

## The Core of the Realm Mod Pack

## Design Draft Document

# Design Brief

* To fundamentally change the balance within Planetary Annihilation into a ‘gated’ flatter-balanced system utilising the core units to their fullest.
* Aim to be *THE* rebalance mod used as a base for other mods wanting a power-neutrality between tiers and gameplay.
  + Because of this we are very open to community interaction and input, so long as it doesn’t break any of the key [Concepts](#h.zdn882kpbo0s).

At the moment, this document is considered as a minimum effective solution, designed to be made on a short timescale. More ambitious and interesting changes will follow in the future, and be released as optional extras.

# Participants

*Please Comment and add your name if you wish to contribute to this mod:*

* Balance, design and texturing - Nanolathe
* Balance, design and modeling - YourLocalMadSci
* Dogsbody, paperwork and documentation - TheWrongCat
* Balance, design and modeling - Liquius
* Balance Consultants - [TBA]

# Concepts

* Flatter balance. “Teching Up” is more an increase in options, rather than an increase in objective power.
  + Since more options is likely to result in better ways to engage an opponent there is still a strong incentive to Tech; however it is not purely for economic upgrades or unit upgrades.
  + As a hypothetical test, it should be possible to remove all “advanced” factories and fabbers, have all units be constructed by basic fabricators and factories, and have the game remain perfectly viable. The reason why some units are gated is not a “power” issue, but is a safety rail to make sure that the more unusual units are not thrown into the game too early. It directs the player’s experiences so that it is easier to handle the different choices available.
* Roles of units are distinguished and do not overlap wherever possible.
  + Basic units have a strong utilitarian focus with the ability to perform well as generalists.
  + Advanced units are specialists of varying extremity. An advanced unit used in a manner that suits their speciality it is many times more powerful than its metal cost suggests. When used in a manner that it is unsuited for they are many times weaker than their metal cost suggests.
* During the initial stages of the game we intend for individual mistakes by the player being relatively forgiving. As the battle escalates in scale (mostly by types of units and numbers of units present), mistakes will be less forgiving. Ultimately there are weapons and methods in the game to force it to end and that are not reliant on one or other of the players making mistakes, rather they are the result of a lead gained in the mid-to-late game.
* The game should be as Strategy-Neutral as possible. We will try to avoid creating globally dominant strategies or enforcing specific “Meta-Game” decisions.
* Strategic choices are king.
* This mod will not be monetised.
* Extensibility is important. New changes made by Uber, or subsequent mods should be easily accommodated by the changes here. We aim to be a foundational mod, one that other modders may adopt as a default base.

# Methodology

In order to provide a consistent experience, we will aim to follow the following guidelines when rebalancing:

1. Focus on *minimum effective solutions* before reaching for more complex solutions (this includes adding new units, systems and mechanics).
   1. A minimum effective solution focuses on the least number of changes to obtain a desired result.
2. Aside from initial sweeping changes to establish a new balance paradigm, further balancing tweaks are only made after rigorous testing with a testable hypothesis. A minimum effective solution is then proposed and tested, again with a testable hypothesis and multiple repetitions. Repeat until desired behaviour is achieved.
3. Where possible, [double blind tests](http://en.wikipedia.org/wiki/Blind_experiment#Double-blind_trials) on various strategies will be used, but convenience may dictate that they are not always doable.
4. All changes will be open to view and as well documented as we are able to.

# Our Accepted Default

We want to be as inclusive as possible with regards to game size and team composition, but we consider the most common kind of game (in a competitive sense) to be small team games (2-4 players per team with a shared economy) and moderately sized FFA’s (4 players plus). We also note that 1 vs AI is the most common kind of game played, but it would follow that this is improved by enhancing the previously described gamemodes.

The Default environment that we assume games are played in include at least one of each functionally different planet with due note given to moons and at least a small number of asteroids.

# Balancing Prioritisation

1. [Economic Rebalancing](#h.pe045xlkp80r). The economy defines the entire scope of player options and so it needs to be on a rock-solid foundation. Where possible, other things will be balanced around the economy.
2. [Ground Combat](#id.e4s47drkpbfv). We believe that the most important theatre of battle are ground-based battles fought between ground-based forces. The majority of Bots will fill “infantry-like” roles (hold the line). Tanks will be towards fast cavalry (outflanking).
3. [Defensive Structures](#id.denv863agt2c). Diverse defensive structures are very important. Less “upgrade-y” than current.
4. [Air](#id.ui5jnpwab0hr). Air interacts heavily with the ground, and so needs thought in order to ensure it synergises well.
5. [Orbital.](#id.16tz5vdrh9el) Orbital is currently one of the least developed and satisfying theaters, so it needs a change of direction in order to ensure that it is an interesting part of the game. The mechanics don’t change, but the units will undergo a rather major overhaul.
6. [Super-weapons](#id.yjg7ts1pne3f). Nukes and long range artillery remain a contentious issue. Metal Planets and Asteroids need to be looked at. As long as there is enough ground work done by Uber, we may be able to do good things here. If not, then any effective solutions will be challenging.
7. [Naval](#id.owkimohtjedd). Naval can interact with Ground based forces. however, Naval is limited in scope at the moment without more unit types. Our changes will likely have ships having less time devoted to them.

# Potential Proposals

The following represents an initial proposal for how to restructure the key elements outlined above. As a general rule, the further down this list we go, the more speculative things will be, as proposals become dependent upon previous testing. This is entirely subject to change.

**We must stress that the ideas presented below are what we consider to be our Minimum Effective Solution. The least amount of complexity for maximum depth of strategy.**

## Linked Documents

[Unit Value Document.](https://docs.google.com/spreadsheets/d/138B80zfMnoZqH7QBDDjl6IRbdqCG8uL18NVAq1pcjbQ/edit#gid=0) (WIP and under Lockdown for now)

## Economic Rebalancing

* The Commander
  + The Commander’s lathe remains the most efficient and powerful throughout the game. Its economic efficiency is 50/2500; 50 Metal (M) down for 2500 cost in Energy (E).
  + The Commander is the only unit that it is truly “cost effective” to assist with. All other options are inferior due to their capital cost or their efficiency.
  + Your Commander also produces a larger proportion of your initial economy than previous. It produces 20 M/t (Metal / time) and 2000 E/t (Energy / time).
  + Initial goal is factory first, followed by economy. The commander has initial production and storage to build and run a factory and build initial eco before running out of steam.
    - Storage of [X] M.
      1. Metal for first factory
      2. Metal for 4 Extractors and 8 Generators
      3. Commander produces half as much as it spends + travel time.
      4. Suggestion: 2000 M.
    - Storage of [Y] E.
      1. Commander’s Uber weapon costs ~10,000 E. How many shots should he have early game without storage?
      2. Suggestion: 15,000 E.
* Basic Economy
  + Metal Extractors are smaller additions to your Metal Economy. The goal is that metal should be much more of a limiting factor throughout the course of the game. We are proposing an extraction rate of 5 M/t for the output of the basic extractor, at a cost of 100 M. (pay off time: 20 sec).
  + Energy Generators produce 650 E/t. This number allows a great deal of granularity and (hopefully) is also familiar enough to players of Vanilla. They have a decent amount of health. They cost 350 M.
  + Ground and Naval Factories have a consumption of 20 M/t and 2000 E/t. Air Factories consume 2500 E/t. All Factories have a Metal Storage of [500]. All have a cost of 500 M.
    - Fabrication Bots have “medium” Lathes, consuming metal at 5 M/t and 500 E/t. Fabrication Bots have a Capital cost of 250 M.
    - Fabrication Tanks have “heavy” Lathes, consuming metal at 10 M/t and 1000 E/t. Fabrication Tanks have a Capital cost of 600 M.
    - Fabrication Aircraft have “light” Lathes, consuming metal at 2 M/t and 250 E/t. Fabrication Aircraft have a Capital cost of 200 M.
    - Fabrication Ships have “very heavy” Lathes, consuming 15 M/t and 1200 E/t. Fabrication Ships have a Capital cost of 800 M.
  + Metal Storage: Suggestion; move to Adv tier.
  + Energy Storage is always important regardless. They can contain up to 10,000 E and has a capital cost of 500 M. Built by Basic Fabricators.
* Advanced Economy
  + Adv. Metal Extractors (Performance Extractors) are more powerful at extracting metal, but have a much higher capital cost. They can be “stacked” over the top of Basic Metal Extractors. They are as flimsy as a wet paper bag. Produce 10 M/t and cost 3000 M. (pay off time: 300 sec).
  + Adv. Energy Generators produce energy more efficiently than Basic, taking up less space, but costing more M. It produces 10,000 E/t for a cost of 11,500 M. Comparative to Metal Cost they have significantly less hitpoints when compared to their Basic counterparts.
  + Orbital Solar Generators produce energy more efficiently than Basic, taking up a lot of space (in orbit), but costing less M. It produces 1000 E/t for a cost of 500 M.
  + Adv. Ground and Naval factories have a consumption of 30 M/t and 3000 E/t and a higher Capital cost. Air Factories consume 4000 E/t. All have a Cost of 1,500 M.
    - Adv. Fabrication Bots have “medium precision” Lathes, consuming 10 M/t and 1000 E/t. Adv. Fabrication Bots have a Capital cost of 750M.
    - Adv. Fabrication Tanks have “heavy precision” Lathes, consuming metal at 20 M/t and 2000 E/t. Adv. Fabrication Tanks have a Capital cost of 1800 M.
    - Adv. Fabrication Aircraft have “light precision” Lathes, consuming metal at 5 M/t and 625 E/t. Fabrication Aircraft have a Capital cost of 1500 M.
    - Adv. Fabrication Ships have “very heavy precision” Lathes, consuming 30 M/t and 2400 E/t. Adv. Fabrication Ships have a Capital cost of 2400 M.
  + Metal Storage is likely to be a Late-Game concern. Metal Storage can contain up to 30,000 M and has a capital cost of 2000 M. Built by Adv. Fabricators.

## Ground Combat

As a general rule, all mobile ground units (except the Commander) will have a doubling of health, and an additional doubling of wreck health *[and hopefully stopping the majority of units from being able to “push” wrecks aside]* which further balance changes will be balanced around. Factories generally stay at the same health, as does the Commander. Any deviations from these rules are handled on a case-by-case basis.

* The **Commander** has two weapons:
  + Laser “sidearm”. As Light Laser Tower (detailed in Defensive Structures) but half the fire rate.
  + Uber Weapon. Designed as an anti-rush tool, not an offensive weapon. Consumes massive amounts of energy and draws power for the next shot instantly. It is very short range, has a high fall-off on its damage and has friendly-fire enabled. The Commander a stockpile of 1 “Uber” shot. Cost: 10,000 E. Damage: 99,999!
  + *Commander Death Explosions are comparable to a Strat Nuke, and kill other Commanders within the epicenter of the explosion. [Damage falloff is high.]*
* Basic Bots fulfil an infantry role. The units here are lightly armoured and generally have a slow to moderate speed. Bots are used to take and hold ground, relying on numbers.
  + The **Fabrication Bot** is fairly slow compared to most Bots, and has light armour. Cost: 250 M.
  + The **Dox** is largely unchanged (assault variant rather than grenadier), and maintains an efficient DPS to metal ratio. Guns to fire asynchronously. Speed is slightly reduced. Cost: 80 M.
  + The **Stinger** is able to shoot at both Air and Ground targets, Consistent DPS against all threats. Speed matches new Dox value. Cost: 150 M.
  + The **Boom!** is the fastest Bot (It’s *very* fast). Does Extreme damage if it detonates, but it is lightly armoured. Potentially has an AOE slightly greater than the range of flame based weapons. Designed to be used in swarms to overwhelm an enemy. Cost: 20 M.
  + The **Combat-Oriented Reclaim Engineer** **(Co.R.E)** is a somewhat unique unit. It has a very powerful lathe designed for a single purpose; reclaim. Durable with a very heavy precision lathe, reclaiming 10 M/t for 1000 E/t. The Co.R.E automatically (as the Combat Engineer would repair) reclaims any wreck nearby. Can also aggressively reclaim enemies if they come too close. Due to its high health the Co.R.E is able to defend itself and even be a consideration as a front-line trooper, though it is strictly worse than true combat units at damaging an opponent. It also doubles as a minelayer, trapping locations that it can’t reclaim quickly. Cost: 500 M. *This is dependant on whether it is possible for Wrecks to be made a weighty strategic consideration. Should this be possible it is likely that the Adv. Metal Extractor will lose some of its extraction power.*
    - The **Mine** is a slightly more powerful, but immobile “Boom!”. Cost: 10M.
    - *The* ***Uber******Mine*** *is a scaled up version of the regular mine. Cost: 500 M.*
  + ***Mortar Bot*** *[Unnamed] Area denial tool that fires (fairly rapidly) inaccurate, weak shells*. *Outranges most early game defences*. *Slow, but is able to turn around at the waist to kite enemies as it retreats. Cost: M 225.*
* Basic Tanks fulfil the role that Cavalry traditionally did (and tanks do today). They have moderate to fast speeds and are usually more heavily armoured than Bots. They excel as out flankers, relying on speed and precision rather than brute force and numbers. They tend to pay for this in terms of cost.
  + The **Fabrication Tank** is slower than most vehicles, but fairly heavily armoured. Cost 600 M.
  + The **Skitter** is repurposed to be a jack-of-all-trades mobile armoured car. It would be useful as a raider, with a light Laser cannon, and can shoot both Air (inefficiently) and Ground units. Cost: 180 M.
  + The **Ant** (screw the other names) is a solid main battle tank of respectable speed and decent armour (on a per metal basis). Its DPS and rate of fire are unremarkable. Its turret traverses slowly. Cost: 400 M.
  + The **Spinner** is a all-purpose AA platform. It has a Longer range missile launcher and has an initially high rate of fire. Uses a reload mechanic to stockpile a salvo of missiles. Cost: 400 M.
  + The **Inferno** is a Fast Tank with less armour and armed with a short range, high damage plasma-stream weapon (flame). Cost: 400 M.
* Adv. Bots are specialist infantry that have a greater range of options for their use. Their goal is still to take and hold ground, but they do so, generally, without the reliance on superior numbers.
  + The **Adv. Fabrication Bot** has a decent amount of armour, ideal for supporting the front line construction efforts. However it is slower than most Bots and prone to getting overrun. Cost: 750 M.
  + The **Scorcher** *(old name: Slammer)* Heavily armoured (for a Bot) and equipped with two short-range flamethrowers. Classically analogous to a battering ram. Cost: 250 M.
  + The **Gil-E** is a sniper. High mobility but with a very slow turret tracking speed and cannot shoot behind it (cannot kite). High Alpha shot with a *long* recharge. Consumes [5,000] energy to fire with only 1 ammo stockpiled. Cost: 800 M.
  + The **Adv. Repair Mechanic (A.R.M)** wields an excessively powerful lathe for a Bot, but it chews through power. Consumes 60 M/t and 9,000 E/t. Other than the utility however, it has comparatively weak armour with decent speed. Costs: 1250
* Adv. Tanks are specialised vehicles that lean towards either an Infantry Tank (slow and tanky) role, or a Cruiser (fast and flimsy) role. As with basic tanks they are usually comparatively heavily armoured, though speed is much more dependant on their role this time around.
  + The **Adv. Fabrication Tank** is a relatively speedy tank with a reasonable, but not excessive amount of armour. Cost: 1800 M.
  + The **Leveller** is now a dedicated cruiser and tank-hunter. It is faster than other “tanks”, accurate and packs a sizable punch with a fast turret traversal speed. However, for its cost, it is not terribly well armoured and has a slower fire rate than most frontline tanks. Cost: 900 M.
  + The **Sheller** is a relatively accurate artillery platform that cannot lead targets (has a very slow shell speed if not) with decent AoE potential and high damage. Has a very slow recharge. Consumes [5,000] energy to fire with no extra stockpile. However, the Sheller is an infantry tank, and as such, is quite slow (same speed as Dox). Cost: 1500 M.
  + The **Vanguard** is the epitome of an infantry tank, the most heavily armoured unit with a highly rapid fire, fast tracking energy bolt weapon similar to those wielded by the Dox. It speed is the same as Dox and Spinners. Cost: 2000 M.
  + *The* ***Mobile Flak*** *is an advanced anti-air unit with poor accuracy, a lowish range but a high rate of fire and terrifying AOE. [If hooks are made available, can shoot at and hopefully destroy Nukes and Tac Missiles].*

## Defensive Structures

As a general rule, defensive structures are very effective machines of war. Their effectiveness must remain potent, however they should be an investment of resources and are the most likely candidates for upkeep costs during their “active operation”. The majority of Defenses do not benefit from the general increase in Health we have made to most combat units. Deviations are handled on a case-by-case basis.

* Commander Defensive Structures:
  + The **Light Laser Tower** is a generalist defensive tool that is cheap and able to take a shot at just about any target, Air or Ground. Singular LLTs are mostly worthless, low damage deterrents. A defensive line combined with walls is a bit more of an obstacle due to their high rate of fire, which is about twice per second. Cost: 100 M.
  + The **Missile Tower** focuses its attention on removing Air threats. It has a high Alpha-damage homing missile that has a large effective range but a low rate of fire. Cost: 150 M.
  + The **Wall** is a multifunctional terrain obstruction and area denial system, designed as a general purpose impediment to all conceivable ground traversing threats! Used as security blanket for the welfare of your turrets as most units can’t shoot over walls. HP: 2000. Cost 15 M.
* Basic Defensive Structures:
  + The **Basic Radar** is a tool to increase the effectiveness of your defenses. Its range is slightly greater than a Pelter’s maximum reach. It has no vision radius. It consumes 500 E/t. Cost: 100 M.
  + The **Pelter**, other than a slight decrease in accuracy and increase in rate of fire, largely remains the same as it is now and performs the same role; an area denial and siege weapon. Cost: 1500 M.
  + The **Dual Laser Tower** is a heavily equipped tower with a propensity towards Line-Defence. Effective when even lightly supported, the DLT is deadly at close quarters, combining a high rate of fire and damage into a short-range package. However it has a terrible turret traversal speed and is susceptible to being flanked. Cost 800 M.
  + The **Umbrella** is an indiscriminate and inaccurate defensive tool that hurls unstable plasma (AoE Flak) skyward in an attempt to discourage orbital incursions. It is cheap and only mildly effective. Clustered batteries are advisable. Cost: 300 M.
* Advanced Defensive Structures are more specialised than their basic counterparts:
  + The Adv. **Observation Tower** *(old name: Adv. Radar)* has a large vision radius. It has no Radar. Consumes 1500 E/t. Cost: 500 M.
  + The Adv. **Triple Laser Tower** is designed as an anti-heavy-unit defence. It fires its three lasers in a salvo of devastating accuracy and damage and then recharges for a second salvo. This draws power heavily after each shot fired, so energy storage is advisable if you desire maximum efficiency. 3000 M
  + The Adv. **Flak Tower** is a polar opposite to the Missile Tower from the basic tier; where it is long range but slow, the Flak Tower is short range but devastatingly quick to fire with a large AoE. Since it is likely to be subject to the ire of your opponent, it has a lot of armour for a turret; enough to hold its own against Gunships and Bombers. *[If hooks are made available, can shoot Nukes and Tac Missiles].* Cost: 500 M.
  + The **Noob-a-Pult** is a terrible weapon in vanilla and people who use it are terrible and should feel bad about themselves. Our envisaged use would be a long range and precise tool of attrition. It does low damage over an area. Missiles are stockpiled up to [5]. Each missile costs 100 M. Cost: 3000 M. *If possible, Tac missiles will be targetable by Flak weapons. If not, missiles may need to cost more.*
  + The **Holkins** is an extremely powerful artillery piece with a massive AoE and range. Because of this however, its damage isn’t as concentrated as a Tac Missile and its accuracy suffers at the extreme edges of its reach. Each time it fires it consumes [50,000] E. Cost: 8000 M.

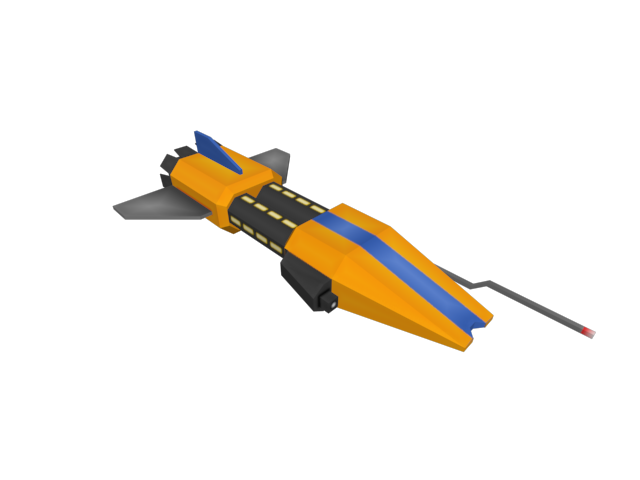
## Air Balance

Air units, by and large keep their speed advantage over ground units. They pay for it by having much less health (undoubled as a contrast to Ground Combat units) and there is a greater focus on accentuating the Ammo system where appropriate to curb loitering aircraft over an enemy base. Combined with the changed to AA (both structures and units), Air units will be the kings of raiding and cleaning up the map, be it grabbing metal spots or hunting straglers.

* Basic Aircraft Factory
  + **Fabrication Aircraft**. Fast, Lightly armoured. Cost: 500 M.
  + The **Firefly** is *the* scout unit. With a vastly improved vision radius and speed to outpace any aircraft. However its armour is sacrificed for this speed and it can’t take more than a single hit by most attacks. Its weapon is removed. Cost: 30 M.
  + The **Hummingbird** is a light multi-role fighter. It has a very tight turning circle and speed enough to keep pace with all but the fastest Air units. Its main weapon is a rapid-fire light laser cannon whose projectile travels very quickly, and can down enemy air units reasonably quickly by following along behind them. *If possible it will also be capable of doing weak strafing runs on ground targets (assuming multiple layer targeting and target prioritisation can be easily made to work for this kind of unit*). Cost: 180 M.
  + The **BumbleBee** is largely unchanged. It retains the column of bombs dropped, but ups the number to 10 bombs per pass and leverages the ammo stockpile a little more. Bombs recharge much slower and the stockpile has enough charges for only 3 passes before it relies solely on its ammo recharge. It has slight AoE potential. Cost: 550 M.
  + *The* ***Pelican.*** *Possibility to move back to Basic tier if these conditions are met:*
    1. *Top speed is slower than all other Aircraft.*
    2. *Acceleration is Terribad.*
    3. *Pick-Up speed (vertical ascent and descent) is Terribad.*
    4. *Cost is increased.*
    5. *Armour is increased.*
    6. *Given poor sight radius and a small Radar.*
* Adv. Aircraft Factory
  + **Adv. Fabrication Aircraft**. Fast, lightly armoured. Cost: 1500 M.
  + The **Peregrine** is an Air superiority fighter with a front loaded, ammo dependant missile pod. It can fire several *devastating* salvos of missiles before running dry and then needs a substantial amount of time to recharge its stockpile; [1,000] energy per missile and several seconds [5] to recharge each one. It’s maneuverability is less than that of the Hummingbird and unable to keep pace with them too. Cost: 1200 M.
  + The **Hornet** is a slower, heavier and more well armoured area denial bomber. *Ideally, it uses the shot persistence hook to leave a damaging pool of burning napalm which persists for a very long time.* It takes a long time to reload its napalm bombs. Cost 1500 M.
  + The **Kestrel** is the heaviest armored flying vehicle (per metal), and also the slowest. It operates similar to how it does now, but exchanging speed and a high DPS for more armour. Cost 800 M.

## Orbital Balance

Orbital becomes a relatively simple and low-maintenance layer that focuses on supporting the ground layer and allowing transport between planets. Orbital units by-and-large have a high top speed but an *abysmal* acceleration.

* **Basic Orbital Launcher**. Built by basic Engineers. Cost: 1,000 M. It consumes 30 M/t and 3000 E/t. It can build the orbital fabricator, the Astraeus, the Artemis, and the basic radar satellite (Astrolabe).
  + The **Orbital Fabricator** is slow, lightly armoured and carries a “heavy” Lathe, consuming 10 M/t and 1000 E/t. Cost 750 M.
    - The **Solar Satellite** is an immobile structure that generates energy. They are inefficient on space, but more efficient on energy produced per Metal invested. Poorly armoured. Produces 1000 E/t. Cost: 500 M.
    - The **Argus** *(Deep Space Radar)* is also immobile. It gives radar information on any unit or missile traversing between planets, moons and asteroids. It’s poorly armoured and consumes 2000 E/t. Cost: 300 M.
    - The **Teleporter** is mostly unchanged. It consumes 1000 E/t. Cost: 1,500 M.
  + The **Astrolabe** *(Basic Orbital Radar)* is mobile unit which gives a decent amount of Radar detection of the ground below itself, and a reasonable vision radius of the ground. Consumes 500 E/t. Cost: 300 M. 
  + The **Artemis Exo-Atmospheric Kill Vehicle** is little more than a long range missile. It is cheap and poorly armoured. However, unlike other satellites, it is fast and accelerates to top speed quickly. The Artemis is designed to be deployed in large numbers to overwhelm enemy orbital units. It has a reasonable ground vision range. Cost 150 M

*(Pictured Right: Textured Model)*

* + The **Astraeus** is a big, slow, heavily armoured interplanetary transport unit. It is cheap enough to allow mass unit transportation. Cost: 200 M.
* **Adv Orbital Factory** [???]:
  + - The **Aegis** *(Anchor)* is a slow moving satellite with heavy armour and an array of short range flechette launchers (AoE Flak) that can be trained on Satellites or even Aircraft. Cost: 1200 M.
    - The **Aurora** *(Avenger)* is an Orbital “Sniper” Satellite that consumes 12,000 E per shot with a recharge of 6 seconds (2,000 E/t). It is very long range, a low tracking speed and hits like a truck; enough to One-shot any other satellite. It will also take long range pot-shots at Tactical Missiles and Nukes; however, this is a happy byproduct, not a selling point. Cost: 2,000 M.
    - The **SXX** is a powerful bombardment platform that exclusively targets the ground beneath it. It’s inaccurate and has a moderate AoE for its attack and has a slow fire rate. Cost: 2,000 M.

## Super Weapons

Nukes and Halleys are the current “super” weapons available in PA, though with luck this will extend to Metal Planet Reactivation and various other interesting units. In time we will rebalance those units to be more in line with how this mod needs them to operate, but for now we’ll stick with Nukes and Halleys.

* The Nuke Launcher consumes 40 M/t and 2250 E/t. Cost: [1,500 M.]
  + *The* ***Tactical Nuke*** *is a smaller, cheaper variant on the Nuke. Its damage and radius is less impressive and some units may even be able to survive the shock wave. Cost: [5,500 M.]*
  + The **Strategic Nuke** is largely unchanged. Cost: [40,000 M.]
* The Anti Nuke Launcher consumes 30 M/t and 1500 E/t. Cost: [2,000 M]
  + The **Anti-Nuke Missile** automatically targets both Tac Nukes and Strat Nukes. It trades slightly inefficiently (time-wise) with Tac Nukes, but *very* efficiently with Strat Nukes. Cost: [5,500 M.]
  + *The* ***Anti-Satellite Missile*** *is an expensive but sure-fire way to eliminate a satellite from orbit. Huge range. Cost: [1,500 M.]*
* The Halley
  + Largely unchanged. Cost: 40,000 M.

## Naval Balance (WIP)

Naval is a whole different kettle of board game fish. Essentially ships are designed to support and compliment and air force/ground based units near the shoreline.

* Basic Naval Factory
  + The **Basic Fabrication Ship** is very heavily armoured, moderately fast and has the most powerful (and efficient) Lathe of any Basic construction unit. Cost: 800 M.
  + The **Sunfish** is a light PT boat designed as a harassment ship. It has a medium range, slow firing, ship-to-ship torpedo launcher, light armour and a powerful engine, making it the fastest ship. Cost: [???]
  + The **Narwhal** is a generalist support vessel. It mounts a medium ship-to-ship cannon with a respectable rate of fire and slow firing missile launchers *(Ideally Flak cannons)*. Its speed matches that of the Bluebottle. Cost: [???]
  + The **Bluebottle** is the heaviest ship available in the basic factory. It mounts two Destroyer cannons that deal a massive amount of damage at medium ranges and can double as an off-shore bombardment vessel, though it must come into relatively shallow water to do so. For a ship of its weight-class, it is quite maneuverable and respectably fast. Cost: [???]
  + *The* ***Dolphin*** *is a submarine. Dunno when Uber will implement.*
* Adv. Naval Factory
  + The **Adv. Fabrication Ship** is very heavily armoured, moderately fast and has the most powerful (and efficient) Lathe of any Adv. construction unit. Cost: 2400 M.
  + The **Leviathan** is a true naval bombardment ship. It trades speed and maneuverability for range and firepower. It has very slow firing, yet devastatingly powerful Bombardment cannons, favouring an engagement at extreme range. Though larger than the Bluebottle, metal-for-metal it is less well armoured and prone to being overrun by smaller, faster ships. Cost: [???]
  + The **Stingray** is a mobile intelligence and precision strike platform. It fires the same weapon as the Noob-a-pult (including costing metal) with the added benefit of an onboard Radar, similar in observational range to Basic Radar. Consumes 500 E/t for the Radar and 500 M per missile with a long recharge cycle. Stockpile of [5] missiles. Cost: [???]
    1. *If possible, Tac missiles will be targetable by Flak weapons. If not, missiles cost more.*
  + *The* ***Barracuda*** *is another submarine. Dunno when Uber will implement.*