***Ground Vehicle Armaments***

**Heavy Missile Launcher VP-03**

Made as a direct upgrade to the Mark 24 missile launcher and as the step below aircraft and dedicated launcher payloads, the VP-03 is a one to four tube system which fires two-stage 135mm supersonic missiles equipped with HEAT or HEF warheads that can be hybridized with graphene cable. It can target either land or air objects, with infantry being able to coordinate info for the launcher to work with. The missiles themselves are slaved to the tracking systems of whatever vehicle they are on, though they all mount the detection systems from missiles on the Mark 24 launcher, enabling equal if not greater levels of maneuverability. These missiles also double as point defense, with the range of interception being 40 kilometers out and capable of cutting off supersonic targets. The system can easily function in both vacuum and harsh atmospheres, and a lightweight frame allows it to be placed on SPAA and APCs without issue. Notably, the explosive force of the missiles are usually equivalent to a large artillery round, with vehicles being able to freely use the VP-03 as an anti-tank weapon when needed. Finally, the system can be converted into a pod launcher so that helicopters may mount it when needed.

**Specialized Halidizing CDS VP-27**

Built to either be firable as an artillery shell or as a missile warhead, the VP-27 is made for dispersing halidizing gas which the Vogelian Supremacy employs to make hazplas. The system itself has multiple high pressure ports in a circular array which are unveiled post-impact, with the openings rapidly emptying their payloads within a few seconds. Intended to swiftly cover an area of 115 square meters on average, the system excels in accounting for the gas’s weakness of needing to near instantly cover a target to take proper effects. Assuming this is performed, a person’s skin will start to shrink and tighten as it is converted into hazplas actively, effectively replacing the outer layer of a body with plastic. The person trapped inside is doomed to die shortly after as the body tends to suffocate, go into shock, bleed out, or potentially even have vitals squeezed into breaking points as the high density hazplas can sometimes crush parts of the body. While inefficient compared to nerve gas and other alternatives, it is exceptional in being a terror weapon, and is used as such.

**APS Autocannon VP-17**

The APS autocannon, or VP-17, is a specially designed machine gun intended as both a form of point defense for land vehicles and as a form of infantry suppression when possible. It chambers 15x90mm EPHEVT rounds which are backed up by chemical propellant, with all of such autocannons mounting a thermal, visual, and gravitic detection array. This lets it detect and intercept incoming RPGs and similar objects from one kilometer out, with a firerate of 750 RPM. The speed of said interceptable targets averages around Mach 2, with it sometimes being able to shoot down targets moving at Mach 3 given enough reaction time and relatively clear conditions. The VP-17 is meant to operate in most planetary conditions effectively, though it is not designed to work in vacuum without suffering issues due to a lack of advanced cooling systems. As such, it can continuously fire for two minutes in an atmosphere before sustaining damage, but only up to a full minute in vacuum.

**Heavy Rotary Autocannon VP-15**

The heavy rotary autocannon VP-15 is a rail accelerated rotary machine gun that utilizes chemical propellant for 25x150mm caliber EPHEVT bullets. In naval vehicles, it exists as a part of point defense, though otherwise it is used by friendly aircraft to counter infantry, light vehicles, and enemy aircraft. It uses a neon thermal ceramic cooling system to sustain longer fire periods with a rate of 6,500 RPM, and can handle up to two and a half minutes of continuous fire before it starts to suffer damage. This is made possible by an advanced gas dispersion system intended to cover the barrel’s exterior to help accelerate the release of heat while maintaining operability in space. As such, the gun is capable of functioning in both vacuum and rough environments, with it normally being mounted on a rapid-swivel system that has thermal, radar, and gravity detection systems connected to it. It as such can either accurately target ground, air or projectile targets in a range determined by the vehicle mounting it. Predictive computers also increase its accuracy to a point of usually only needing short bursts of fire to bring down incoming targets, removing the need for overwhelming fire to strike down missiles while letting it quickly switch between targets when under heavy fire. It can also be made to work in sync with missile launchers, improving its overall point defense capabilities while offering the ability to coordinate fire patterns.

**High-Yield MRLS VP-30**

Built as a variable tube system, the VP-30 is intended for carrying either bombardment, long-range interception, or direct anti-supervehicle missiles. All missiles are made hypersonic, and can reach into the high atmosphere assuming the planetary pressure is moderate. The system can function in either vacuum or rough environments, and is equipped with thermal, radar, gravitational, radiological, and visual detection systems capable of picking out targets from ranges of 80km. The missiles themselves can usually travel 500 kilometers, enabling extreme distance attacks if given targeting data. Payloads are either HEAT or HEF, with the explosive force being equivalent to 500kg of TNT. Graphene cable can still be hybridized with these missiles, but this is rarely done due to the missile’s own explosive force. Alternative payloads do exist however, with missiles being able to carry the VP-27 system, a thermobaric load, or a different chemical weapon for heavy saturation of an area. Naturally, such systems can also coordinate with other sources of information, giving it further flexibility if connected to a larger detection system while letting it be guided by infantry in the field if needed.

**Heavy Artillery Gun VP-33**

The VP-33 is an enormous 300mm railgun intended to fire artillery shells over ranges of 150km. Built to be either a static artillery piece handled by teams of infantry or as the primary weapon of an SPG, this weapon is constructed with a specially made firing chamber intended to withstand the impact of upgraded electrically detonated propellant. Most of its fired shells impact with enough force to blast through several inches of concrete, and rounds can be freely swapped for different types, including chemical, biological, swarm missiles, and thermobaric rounds. It can fire five rounds every minute, with the barrel having a specialized coolant flow built in to keep the gun working when performing a saturation bombardment in sync with other units. Due to its specialized nature, the weapon is rather expensive, but noted for its effective nature as the raw velocity generates additional energy from re-entry heat.

**125mm Cannon VP-01**

The VP-01 is a 125mm smoothbore cannon designed to use propellant in conjunction with the barrel having electromagnetic acceleration to achieve a muzzle velocity of 3.9km/s. It is used as the main armament on tanks and sometimes as a field piece to counter enemy tanks, though it demands a crew of personnel when separate from the tank. It has a neon thermal ceramic cooling system integrated into it, along with an adjustable electric acceleration control, and is usually built out of peltor alloy and has a layer of basic armor, making it immune to small arms while keeping it functioning in hazardous environments, or underwater. Little else is to be said about this weapon, though its raw lethality makes it loved by Vogelian soldiers.

**30mm Autocannon VP-02**

The VP-02 is a specially designed autocannon intended for lighter vehicles that utilizes both an initial propellant detonation and a rail acceleration support. It can sometimes be found as a field piece, though otherwise it demands a vehicle platform. It is automatically loaded when in a proper vehicle, and has a neon thermal ceramic cooling system to help alleviate heating issues. It fires at 200 RPM, with the fire rate being slowable to prevent overheating. It can easily function in most environments along with the vacuum of space, and can shoot constantly at its full RPM for two minutes before sustaining damage.