Variable Configuration Mission Adaptive Drone - Space

The Ke-O5-1a Variable Configuration Mission Adaptive Drone is a multifunction drone that became available in YE 31.

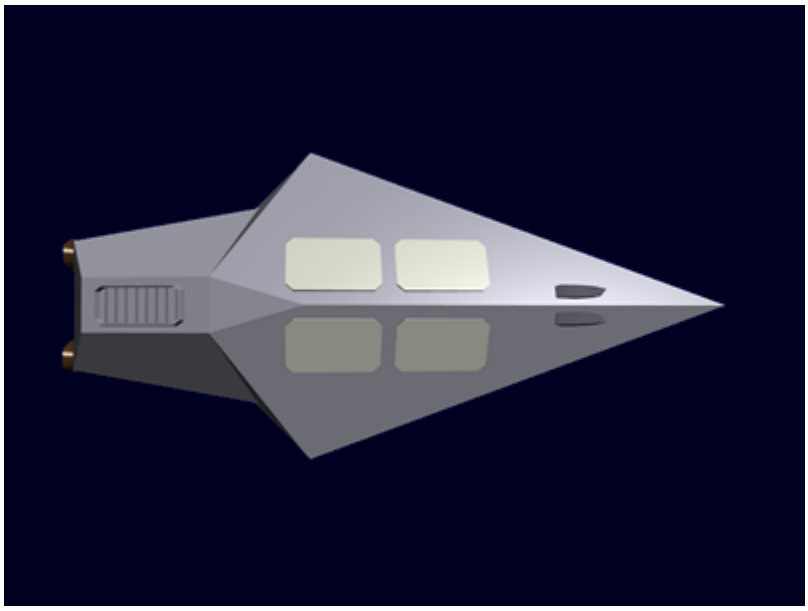
About the VCMAD-S

Organization Using This item: Star Army of Yamatai, *Scientific Studies Service (SSS)* Type: Multipurpose space drone Nomenclature: Ke-O5-1a Designers: Ketsurui Zaibatsu Research and Development teams, Star Army Research Administration Manufacturers: Ketsurui Zaibatsu, Star Army of Yamatai Entered service: YE 31

Description

The VCMAD-S is the latest offering by Ketsurui Zaibatsu for use by the Star Army of Yamatai. Original development for the systems was tactical in nature, but with the recent changes in the Star Army of Yamatai the role of the device was expanded for exploration and possible civil use.

Top View



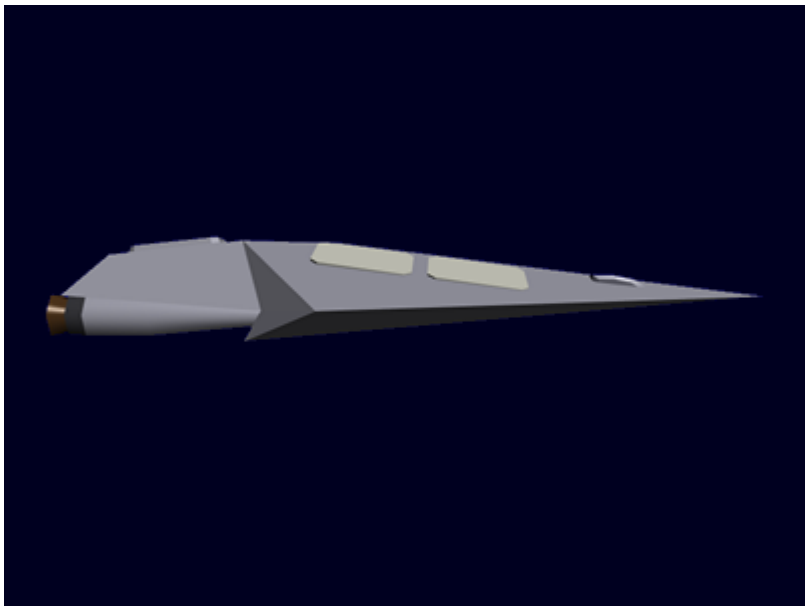
Operation

The VCMAD can be deployed autonomously. It will perform the specified mission object by the best means possible. It is has standard evasion tactics as part of its programming. The VCMAD can also be controlled via Telepresence using either Armor Integrated Electronics System (AIES) or the Ke-M2-E3000 Leader Support Pack, or spine interface on a ship.

In the event of catastrophic damage or failure, the VCMAD will self-destruct.

The VCMAD-S drone uses various mission modules to change its purpose.

Side View



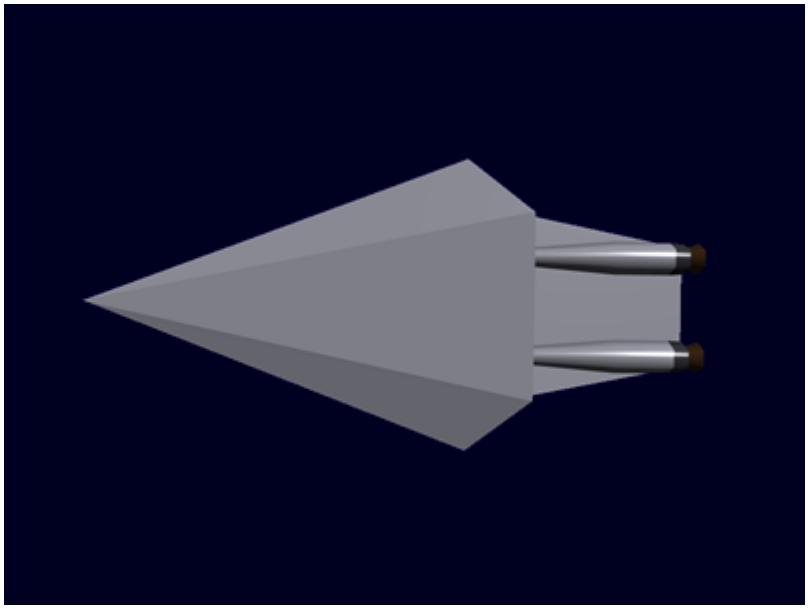
Specifications

Lenght: 4 meters Height: .5 meter Width: 2 meters

Speeds

Speed (FTL): 1,250c Speed (Sublight): 119,978 km/sec (33,310 miles/sec) 0.40c

Bottom view



Launch and Recovery

The VCMAD-S is intended for operation in space. The VCMAD-S can be launched from a starship's shuttle bay, power armor bay or cargo bay.

Preparation for launch

The VCMAD-S must be prepared for launch by installing the desired mission modules for the desired task.

Launch

The VCMAD-S launches like a minature shuttle, it uses the Ke-O5-P3101 for launch. It will then choose the most efficent mode of travel to achieve its objective.

Recovery

The VCMAD-S landes like a shuttle, it switches to the Ke-O5-P3101 for landing.

Note: It can be launched from the surface of a planet, reentry is possible but not recommended.

Damage Capacity

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

- Hull: 2 PA scale

- Shields: 2 PA scale

Components

- Durandium Alloy unibody hull construction.

Note: All components in the drone are equipped with anti-tamper devices. Only Ketsurui Zaibatsu trained technicians may service them.

Ke-O5-E3100 Avionics

Based on the Ke-M2-E2701 Armor Integrated Electronics System (AIES) it provides the following sensors and communications see the Armor Integrated Electronics System (AIES) for specific capabilities:

Communications

- Radio
- Laser
- Subspace

Sensors

- Wide-Band Variable Optical Imaging Array
- Time-Modulated Ultra-Wide Band Radar

Ke-O5-P3100 Combined Field System

Identical in function as the Ke-M2-P2701, however due to the size of the VCMAD-S, overall performance is considerably less.

Ke-O5-P3101 Gravimetric Backup Engine and Thrusters

Using the same components as the Ke-M2-P2702, this is the VCMAD-S propulsion method for in-system travel.

Ke-O5-G3100 Aetheric Generator and Capacitor System

A redesign of the Ke-M2-G2701 provides all the power requirements of the VCMAD-S and for the various mission modules installed.

Mission bays (4)

The mission bays provide, power and control connections to the Ke-O5-E3100 Avionics for the mission modules, have removable panels to accomdate module features such as cameras, attennae, etc.

Mission Modules

Ke-O5-E3101-ed Electronic Detection (Whisper)

Purpose: Detection and identification of electronic equipment. It is a more robust version of the Ke-O4-E3000-ed Electronic Detection (Whisper)

The Ke-O5-E3101-ed (Whisper) module can detect emissions up to 1 AU away, identification at .5AU.

Note: Prior to launch the Whisper module must be calibrated to the VCMAD-S so that the emissions of the drone are ignored.

Ke-O5-E3101-ap Astrometrics package (Seeker)

Purpose: Surveying spacial objects. It contains gravimetric, mass spectrometers, infrared, and xray imaging.

Ke-O5-E3101-ej Electronic jamming (Jammer)

Restricted to: Star Army of Yamatai use only.

Purpose: Denial of enemy communications. It is capable of jamming of hyperspace signals within .5 light years. Capable of jamming radio with either broadband white noise or selective frequency blocking

Ke-O5-E3101-sg Sample gatherer (Scoop)

Purpose: This module is intended to gather samples for analysis. It has two scoops that deploy to capture samples. It contains twelve storage cells where the samples are stored until the VCMAD returns.

Ke-O5-E3101-sp Surveyor Package (Prospector)

Purpose: This module is designed to locate and identify mineral deposits. It uses gravimetric, deep scan radar and mass spectrometer scans.

Ke-O5-E3101-wp Weapons Package

Restricted to: Star Army of Yamatai use only.

Purpose: Defense and Strike capability. This is a basically a Ke-M2-W2908 Offensive Augmentation Pod packaged to fit in the VCMAD-S. Performance is the same as the Ke-M2-W2908.

Ke-O5-E3101-rv Remote vehicle (Rover)

Purpose: Visual recon in areas the VCMAD-S can not enter. Rover is a small ROVcontrolled by the VCMAD and is deployed for visually investigating areas where the VCMAD-S can not enter. Example: Rover can be sent into a damaged vessel via a hole in the hull. Rover is not autonomous; it is controlled by the VCMAD-S at all times. The Rover uses a series of micro maneuvering thrusters to move.

It has video cameras for each of the following:

- Normal light, has a lamp for when ambient light is low.
- Infrared, this is passive thermal imaging.
- Ultraviolet, has a lamp for when natural UV light is unavailable.

The Rover can operate for 45 minutes on a charge and can be recharged when it returns to the VCMAD-S.

Ke-O5-E3200-mm Multiple Manipulators (Octopus)

Purpose: The Octopus is installed in pairs in the forward section of the VCMAD-S. Each module provides a pair of extending robotic limbs. One heavy duty arm, and one fine manipulation arm. The Octopus is often used to deal with unexploded ordinance, or other debris. For that role, the VCMAD-S is usually has a Ke-05-E3101-rv (Rover) to provide in close observation. Without the Rover the VCMAD-S with this module becomes ideally suited for salvage and recovery work. Each of the limbs when fully extended is 3 meters in length, and the wrists are capable of 360 degree rotation.