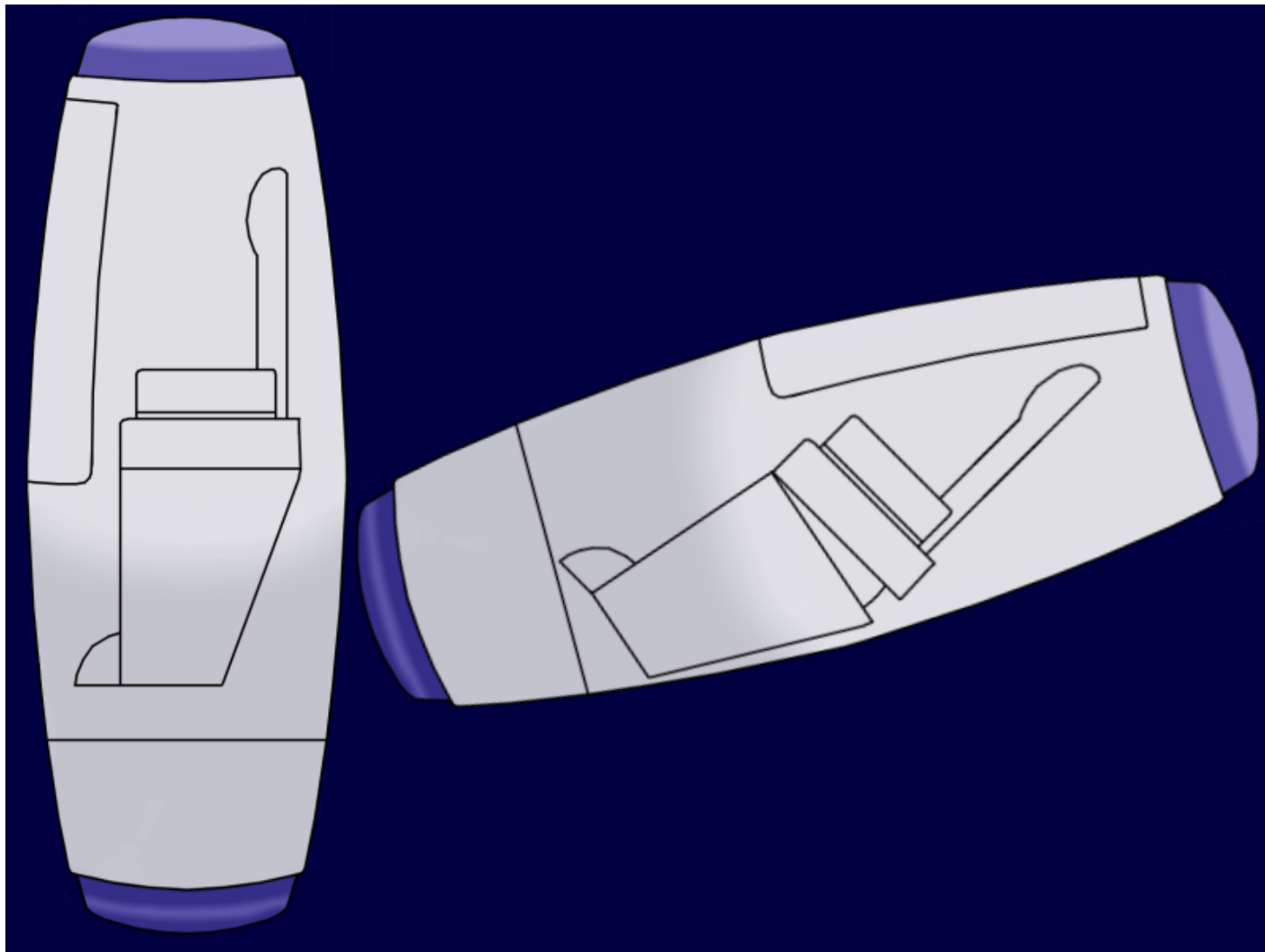
Self-Destruct

Unlike the M2 Mindy, the Pilot Pod lacks a hemosynthetic insert, so the only self destruct option is the deliberate overloading of the Ke-G2902 Generator and Capacitor System. The process takes only a few seconds and results in an aether energy explosion powerful enough to totally destroy the pod (and damage anything within twenty meters).

Damage: Tier 12, Heavy Anti-Starship Range: 20 meters, radial

Chair

The Chair is more than just a place to sit, and may well be the most complex array of systems in the entire pod. It is highly adjustable and has a SPINE interface running up the back should the pilot be compatible with the system. Many systems are built into the chair, and it is also able to shift position and tilt to work while the pod itself is upright (Mecha) or reclined (Starfighter). The armrests are also able to slide and tilt accordingly if needed. The headrest can be lowered or raised to better suit the pilot. Its foot platform can also slide up and down to adjust for the leg length of the pilot. The chair also has a four-point harness.

Mecha Seat Configuration (Left) Starfighter Seat Configuration (Right, at 75% rotation for Starfighter Mounting)

Under the chair's seat are a group of four containment systems, stacked like drawers and built into the chair itself. They are designed to slide forward when one wraps their fingers under the front and pull forward, but only for recognized personnel. The following can be found in the various parts of the chair, within which no room is wasted:

Part of Chair	Contents (Systems or Items
Headrest	Bidirectional Brain Scanner
Backrest	SPINE Interface
Upper Armrest Frame	Tactile Consoles
Lower Armrest Frame	CIES Sensor Systems and Transceivers
Compartment One (Top)	Seat Pack (Upper Half)
Compartment Two	Seat Pack (Lower Half)
Compartment Three	Compact Integrated Electronics System (CIES) and components, Quantum Data Drive
Compartment Four (Bottom)	Waste Filter with Catheter, Air Filtration System, Air Tubes, Compressed Air Canister

Part of Chair	Contents (Systems or Items
Footrest	Rifle/SMG Mount

Rifle/SMG Mount

The Rifle/SMG Mount is a simple group of clips and brackets underneath the footrest of the chair, which allow one to affix a larger firearm on its underside, along with up to two spare magazines. The Mount was designed for, but is not limited to, use with:

- GP-12 Phased Pulse Rifle, all variants
- Nekovalkyrja Submachinegun, Type 28

Life Support

The life support compared to the Mindy 2A is fairly simple, yet effective. The chair's bottom drawer has an air filtration system and a highly compressed air canister for the needs of the pilot to breathe. This is a 20 day supply of oxygen (which can be circulated and cleaned for a grand total of 40 days), after which the pilot must enter stasis. Having two occupants will roughly halve the time. If the pod has decompressed, the air can be connected directly to one or two spacesuits via air tubes. This section also has a self-sterilizing catheter which can be pulled out of the drawn and used, which connects to an otherwise sealed waste filter. Pre-injected nodal devices break down the contaminants in the waste and vent it out of the pod if necessary. The left over purified water can also be vented, circulated with the air to keep it from being dry, be fed into the existing water containers, or be broken down further into Oxygen and Hydrogen to extend the air supply to a degree. Most of this system is found in Compartment Four of the chair.

Compact Integrated Electronics System

The Pilot Pod is equipped with a Compact Integrated Electronics System (CIES) rather than the standard BIES or AIES. The reasoning for this is that this pod contains the main computer core intended to control assorted Mecha and Starfighters. The bulk of the CIES systems and components are in Compartment Three of the chair, though the sensors and transceivers are located in the Lower Armrest Frames. A scanner compatible with the electronic brains of Yamataians and Nekos is also located in the headrest, which allows the CIES to be interfaced with even without SPINE. It should be noted that it is possible to load the system with Escort Integrated Electronics System (EIES) should the pod control a craft of a particularly large size.

Type 33 Star Army Communications Network Encryption System

An upgrade in late YE 33 has added compliance with the Type 33 Star Army Communications Network Encryption System, to further protect against capture and misuse of this technology by the enemy. This is used in conjunction with the SPINE interface.

Immersion System

Added in YE 33 as a software upgrade, the Immersion System helps manage advanced three-dimensional audio and video capabilities while also providing a standardized format for all systems using Pilot Pods. It is capable of advanced panoramic vision and sound, triangulation of both, zoom, and overlays. In this configuration, it interacts seamlessly with the THOUGHT Software Package to paint as complete a picture of the situation for the pilot as possible.

THOUGHT Software Package

Added to the CIES is the THOUGHT Software Package, permitting both full telepathic control of the craft and the creation of ESS backups, whether through the mental transceivers in the headrest or SPINE. Add to that the ability to send mission and ship-specific data along with the ESS transmission, and a full black box can be copied to a secure SAoY server. An AIES Virtual machine is also included for running Power Armor software and combat programs within the CIES. Other options can be added from the suite, especially in models for Aces and Nobility, but these are the standard loadout for this pod.

Erasure

If the Pod is captured by an enemy, the CIES will automatically (or even manually if desired) delete all Project THOUGHT software as well as the virtual AIES and all mission and ESS data. The system's RAM will be dumped and the data lost. This is to prevent the advanced software, all mission data, and Soul Savior data from falling into enemy hands. The storage system containing the software, mission data, etc will be electrically overloaded and burned out immediately after erasure to prevent analysis. Pilot Pod functions and very basic controls for the Pod (and only the Pod) can be preserved with solely the standard CIES configuration. A pod that's been erased will not function in a Starfighter or Mecha. It is not uncommon for a Pod's pilot to have the system undergo Erasure after the pilot enters stasis and has sent their Soul Savior data to the ESS Database.

Seat Pack

Inspired by the Star Army Butt Pack, Type 29, the Seat Pack takes up the top two Compartments of the chair, and is designed to carry a number of items, which the pilot might need in a survival situation. It is intended to store the following, and has several times more room for more items than the standard Butt Pack, if packed as recommended in the instructions fixed to the bottom of each drawer. Any items not present as listed are spare room for something else.

Upper Half (Compartment One)

- 1 Star Army Uniform, complete with boots and belt
- 2 Nekovalkyrja Service Pistol, Type 30 or equivalent, or Ketsurui Zaibatsu Type 28 10mm Pistol + holsters and standard spare ammunition

- Survival Knife, Type 22 (in belt)
- Star Army Communicator, Type 29 (in belt)
- Star Army Flashlight, Type 30
- Portable Medical Scanner PMS-1M
- Star Army Science Scanner, Type 31
- Additional Star Army Emergency Ration Pill x 60
- 2 Charging Outlets (connected to the Pod's Aether Generator)

Lower half (Compartment Two)

- Type 31A Survival Kit, Standard Size
- Type 31C Survival Kit, Sea Survival Kit
- Star Army First Aid Kit, Type 32
- Rolled Sleeping Bag in waterproof bag

Mental Transceivers

These are the same mental transceivers as found in the Comfort Bed; and have been configured to work for all aspects of the THOUGHT Software Package, the Immersion System, and the CIES. These transceivers are not necessary if SPINE is in use, but are designed to function even if the pilot is wearing a Spacesuit and helmet. These can be disabled in software to restrict the machine to utilizing SPINE input to take full advantage of Type 33 Star Army Communications Network Encryption System security.

Tactile Consoles

Built as part of the arm rest adjusting mechanism, a multi-purpose console in each arm can be extended and flipped into position, allowing tactile control. This is intended to be used with the volumetric panoramic screen when using the THOUGHT Software Programs is not possible for whatever reason. The consoles' functions vary depending on what system the Pilot Pod is currently controlling. These can be disabled in software to restrict the machine to utilizing SPINE input to take full advantage of Type 33 Star Army Communications Network Encryption System security.

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