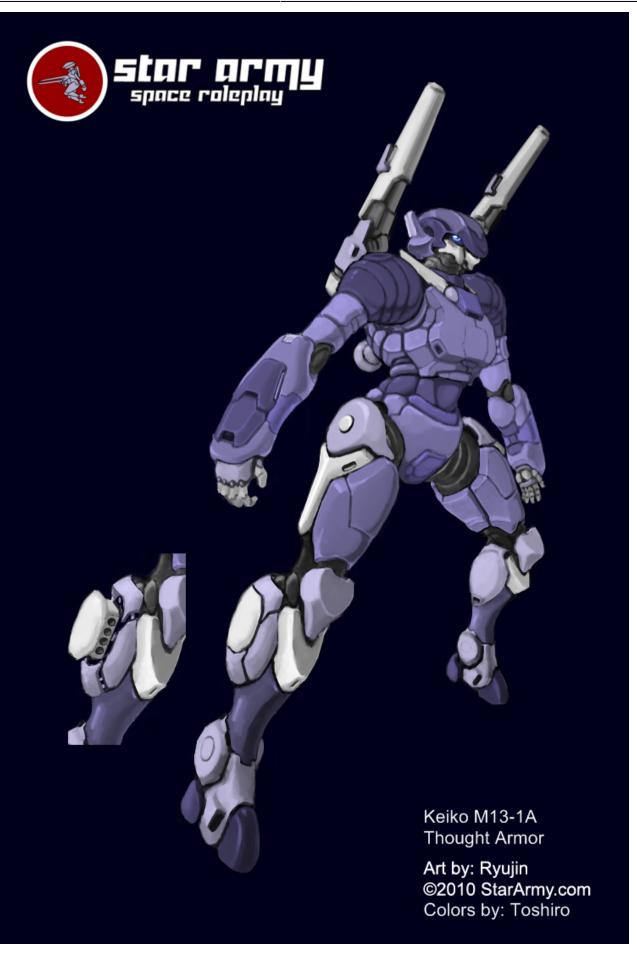
Keiko Thought Armor

Completed in YE 33 after the completion of the prototype Kirie Thought Armor, the Keiko is the second Thought Armor developed by Chusa Kage Yaichiro with Project THOUGHT and uses the Type 33 Pilot Pod as a cockpit. While the Kirie was built for maximum performance regardless of cost, the Keiko is intended as a balanced and easy to field machine which still boasts impressive capabilities first shown in its elder sibling. In YE 39, the Keiko was upgraded to utilize more modular weapon systems and had additional hardpoints installed.

The Keiko is more than sufficient for the mental reaction times of NH-22C Yamataian and most Nekovalkyrja, and is intended for rank and file soldiers in need of something a more powerful than the Ke-M2-2D "Mindy II" Power Armor or the Daisy M6 Infantry Power Armor that can still fit inside a building. The Keiko can be considered to be a distant relative of the original Lamia M1 Space Mecha with improvements based on the Mindy series. It was primarily designed as a match for the Ripper Power Armor as the Second Mishhuvurthyar War escalated; having similar size, matching shield power, notably more agility, and versatile weaponry – though its armor is slightly less resilient due to its materials and frame. This does not take into account the escape pod function, however, which notably increases the survival rate of the pilot and the computer data should the unit be defeated in combat.



History and Background

The Keiko's origins lie in YE 30, after then Shosa Kage Yaichiro was involved in a stealth mission during which he had to don a Power Armor. Too tall to use a modern machine, he used an inferior Super PHALANX that lacked stealth and was badly injured due to being forced to act as a distraction so that the stealth models could accomplish their objective. This was the second time a Power Armor design limitation in the obsolete Super PHALANX lead directly to his injury – the first time being caused due to the lack of a Psionic Signal Controller.

Three years later, Yaichiro's initial research into making a better power armor capable of holding someone of his physical stature had grown to a full-blown optimization effort with the aid of Project THOUGHT; a research and development entity which he built from scratch and hid in Nishitama. The Kirie had represented the best machine he could build, but he still needed a mass production model that was a lower cost. This would become the Keiko, the Thought Armor intended for regular Star Army forces. The unit would see an upgrade in YE 39 to add more hardpoints, make its formerly integrated weapons modular, and generally increase its versatility and upgradability.

About the Keiko

The Ketsurui Entry-Infantry Kirie Option (Keiko) retains the thought interface, ejectable Pilot Pod, and weapons compatibility of the Kirie; though the frictionless joints have been replaced by simpler models and the panoramic/audio system use less hardware than in the Kirie to create the immersive effect for the pilot. The "Entry-Infantry" in its name indicates that it is a simplified variant of the Kirie for entry level infantry and pilots – effective even in the hands of pilots which are first moving over from the Mindy series, though they can access much more of the machine's potential with further training. Only Yamataians and Nekovalkyrja are capable of piloting the Keiko.

The Keiko features a joint system which is not frictionless like the Kirie's, but has the same deceptively non-human range and flexibility in a humanoid frame thanks to its doll-like ball and socket/rotary joint design. This system makes its response time less than the Kirie's, but still capable of moving at the speed of thought for Yamataians and most Nekovalkyrja and in excess of most conventional Power Armor, with the aid of a completely thought-based input with no tactile or muscular guidance needed. A few experienced NH-29 and some NH-27 Nekovalkyrja can surpass the Keiko's limitations, however, at which point they may become Kirie pilots. Certain elements of the Thought Armor's advanced sensory systems are based on the "Skin Vision" of the NH-27 Nekovalkyrja, giving those with experience in an NH-27 body an early advantage in its use.

The Keiko is more compact Mecha than a Starfighter and comes with a dedicated fetal-position ejectable cockpit that holds its sensors and computer, but it is no larger than the Lamia M1 Space Mecha from which it was initially inspired due to careful cockpit and component placement. Because of this it can board a ship or enter a building while providing notably more protection than a lighter Power Armor. A significant amount of its armament also borrows from the heavily successful Ke-M2-2D "Mindy II" Power Armor and Ke-M2-3A "Mindy" Power Armor, though Project THOUGHT produced prototypes initially lacked some of the more legally restricted Aether and Scalar-based armaments until KFY parts were made for

refits.

The Keiko is more costly than the Mindy or Daisy, but its cost pales in comparison to the Kirie, and is viable for rapid mass production. The hope is that the Keiko will be given to secure hands in KFY in its complete form and rapidly produced, trained upon, and fielded in a rapid and unexpected way which will surprise the enemy – a form of technological ambush. In this way, Yaichiro hopes to shift the momentum of the war more solidly in Yamatai's favor.

Boarding the Keiko

The Keiko is usually stored standing just like the Kirie, but it can sit crosslegged (agura) or sitting on its legs in the traditional seiza position in a pinch to fit in cramped Power Armor bays. The torso splits across the waist, and the upper part of the Thought Armor lifts upward on supports to provide access to the Type 33 Pilot Pod inside. The pilot; optionally wearing a Spacesuit, bodysuit, or a regular uniform; tucks their lower body into the pod in the fetal position. The pilot may use their inertia controlling ability to aid them if needed, but there is enough width to move the arms in the pod to make things easier. The top then lowers onto the pilot, but will not descend if it detects an obstruction which would be pinched in the seams.

The pilot may end up in a true fetal position, or a modified one where the arms are up further and closer to the head. They can switch between the two while in the cockpit as needed for emergencies, though the pilot should pick whichever position they think they can more comfortably maintain for extended periods, especially in planetary operations where there will be gravity. Once the pilot has connected to the SPINE or the Mental Transceivers in the Pilot Pod, the Kirie's sensory and motor input overrides that of the pilot's body. The pilot's body is massaged by the insert and cared for by the Pilot Pod's systems while the pilot's mind is free to use the Kirie as their body instead.

Piloting

Piloting the Keiko is a different experience depending on one's skill level. Rookies will find themselves piloting it much like their own body, and comparable in some ways to using Mindy-series armors increased in scale. This is intentional, as the learning curve for Thought Armor is supposed to begin with something that most pilots are already familiar with. Pilots often start with the Immersion System's Directed Vision setting to get used to detecting things outside their range of vision without jumping straight to Sampled Vision – the Keiko is not capable of pure Panoramic Vision, and must simulate it.

Things like handling Panoramic Audio and Sampled 360 Degree Video take practice and getting used to, but a Mindy veteran will be able to fight at least as effectively in a Keiko as they could in their Mindy, with limiters available for in the various systems designed to prevent information overload in rookies.

Pilots will eventually start to experience an increase in their range of motion and response time as they grow more used to the machine's movements and systems. The range of motion and response time of the Keiko typically exceeds that of other humanoid craft due to its joint type and configuration, but is difficult to adjust to without practice. The computer determines what speed and range of motion the pilot can manage early on, and restricts it to that value, gradually increasing it as the pilot grows more able to handle the unit.

Pilots, after gaining experience, may unlock some skills with the system which are advanced and specialized. Being able to take out targets at extreme range, being able to precisely pinpoint and identify enemies in three-dimensions by sound, developing reactions times pushing the Keiko's limits – all are signs that the pilot may need to move up to a Kirie and receive supplemental training in those skills.

Using Low Power Mode

Due to the easy detection of Aether reactors at the ranges used in terrestrial or urban combat, the Keiko is capable of a Low Power Mode where its Aether Generator is deactivated and a less powerful back up source of power is utilized. Output is reduced to match the drop in power as well as to make detection more difficult, setting the machine in a configuration more fitting for urban combat than space combat. This includes a disabling of the machine's FTL capability and a rebalancing of the machine's weapon configuration to avoid energy-hungry weaponry.

To aid in this, weapons are specifically rated to indicate if they can be used with Low Power Mode or not. Weapons to be used in Low Power Mode tend to be kinetic, very light energy, or explosive weapons, which do not require the Aether reactor as a power source. Some heavy energy weapons may be compatible with Low Power Mode, but typically have their own power sources and are not always as concerned about detection avoidance as dealing high levels of damage.

Statistical Information

- Government: Yamatai Star Empire
- Organization: Project THOUGHT, Star Army of Yamatai and Ketsurui Fleet Yards
- Type: Thought Armor/Compact Mecha/Power Armor
- Class: Ke-M13-1B / PT-M3-1B
- Designer: Kage Yaichiro and Project THOUGHT
- Manufacturer: Project THOUGHT, Star Army of Yamatai and Ketsurui Fleet Yards
- Production: Mass Production
- Crew: 1
- Appearance: Humanoid compact mecha with various Mindy-inspired design elements and weapons. Often has dual swiveling backpack cannons. Typically painted in a Star Army Blue and light blue/white scheme characteristic of a Ke-M2-2D "Mindy II" Power Armor.
- Width: 3' 0" (0.9 meters)
- Height: 7' 6" (2.3 meters) head height/with cannons rotated down or forward, 9' 0" (2.75m) with cannons up.
- Mass: 300 kg (661.4 lbs)

Speeds

- Sublight: 119,918 km/sec (74,513 miles/sec) .40c in vacuum
- FTL: 10c (Disabled in Low Power Mode)
- Atmospheric (Cruise): 1470 kmh (913 mph) at sea level, functionally considered Mach 1.2

- Atmospheric (Max): 2205 kph (1370 mph) at sea level, functionally considered Mach 1.8. Limited more by frame than engines.
- Underwater: 160 kmh (100 mph) to a depth of 100m, in 1G.
- Range: Indefinite due to dual Aether Generators 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 range is largely defined by food, water, and air stored in the Type 33 Pilot Pod which serves as the machine's cockpit.

Damage Capacity

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

• Tier 6

Systems Descriptions

Armor

Built out of Yama-Dura armor over a Durandium Alloy frame, the Keiko has a notably less costly armor and frame than the Kirie. Units can also have Xiulurium if made or refitted by Ketsurui Fleet Yards for the sake of stealth, but this is incredibly uncommon. The frame is designed to break in certain areas first specifically, both to make the machine easier to repair and guide damage away from the Type 33 Pilot Pod and critical sections of the frame.

The area around the Keiko's cockpit is also given supplemental armor, to protect the Pilot Pod from exposure and connect it to the joints. It is this which is visible as the torso, and what is typically painted if the unit has custom colors.

Cockpit Block

The cockpit block consists of a Type 33 Pilot Pod nestled inside an armored contoured insert which acts as the Keiko's double torso joint. As such, the Pilot Pod is kept from being a weakness in the machine's construction by being given additional armor, and the external armor can be painted a different color than the Pilot Pod. Yarvex splits the pod and the extra armor, to prevent shrapnel damage.

The Pilot pod not only contains the pilot in a compact area and leaves the Keiko's limbs free of "organic obstructions" that reduce speed or range of movement, but it also allows full telepathic control, houses the Thought Armor's computer system, handles life support needs, and acts as an escape pod.

This centralization of critical systems and the pilot in such a compact area makes the cockpit and pilot

have a high chance of surviving a large amount of damage – a key aspect of the Thought Armor's design.

Escape System

Should the Pilot Pod need to escape the Thought Armor, the top and bottom halves of the supplemental cockpit armor can detach and split apart, and allow the Pilot Pod to escape. This takes the machine's computer and software with the pilot, as well as any mission data. For good measure, the remnants of the Keiko can be self destructed after the Pilot Pod is out of range.

The Keiko is not as costly as the Kirie, but it is possible to detach damaged limbs instead, or to eject just the top or bottom half of the Thought Armor.

Graviton Beam Projectors

Built into the hands are a pair of PT-M1-R3200 Scalable Graviton Beam Projectors, designed for the purposes of both grabbing onto surfaces and items securely, as well as to avoid having a weapon being knocked out of the Thought Armor's hands as easily. Though they are intended mainly for this use, it is also possible to reclaim a dropped weapon or item from a short distance away, prevent other craft from going to FTL, throw off an unshielded enemy's aim by manipulating the gravity in their area, or any number of other useful ways yet to be discovered.

A more powerful Scalable Graviton Beam Projector is built into the back of the Keiko, which allows the machine to tow a craft as large as a Ke-V6-1D "Hayabusa" Starfighter or a Ke-V8 "Kawarime" Fighter under full power, though at a predictably reduced acceleration. This specification is due to the fact these are the largest craft the Keiko is expected to deploy with, and makes them able to aid in the recovery of various probes as well. Depending on the type of engines used and the configuration, care should be taken not to damage the towed craft with the device's exhaust. It is often recommended to use the CFS for propulsion in this situation, or to tow the craft from a fair distance.

It is not possible for the Keiko to carry a device larger than another Keiko/Kirie or a Type 32 Pilot Pod along with it at FTL speeds.

Joints

The joint system of the Keiko is not as advanced nor as expensive as the Kirie's, but it is still a cut above that of most conventional joints. Many are Ball and Socket Project THOUGHT Simplified Joints supplemented by rotary joints of the same type, allowing for a range of movement simply not possible in a truly humanoid design. Every joint is in some way double jointed, and most joints that are normally lever-style like elbows or knees can bend in any conceivable direction.

The joints in the Keiko only have one mode of operation, effectively the same as the Mechanical (Legacy) Mode seen in the Kirie's joints. As such, they are notably lower cost but boast the same field of motion. Their speed is still higher than most people can think, but the joints are not as fast or as painstakingly precise as the Kirie's Frictionless Mode.

Detachment

The primarily Ball and Socket nature of the joints allow for the joints to detach and separate, giving the machine the ability to shed critically damaged limbs or components, swap in new limbs, or even have different mounted weapons or engines attached to the machine in this manner. The ability to easily remove components via the joints has been used to improve the modular nature of the Keiko's components. Even the joints connecting to the Type 33 Pilot Pod act as this type.

It should be noted that though a Kirie's ball joints can be used in a Keiko, it is not typically cost effective and should be avoided unless it is essential to field an otherwise non-functional unit. Also, parts of the Keiko can be left behind on a timed overload and self destruct to varying degrees of damage to destroy an enemy. This is outlined in the Weapons section.

Shielding

Combined Field System

The main shielding needs of the Keiko are covered by the Ke-M12-P3300(PT-M2-P3300), a Combined Field System configured for optimal shield output. Due to this, it has a relatively high threshold and strength for its type. It is capable of operating in Low Power Mode, but excessive use may drain the power reserves quickly.

Optics and Audio

Audio Detection System

Since the Keiko is to be compatible with ground use, including inside of buildings, the Power Armor has a panoramic audio detection system consisting of four Quad-crystal Crystalline Audio Sensor Array arranged in a polyphonic array to detect and determine the directional source of a wide array of sounds, manipulate the audio in real time as needed using the Immersion System's Audio System, feed this data to the pilot via the THOUGHT Interface and quantum computer, and have access to it in records for later review after the mission. While there are advanced features which may be used to aid a soldier in combat, they are reliant on the pilot's experience and skill.

Optical Tracking System

The Keiko lacks an Active Camouflage System like the Kirie's, but the Keiko does have an array of cameras on its frame. This system allows a computer-synthesized omnidirectional panoramic field of view at any given time when used in Sampled Mode in the Immersion System with help from the quantum computer for processing, and then is loaded in real time directly into the pilot's mind via the THOUGHT Control and Sensory Interface (CSI). This typically manifests as the equivalent to Skin Vision, much like certain classes of Nekovalkyrja such as the NH-27. Unfortunately, since it is sampled vision, objects

exceedingly close to the Thought Armor's exterior can be rendered incorrectly. This range goes out to roughly 20cm, save for the hands and its own limbs which are always clearly shown. One must rely on other CIES sensors within this range to fill in the gaps, or turn the Keiko's head to look at the target in question.

Like in the Kirie, a pilot can configure the Optical Tracking System to work with other CIES sensors in the Pilot Pod to display an array of normally non-visual energies and wavelengths for analysis as needed. This includes visual representations of magnetic, gravimetric, or spatial distortions, Aetheric energy sources, infrared (thermal) imaging, ultraviolet imaging, and many other things detectable by the CIES sensor package. Often, one only enables these capabilities as needed due to the potential cluttering of the field of view with the various visual cues. This can sometimes serve to help "fill in the gaps" in sampled vision when an object is within 20cm of the machine.

It should be noted that it is difficult and disorienting to use the Immersion System's Sampled Vision setting right away unless experienced with Skin Vision, therefore the Directed Vision setting is recommended for beginners.

Laser Reciever and Transmitter

Unlike the Kirie, which uses its Active Camouflage System to transmit and receive lasers, the Keiko lacks this hardware. The Keiko can receive laser communications, but only if they are shone into its primary or one of its numerous secondary optics. The Keiko can then respond by sending a laser from an emitter in its arm. These lasers can allow covert data transmission of many types, including audio and video. This functionality is fully integrated with the Immersion System software.

This lower cost solution is not as elegant as the transceiver in the Kirie, but it is functional and has the added benefit of using the existing rangefinder in the Forearm Projector.

Primary Optics

The Primary Optics are a pair of adjustable unidirectional sensors with longer visual range than the Secondary Optics allow and are equivalent to the Wide-Band Variable Optical Imaging Array on most smaller AIES-equipped Power Armors. Their use is typically for triangulating an enemy location distantly and precisely before attacking, or for gathering more detailed data on a specific object by focusing on it. They serve the same role as a pilot's eyes, and are usually the main optics used when operating the Immersion System in the Directed Vision or Legacy Vision settings. These can also be lost without eliminating the combat effectiveness of the machine if the head is damaged, though attacks at longer ranges may be less accurate.

Secondary Optics

The Secondary Optics are an array of high resolution optical sensors across the frame of the Keiko, serving to provide data for the Immersion System to parse into video data – be it synthesized panoramic

vision in Sampled Mode, or motion detection in Directed Mode. They also pick up lasers for covert communications from friendly units.

Power System

Unlike most Mecha or Power Armor, the Keiko has not only a main Aether Generator and Capacitor Array in the upper body, but has an additional power system consisting of a compact fusion reactor in the left thigh and a super-compact capacitor array in the right. The fusion reactor is simpler than the Kirie's, and the capacitor only has half the power reserves of the Kirie's thigh capacitor. These are carefully weight balanced for optimal operation. The purpose of these systems is because Aether Generators are easily detectible within a certain range, and there are times where stealth from this is necessary. This is especially true on planetary missions.

The Fusion reactor and the Aether Generator lack the expensive Zesuaium shielding in the Kirie counterparts, the shielding around the fusion reactor replaced by a thick lining of more conventional materials designed to obscure it from infrared detection. Yarvex lines both, in an effort to protect the Pilot Pod from shrapnel should either take damage that is otherwise survivable. Models made or refitted by Ketsurui Fleet Yards may also utilize Xiulurium around the Aether Generator and Fusion Reactor to further minimize detection, but this is very rare. The result of this is not only a somewhat reduced Aether detection range, but also the ability to use the fusion reactor and supplemental capacitor array more safely in stealth and ground operations. If absolutely necessary, the capacitor array can be used most of the time, being recharged by the Fusion Reactor when time allows or automatically when the Aether Generator is brought back online.

With these two power systems in mind, many weapons for the Kirie and Keiko that are made for when the Aether Generator is turned off are rated for use in Low Power Mode. These are typically systems which rely on unpowered or self-powered systems such as projectile weapons or light energy weapons with their own power sources. Given that the primary reason for Low Power Mode is terrestrial warfare, the reduced ranges and output on some Low Power Mode weapons do not actually hinder the machine's operation in this role.

Propulsion

Advanced Maneuvering Thrusters

Across the entirety of the Keiko's frame is an array of roughly two dozen small thrusters which allow for minute changes in velocity and rotation, generally aiding in control of the high speed machine. A secondary role of the thrusters is to aid in recoil reduction.

The most powerful thrusters are on the bottoms of the feet, and can assist in jumps in gravity or rapid direction changes.

Combined Field System

Faster Than Light travel is also provided by the Ke-M12-P3300(PT-M2-P3300) CFS, but only at 10c due to the fact that the CFS is configured for defense more than speed. The CFS can also allow the Keiko to travel at sublight speeds of up to 0.4c as a backup Slower Than Light propulsion system. It should be noted that in Low Power Mode, the Keiko's FTL capability is disabled.

Due to this, the Combined Field System is sometimes used upon initial launching of a space-borne Keiko from a ship or when in close proximity to friendly targets that could be damaged by STL engine output, such as when towing.

STL Options

Aside from the Combined Field System's backup propulsion abilities, the Keiko has two main Slower Than Light engine types just like the Kirie, which are easy to swap out as they are mounted in Project THOUGHT Simplified Joints. Due to the joints they are in, they are also capable of a high degree of thrust vectoring. It should be noted the upper limits to the speed in atmosphere or water have more to do with the frame integrity and the energy which can be safely used in matter than the upper bounds of the systems. Due to this, their top speeds are functionally the same.

Ke-M12-P3301 Dual Stage Aether Drive

The Ke-M12-P3301 is a Dual Stage Aether Drive option for the Keiko and Kirie which allows for Stage 1 (Aether Jet) operation in atmosphere or underwater, or Stage 2 (Turbo Aether Plasma) in high altitudes or space. It is a relatively cheap and useful propulsion system which is useful when operating in atmosphere or in trans-atmospheric conditions. Most Keiko are equipped with this engine configuration. While the engines are capable of high speeds in atmosphere, the frame of the Keiko limits it to 2205 kmh. It should be noted that the harmful effect of the Turbo Aether Plasma dissipates after a few minutes, though it can be detected on sensors for roughly a week. This is a KFY-only component due to legality.

Ke-M12-P3302 Two Stage Laser Engine

The Ke-M12-P3302(PT-M2-P3301) is a Two Stage Laser Engine based on that of the Tsubame Prototype Fighter which, while usable on planet, is geared more toward stealthy space operation. Though very hard to detect in space unless the laser defocusing systems are engaged, it is easy to detect in atmosphere. It is also more costly to produce than the Dual Stage Aether Drive, though its usage costs are just as low as it does not use fuel in the conventional sense. It should not be used at high speeds in close proximity to populated areas while in atmosphere, and is usually limited to a 400 kmh speed limit. While the engines are capable of high speeds in atmosphere, the frame of the Keiko limits it to 2205 kmh.

Units which are space-based and rely on stealth tend to utilize this configuration, as do early test units made before Ketsurui Fleet Yards' production run. Because of the fact that the Keiko is not usually stealth

oriented, a Keiko with this engine type more than likely started out as a pre-KFY model, or is custom fitted with these engines for a specific reason or role.

Weapons and Hardpoints

The Keiko, like the Kirie, continues to use the concept of hardpoints to allow the craft to be better suited for various mission profiles and has full compatibility with components made for either. Though designed to carry systems to scale with its frame, the Keiko is also capable of utilizing Mindy-series accessories as long as they can physically fit onto the Thought Armor's frame. This does *not* include the Mindy's Teleportation Module, which is insufficient for carrying the mass of the craft.In YE 39, the Keiko was upgraded to utilize completely modular systems and had two additional hardpoints installed on its hips.

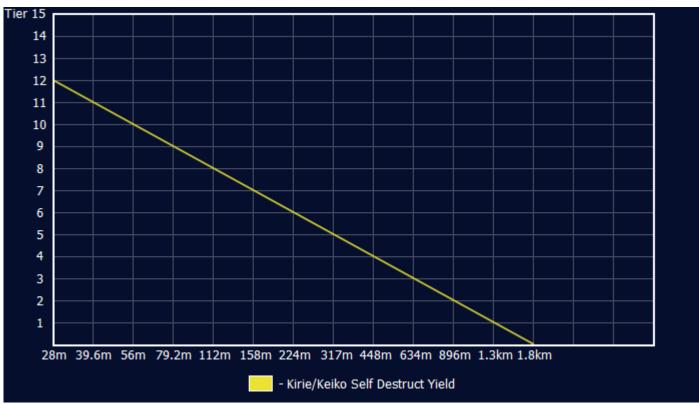
See: Kirie and Keiko Accessories for specific accessories.

Location	Туре	Number
Mid Backpack	Packpack Hardpoint	1
Upper Backpack Behind Shoulders	Shoulder Hardpoint	2
Hips	Hip Hardpoints	2
Forearms	Forearm Hardpoints	2
Outer Calf of Leg	Side Leg Hardpoints	2
Rear of Leg	Rear Leg Hardpoints	2
Hands	Handheld Weapons	2

Self Destruct

Because of how the power system is set up and because the Keiko can detach parts of itself, it is possible for the Keiko to set a limb to overload at a set time, detach it from itself, and flee before an explosion. In a pinch, even the main Aether Generator can be overloaded and detonated, with the pilot pod (hopefully) making its escape.

The maximum damage a Keiko can cause when self destructing all of its parts together is a Tier 12 explosion which is 28 meters in radius – a sphere two times the destructive volume of the Mindy's self destruct. Every doubling of distance from the epicenter of the blast reduces the damage potential of the blast by four times, or a reduction of roughly two Tiers. As such, the damage falls in line with the graph below.



OOC Notes

Made by Toshiro

Star Army Logistics		
Supply Classificatio	n Class C - VEHICLES AND POWER ARMOR	
Products & Items Database		
Product Categories mecha, power armor		
Product Name	me Keiko Thought Armor	
Nomenclature	Ke-M13-1B, PT-M3-1B	
Manufacturer	Ketsurui Fleet Yards, Project THOUGHT, Star Army of Yamatai	

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