Presenting the Sovereign MKII / VARGAS

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for
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Introduction

It is with mixed feeling that I make this report on the MKII as I have recently received bad news which is connected with this project. Since the Dominion Wars it has been the custom to name new ships after Captains who have been killed in action. Today I was informed that the *Sovereign MKII's* first vessel is to be named the *USS Vargas* after the captain of the recently destroyed *Discovery*. This is particularly upsetting as my own grandson had only recently been commissioned to the *Discovery* and this news means that he is also lost.

As is the custom in *Starfleet* each new class of ship is identified by the name of the fist ship to be launched and as such the *Sovereign MKII* is now identified as the *Vargas Class Starship*.

Current Status


Construction at Utopia Planitia

The *Vargas* has been built on a *Sovereign* chassis but has been redesigned specifically as a warship. Although fitted with all of the necessary tools and equipment necessary for deep space exploration, the *Vargas* will be more than able to defend herself in the case of hostile encounters. This action was prompted not only by the Borg and Dominion wars, but also by the mandate of exploring *The Northwest Passage* deep in the Delta Quadrant which is almost entirely hostile territory.

The *Vargas* is currently being completed at *Utopia Planitia, Mars* and is expected to be ready for launch within the next few months. As such we have reached a point where it is necessary that we begin to take applications for her crew as many of them will need to be briefed on the new technology which has been incorporated into this latest marvel of modern technology.

Weaponry

Although there are many new systems I would first like to cover the standard upgrades to previous technology.

Defense

The *Vargas* continues to have regenerative shielding and frequency modulation which are part of the *Sovereign Class* chassis, but we have also extended the defensive systems to include a Klingon cloaking device. This device will allow the *Vargas* to remain cloaked for a period of up to 96 hours and even longer depending on the power demands of other systems. As the *Discovery* was not able to escape hostilities, she also had no means of hiding from them either. With the addition of the cloaking device such a situation will hopefully be avoided in the future.

Offense

Current standards for photon and quantum torpedoes have been upgraded only in the complement of actual torpedoes as the *Vargas* has extensive storage capacity. This is due, in part, to the removal of civilian quarters. Although storage areas can be made habitable in cases of evacuation, it has been necessary to remove the civilian quarters and support services (schools, zoos, etc...) In order to make room for the new weaponry and other technology which the *Vargas* carries.

Although the *Vargas* continues to have superior firepower due to her inherited phaser arrays, we have also chosen her to be the first ship to carry the XM-93 cannon. This weapon's firing chamber is the entire length of the saucer section and alters the hull's shape due to its enormous size. Although some might say that it looks like a big gun strapped to the bottom of the ship, it is much more than that.

The XM-93

Concept of a *Galaxy Class* ship fitted with the XM-93 "Yamato".

The XM-93 (code named YAMATO[1]) is actually a combination of two older technologies, namely Plasma and Lasers. This weapon was initially intended to be installed on a *Galaxy Class* starship but was not yet considered safe as far as hull integrity and plasma containment were concerned.

It is well known that lasers will not even penetrate the navigation shields which are used to protect the hull against space debris so this might seem like an exercise in futility. Lasers, though, are based entirely on the substance being lased. In the case of hydrogen, the laser is little more than a thin red beam, still used in classrooms and manufacturing as rulers, pointers and aligning. Xeon can rupture blood vessels in eyes making them valuable for use in surgery, and Iodine can burn holes in small villages. Lasers are highly dependant on what they are made of for their effectiveness.

In the case of the XM-93, we are lasing Plasma. Basically a controlled Warp Core dump the feeder floods the charged plasma from Main Engineering into the barrel of the XM-93's laser chamber. The resultant beam has been estimated at approximately 5.287×10^{17} °C. It is also released with significant force as the plasma lases.

As the beam passes along the barrel, massive electromagnets create random pulses in the beam itself resulting in a variance which can be very difficult to stop. Although most shield technologies will naturally deflect laser light, the variation in the beam's wavelength ensures that some, if not all, of the beam will hit its target.

Although this might seem like an "Ultimate Weapon" it is not without its drawbacks.

Unlike Phaser arrays which can fire almost immediately and torpedo launchers which are automatically loaded via computer, the XM-93 cannot be fired quickly, nor can it be rapid fired. There are also considerable dangers involved as it is still a prototype unit and as such the *Vargas* maiden voyage will include extensive testing of the weapon as part of her mission objectives.

In order to fire the XM-93 major systems like Phasers, Shields, Cloaking and Warp Drive must all be taken off line. This is due, in part, to the massive drain on the ship's power systems as

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[1] The *USS Yamato* was a fictional starship which had been built from the hull of a Japanese WWII warship in the 20th century. The lower hull of this ship was dedicated almost entirely to an enormous energy weapon called the *StarBlazer*. The task of the *Yamato* was to retrieve important pollution control technology from a distant planet and return to Earth before the planet became uninhabitable and all life thereon was exterminated.

well as the Warp Core Breech which is part of the firing mechanism. As a precaution standard operating procedure requires that Engineering must be evacuated prior to initiating the firing sequence in case of plasma leakage or radiation release. Pre and post firing radiation reports are also necessary parts of the firing protocol. It is therefore estimated that the firing sequence can take anywhere between five to ten minutes depending on how well the crew has been drilled and how quickly appropriate systems can be shut down.

Once fired the ship's hull will have absorbed a great deal of heat and we expect that Main Engineering itself will have an ambient temperature of over 125°C. As such it is recommended that at least 6 hours be allowed to go by before Main Engineering is reopened and the Warp Core reboot sequence begun. As the Warp Core will have been drained and had emergency cooling systems maintaining internal temperatures, the Core must be rebooted from cold. This can take between 24 and 36 hours in order to be done safely and without risk of fracture or uncontrolled breech. Overall it is estimated that a single shot with the XM-93 will render the *Vargas* helpless for a total of about 36 hours.

Scorpions and Peregrines

If the XM-93 is to be useful at all in combat it is necessary to have a secondary mode of defence which is not reliant on the main reactor for power and support. It is at this point that we considered the value of the ship's shuttle craft and came up with the inclusion of the *Scorpion Class Fighter* and the *Peregrine Class Bomber* as part of the ship's complement.

It has been a very long time since short range fighters have been at all considered of value in modern space but extensive simulations have shown that they may have been vastly overlooked as an offensive and defensive tool. Although it might seem like a throwback to the early *Space Marines* of the 21st century, the Dominion War has shown us that this is not a resource to be overlooked.

The *Vargas* will have a complement of two full squadrons of *Scorpion* fighters and one squadron of *Peregrine* bombers. As such the shuttle bays on the *Vargas* have been extensively enlarged and elevator systems have been included to allow for below-deck storage of ships when out of service. The two main shuttle bays have been converted to allow for one squadron of *Scorpions* each and half of the *Peregrines*. This ensures that, should separation be necessary, each portion of the ship is sufficiently armed.

Now many people might think that small two man fighters are not much good against ships that are measured in Kilometres, but they would be neglecting the recent advances in technological reduction. We now have Phaser control processors which will fit in your pocket and Quantum Torpedo controls which are about the size of a PADD. As such, each *Scorpion* boasts four Phaser Arrays and up to six Quantum Torpedoes which can be launched two at a time. Each *Peregrine* has room for twenty-four Quantum Torpedoes and twelve of the smaller Photon Torpedoes as well as a frontal Phaser array.

With this kind of firepower on a small, highly agile set of ships it becomes easy to see how effective they can be in defending the *Vargas* while she is either charging or recovering from use of the XM-93. Keep also in mind that the *Vargas* still has room for the Captain's Yacht, two *Danube-class* Runabouts and one troop support / civilian evacuation vehicle.

In addition to improving the ship's offensive and defensive powers these additional vessels also increase the variety of missions which the *Vargas* is capable of performing. For example, we can now land away teams with sufficient support to ensure that they will not be ambushed on the ground. Air support and manpower will both be fully available to the captain of the *Vargas*.

Teams are already in training for the *Vargas Marine Corps* and new cadets will be joining the experienced pilots and infantry once the *Vargas* launches on her maiden voyage. Recruiting has begun across the *Federation* and so far response has been very good, especially amongst the Federation Klingons.

Supplies

Although we have long relied on transporter technology to operate our replicators it may be necessary to ensure that there are sufficient supplies aboard the *Vargas* to ensure that the crew may survive for extended periods of time in the case of replicator failures. Field rations are being stored onboard to this end. If contact with the Klingons has taught us anything it is that redundancy is the key to survival during harsh times. The *Vargas* might seem overstocked, but the reality is that we don't know what she will meet up with once she is ready to be sent on her main mission to the *Northwest Passage*.

Next Steps

A network site will be set up in order to collect resumes for command and officer personnel immediately as training for these positions must be completed before the *Vargas* is launched. At the same time Policy and Procedure manuals will be prepared in order to help educate successful candidates, ensure safety with the new technology as well as prepare staff for the different experience which the *Vargas* will be to experienced personnel.

Both will be started immediately as well as initial testing of the onboard computers and life support systems.

Estimated time for full operation of the vessel is approximately five months.

Final project phase. Ship beauty shot and successful Yamato Cannon firing tests.