

Next Gen Fighter Program

After the discontinuation of the [Ke-V10 "Mamushi" Multirole Starfighter](#), the need for a multirole fighter had yet to be met. Around the same time, Rikugun personnel began discussing their over reliance on Fleet capabilities, and the need for an organic air support capability. The Next Generation Fighter Program was proposed in [YE 44](#) by Chui [Pierre Ruike](#) of the Rikugun Test and Evaluation Battalion to meet these combined needs in a package that would achieve the stated goals of the Mamushi and streamline Star Army logistics, maintenance, and training requirements. Chui Ruike's proposal involved either restarting production on the Mamushi, looking for outside solutions such as adopting the [Osman Heavy Industries VF-41 Sparrowhawk](#), or creating a new multirole fighter that could meet the needs laid out by both the Star Army and the Rikugun. If successful, the NGFP could become a model for future acquisition processes aimed at streamlining the gear requirements between Star Army and Rikugun.

The initial NGFP working group decided that three variants (two for the Star Army and one for the Rikugun) on the same airframe would allow each service to tailor fighters to fit their unique mission requirements.

Program Requirements

Both Star Army and Rikugun members of the working group put forward a shopping list of needs from a new star fighter. There were both shared needs and force specific needs. The more specific needs were to be used to tailor the NGFP variants to their customer.

NGFP Shared needs

- Stealth and survivability

- Large internal payload
- Radar dispersing coating and shape
- Low IR signature
- Low sensor profile
- Defensive countermeasures
- Both hard and soft kill
 - a directed energy hard kill system would fit the fighter's needs without interfering with payload or radar signature.
 - Alternately implementing a [Micro Laser](#)

- High Situational Awareness

- Powerful sensor suite
- [Compact Integrated Electronics System \(CIES\)](#)

- Updated software package
- Improved IFF capabilities
- As well as organic hunter-killer capability
- Sensor Fusion

- Network Centric Operations

- Ability to network sensors with other units to increase the situational awareness of both.
- Launch and Control Drones
 - Hardpoints can also be used to launch a variety of drones or mount other special utility gear
- Improved data processing and sharing for fighter and allied units.
- Between sensors and computing the fighter should be able to perform airborne early warning and control roles for airspace and ground units competently
 - C3 (Command, Control, Communications) capabilities
 - Interoperability

- Versatility

- Transatmospheric capabilities
- Compact
- VTOL/STOL
- Compete new gen craft like the [Na-F/A-6\(b\) "Sabre"](#) and [Ke-V8 Super Kawarime](#)
- Clean and easily interpreted HUD
- Life support systems

Fleet needs

- General need

- Fit on currently fighter capable Star Army ships without decreasing the size of their compliment.

- Multi role workhorse

- The bulk of the fleet. A true multi role that can fill a grocery list of positions
- Airspace Superiority
- Strike
- Reconnaissance
- Interception
- Escort
- Electronic Warfare/Airborne Early Warning and Control

- Advanced dogfighter

- Capable of handling high-g maneuvers without breaking apart or the pilot passing out.
- Large payload for heavier standoff missiles.

Rikugun needs

- “Warheads on foreheads”

- Able to take off and land from tight spaces and maneuver flying very low around hills and mountains or even buildings.
- Ultra sensitive anti gravity system
- Advanced terrain following radar
- Willing to sacrifice payload and operational radius to be basically an extremely fast and maneuverable bomb truck

NGFP Working Group Observations

- Some personnel question the need for two fleet variants
- Need for a stealthier engine

Next Generation Fighter Project History

- [44.7](#) Construction of the [NGFP XX-VX](#) testbed fighter authorized¹⁾
- NGFP Working Group expanded²⁾
- [Yugumo Corporation](#) entered the [Mōkin-Class Patrol Craft \(1B\)](#) into the trials³⁾
- [44.8](#) After unofficial overtures⁴⁾, the NGFP Working Group offered an official Request For Proposal to [Osman Heavy Industries](#).⁵⁾
- [Moju-Class Starfighter \(1B\)](#) was entered as a second Yugumo entry⁶⁾
- [44.9](#) OHI presented a planned update for the [VF-41 Sparrowhawk](#)⁷⁾

NGFP Derived Technologies

- [OH-V1-E4400 Unified Small Craft Sensor Package](#) small craft sensor array
- [Type 44 Star Army Electronic Warfare Suite](#) version of the [ELECTRA](#)
- [Sorakagami Aerospace Operations Suite](#)
- [OHI Missile Update Program](#)
- [Ge-z2 Series Gravity Bombs](#)⁸⁾

Rivals

Near peer fighters such as the [Na-F/A-6\(b\) "Sabre" Multirole Fighter/interceptor](#)

Appearance

Currently in the early stages, but potentially low profile design with swept wings

Statistical Information

Currently, most statistics aren't finalized and instead are projections/requirements

- Organization: Operated by the Star Army of Yamatai and the Rikugun
- Type: Multi-role fighter
- Class: NGFP-A, NGFP-B, NGFP-C/R (Going forward will note which systems are standard and which are different for one of the variants)
- Designer: NGFP Working Group
- Manufacturer: Not Designated
- Production: Not Designated
- Price: Currently unknown, however the working group predicts that the unit cost will come down as orders are fulfilled. Additionally sales of older model fighters to partners can help offset costs.
- Crew: 1 (NGFP-A), 2 (NGFP-B, NGFB-C/R)
- Maximum Capacity: 1 (NGFP-A), 2 (NGFP-B, NGFB-C/R)

Expected Dimensions

- Width: ~9m with wings extended. 6m while folded. (The NGFB-C/R doesn't have folded wings but the wings can be removed for transportation on cargo ships)
- Height: ~3m (From landing gear to top of tail)
- Length: ~14m (All versions have the same length, but the 1 seater boasts the largest payload)

Speeds

- Ground speed: Rikugun Variant expected to be able to use it's hover capabilities for limited ground mobility
- Air speed: (If air capable, such as a fighter)
- Range: (how far it can go with onboard fuel or power)
- Lifespan: With regular maintenance we're hoping for 30 years.

Damage Capacity Stats

See [Damage Rating \(Version 3\)](#) for an explanation of the damage system.

DRv3 Tier: (target type, i.e.: Medium Anti-Mecha)

- Hull: (Tier 8)
- Shields: (Tier 8)
- Additional defensive tools (physical shield, drones, etc)
 - Soft and hard kill active countermeasures.

Projected Onboard Systems Descriptions

Avionics

- [OH-V1-E4400 Unified Small Craft Sensor Package](#) Primary sensor package
- [Ke-O4-E3500 \(Tracker\)](#) Life form scanner (maybe use that for the Rikugun variant and maybe the multirole)
- [Ke-T8-E3102 Tactical Sensors Package](#) Tactical Sensors Package or [Ke-V9-E3301 Unified Tactical Sensor Array / FTL Ansible](#)
- [Compact Integrated Electronics System \(CIES\)](#)
 - The NGFP is capable of collecting a lot of data, far more than a single pilot can find useful at one time. The CIES processes the wide array of inputs and turns it into something even an unaugmented human can process. Following off of that, a pilot or wso can request very specific data to be displayed and a fighter ops officer can also choose to display info from the fighter to their screens even if the air crew aren't looking at it. CIES or air crew can determine which sensors the craft are using in order to maximize stealth, situational awareness, energy efficiency, or to scan for particular sorts of targets.
- Battlespace Integration Software package
 - Automatic sharing of data from various units (surface, air, space), drones, even missiles,
- Type 33 Star Army Communications Network Encryption System
- E-warfare suite (Larger on on the NGFP-B)
 - Designed off of the [Type 31 Electronic Warfare Suite](#) smaller and CIES compatible. Not quite as powerful. comparable systems [Na-M/V-E4100 Black Veil Electronic Warfare Suite](#)
- Jammers
- Ultra tight beam comms

NGFP-C/R specific

- Terrain-following radar
- Radar altimeter
- [Joint precision approach and landing system \(JPALS\)](#) tied to the Integrated CFS
- [Visual Synthetic Aperture Radar \(ViSAR\)](#)

==== Hull and frame ==== [Yamataium](#) hulls with a [Durandium Alloy](#) frame have been the standard for light weight durable construction in Yamatai for ages. The cockpit will be a monolithic transparent durandium or [Zesuaium](#) bubble. While the NGFP working group does not see a need to change that, they do suggest experimenting with a [Yama-Dura](#) to decrease maintenance workloads. Research into RADAR and LADAR absorbing materials to coat the hull with are of a much higher priority.

Cockpit

1 seater Hud, yolk throttle, primary flight controls 2 seater Programmable Display screens E-War console Comms Smaller secondary flight controls SPINE connections in cockpits in addition to manual controls

Cargo Capacity

A single survival kit for each pilot.

Propulsion System

Early test versions mounted a [Turbo Aether Plasma Drive](#) modified from the Mamushi however, research will be into a lower sensor profile version. Potentially the [Vortex Plasma Thruster](#) could be used instead. However, there is concern that a non aether engine would place a heavy burden on Star Army logistics officers and mechanics. If the [Two Stage Laser Engine](#) from the [Hayabusa II](#) might be able to fit the need for a low detection engine if it can meet the thrust requirements for a fighter twice the size of the Hayabusa II.

Weapons Systems

Internal Weapons

- Onboard double [Ke-V9-W3300 Turbo Aether Cannon Dv3](#) Tier 8 Medium Anti-Mecha
- Internal hardpoints 6
 - Can only carry 1 [Ge-z2 Series Ge-Z2-W3a \(Thermobaric Bunker Buster\)](#) or larger bomb in the internal bay, or 3 cruise missiles with two smaller weapons. NGFP-C/R cannot carry the bunker buster in the internal bay.

External Hardpoints

- External Hardpoints 6⁹⁾

Optimized for these weapons as well as other bombs/missiles in the SAoY arsenal

- Can carry [Variable Configuration Mission Adaptive Drones](#) (Often carrying advanced sensor packages and E-Warfare packages)
 - A [VCMAD-A](#) can fit on a single weapon hardpoint
 - A [VCMAD-S](#) or [M](#) variants can be launched but their wide bodies generally take up 3 hardpoints

Ordinance (internal or external)

- [Ge-z2 Series Gravity Bombs](#)
- [OHI Long Range Missiles](#)
- [OHI Standard Missiles](#)
- in addition to other Star Army-approved deployable ordinance

Defensive Systems

- Integrated CFS
- All angels IR sensor
- Flares
- Chaff
- Laser dazzlers
- Hard kill directed energy weapon. Basically a Tier 0 weapon. It might be a long-range pain compliance device on the ground, but it can kill sensitive situations in missiles, damage the targeting, or burn out the engine. Theoretically, it could be used to blind a system on a larger ship, but most pilots would opt to just use a missile at that range.

OOC Notes

[Locked Out](#) created this article on 2022/09/26 19:26.

Approved by [Wes](#) 2022/10/04

Star Army Logistics	
Supply Classification	Class B - SMALL CRAFT
Products & Items Database	
Product Categories	small craft
DR v3 max	Tier 8

1)

[SYNC: NGFP Next Step](#)

2)

[SYNC: Expanding the Next Generation Fighter Program Working Group](#)

3)

[SCAN To SARA and Logistics RE YU-V1-1B NGFP](#)

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4)

[SYNC: Hello Fellow Fighter Enjoyer](#)

5)

[SYNC: Official Request for Proposal-OHI-NGFP](#)

6)

[SCAN: YU-V2-1B - NGFP Submission](#)

7)

[SYNC: Official Request for Proposal-OHI-NGFP](#)

8)

while not developed for the NGFP, the program did have these weapons in mind

9)

wingtips cannot mount heavy bombs

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