Ke-S3-W4000 Aether Shock Array

The Ke-S3-W4000 is an aether shock array designed in YE 40 to be the main gun for the Plumeria-class (2E) Medium Gunship by Kage Yaichiro to replace the decade-old Ke-S3-W3020 Main Weapon Array. It was also inspired by the Ke-S3-W3900 Main Weapon Array for the Fuji-class Expeditionary Gunship and employs advances in technology pioneered in it.

Plumeria 2E Gunship with Ke-S3-W4000 Aether Shock Array

An Aether Shock Array functions by emitting a powerful scalar interference pulse that creates a small rend in the fabric of space-time. When this occurs, all energy potentials in the target area are released into normal space simultaneously, causing horrific amounts of destruction. Arrays are typically designed for anti-starship or anti-fleet use and are restricted to the military. They are not to be salvaged and used by civilians.

This version of the weapon has the same specifications as the earlier Ke-S3-W3020 Main Weapon Array, but is designed with a couple of new modes. A mode that is pure plasma with the radiation and anti-plasma filtered out is intended for atmospheric use, while a new wider spread mode is designed to be able to strike at more targets at once with the same power and volume in its strike. It also trades some of its excessive range for a faster firing rate.

Firing Mode	Purpose	Rate of Fire	Area of Effect	Maximum Range[1]	Maximum Diameter
Filtered Pulse	Tier 9, Heavy Anti-Mecha	60 pulses/minute	Single Target	149,000,000 kilometers	35 meters
Rapid Pulse	Tier 10, Light Anti-Starship	60 pulses/minute	Single Target	149,000,000 kilometers	35 meters
Beam	Tier 13, Light Anti-Capital Ship	5 beams/minute	Single Target	149,000,000 kilometers	35 meters
Spread	Tier 12, Heavy Anti-Starship	2 spreads/minute	30° Cone	10,000,000 kilometers	5,358,984 kilometers
Wide Spread	Tier 12, Heavy Anti-Starship	2 spreads/minute	60° Cone	6,000,000 kilometers	6,928,203 kilometers

[1]Though the weapon can fire and hit a stationary target a maximum of 149,000,000 kilometers (92,000,000 miles/1 AU) away, it should be noted that the weapon's discharge would take 8 minutes and

20 seconds to travel this distance. Faster-than-light sensors on enemy ships could easily allow an enemy to dodge in this span. Due to this, it is standard practice to consider 899,376 kilometers (~0.006 AU / 3 light-seconds) to be the functional range for this weapon in Rapid Pulse or Beam Modes. When firing a Spread or Wide Spread, however, the diameter of the shot widens with distance. This leaves an enemy less likely to be able to evade at the cost of reduced damage.

The array consists of a center firing node, a large upper assembly (which resembles a dagger blade), and a smaller lower assembly. The beam can be steered up to 75 degrees right or left, and up to 45 degrees down, but cannot fire higher than straight-forward due to the weapon's arrangement. Systems that make up this weapon were built in a modular fashion so that the sections composing the ship's main gun could be easily switched with other modules at a later time, if desired. Exchanging the main gun's systems in this fashion requires about 6 hours.

OOC Notes

Finding the diameter of the spread was achieved by solving for the diameter of a cone with the formula (tan(half of angle A in degrees) * range) * 2.

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