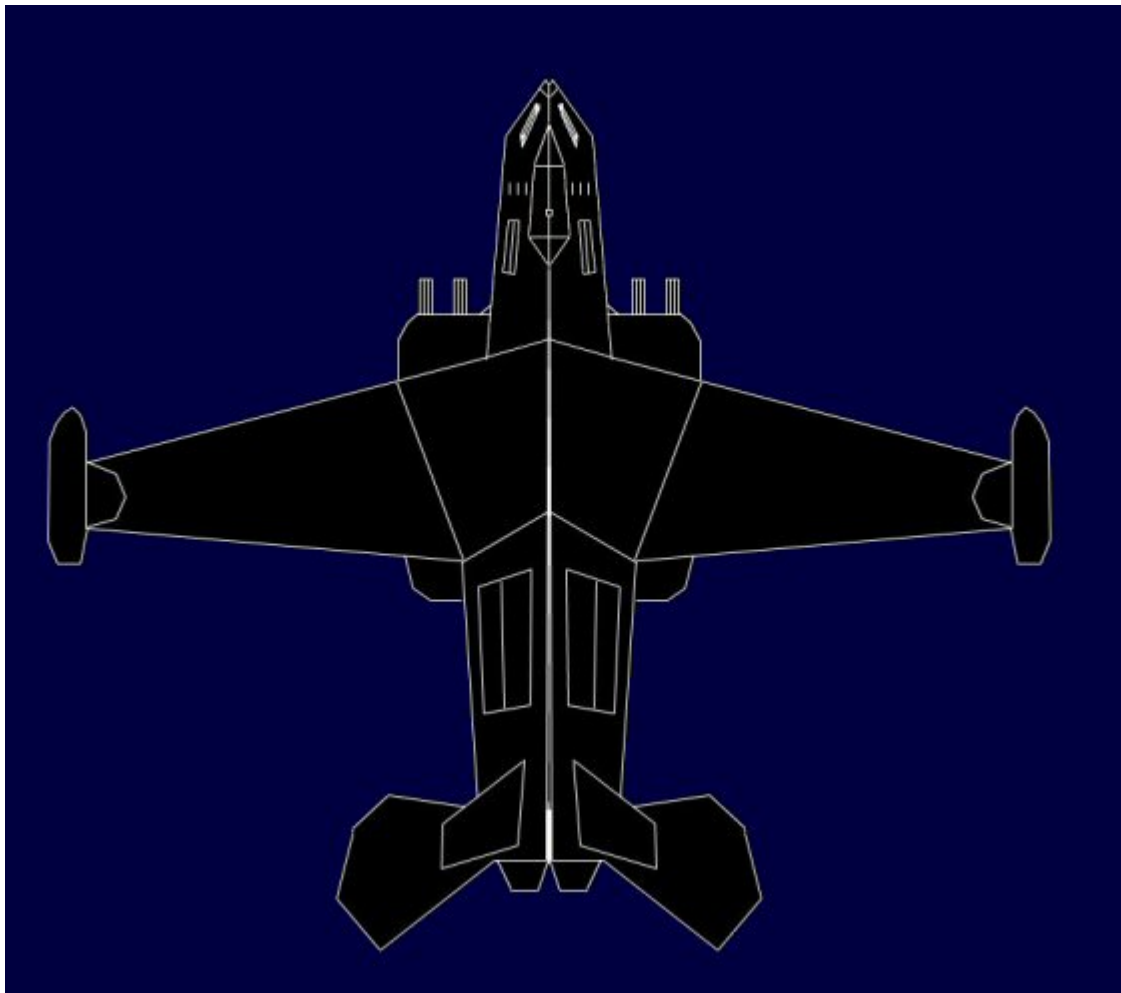


# Hawk Fighter Bomber

The "Hawk" fighter bomber was developed as an attack craft intended to be fielded from planets, space stations, and carrier ships. This vessel would be used to carry out swarming assaults on enemy starships, and conduct hit and run bombing raids against enemy planetary installations.

## Appearance



## History and Background

Both before and after the Lorath evacuation from Lor, the Lorath had a fighter/bomber concept in development meant to replace their outdated 'Star Seeker' ships which had been converted to attack corvettes. After the evacuation, the Lorath decided to enter a joint venture R&D with the [Fifth Expeditionary Fleet](#) to develop a fighter/bomber to be used by both the 5th and the [Lorath Self Defense Force](#). The product which came from this coupling was the Hawk Fighter Bomber.

## Dimensions and Crew Complement

Organizations Using This Vessel: Lorath Self Defense Force, 5th Expeditionary Fleet Type: Fighter Bomber Class: LSDF-FB-AS-001. <sup>1)</sup> Designer: Lorath New'Tur'lista Manufacturer: Lorath Self Defense Force, United Manufacturing Cooperative. Production: Mass Production.

Crew: 1.5 Maximum Capacity: 2.

Length: 20.6 Meters. Width: With wings fully extended, 25 Meters. Height: 4 Meters Decks: .5 Mass: 64,000 pounds (29,029 kilograms).

## Performance Statistics

Speed (STL): .370c Speed (FTL) (Lorath Made Drive System): 1250c Speed (Aerial): Mach 5

Range (Distance): 15 LY. Range (Support): One week life support conscious, two years in stasis. Lifespan: 8 year estimated lifespan with minimal upkeep, 30 year life span if properly maintained. Refit Cycle: Whenever new equipment is available.

## Internal Features

### Cockpit

The cockpit of the Hawk houses the pilot and controls for the Hawk. The cockpit has a single (synthetic) leather seat; with a fold out seat behind it for a single passenger (The passenger would have VERY little legroom.). Placed directly in front of the pilot is a single control stick which allows for the pilot to assume manual control of the Hawk, along with the stick, are a pair of pedals which handle other fine course adjustments. Also attached to the control stick, are the manual firing controls for the Hawk's weapons systems. The manual controls of the Hawk also include throttle, targeting control, electronic system overrides, sensors, communications, course input, and environmental control.

Embedded in the synthetic leather seat is a standard SPINE connection, and placed at several locations on the seat are neural interfaces which allow for the Hawk to actively interface with the pilot's nervous system through use of the conventional Lorath Neural OS.

Utilizing a cockpit feature originally found in the Winter Power Armor, the Hawk's cockpit utilizes a gel system to encase the pilot in an impact absorbing layer of gel, and to provide oxygen. Displays for the pilot are provided through an OLED coated panel placed in front of the pilot, and a volumetric projection system which provides a full 360 degree field of view, without obstructions.

# Ship Systems

## Structural Meshing System

### Structural Layering System

The Hawk utilizes a complex nanotube and crystalline weave which comprises the outer protective hull of the fighter bomber. Reverse engineered technology from the Sourcian Denial Wave system permits the mesh to make millions of micro-adjustments to all the various fundamental fields through a self-adjusting feedback algorithm under constant modification by onboard AI to provide the best protection both in the structure of the mesh itself, the behavior of the mesh and the modification of quantum harmonic oscillators to generate necessary defenses.

The end result is a light-weight and durable and flexible outer-skin without the need for the excess bulk of a shield generator. This flexible outer skin remains operational provided the mesh's ample power demands are met.

## Integrated Cockpit Systems

Placed in front of the seat of the cockpit is the manual control interface, and OLED display. The manual control interface includes a single control stick which allows for the pilot to assume manual control of the Hawk, along with the stick, are a pair of pedals which handle other fine course adjustments. Also attached to the control stick, are the manual firing controls for the Hawk's weapons systems. The manual controls of the Hawk also include throttle, targeting control, electronic system overrides, sensors, communications, course input, bay door opening and closing, fuel tank ejection, wing configuration, ejection, and environmental control. A second option for manual control includes a "two stick" configuration, which allows for the pilot to control yaw and pitch separately. The manual controls of the Hawk can also be reconfigured to a pilot's personal preferences.

The cockpit system also includes a pilot monitoring sensor package, and automated first aid system. This system is designed to monitor the pilot's physical state, and deliver chemical medical aid as needed through the use of a self administering IV system, and hemosynthetic material venting system which adds hemosynthetic material to the gel which fills the cockpit.

The cockpit can be accessed through a double-locked hatch which requires both a neural verification, and access code input before access is granted and the magnetic and mechanical locks are disengaged, allowing for the hatch to be opened.

## Cockpit Environmental System

Also included in the cockpit are various systems designed for pilot comfort, first and foremost being the environmental system. Atmosphere in the Hawk's cockpit is maintained through the use of oxygen and nitrogen emitting bacteria which are housed inside of a canister attached to the pilot's seat. The oxygen and nitrogen provided by the environmental system is infused into a gel substance which provides the

pilot with oxygen, padding, and greater atmospheric pressure control.

Housed in the seat of the cockpit is a waste extraction system, this system obviously must be configured depending on the pilot's gender, the default configuration is for a female pilot, but can easily be changed to suit a male pilot. The waste extraction system can also be attached to the pilot's flight suit, if they prefer to wear an atmospheric suit, which would include a waste management system. The waste extraction system does not simply waste the organic matter, the organic matter is instead fed to the oxygen producing bacteria canister, and the electricity producing bacteria canisters of the vessel.

A system is also included in the cockpit to provide nutritional supplements to the pilot, the nutritional supplement solution is delivered to the pilot either through the use of an intervenes tube. The IV solution also includes an appetite suppressing drug which causes the pilot to have the illusion of being full.

Additional emergency systems include a hemosynthetic material cannister, an automated hemosynthetic material infusion device which adds hemosynthetic material to the atmospheric gel, and as a Lorath standard, the cockpit pod also includes a cryogenic freeze system, in case of emergency which requires the pilot to enter stasis.

## Combat Neural Interface System

The primary method for control of the Hawk in combat situations and situations involving rapid responses and maneuvers is the neural interface system which has been put into use on modern day Lorath space vessels. The Hawk's neural interface system has been modified to include additional features.

One of the new features of the Hawk's neural interface system includes a "psychosomatic sympathetic response system" (PSRS), the PSRS system allows for a pilot to "feel" the condition of their vessel. Some examples of what this system allows is for a pilot to have a simulated physical response when struck in combat, or to have the pilot feel when the vehicle is being pushed to it's limits by feeling an artificial sensation of muscle strain.

Another innovation to the neural interface in the Hawk includes an "Emotional Feedback System" the EFS system allows for the vessel to warn the pilot of changes in flight conditions through a simulated emotional response and a simulated HUD projection in the user's "mind's eye" which would indicate what the emotional response is in reference to. An example of feedback would be if the pilot is suffering from "Target Fixation" during a strafing run and is risking collision with the target, the system will induce a feeling of controlled fear, and bring up a HUD indicating the distance from target. Prior to the use of the Hawk's EFS system, a pilot must configure the EFS' warning boundaries. (In other words, how long until the EFS starts nagging the pilot to notice something.)

For Joint Forces missions a [SPINE](#) connection package, and to be able to operate in cooperation with [PANTHEON](#) network linked systems.

The Hawk utilizes technology based off of the [Neural Interface System](#) to facilitate interaction with the pilot's brain when a [SPINE](#) is not compatible.

## G-Force Control System

The G-Force Control System is a series of gravity control devices which creates a stable gravitational field around the pilot of the Hawk. This field is kept at 1G at all times, and prevents excessive G-forces from forcing a pilot to black out. Unfortunately, due to the small size of these units, their maximum compensation is limited to 15G's, beyond this, G-Forces will be experienced by the pilot.

The G-Force Control System also serves as a scalar protection device for the pilot, additional G-Force Control System pods have been placed throughout the Hawk to protect vital systems from stress damage, and Scalar attacks.

## Ejection System

The entire cockpit of the Hawk is designed to be ejected from the vessel; the cockpit module includes a small gravity manipulation device which would allow for the pod to be directed towards safety, but would not deliver enough thrust to get the pilot from one planet to another. The pilot pod is also able to endure atmospheric re-entry to allow for a safe planetary landing. Use of the pod for landing is handled through an automated system included inside of the pod and is independent of the Hawk's main computer. The gravity manipulation device also doubles as a scalar damage prevention measure.

## Computing Suite

The Hawk utilizes a Non-Synthetic-Intelligence version of the [ARIA Ship Control System](#). The Non-SI version is a mass production variant of the ARIA which lacks artificial sentient thought.

In limited numbers of the Hawk, mostly assigned to commanders and high ranking VIPs, the Non-SI ARIA is replaced with a sentient ARIA system which consists of an ARIA unit enclosed within a small box attached to the pilot module. The ARIA unit in this application is kept in a tight 'fetal position' ball as she remains interfaced with the Hawk and provides crucial data processing, and decision making assistance.

## Joint Forces Upgrade

The [Fifth Expeditionary Fleet](#) has provided the Hawk with compatibility protocols for limited connection with their [PANTHEON](#) systems to allow for battlefield coordination on joint missions.

## Communications System

The Hawk includes [hyperspace, subspace, radio, laser, subspace laser, quantum, psionic transmission, wired, and touch-contact communications capabilities](#). Along with the signal transmission capabilities, the Hawk also includes a speaker and microphone system which allows for vocal communications. The Hawk's communications systems are also compatible with the [PANTHEON](#) network and is fully compatible with the Lorath Matriarchy's network.

## Sensor Package

Included in the Hawk are several [sensor packages](#) which are designed to provide the optimal range of sensor perception possible while maintaining a small size profile.

## Power Generation

The Hawk utilizes [antimatter reactor](#), [bacterial power pack](#), and [an energy/matter converter system](#).

## New Addition

The fusion reactor which provided power previously aboard the Hawk has been replaced with recently developed [QNC](#) power cell technology. This new technology provides roughly equivalent power, while also conserving space and reducing the risk of damage to the power systems aboard the fighter.

## Propulsion

The Hawk utilizes [fusion drives](#), [Lorath Subspace Wave Drive](#), and [a low power gravitic/gravity drive](#).

## Hawk Fusion Drive Engine and Hydrogen Collector Details

The Hawk is equipped with a pair of small but powerful fusion engines which include a thrust vectoring system allowing for a wide range of maneuvers to be accomplished at high speeds. The Hawk's fusion drive engines are fueled by an on board storage of hydrogen fuel, this fuel is also replenished through a pair of hydrogen collectors located in the forward area of the Hawk's fuselage. Additional hydrogen can be supplied by the energy/matter conversion device.

## Hawk Gravity Drive Details

The Hawk also includes a low-power gravity manipulation device which is used to provide vertical lift, and to remove the effect of inertia in relation to it's maneuvering. The gravity drive on the Hawk is unfortunately not strong enough to propel it to speeds any faster than 10,000 KPH in zero atmosphere.

## Wings and Wingtip Pods

The Hawk's wings include a variable configuration system, thus allowing for an increased control capability during atmospheric flight. At the tips of the Hawk's wings are two interchangeable pivoting pylons, these pylons can serve a wide range of uses.

Pylon pods include; shield generator pods, weapon pods, fuel storage pods, thruster pods, gravity manipulation pods, sensor pods, cargo pods, and antimatter bomb pods.

Shield generator pods would allow for a low strength electromagnetic shield to be established around the Hawk. Weapons pods could include weapons ranging from antimatter mini-missiles, to white beam emitters. Fuel storage pods could store additional antimatter reserves, or hydrogen fuel reserves. Thruster pods would include small fusion engines which would allow for additional maneuverability or speed. Gravity manipulation pods would allow for increased maneuverability and repelling projectiles. Sensor pods would increase sensor capabilities, Cargo pods would serve as a storage compartment for small cargo (human size-ish.). Antimatter bomb pods would serve as an additional weapon.

## Shield System

Overall Damage Rating: Armor Shield Points: 20

The Hawk utilizes [Lorath shield system technology, including plasma, electromagnetic, and gravitational shielding](#). This allows for the Hawk to utilize the combined shield system.

## Psionic Signal Controller

Incorporated into the Hawk is either a [Lorath Psionic Scrambler](#), or a Yamatai made [Psionic Signal Controller](#). The device used varies depending on which organization constructs the fighter, yet both accomplish the same task; protecting the vessel and pilot from transmitted psionic interference.

## Landing Gears

Located beneath three sliding doors built into the hull, three retractable landing gears are built into the Hawk to allow for proper landings and taxi take-offs.

The Hawk's landing gear assembly includes electromagnetic shock absorbers, and stonethread fiber threaded synthetic rubber tires.

## Landing Hook

Built into the Hawk's underbelly and topside are a set of landing hooks designed to bring the Hawk to a stop during carrier landings when gravity drive systems are rendered inoperable.

## Weapons

## Centerline Combined Particle Cannon (1)

The Hawk utilizes a centerline mounted [Combined Particle Cannon Technology](#). This centerline cannon has been re-designed to include the [Compressed Packet Weapon System](#) technology. Location: Lower center-line. Primary Purpose: Anti-Starship Secondary Purpose: Anti-Shuttle Plasma Damage: Tier 9, Heavy Anti-Mecha Plasma Maximum Range: 20 Kilometers in atmosphere, 100 kilometers in vacuum. Plasma Rate of Fire: Up to a 10 Second stream every thirty seconds. Or sixty packets packets a minute. Antimatter Damage: Tier 10, Light Anti-Starship Antimatter Maximum Range: 150 Meters in atmosphere, 600,000 Kilometers in vacuum. Antimatter Rare of Fire: Thirty one second beams per minute. Or sixty packets a minute. Beam Diameter: .25 Meters

## Linear Gatling Cannon (4)

Located at four points near the cockpit enclosure, the linear Gatling cannon is an integrated version of the [FMS-1 Linear Rifle "Stalwart Special"](#). This weapon is a linear accelerator which is used to propel high velocity needle-like rounds at an intended target.

Location: Four door-hatches placed near the cockpit enclosure. Primary Purpose: Anti-Armor Secondary Purpose: Anti-Personnel Damage: Tier 3, Heavy Anti-Personnel Payload 2500 [Linear Accelerator 'Needle' for Stalwart Special](#). Payload Note: Standard payload of ammunition is delivered by externally mounted container, 400 rounds are held internally. Rate of Fire: 700 Rounds Per Minute Notes: Internally mounted variant of [FMS-1 Linear Rifle "Stalwart Special"](#)

## Multi-Role Ranged Gatling System - Large - Mark II (MRRGSL-MKII)(4)

[L-Mark-Two Ammunition List - 40mm](#) Number: 4 Location: Two located on each side of the fuselage located beneath the wings. Rounds Per Minute: 1200 Payload in Hawk Application: Up to 7000 Rounds per L-Mark-Two.

### Optional Load-out

[L-Mark-Two](#) units can be replaced with up to four [Combined Particle Cannon Technology](#). The option of mixing L-Mark-Two and Combined Particle Cannons in the fuselage load-out is possible. Combined Particle Cannon units would include [Compressed Packet Weapon System](#) technology.

## Lorath Missile Launcher Racks (4)

Located on the top and bottom of the tail end of the Hawk's fuselage protected by bay door system, these missile racks are retractable, thus allowing them to remain concealed until deployment. These racks can carry twenty missiles of mixed ordinance.

The Hawk's missile launcher racks are capable of carrying S and M sized missile ordinance.

### [Lorath Missiles and Torpedoes](#)

## **Lorath Missile/Bomb / AS-7 Delivery Rack (1)**

On the belly of the Hawk is a single set of attachment points which allows for the attachment of one missile or bomb system.

### **Lorath Munition Specifications**

The Hawk's belly mounts can be mount a single [XL sized missile system](#).

### **AS-7 Specifications**

The Hawk's belly mount can also allow for the mounting of a single [AS-7 Series Torpedo](#).

## **Wingtip Modules**

### **Wingtip Pod - Wingtip mounted missile**

The Hawk can be equipped with a detachable pylon pod; in this case, the pod is a missile attached to the wing pylon.

The wingtip missile is an [M sized Lorath missile munition](#).

### **Wingtip Pod - Wingtip Mounted Compressed Packet Rifle Enclosure**

The Hawk can be equipped with a detachable pylon pod; In this case, the pod is an enclosure which holds a [Compressed Packet Rifle](#) and generator system.

Up to two of these pods can be attached to the Hawk at one time.

## **Belly Mounted Countermeasure Launcher**

Located on the belly of the Hawk, this rectangular box shaped missile rack is intended to house mini-missiles designed like those found in the countermeasure pods aboard the Mindy power armor. The payloads listed is for the conventional standard load-out for typical Hawk sortie deployment. The belly mounted pod is capable of carrying forty mini-missiles. The design of most of the mini-missiles has been

intentionally copied to mimic those of the original Mindy mini-missiles to allow for easy restocking of ordinance. Lorath Missile Stats The Belly Mounted Countermeasure Launcher is capable of firing [Mi sized countermeasure munitions](#).

## Stats for UOC Hawk Usage

The countermeasure pods for the Hawk can fire the same missiles as the [Ke-M2-W2907 Countermeasure Augmentation Pods](#), along with an additional 'Dummy Image' projection missile.

Warhead: 'Dummy Image' Hologram, heat, and electromagnetic field Projection Missile. Purpose: Projection of a holographic image intended to distract visual targeting. Rate of Fire: Individually, or in volleys of 1, 2, 3, 4, 5, or 10 from each pod. Payload 10 Mini-Missiles

## Microwave Emitters

Located on the belly in the forward section, and topside near the pilot pod, the Hawk includes a pair of microwave emitters which are designed to project focused beams of microwaves. The beams projected from these emitters are designed to short-out electronic systems, cook organic matter, and cause electrical arcing in metallic objects. Due to the intensity of the microwaves projected, these beams also interfere with many EM tracking systems. Location: Belly forward, topside forward. Purpose: ECM, radar jamming, antipersonnel. Beam Arc: .25 Meters to 25 Meters. Range: 25 Kilometers for destructive results, 250 kilometers for EM interference. Rate of Fire: Continuous so long as power is supplied. Damage Rating: Tier 3, Heavy Anti-Personnel

## OOC Notes

Authored by [DocTomoe](#) and approved by Zack on April 11, 2010<sup>2)</sup>

<sup>1)</sup>  
Lorath Self Defense Force - Fighter Bomber – Air & Space – 001  
<sup>2)</sup>  
<https://stararmy.com/roleplay-forum/index.php?threads/update-hawk-fighter-bomber.5066/>

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