

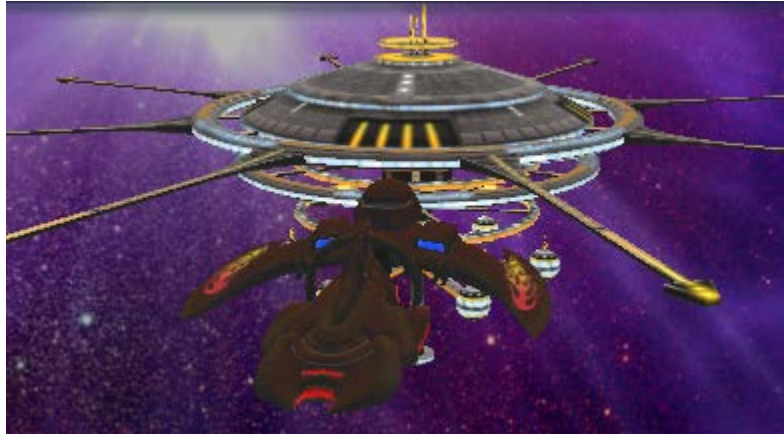
# Ben's Mod Guide

## What is this?

Ben's mod is exclusively a new ship design mod. All ships have been modified to fit a new vision for the universe, and to give a much wider variety of ship designs and sizes.

## What is this new vision?

There are five new themes in the Ben's Mod Vision



1. New weapon systems for both beams and torpedo loadouts.
2. New hull classes and fighter designs
3. New ship maneuver and propulsion systems
4. New energy equations
5. A point balance system so that ships will be balanced in a general sense. Keep in mind specialty ships will be very powerful in their chosen area, and weak in others.

## New Weapons Systems

### Broadside Beam

The most dramatic new weapon system is the Broadside beam. It combines an extended range with dual, very narrow firing arcs out either side. It's very powerful attacks, and slow reload time make for a whole new strategy for success requiring turns back and forth to hit with both sides while the other side recharges. The idea is to mimic tacking like the old age of sail ships.

### Point Defense Beams

To counter the new drones swarms (enemy ships have been modified as well) a new breed of turreted beams have been introduced. They provide 360 coverage and are frequently rapid fire (double fire rate) or gatling (quadruple rate). Their increased rate of fire comes at the price of reduced damage, making them of less utility for a good punch against large ships.

### Long and Short Range

Many beams are reduced range: Short, Close, and the up close and personal assault. They also come in longer range versions: Extended, Long, and Extreme.

### Torpedo Loadouts

While none of the ordnance is changed new Light, Heavy, and Support loadouts are introduced. These provide Homing/Plasma Shock; Nuke/EMP; and EMP loadout focused stores.

## Hull Classes

Ships are now broken into progressively larger more powerful hull sizes. For full details see the Point Balance System for the size of each new hull class.

## Fighter Redesign

All fighters are now much faster, and are able to operate at strategic scale.

### Terran Fighters

Terran fighters have improved beam attacks, and reduced shielding, relying on Torpedoes and maneuverability to stay clear of enemy fire by attacking from range or behind.

### Pirate Fighters

Pirate fighters are the most maneuverable fighters in the galaxy allowing them to position carefully out of range and make use of their new sniper beams.

### Ximni Fighters

The Ximni use large fighter craft with augmented engines to provide firepower comparable to a capital ship. They forego torpedoes and make use of close assault beams. Their designs include a very high speed interceptor capable of operating easily at strategic scales, and a fast moving frontal assault fighter that replaces the fast firing heavy Ximni beams with a devastating X-Capacitor beam shot that can inflict serious damage on light cruisers and is perfect for the high speed one shot pass.

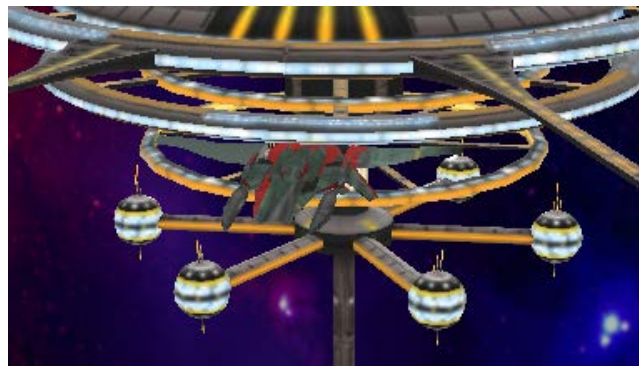
## Maneuver and Propulsion

The original Artemis tempered the benefits of large ships with an across the board reduction in maneuver, efficiency, and speed. Ben's Mod duplicates the real-world effects of size by making smaller ships maneuverable, but slower, and with reduced range.

New designs accommodating unusually large or small propulsion are now introduced. Interceptor ships have double speed, fast are 50% increased, whereas slow are half speed.

New maneuver systems allow Maneuverable ships to turn 50% faster, and sluggish ones to turn at half speed.

New fuel storage systems provide Endurance for 50% better range, or limited Intrastellar use with 50% of original range.



### Jump Drives

All ships now have Jump and Warp drives that are useable (Vanilla Artemis made Warp Ximni and Jump Terran impractical). Since Jump drives do not have speeds, those that are slow, fast, or interceptor, instead have their jump energy efficiency reduced or improved.

## Energy Equations

The original Artemis allowed for torpedoes to convert to energy. An excellent system, however large ships, with larger stores of torpedoes gained a disproportionate advantage as they could recharge multiple times. In Ben's mod converting torpedoes to energy has virtually no effect, but to counter this, making torpedoes with energy is now much easier. Light ordnance missile cruisers can make practical use of the energy to torpedo option to restock.

All forms of energy consumption are also cut in half, this makes energy management more straightforward as the ship's energy is all that needs to be watched. The net effect provides approximately the same range and fighting endurance.

## Point Balance System

### Starship Classes

Class Name	SBP	Mnvr	Speed	Eff	Warp	Size
Patrol	80	8	0.5	0.8	0.67	3
Corvette	160	6	0.55	0.7	0.64	4
Destroyer	320	5	0.6	0.6	0.6	6
Cruiser	480	4	0.65	0.5	0.54	8
Battlecruiser	640	3	0.7	0.4	0.47	10
Battleship	960	2.5	0.75	0.3	0.38	14
Dreadnought	1280	2	0.8	0.25	0.33	18
Starbase	1920	1.5	0.9	0.2	0.3	26

SBP: Starship build points, used for shields, weapons, engines, etc

Maneuver: Turn rate in thousandths, e.g. 8 is 0.008

Eff: Efficiency, divide by two for jump efficiency

Warp: Warp Efficiency (Efficiency modified for top speed)

Shields: Each point of shields, either front or aft is 1 SBP

Beam	SBP	Damage	Cycle	Arc	Range
Forward	40	12	6	0.4	1000
Broadside *	40	32	24	0.05	1500
Fore/Aft *	80	12	6	0.6	1000
Heavy	x2	x2			
Massive	x4	x4			
Rapid	x1	x1/2	x1/2		
Gatling	x1	x1/4	x1/4		
Wide Angle	x1.5			1.0	
Focused	x2/3			0.05	
Close	x1/3				333
Assault	x1/2				500
Short	x2/3				666
Extended	x1.5				1500
Long	x2				2000
Extreme	x3				3000

\* Matching pair

Torpedo SBP

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Torpedo Tube	7
Homing	1
Nuke	6
Mine	2
EMP	4
PShock	1
Beacon	2
Probe	0.5
Tag	0.5

Note: Standard ammo complement per Torpedo Tube:  
 4 Homing, 1 Nuke, 3 Mines, 2 EMP, 2 PShock, 2 Beacon, 4 Probe, 2 Tag

#### Ship Engine and Maneuver Drive Modifications

Fast Starship: Speed +50%, -25% total SBP. For example  
 a Fast Destroyer would have 240 SBP and Speed 0.9

Interceptor Starship: Speed +100%, -50% total SBP. For example  
 an Interceptor Patrol Ship would have 40 SBP and Speed 1.0

Slow Starship: Reduce Speed to half, +25% total SBP. For example  
 a Slow Cruiser would have 720 SBP and Speed 0.325

Fast, Interceptor, and Slow Starships all divide their  
 WarpEfficiency and Jump Efficiency by the same amount, so  
 Interceptor Starships are double TopSpeed and half WarpEfficiency  
 and JumpEfficiency

Maneuverable Starship: Increase Maneuver +50%, -25% SBP. For  
 example, a Maneuverable Cruiser would be 360 SBP and Maneuver 6

Sluggish Starship: Maneuver -50%, +25% SBP. For example  
 a Sluggish Corvette would be 200 SBP and Maneuver 3

Endurance Starship: Efficiency -33%, -25% SBP. For example, an  
 Endurance Battleship would be 1200 SBP and Efficiency 0.4

Intrastellar Starship: Efficiency +50%, +25% SBP. For example  
 an Interstellar Dreadnought would be 1600 SBP and Efficiency 0.75

Fighter Bays: 80 SBP each Terran/Pirate (Size 1),  
 120 SBP each Ximni (Size 1.5)

Shuttle Bay: 20 SBP (Size 0.25), included in cost of ship