Advanced Reconnaissance and Scouting Armor, Type 41

The Type 41 Advanced Reconnaissance and Scouting Armor, more commonly refereed to by its shorthand name ‘Tarsa’, is a combination of technologies taken from the SAINT Operative Field Suit, Type 31, the M6-2A "Daisy II" Planetary Power Armor and the Star Army Field Uniform, Type 31 as well as others to create a rather formidable suit of covert armor that specializes in hitting hard and fast.

About the Armor

The Type 41 Advanced Reconnaissance and Scouting Armor was created to be used by Star Army Reconnaissance and Intelligence operatives when the situation calls for something more substantial than their usual field uniforms but without sacrificing their covert capacity that something like a suit of less-specialized Daisy or Mindy power armor might. The Tarsa was built with a specific role in mind and has sacrificed little along the way. All in all it is a highly-mobile suit of powered combat armor that contains all the usual such as life support systems, a powerful computer, modular hardpoints and other amenities usually found in SAOY power armor as well as some extra functionality that has been repurposed from other systems.

Statistics & Performance

General notes about armor stats and performance

- Class: Ke-M18-1A
- Designers: Ketsurui Zaibatsu, Evangelin Mikratos, Wyatt Fujiwara
- Manufacturer: Ketsurui Zaibatsu
- Fielded by: Star Army of Yamatai; Rangers, Intelligence Operatives
- Range: 15 days/10 years
- Maintenance Cycle: Once after each mission or bi-yearly [1] if kept in storage, not including software updates
- Lifespan: 25 years

Appearance

It would be safe to say the Tarsa, though inherently Yamataian, has some noticeably Elysian queues in its design – sleek, angled and aerodynamic armor plating held together via mechanised joints over a softer core of synthetic muscles, making use of a hybrid system rather than relying solely on a hemosynthetic core like the Mindy family of power armor.

Like most modern Yamataian suits the Tarsa comes in a few different shades of blue though they are noticeably darker than the average Mindy and lack a lot of the glowing details usually associated with

Yamatai's most recent armors – this is mostly due to the role it plays as a more covert armor designed to be neither seen nor heard, usually kept far from the public eye.

Each armor comes in two parts, the suit itself which has a surprising lack of wings compared to other Yamataian power armors though this makes more sense once it becomes apparent that the second part is a large and detachable thruster pack – the intention is for the suit's not as easily detectable and inbuilt inertial flight systems are used the majority of the time and this noisier wing-pack reserved for when it is truly needed. The backpack section of the suit is a minimalistic grey panel with obvious mounting points for the wingpack, which consists of two main thrusters in the middle and pointing down that act as the primary source of propulsion, with smaller thrusters in the wings to be combined with the suit's standard inertial flight systems for precise manoeuvring – the wing pack's wings are noticeably larger than that of the Ke-M2-4 Series "Mindy" Armor, the design was taken from the thrusters of an abandoned small fighter project and then slightly downscaled to better work as the propulsion system for this suit.

Type 41 Advanced Reconnaissance Armor's helmet has a rather triangular faceplate that bears resemblance to a beaked head, it is designed to be streamlined and reduce drag along with the slightly pronounced neckpiece, which is in place to smooth out the area between the neck and each shoulder of most species – this collar is also what the suit hangs by when it is mounted to a rack.

The inside of the suit is padded with a tan-colored synthetic blend of polyester and wool taken from the ke-m6-2a Daisy, rather comfortable against either bare skin or a uniform.

History

The Type 41 Advanced Reconnaissance and Scouting Armor began life as a concept first proposed by Wyatt Fujiwara shortly after he became a SAINT Intelligence Operative in YE 40, a culmination of technologies from his time as a ranger, Star Army Infantry and then an Star Army Intelligence Operative – combining what he saw firsthand a soldier needed in their armor when deep behind enemy lines, lightweight and easy to repair yet remarkably speedy, covert and easy to repair with modularity to fill any roles that need to be filled.

The design was tweaked and modified during his off-duty time from mid YE 40 to early YE 41 until he deemed it ready to be submitted to the correct people – some smaller parts of the design were altered by research and development teams but truth be told it was basically perfect from the get go and went into production in mid YE 41 after Evangelin Mikratos improved the way that the frankensteined sensory suite fit together, with a request from Wyatt that the first production model would be reserved for use by himself.

Advantages

- Lightweight
- Fastest SAOY armor as of YE 41
- Easy to repair, even in the field[2)]
- Can make use of most Mindy Accessories and Daisy Accessories/Daisy II Accessories in the

appropriate hardpoints
- Most spare parts are easy to find, can even be pulled from seemingly unrelated bits of gear more often than not

Drawbacks

- Requires a SASO Bronze Card or SAINT authorization.
- Can be hard on the joints, recommended to be used primarily by synthetics with advanced healing factors and/or that the pilot takes a Hemosynth bath afterwards to rejuvenate
- Some defense was sacrificed for more mobility

Mobility

The Type 41 Advanced Reconnaissance and Scouting Armor has three main modes of mobility, one of which requires the wing-pack to be attached – the suit by itself uses an array of gravitic drives to achieve flight via means of inertial manipulation, this system also shield's the wearer from the harmful effects of high-g manoeuvres or environments. The second mobility option available to each suit is the hybrid system of a hemosynthetic insert working in tandem with a more traditional mechanical exoskeleton, this simply boosts the wearer's physical capabilities, allowing them to jump higher, run faster and lift heavier weights than they would normally be able to – The aforementioned last one that requires the pack becomes apparent once one realizes the pack is a series of powerful Turbo Aether Plasma Drive thrusters wired into the suit's power supply, it's the least covert option though also the fastest and made primarily for when speed is preferable over remaining undetected. These large wings and backpack area also contain a modified version of the Ke-M2-P2903 Hyperspace Fold Booster that has been implemented with most of the same stats though slightly improved due to some additional research and development time alongside a beefier power supply.

- Ground Speed (Running): Software locked at 70 kilometers per hour [3)]
- Ground Speed (Hovering): See: 120 kilometers per hour[4)5)]
- Max. Atmospheric Speed: 4321.8 kilometers per hour [6)], mach 3.5 at sea-level[7)]
- Max. Sublight: .42c[8)]
- Speed (Hyperspace Fold): 131,490c (0.25 ly/m). See: Hyperspace Travel
  - Range: Maximum fold distance crossed in a single jump is 10 light years.
  - Charge Cycle: The unit requires 45 seconds to warm up and an additional 25 seconds for each light year the hyperspace jump will require. The unit has a 10 minute cool down before it can be safely used again.

Armor Size

All the measurements below state how much additional bulk is added to the wearer's own dimensions and weight when wearing the suit:

Height	+10.16cm/4"
Width	+10.16cm/4"

Length[9)]	+7.62cm/3”
Length[10)]	+25.4cm/10”
Weight	1.5x[11)]

Damage Capacity Stats

See Damage Rating (Version 3) for a guide to damage ratings to include.

Armor Plating: Tier 3, Heavy Personnel

Photonic Armor: Tier 4, Light Armor[12)]

Getting In and Out

The Tarsa is entered through the back, with the backpack section of the suit pivoting up and the lower back pivoting down to provide access to the cavity within – soldiers enter feet-first into the chest until their limbs sit properly inside each of the appropriate spaces[13)] and then the suit may be sealed up by attaching the helmet, or if the helmet is already attached, then the suit will seal itself automatically.

The helmet can either remain attached to the neck of the suit or donned subsequently, it does not fit through the neck space of the suit so cannot be worn as the wearer climbs into their suit – the helmet’s faceplate can open up and slide to sit above the wearer’s brow, resting above their face when fully open, this process is electronically controlled.

Controlling the Armor

The Type 41 Advanced Reconnaissance and Scouting Armor is controlled either through a powerful synaptic scanning suite located in the suit’s helmet or a SPINE system available to compatible pilots – it translates activity in the user’s brain and nervous system into instructions for the armor’s various system in a through latency-free connections, because of this, the armor acts as more of an extension of one’s body rather than a separate entity.

Anybody with up-to date SAOY training should be able to effectively pilot a suit within moments of climbing into it, there is no discernible reason why but some users of the Tarsa find piloting their suit to be more of an intimate experience compared to using other similar suits.

Non-SPINE users require the helmet to effectively make use of the suit, it functions as little more than additional protection otherwise.

Systems

The sub-components of the power armor that are not included in the subsections below it will go here.

- Ke-M6-F3401 Durandium-ADNR Composite Frame
- Ke-M2-E3800 Armor Integrated Electronics System
- Ke-M2-E3802 Psionic Signal Controller
- Ke-M2-F4101 Hemosynthetic Insert
- Ke-M2-F4102 Multi-layer interior lining
- Ke-M2-R4103 Gravitic Flight Array
- Ke-M2-R4104 Photonics Array
- Ke-M2-R4105 Shielded Multi-Tap Aether Power Supply

List of Models

The Tarsa has been produced in several subtypes:

Ke-M18-1A	Most common, designed around species with more traditional humanoid physiques[14)]
Ke-M18-1E	Elysian variant with wings
Ke-M18-1S	Separa'Shan variant; segmented snake lower body

Magazine Holders

Taken from the thighs of a M6-2A "Daisy II" Planetary Power Armor each thigh compartment is 350mm deep x 200mm long x 30mm wide and capable of accepting a variety of mounts used to hold ammunition used by the SAOY – usually large enough to hold a few magazines.

Wing Pack

The Tarsa was designed for covert operations and to react quickly if cover is blown, as such and unlike other modern Yamataian power armors the Tarsa's primary thruster unit comes in the form of a detachable backpack that mounts to a section on the back of the suit - without this the armor is limited to using its slower but ultimately stealthier inertial flight array, with the intention being that more mission-sensitive equipment could be brought in place of a powerful thruster kit if needed, and that the wing pack could be reserved for times where speed is of the essence, what with this being the fastest SAoY armor produced at the time.

The wing pack's turbo aether thrusters are ultimately faster though leave easily traceable signatures that stay around for a while, which is a downside along with the more powerful thrusters being a bit bulkier than those on a Mindy - ultimately it is a single armored unit that combines parts from the Ke-M2-P2903 Hyperspace Fold Booster with a set of powerful turbo aetheric thrusters that mount to a grey panel on the back of the armor, work usually done by an armorer, that taps into the suit's power supply.

It allowed both the Rangers and SAINT Operatives who had access to the suit an additional level of modularity to truely fine-tune the suit to the mission at hand, whether they need to sneak around a muddy swamp or quickly Fold-jump onto the side of a fleeing ship - though it should be noted that generally the wing pack will only give away its user's position if used, and does not passively trip sensors with an aetheric signature due to all the cloaking materials sandwiched into the suit's armor plating.

Nodal Support Bit Bracer

Each of the Tarsa's forearms come stock standard with a bay capable of holding three Nodal Support Bits each, this system was made as a sibling to the Ke-M2-W2910 Forearm Pulse Cannons – making full use of the space to double as both a weapon and a drone launching/charging station.

It is rather similar to the Ke-M2-W2704 Nodal Support Bit Launcher except each forearm unit can only hold three Nodal Support Bits though the Nodal Support Bits are able to fire while docked – sitting on slightly raised surfaces to help minimize the risk of wearers shooting themselves in the hand. The armored plating over the Nodal Support Bits slides back to provide access to the recessed cavities they sit beneath, with a slot at the front of each bracer allowing the 'currently chambered[15)]' drones to fire their weapons through when docked.

Molecure Climbing Assistance

Much like with the Saint Operative Field Suit, Type 31, the gloves and boots of the Tarsa can disperse a molecure solution – though instead of buttons on the gloves themselves the solution is controlled via system in the Tarsa's helmet, with the solution being stored in a sealed capsule underneath armored plating on each limb.

For Separa'Shan there is enough solution to coat sections of the pilot's tail, enough to allow them the same degree of additional mobility as their more humanoid-shaped counterparts, it is seen as a less power-intensive option than the suit's inertial flight array that can be used when the user needs to hold an odd angle for an extended period of time.

Multi-Layer Interior Lining

The Tarsa's interior is lined with tan-colored synthetic blend of polyester and wool taken from the Ke-M6-2a Daisy, it is static free and rather comfortable against either bare skin or uniforms – it is treated with the same methods as other Star Army apparel to be resistant to stains, fire, bacteria, insects, and sweat build-up, though is machine washable should the need arise.

This layer can expand or contract slightly to maintain a snug grip on the pilot whether they be naked or wearing a uniform, slimmer uniforms are preferred to be worn while piloting the Tarsa though something like the Star Army Field Uniform, Type 31 can be comfortably worn underneath if bulkier components are stripped off.

Armor

The Type 41 Advanced Reconnaissance and Scouting Armor makes use of a lightweight composite armor design made from alternating layers of Yama-Dura and Xiulurium designed to maximize the armor's survivability and covert potential. The suit's base layer is made from cheap and regenerative series of

Yama-Dura plates that act as the backbone, this is then covered by a layer of stealthy Xiulurium that shield's the suit's systems from interference and obscures them from prying sensors, with the next layer being another sheet of Yama-Dura and finally the outermost coating is another layer of Xiulurium - the thought is that if the rather flimsy layers of EM-shielding material are penetrated then the rounds should be caught by the tougher regenerative layers beneath.

Under all this protective plating lies the exoskeleton embedded in the suit's hemosynthetic insert and interior padding, both of which serve to protecting the wearer from harsh environments and as a kinetic buffer to absorb the force of incoming attacks as it is transferred from the armor plating to the rest of the suit – it is able to make use of Ke-M2-A3100 - Kinetic Energy Absorbing Armor.

Photonic Armor

The Tarsa makes use of its updated Photonics system as an additional layer of protection rather than opting for the more complicated CFS method, both for ease of repair and to reduce costs, this is also the reason why the Tarsa uses a simple Gravitic Flight Array instead of the full-blown CFS package.

The suit's Photonics Array can project a transparent hardlight shell around the suit and any attachments it was designed to be compatible with, this function is usually powered-down by default because when active it causes the Photonic projectors to glow a cyan-hue, which is not the most optimal feature for the covert operations the suit is designed for – it is a lot less harmful to nearby unarmored entities than the CFS system though, which was the initial reason it was chosen.

Camouflage

The Tarsa's Xiulurium-shielded nature makes it almost undetectable to most sensors so long as that system remains functional and the detachable thruster wings are not in use, their Turbo Aether Plasma Drive-propelled nature makes the high-output thrusters easily detectable.

An updated Photonics Array lets the armor optically camouflage itself however, with small projectors sitting between cracks in the plating that remain powered-down unless active just so that this stealth-orientated suit isn't glowing – it can manifest intangible projections up to two feet away from the outside of the suit and their quality makes these projections indiscernible from the real thing, with the projections constantly being updated with data taken from the suit's sensors.

In addition, the suit's armor plating is designed in such a way that they do not rub against each other nor chafe as well as the suit's hybrid core of a Hemosynthetic insert and a polyester/wool blend help dampen the sounds produced by the armor during use – all this means that the suit practically runs silent in all but the most tense situations, with even the soles and palms being backed by a heavy-duty rubber-like polymer to passively reduce noise pollution.

Life Support

The hybrid core of the Tarsa houses the life support systems, which include the hemosynthetics system,

a rebreather system, an oxygen supply, and a nutrient-enriched (sterile) water supply. The Tarsa can support a pilot for up to 15 days before replenishment is needed, or up to 10 years in stasis. If needed, the Tarsa can filter outside air to replenish its supply (not usually done until absolutely necessary, though).

The Tarsa's interior includes a catheter organ that can be deployed as needed to resolve urinary needs. The suit's flesh will also massage the pilot's body from time to time to encourage blood flow and provide increased comfort and stimulation, and can also act as a pressure suit for high-G maneuvering.

Power Systems

The Tarsa runs off of a three-part power generation system made from a Ke-M10-G4100 Long Life Power Cell in the front of each thigh and an Aether generator[16)] in the backpack section of the armor, the last one located underneath a panel the wing-pack attaches to – two banks of four hyper capacitors sit on either side of this larger generator for a total of eight that passively charge themselves unobtrusively. These serve to provide power to all systems such as life support, weapons and shields as a reserve power supply in the event the Multi-Tap power supply fails[17)]. They are capable of supporting the suit for approximately a week out of combat, but constant and heavy usage consistent with combat will reduce the time of operation exponentially. The operational time is typically cut down to a day, a handful of hours, or even less, depending on conditions.

Sensors and Communications

The Tarsa uses the Armor Integrated Electronics System (AIES), which includes sensors, communications, and computing systems rolled into a standardized package. The system runs a special power-armor-oriented flavor of the Kessaku Military Operating System created by Kessaku Systems for use within the PANTHEON network. Through networking, the Tasra's sensor input is augmented by that of nearby friendly forces – it uses a suite of sensory networks to monitor what is going on in, and around the armor, the hardware being a Frankenstein hodge-podge of components from the Ke-M3 Series "Kylie" Anti-Armor Power Armor, Ke-M2-4 Series "Mindy" Armor and M6-2A "Daisy II" Planetary Power Armor systems.

Its sensors include:

- Wide-Band Variable Optical Imaging Array
- Time-Modulated Ultra-Wide Band Radar
- Optical tracking systems in the Tarsa's "skin."
- Quintessent Wave Differentialometer

The Tarsa can communicate via:

- Voice, via microphone and loudspeaker
- Conventional Radio
- Subspace Radio (FTL)
- Laser Beam

Weapons

Main weapon, secondary weapon, and all other weaponry go here.

- 6x ForearmNodal Support Bits, non-lethal to tier 4[18] depending on the NSB's selected firing mode.[19]

The Type 41 Advanced Reconnaissance and Scouting Armor also has spiked knuckles to maximize the damage output from punches and similar unarmed strikes, with all the force being applied through these smaller areas rather than the entire fist.

Hardpoints

The Type 41 Advanced Reconnaissance and Scouting Armor can make use of most, if not all, Mindy Accessories, Daisy Accessories/Daisy II Accessories as well as everything from the Type 41 Advanced Reconnaissance and Scouting Armor Accessories list.

Left Shoulder:	for shoulder-mounted weapons and equipment from included lists
Right Shoulder:	for shoulder-mounted weapons and equipment from included lists
Left Forearm:	for wrist-mounted weaponry and equipment that clamps onto the sides
Right Forearm:	for wrist-mounted weaponry and equipment that clamps onto the sides
Dorsal:	for the suit's wingpack or dorsal mounted equipment from the included lists
Abdomen:	a 3 tall x 6 wide area of webbing that uses a hardier version of the Type 40 plate bearing vest's webbing system for pouches and such
Lower Back:	a 3 tall x 6 wide area of webbing that uses a hardier version of the Type 40 plate bearing vest's webbing system for pouches and such[20]
Left Hip:	for hand weapons to be stowed
Right Hip:	for hand weapons to be stowed
Left Thigh Cavity:	for smaller objects and additional ammunition
Right Thigh Cavity:	for smaller objects and additional ammunition
Left Thigh:	for thigh-mounted weapons and equipment from included lists
Right Thigh:	for thigh-mounted weapons and equipment from included lists

OOC Notes

SirSkully created this article on 2019/05/29 12:30.

Approved here by Charmaylarg

1)
twice a year
2)
for the most part
3)
43.5 miles per hour

4)

74.6 miles per hour

5)

inertial flight

6)

2685.4 miles per hour

7) , 8)

Turbo Aether Plasma Thrusters

9)

without wingpack

10)

with wingpack

11)

the intended user's naked weight

12)

once depleted the shield begins to regenerate over time

13)

this includes wings, tails etc

14)

Minkans, Nekovalkyrja, Humans, etc

15)

ready to launch/drone at the front of the group

16)

based off the Ke-M2-G3801 Aetheric Generator

17)

in part or in full

18)

Light Anti-Armor

19)

each wrist can hold up to three at a time, but only one may fire from each wrist at a time, with the rest sitting in storage

20)

compatible with the Star Army Butt Pack, Type 29