Spotter Rifle

The Spotter Rifle is an unorthodox weapon originally created as a Yuletide gift for a friend, and later pressed into service by a mercenary group as a full fledged energy weapon capable of anti-materiel roles, including effectively fighting personnel, power armour, or the disabling vehicles.

About the Spotter Rifle

Originally designed by Luca Pavone as a Yuletide gift in YE 37 as a gift for Sesshoseki Tamamo. He made the weapon with some of Tamamo's assistance to gauge her weapon preferences and get her measurements to make it suit her comfortably, and enlisted Allison Kelly to manufacture parts once he'd finalised the designs.

Luca drew up the initial designs without knowing much about how laser weapons worked. Owing to his initial lack of skill with creating and designing energy weapons, he created an unorthodox magazine system after cursory practical study of how other laser weapons, including a captured NMX "Impaler" Particle Beam Rifle, worked.

Once parts were outlined and the specifications sent to Allison to figure out the rest, she started drawing up and printing the parts out of Durandium Alloy, plastic, and glass, and got to work on creating the battery magazine, using Luca's input on how he created the upgraded battery for his Grapple Stunner.

Initial tests proved awkward with a quizzical looking bolt-action loaded, semi-automatic weapon, but Luca stressed the role of the weapon to be for long distance engagement - something he wasn't entirely familiar with in practice, but appreciated the role of when he was on field. In particular, he found that the duality roles afforded with the fire modes diversified the weapon from a laser-based battle rifle to a full fledged anti-materiel rifle. More power is more power after all.

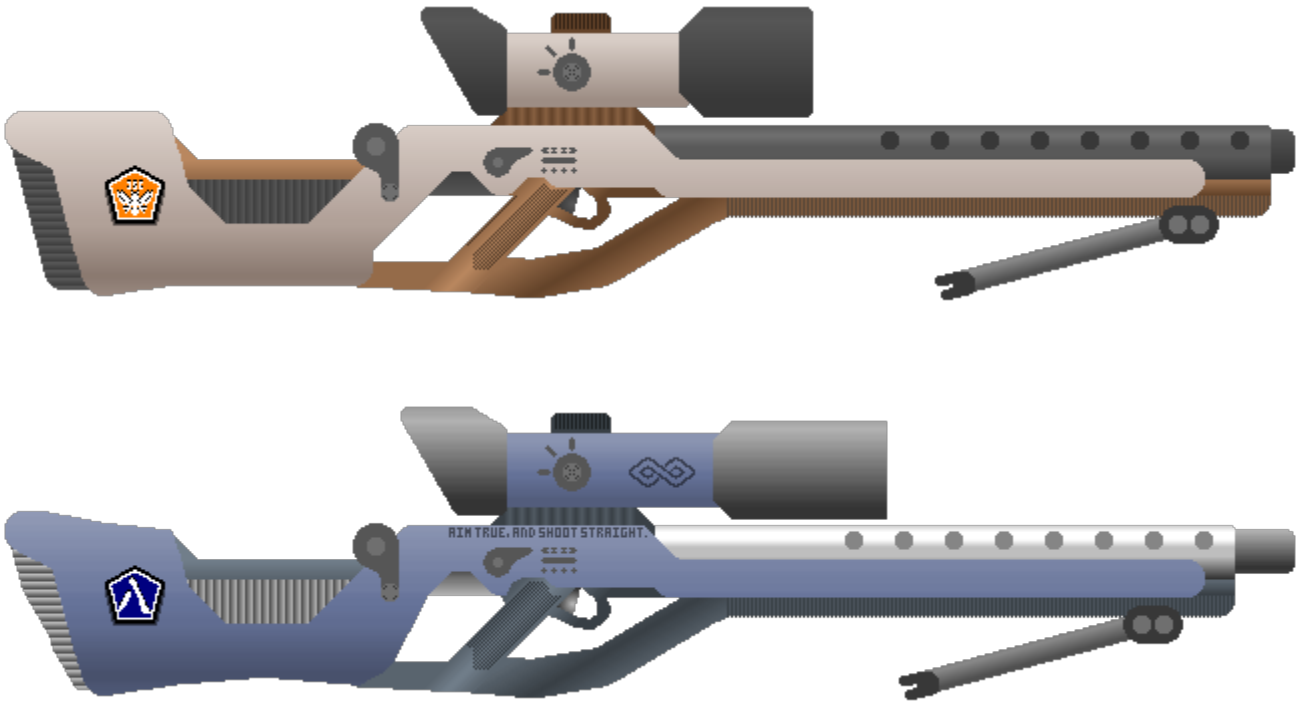
After a manufacturing base appeared with the Phoenix Service Group being raised, the gift was adapted into a weapon for the marksmen of the group, and became among the first things produced in house for the soldiers, with the Snapshot PDW being produced shortly after. It is also available for members of the ISC Phoenix if they so desire.

Nomenclature Information

- Designer: Luca Pavone, Allison Kelly, with input from Melissa Jones, Echelon and Sesshoseki Tamamo.
- Manufacturer: Luca Pavone and Allison Kelly for Tamamo's Model, Phoenix Service Group for subsequent production
- Name: PSG Spotter Rifle
- Nomenclature: PSG-W1-37
- Type: 'Bolt-Action' Heavy Laser Weapon
- Role: Anti-Materiel

- Length: 1.4 metres
- Mass: 8.5 kg (18.7 lb)

Appearance



The Spotter Rifle made for the Phoenix Service Group, and the *Fox Custom* for Tamamo

Some notes written by Luca and Allison involving the reload action

Having being told that the weapon's accuracy is dependent on the user's shooting technique moreso than solid ammo weapons, Luca ensured that the rifle is easy to adjust and parts are easy to replace.

There are replaceable stock butts, handgrips, triggers, and cheek rest contours available on demand from Allison and her fabricator, in addition to a left-handed receiver. Pictured is one of the first generations of the Spotter Rifle, and Tamamo's personally configured weapon.

The in-house made scope features 'spotting and marking' software, which is primarily where the rifle gets its name from. Able to link with combat communications suites, targets and points of interest can be marked and shared to a team. This is possible using a chopped-up rangefinder and GPS program[1)] inside of the scope's internal computer. Marking done possible by pressing a button just above the trigger, pressing a button on the scope, or for more advanced users, digital input.

The interior of the barrel is lined with durable lenses and prisms to create the powerful laser, which are wear parts that need to be replaced after a few engagements. They were made to strike the balance between durability, power, and combat effectiveness.

Inside the handgrip, a 'secondary battery' is inserted to power the weapon's scope system and other secondary systems which regulate the laser. It generally lasts for a long time, due to being on a separate circuit to the weapon components, and they power down when the weapon is in Safe mode.

Discharge Information

- Muzzle Flash: Bright white and blue flash.
- Retort: Written onomatopoeia: **bz-KRAKsh!** for normal mode, or **wzp-KRAAASHHhh!!** for heavy mode.
- **Projectile/Beam Appearance:** A bright white laser with blue edges.
- Effective Range Theoretically Unlimited.
- Rate of Fire: Semi-Automatic.
- Recoil: Noted to pull to the left and up bit. Recoil is considerable enough to require both hands for augmented soldiers, while unaugmented soldiers are recommended to fire the weapon braced against something, or from a prone position.[2)]

When fired the weapon produces a brief pulse of high energy photons that travel to the target in a direct line-of-sight manner. Upon impact the photons transfer their energy into the material of the target causing rapid heating and near instantaneous conversion of the local matter into plasma creating a localized explosion.

While this is an effective and dangerous means of attack, it is not without its drawbacks. Materials may reflect light at the wavelength of the beam causing some of its energy to be deflected into the environment, causing localized plasma blooming. This blooming while less effective than a direct transfer may still harm the target by heating and eroding the target indirectly via the plasma cloud. Zesuaium on the other hand due to its inability to transfer thermal energy reflects all of the energy of the shot into the environment limiting any potential damage to atmospheric blooming, or none at all if in space.

Energy Source

- Ammunition Spotter Rifle Bolt Battery
- Mass: 0.9KG (3lbs.)

- **Average DR:** Tier 3, Heavy Anti-Personnel, or Tier 5 or Tier 6, Medium Anti-Armor or Heavy Anti-Armor (Fix Me!: Staff needs to determine which)
- Round Capacity: 6 Normal Shots, or 1 Heavy Burst

Damage Quickchart		
Config	**Damage**	**Ammo Spent**
Normal	Tier 3, Heavy Anti-Personnel	1
Heavy	Tier 5 or Tier 6, Medium Anti-Armor or Heavy Anti-Armor (Fix Me!: Staff needs to determine which)	6 (whole battery)

The Bolt Battery itself is a metal cylinder two and a half inches thick, and five inches long, lined with grooves to let it sit comfortably in the battery tray. The 'discharge' side of the Bolt Battery has a contact point, while the other side has six lights signifying how many charges are in the battery when loaded[3]. If the battery is not loaded into the weapon, charges can be counted by pressing a button in the middle of the lights.

The batteries themselves are composed of thousands of layers of carbon nanotubes inside a large capacitor. They are easy to recharge at a designated station by placing the discharge side into the recharging device. The lights will blink in a circle, with however many charges are available filling in until the battery is fully charged. Once fully charged, the battery is automatically ejected to prevent wasteful overcharging.

Weapon Mechanisms

- **Firing Mechanism:** When the trigger is pulled, a computer within the receiver creates a controlled discharge into a laser generator. Once sufficient charge is made according to the selected firing mode, the laser is discharged through a series of tough-wearing prisms down the length of the barrel and out of the muzzle. Cooling is available through the length of the barrel, and out of vents along the length of the barrel shroud. It is not recommended to plug the holes[4].
- **Loading:** The Spotter Rifle's most distinct part is the magazine tray. To reload the weapon, the user grabs the bolt, pulls it up, and then backwards to pull the battery tray out. When pulled all the to the back of the stock, the battery is ejected to facilitate loading a fresh battery in quickly. Once a battery is loaded in with a click to secure it into place[5], the tray is pushed back forward, and the bolt is closed. Once fully closed, the weapon is ready to fire.
- **Mode Selector:** Just above the trigger is a mode selector lever for SAFE, HEAVY and NORMAL inputs. The logic behind HEAVY being in the middle being if the user has to slam the mode selector forward in a hurry because of a surprise attack, they can fire without risking using the rifle's heavy mode, wasting an entire battery, and facing a dire situation.
- **Firing Modes:** See Above.
- **Weapon Sight:** The Spotter Rifle's scope has an adjustable magnification between x7 and x12 times. If desired, iron sights are available or different aftermarket scopes can be fitted on.
- **Attachment Hard Points:** Underbarrel rail. Comes with adjustable bipod as default attachment.

Other

The **Fox Custom** made for Sesshoseki Tamamo has the following differences:

- Different contouring of the rifle for a better hold, and a slightly shorter body.
- A custom-made x8-x16 adjustable optics, with an advanced version of the spotter program, and a customised UI.
- Personally itted stock, cheek rest, and handgrip.
- Various engravings and 8 symbolism, and the words '*AIM TRUE, AND SHOOT STRAIGHT.*' written on the right side, above the fire selector.
- Cobalt blue body and silver/chrome finish on the metal.
- Purple laser, incorporating more light on the ultraviolet spectrum.

Pricing

- **Spotter Rifle** - (1200 KS) Includes bipod, three Bolt Batteries and a recharge station.
- **Spotter Rifle (Fox Custom)** - (Not for Sale)

Replaceable Parts and Components

- **Receiver** - (300 KS)
- **Bolt Tray** - (100 KS)
- **Barrel** - (200 KS)
- **Lenses** - (40 KS)
- **Stock** - (120 KS)
- **Trigger Assembly** - (25 KS)
- **Spotter Scope** - (300 KS)
- **Internal Charge Buffer** - (100 KS)
- **Secondary Battery** - (30 KS)

Optional Attachments

- **Foregrip** - (100 KS)
- **Lens Caps** - (50 KS)
- **Lens Polishing Kit** - (20 KS)
- **Bipod** - (50 KS)

Ammunition

Price Quickchart	
Type	**Price**
Bolt Battery (6/1 shots)	25 KS
4 Bolt Batteries (24/4 shots)	100 KS

Price Quickchart	
Type	**Price**
8 Bolt Batteries (48/8 shots)	200 KS
Recharging Station	100 KS

OOC Notes

Luca created this article on 2015/12/20 02:39.

1)

Thank Echelon!

2)

While a laser weapon doesn't typically generate any force on the user, recoil is simulated due to the assertion that a lack of physical feedback 'just didn't feel right.'

3)

This also allows viewers to see how many shots they have left when the battery is loaded in

4)

And in addition, Luca believes that once you fire this thing, you had better make sure whatever's on the receiving end stays dead!

5)

This is due to the rifle's intended owner commonly sniping from unorthodox positions, such as upside down on a ceiling. Go figure.