

Standard Star Army Engineering Bay

Overview

If the Bridge is considered the brains of a military ship, the Engineering Bay is its heart. Several of the most important systems and hardware resides in the bay, and it offers the prominent access point to the inner workings of a ship.

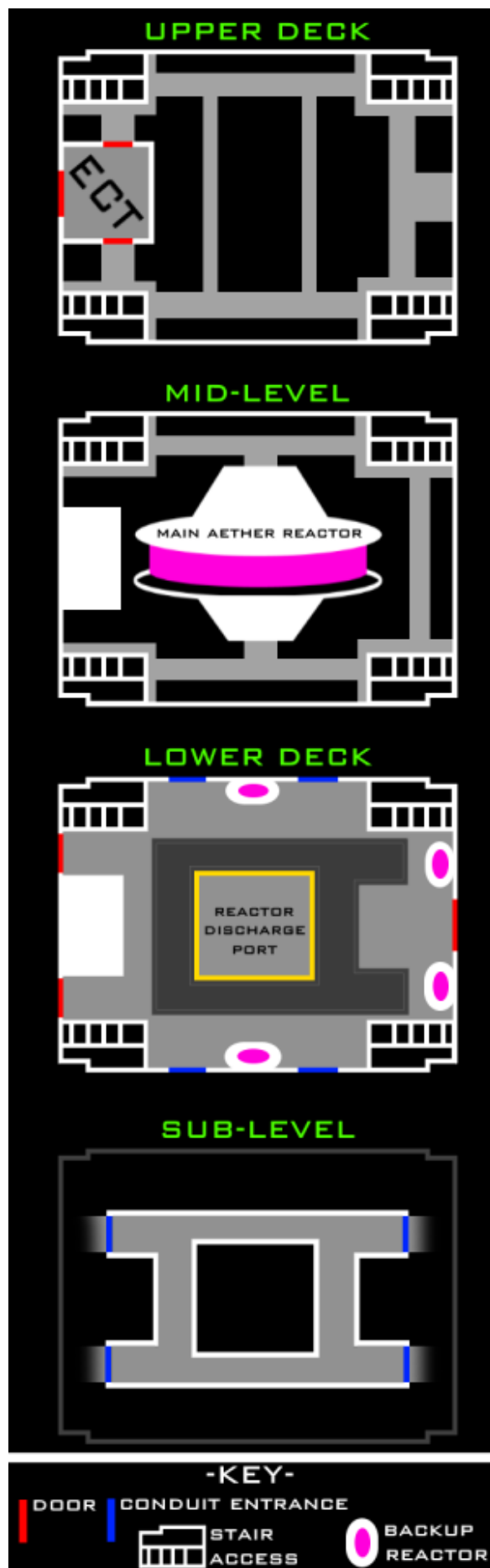
Engineering is two decks tall and crowded with loud, tightly-packed machinery and systems. A series of catwalk runs around the room on the upper level in place of a floor. The central aether power generator here is the most prominent feature, set into the center of the room. The hyperspace unit, near the doorway to the main passageway, is another one of the larger systems found inside. There are a number of [maintenance conduits](#) that can be entered from engineering.

General Layout

It is important to note that not all Yamataian vessels have the same exact bay layout. The exact size of the bay, number of reactors, and placement of machinery depends on the class of the vessel, and to a lesser extent, crew needs. However, standard requirements and safety precautions are followed for each model. The push for more standardization and security has been around since earlier than [YE 32](#), and has recently been integrated into newer ship models.

For this example, we will be looking at an Engineering Bay like one that would be found in a modern

Plumeria-Class Medium Gunship.



Upper Deck

The upper deck of the Engineering Bay consists of a group of catwalks that run across about twelve feet below the ceiling of the bay. The Engineering Control Tower can be accessed by doors on either side of the catwalks that run beside it. Staircases can be accessed at each corner of the catwalk arrangement, and the catwalks themselves are roughly four feet wide at max. The handrails on the catwalks are very sturdy, and have several extra bars to attach equipment and harnesses to. Several extendable ladders can be used to provide access to lower catwalks.

Mid-Level

The “mid-level” is a term coined to describe the area between the lower deck of the bay and the catwalks of the upper level. The most prominent feature of this area would be the main aether reactor, a massive disk-shaped structure that provides power to the entire ship. Pipes and structural beams run in and out around the reactor, and large clamps keep it firmly in place. The exact shape and size of the reactor can vary between models. Catwalks run around the sides and pipes of the reactor, with small ladders that can be extended to the floor below. Staircases are accessible at this level.

Lower Deck

The lower deck of the Engineering Bay is mostly solid flooring, a mix between full metal plates and industrial grating. Below these plates lies the Sub-Level, which is accessed through various floor hatches. At each corner of the solid floor-space are large structural arches that hold the massive aether reactor in place, along with pipes for coolant and other fluids.

To either side of the lower deck are a few larger entrances which may be used to access maintenance conduits, and are especially important on models such as the [Plumeria-Class Gunship](#), which have distant engines mainly accessed through these ports. The outside edges of the floor-space are covered with various machines and stations, which leave only a moderate amount of deck space uncovered. The most important of these machines are the small, tubular backup generators, which can be found in pairs on the sides.

Rectangular metal staircases are found at all four corners of the bay floor, and extendable ladders can be lowered from the above catwalks at certain locations for reactor access and repair. [Damage Control Stations](#) can be found on this floor, by the base of the Engineering Control Tower. This floor often connects to the Fabrication Bay.

Sub-Level

The Sub-Level is a pseudo-deck that resides under the Lower Deck. It can be accessed through multiple hatches, and is visible through grate flooring on the Lower Deck. A tightly packed layer, this level exists purely to allow access to multiple maintenance conduits, with small pairs of “airlocks” to either side of the floor (front and back). The floor-space is small and rectangular, with the center of the rectangle being

taken up mostly by small machinery and the Reactor Discharge Port. Unlike other maintenance conduits, this area is heated and has artificial gravity (as with the rest of the bay).

Standard Systems

The following are core integral systems and features found in most of all Star Army Engineering Bays by default.

Engineering Control Tower

The Engineering Control Tower (ECT) is a large “perch” that oversees the entirety of the Engineering Bay. Located in the Upper Deck, the tower consists of a central control room and a base that extends all the way to the floor of the Lower Deck. It can be accessed by two secured doors to either side of the room, which leads to the upper catwalks and stairwells, or by the central door at the back of the control room. The central door faces one of the main hallways of the ship, and is one of the three main entrances to the bay.

Inside the ECT lies the main control panel, which allows users to view, adjust, and track any settings and occurrences within the bay. It allows for the control of many machines, and serves as the main control panel for manipulating the main aether reactor. It also allows the user to launch emergency protocols in coordination with the bridge, or **MEGAMI** if no bridge officers are present. Also inside the ECT is a small Damage Control Station, and crew lockers. In the event of a lockdown (such as when the ship is boarded by hostiles), the main entrance to the ECT is sealed behind blast shutters to prevent mass loss.

Aether Reactor

The aether reactor is the heart of the ship, providing power to the entire vessel. As with all aether-based power sources, the reactor(s) must be treated with a great deal of care and attention to prevent any accidents or damage to itself or the ship. The reactor can be controlled via the main control panel located in the ECT, and smaller panels located throughout the bay.

Most modern reactors come equipped with a safety core feature. This allows for a volatile reaction within the reactor to be sealed in smaller core internally, and discharged through the Reactor Discharge Port at the bottom of the bay. For more information, see “Reactor Discharge” under the emergencies section.

Backup Reactors

In the event the main aether reactor is compromised, too damaged to be used safely, or discharged, smaller backup reactors located on the lower deck of the bay may be activated to compensate for the loss of power. When all are running at full power, their power output should closely match that of normal operating circumstances. Due to the complex nature of aether and the risk of losing power however, these are most often run at half power. They can be controlled either at the ECT or by use of individual

control panels by their bases.

Control Panels

Along with the control panel located in the Engineering Control Tower, several small control panels are scattered around the Engineering Bay. These require a valid biometric scan to activate, and allow for control of certain aspects of the reactor and nearby machines. All reactor-based commands sent from bay control panels require MEGAMI validation, unless MEGAMI has been compromised.

Other Systems

- Hyperspace Unit
- Standard Maintenance Conduits
- Engine Maintenance Conduits
- Damage Control Stations
- Water Recycling and Heating

General Operating Procedures

- While technicians are not required to be present in the bay at all times, all systems should be monitored by MEGAMI.
- Only cleared personnel should be allowed in the Engineering Bay. Technicians may bring guests in with supervision, but any mistakes made by said guests are the technicians responsibility.
- When a problem arises, technicians are expected to arrive in a timely manner to asses and solve the problem.
- Unapproved tampering or sabotage to bay machinery is considered a high-class offense.

General Safety Precautions

During all operating hours, many safety precautions should be followed to prevent any accidents in the Engineering Bay.

- No alcohol, tobacco, or other distracting or degenerating items should be present in the Engineering Bay.
- If the user is under the influence of any of the above items, they are not permitted to perform their duties.
- No sexual activity in the Engineering Bay.
- The main aether reactor comes equipped with a standard safety cap for energy output. Do not exceed the safety cap.
- Do not store flammable materials (including clothing) near the aether reactor.

Security and Clearance

By default, only [Technicians](#) and [Command Officers](#) are allowed in the Engineering bay. Exact clearance protocols can be changed by the ship captain, and the ECT entrance can be set to only accept certain individuals. All entrances except for certain conduit lines are secured with blast shutters which close down in the event of a lockdown. The exterior entrances (and the conduit entrances in the Lower Deck / Sub-level are secured with cameras and biometric scanners which are capable of detecting a live, authorized user from a dead or unauthorized user.

While their use is under the consent of the Captain, automated defense drones can be deployed by MEGAMI to secure the Bay in event of a hostile takeover. In addition, four ceiling mounted turrets and two hidden wall turrets can be deployed.

Emergencies

In the event of an emergency, several alarm switches are located around the bay, marked by bright red boxes. These switches have two modes: alarm, and fire. Fire mode activated automated [fire suppression devices](#) mounted in the ceiling, whereas alarm simply sounds a ship-wide alarm. In the event of a fire, [Fire Extinguisher](#) s can be found mounted on the walls beside most of these panels, and inside the ECT. Alarms should be sounded for intrusions or dangerous mechanical failure.

Lockdown can be initiated in three ways. MEGAMI can activate it due to an external breach, a technician can activate it during an alarm from a control panel, or it can be issued from the Captain. During lockdown, all entrances to the Engineering Bay are sealed with ship-default blast shutters, and internal defenses are armed. These defenses can include drones and turrets. A ship-wide alarm will be announced, if one has not already been issued. While all soldiers should be armed with a [NSP](#) by nature, small weapons may be stowed in lockers within the bay if it complies with ship and command rules.

Reactor Discharge

AKA The Final Option

In the event that the aether reactor has been compromised, and no means of suppression is capable of stopping catastrophe (the worst case scenario), a Reactor Discharge is the last option. In a Reactor Discharge, the core of the aether reactor is sealed and forcefully ejected through the bottom of the ship by the Reactor Discharge Port located under the reactor itself. Such a measure may be only executed in conjunction between the Captain or First Officer of the ship and a certified technician within the Engineering Control Tower. In the event that a reactor discharge must take place, it is recommended that all personnel evacuate the bay to avoid potentially lethal factors during discharge.

Reactor discharges can be a risky maneuver for many reasons. Firstly, it can and most often will result in permanent damage to the ships lower decks. Secondly, it will leave the ship without any power until backup generators can be activated. Finally, the costs and losses of ejecting the reactor core from the ship are substantial. It should only be done if the reactor is borderline volatile, where losing the ship is

not an option worth taking. Once the reactor has been dumped, the bay will be resealed through the Reactor Discharge Port at the bottom of the bay. The ship should take care to move away from the core as fast as possible, as it is still considered a volatile aether bomb which can cause heavy damage to the ship if detonated.

OOC Notes

[Pancakei](#) created this updated article on 2017/10/16.

[Wes](#) and [Ametheliana](#) approved the update on 2017/10/18.

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