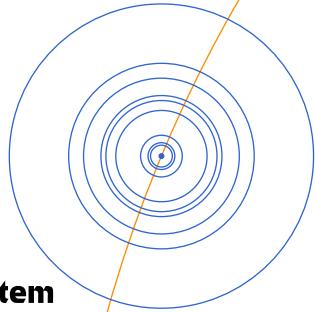


宇宙航行  
**-ARC of the VERSE-**  
Version 1.3

**Astrogation Reference Charts**  
rendered by William T. Pace

Carefully extrapolated from J. Chris Bourdier's White Paper. My many thanks to Bourdier's special brand of madness, with a respective nod to the members of the Quantum Mechanics Braintrust, the great and powerful Joss and every other Browncoat that inspired this flight of fancy.



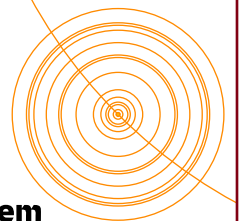
**Blue Sun System**  
**Qing Long · Blue Dragon**

I have always been a fan of the many creative forces that make up Quantum Mechanix. The work which comes out of that factory of fandom never ceases to rob me of words (and not a little cashy money). The Complete and Official Map of the Verse exceeded my expectations and I had thought that it and it alone would suffice, but then along came the "The Verse in Numbers" and I found that I was wrong.

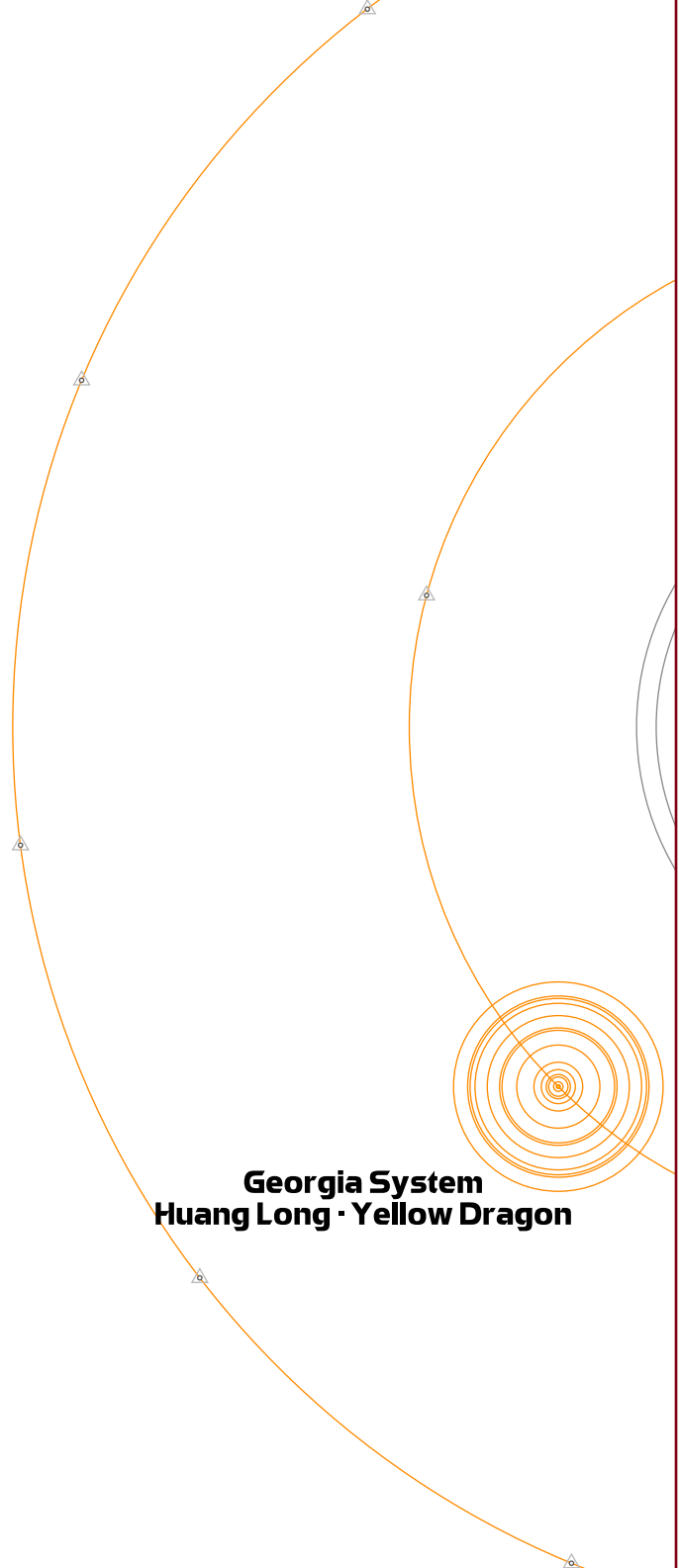
The White Paper (much like the White Album) is so much more than its humble name. Like the Universe as a whole, the Verse described therein is elegant in miniature. One has but to examine Bourdier's work from cover to cover to understand the sheer volume of effort necessary to take the delicious, limited tidbits provided by Joss Whedon and the other writers of Firefly and Serenity, and place them into the elegant mathematics of gravity. It was this gravity that compelled me and swallowed my every waking minute for weeks while I charted the pivotal turnings of the Verse. Just when I thought the 'Brown' had all but bled out of my proverbial coat, Bourdier brought me back again. I couldn't help but give a little bit back to everyone who makes the Verse continue to grow out of The Black.

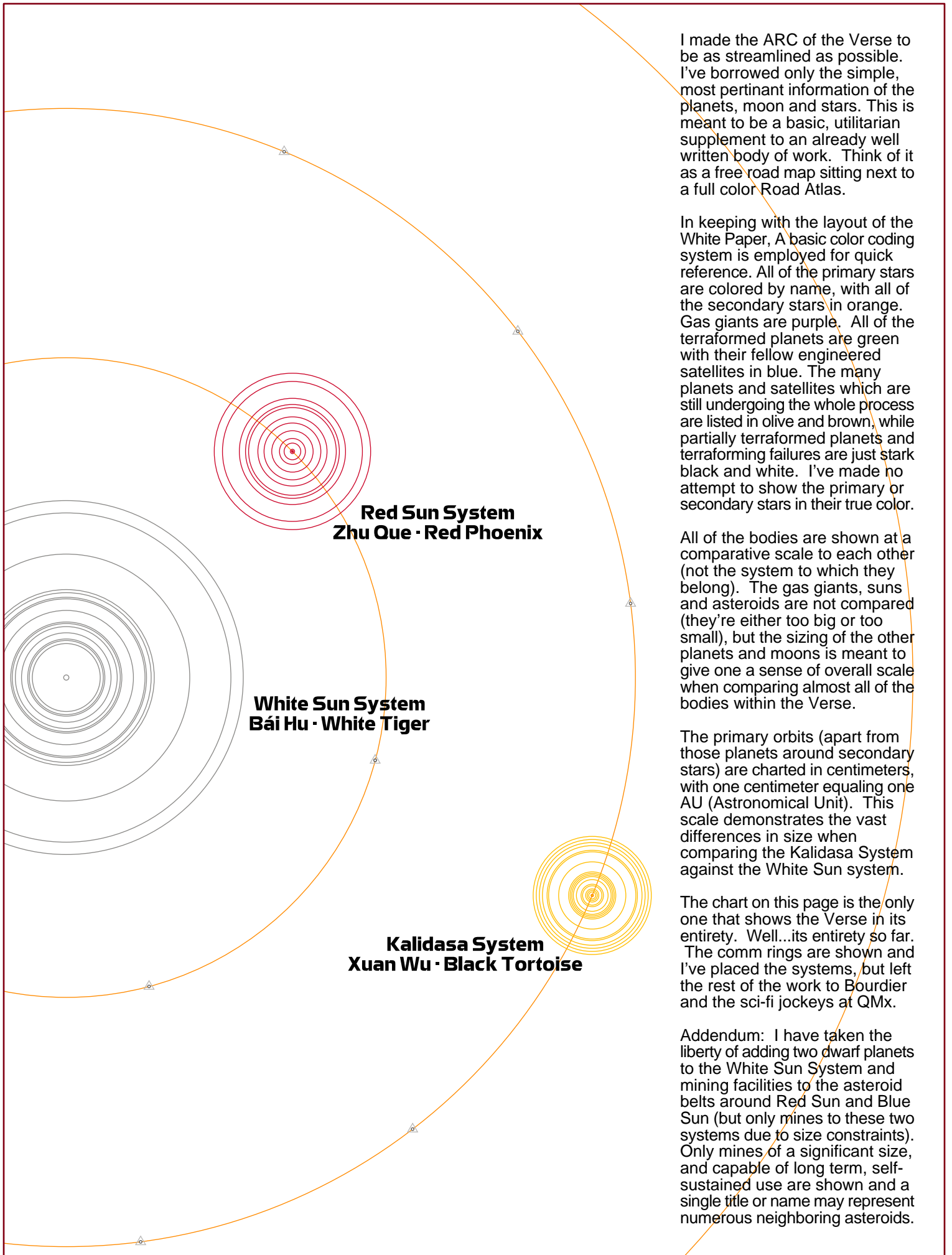
A special thanks to the many fans who contributed names for the mining asteroid facilities found in the Red Sun and Blue Sun systems. Give the fans a lever and they'll move the Verse.

*-William T. Pace ~ a.k.a. Yellowjacket*  
Amateur Astrocartographer & Refugee of Earth That Was



**Georgia System**  
**Huang Long · Yellow Dragon**





**Red Sun System  
Zhu Que - Red Phoenix**

**White Sun System  
Bái Hu - White Tiger**

**Kalidasa System  
Xuan Wu - Black Tortoise**

I made the ARC of the Verse to be as streamlined as possible. I've borrowed only the simple, most pertinent information of the planets, moon and stars. This is meant to be a basic, utilitarian supplement to an already well written body of work. Think of it as a free road map sitting next to a full color Road Atlas.

In keeping with the layout of the White Paper, A basic color coding system is employed for quick reference. All of the primary stars are colored by name, with all of the secondary stars in orange. Gas giants are purple. All of the terraformed planets are green with their fellow engineered satellites in blue. The many planets and satellites which are still undergoing the whole process are listed in olive and brown, while partially terraformed planets and terraforming failures are just stark black and white. I've made no attempt to show the primary or secondary stars in their true color.

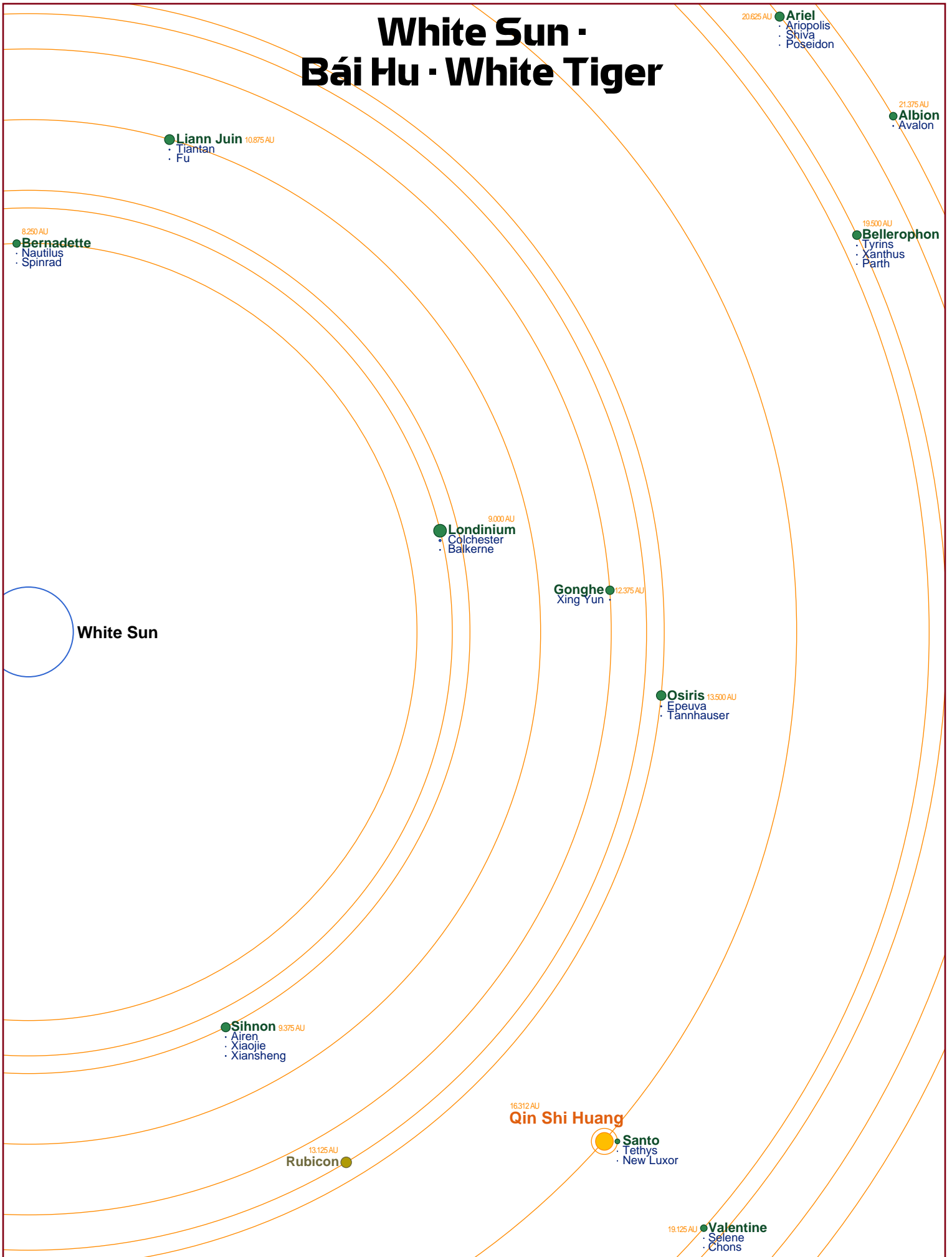
All of the bodies are shown at a comparative scale to each other (not the system to which they belong). The gas giants, suns and asteroids are not compared (they're either too big or too small), but the sizing of the other planets and moons is meant to give one a sense of overall scale when comparing almost all of the bodies within the Verse.

The primary orbits (apart from those planets around secondary stars) are charted in centimeters, with one centimeter equaling one AU (Astronomical Unit). This scale demonstrates the vast differences in size when comparing the Kalidasa System against the White Sun system.

The chart on this page is the only one that shows the Verse in its entirety. Well...its entirety so far. The comm rings are shown and I've placed the systems, but left the rest of the work to Bourdier and the sci-fi jockeys at QMx.

Addendum: I have taken the liberty of adding two dwarf planets to the White Sun System and mining facilities to the asteroid belts around Red Sun and Blue Sun (but only mines to these two systems due to size constraints). Only mines of a significant size, and capable of long term, self-sustained use are shown and a single title or name may represent numerous neighboring asteroids.

# White Sun · Bái Hu · White Tiger





## Bernadette

P/2028(White Sun)13  
 Primary: White Sun  
 Position: 1<sub>st</sub> from primary  
 Orbit: 1,234,182,428km (8.250 AU)  
 Period (years): 23.70 (days): 8,655  
 Diameter: 10,582km  
 Mass: 4.114x10<sub>21</sub> tonnes  
 Surface Gravity: 0.9982 G  
 Terraformed (year): 2240  
 Population: 3,754,542,000

## Nautilus

S/2175(Bernadette)01  
 Orbit: 249,860km  
 Period (days): 17.75  
 Diameter: 1,084km  
 Mass: 4.330x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0010  
 Terraformed (year): 2240  
 Population: 7,500,000

## Spinrad

S/2175(Bernadette)02  
 Orbit: 345,960km  
 Period (days): 24.57  
 Diameter: 978km  
 Mass: 3.486x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9900 G  
 Terraformed (year): 2240  
 Population: 250,000

## Londinium

P/2027(White Sun)03  
 Primary: White Sun  
 Position: 2<sub>nd</sub> from primary  
 Orbit: 1,346,380,830km (9.000 AU)  
 Period (years): 27.00 (days): 9,862  
 Diameter: 18,000km  
 Mass: 1.210x10<sub>22</sub> tonnes  
 Surface Gravity: 1.0145 G  
 Terraformed (year): 2220  
 Population: 4,510,000,000  
 Capital: Alliance  
 Capital: White Sun

## Colchester

S/2172(Londinium)01  
 Orbit: 196,044km  
 Period (days): 13.92  
 Diameter: 3,145km  
 Mass: 3.650x10<sub>20</sub> tonnes  
 Surface Gravity: 1.0025 G  
 Terraformed (year): 2220  
 Population: 9,100,000

## Balkerne

S/2172(Londinium)02  
 Orbit: 276,768km  
 Period (days): 19.66  
 Diameter: 1,524km  
 Mass: 8.213x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9607 G  
 Terraformed (year): 2220  
 Population: 7,220,000

## Sihnon

P/2027(White Sun)04  
 Primary: White Sun  
 Position: 3<sub>rd</sub> from primary  
 Orbit: 1,402,480,031km (9.375 AU)  
 Period (years): 28.70 (days): 10,484  
 Diameter: 12,881km  
 Mass: 5.987x10<sub>21</sub> tonnes  
 Surface Gravity: 0.9802 G  
 Terraformed (year): 2220  
 Population: 5,330,000,000  
 Capital: Alliance  
 Capital: White Sun

## Airen

S/2173(Sihnon)02  
 Orbit: 38440  
 Period (days): 2.73  
 Diameter: 1,470km  
 Mass: 7.726x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9713 G  
 Terraformed (year): 2220  
 Population: 47,000

## Xiaoje

S/2164(Sihnon)01  
 Orbit: 326740  
 Period (days): 23.21  
 Diameter: 1,004km  
 Mass: 3.686x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9934 G  
 Terraformed (year): 2220  
 Population: 97,000

## Xiansheng

S/2176(Sihnon)03  
 Orbit: 422840  
 Period (days): 30.03  
 Diameter: 1,527km  
 Mass: 8.593x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0012 G  
 Terraformed (year): 2220  
 Population: 2,300,000

## Liann Jiun

P/2028(White Sun)12  
 Primary: White Sun  
 Position: 4<sub>th</sub> from primary  
 Orbit: 1,626,876,836km (10.875 AU)  
 Period (years): 35.86 (days): 13,099  
 Diameter: 13,957km  
 Mass: 7.172x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0002  
 Terraformed (year): 2255  
 Population: 3,750,000,000

## Tiantan

S/2176(Liann Jiun)01  
 Orbit: 196,044km  
 Period (days): 13.92  
 Diameter: 1,784km  
 Mass: 1.190x10<sub>20</sub> tonnes  
 Surface Gravity: 1.0154  
 Terraformed (year): 2255  
 Population: 5,500,000

## Fu

S/2176(Liann Jiun)02  
 Orbit: 238,328km  
 Period (days): 16.93  
 Diameter: 1,396km  
 Mass: 6.827 x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9517  
 Terraformed (year): 2255  
 Population: 2,250,000

## Gonghe

P/2027(White Sun)05  
 Primary: White Sun  
 Position: 5<sub>th</sub> from primary  
 Orbit: 1,851,273,641km (12.375 AU)  
 Period (years): 43.53 (days): 15,900  
 Diameter: 11,990km  
 Mass: 5.313x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0041  
 Terraformed (year): 2255  
 Population: 2,550,000,000

## Xing Yun

S/2173(Gonghe)01  
 Orbit: 338,272km  
 Period (days): 24.02  
 Diameter: 1,601km  
 Mass: 9.204x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9755  
 Terraformed (year): 2255  
 Population: 12,000,000

## Rubicon

P/2028(White Sun)10  
 Primary: White Sun  
 Position: 6<sub>th</sub> from primary  
 Orbit: 1,963,472,044km (13.125 AU)  
 Period (years): 47.55 (days): 17,368  
 Diameter: 15,075km  
 Mass: 8.459x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0112  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Osiris

P/2027(White Sun)06  
 Primary: White Sun  
 Position: 7<sub>th</sub> from primary  
 Orbit: 2,019,571,245km (13.500 AU)  
 Period (years): 49.60 (days): 18,117  
 Diameter: 13,523km  
 Mass: 6.964x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0345  
 Terraformed (year): 2256  
 Population: 3,980,000,000

## Epeuva

S/2176(Osiris)01  
 Orbit: 96,100km  
 Period (days): 6.83  
 Diameter: 1,846km  
 Mass: 1.220 x10<sub>20</sub> tonnes  
 Surface Gravity: 0.9726  
 Terraformed (year): 2256  
 Population: 2,911,000

## Tannhauser

S/2176(Osiris)02  
 Orbit: 126,852km  
 Period (days): 9.01  
 Diameter: 1,359km  
 Mass: 6.536x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9614  
 Terraformed (year): 2256  
 Population: 177,000

## Qin Shi Huang

P/2020(White Sun)01  
 Class: Artificial Star  
 Heliiformed: 2271  
 Radius: 0.32 Sol - Brown Dwarf  
 Radius: 0.19 Sol - Protostar  
 Mass: 0.32 Sol  
 Orbit: 2,440,315,254km (16.312 AU)  
 Period (years): 65.88

## Santo

S/2032(Qin Shi Huang)01  
 Primary: Qin Shi Huang  
 Position: 1<sub>st</sub> from primary  
 Orbit: 6,504,258km  
 Period (days): 143  
 Diameter: 6,790km  
 Mass: 1.697x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0000  
 Terraformed (year): 2305  
 Population: 846,500,000

## Tethys

S/2173(Santo)01  
 Orbit: 115,320km  
 Period (days): 8.19  
 Diameter: 970km  
 Mass: 3.481x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0050  
 Terraformed (year): 2305  
 Population: 27,000

## New Luxor

S/2176(Santo)02  
 Orbit: 230,640km  
 Period (days): 16.38  
 Diameter: 985km  
 Mass: 3.580x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0024  
 Terraformed (year): 2305  
 Population: 154,000

## Valentine

P/2028(White Sun)09  
 Primary: White Sun  
 Position: 9<sub>th</sub> from primary  
 Orbit: 2,861,059,264km (19.125 AU)  
 Period (years): 83.64 (days): 30,549  
 Diameter: 9,358km  
 Mass: 3.221x10<sub>21</sub> tonnes  
 Surface Gravity: 0.9992  
 Terraformed (year): 2266  
 Population: 2,650,000,000

## Selene

S/2176(Valentine)01  
 Orbit: 57,660km  
 Period (days): 4.10  
 Diameter: 1,003km  
 Mass: 3.683x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9947  
 Terraformed (year): 2266  
 Population: 8,000,000

## Chons

S/2176(Valentine)02  
 Orbit: 380,556km  
 Period (days): 27.03  
 Diameter: 1,018km  
 Mass: 3.714x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9737  
 Terraformed (year): 2266  
 Population: 11,000,000

## Bellerophon

P/2027(White Sun)08  
 Primary: White Sun  
 Position: 10<sub>th</sub> from primary  
 Orbit: 2,917,158,465km (19.500 AU)  
 Period (years): 86.11 (days): 31,452  
 Diameter: 12,266km  
 Mass: 5.555x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0031  
 Terraformed (year): 2266  
 Population: 3,124,510,000

## Tyrins

S/2172(Bellerophon)01  
 Orbit: 84,568km  
 Period (days): 6.01  
 Diameter: 1,456km  
 Mass: 7.934x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0167  
 Terraformed (year): 2266  
 Population: 7,000,000

## Xanthus

S/2172(Bellerophon)02  
 Orbit: 107,632km  
 Period (days): 7.64  
 Diameter: 1,349km  
 Mass: 6.386x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9534  
 Terraformed (year): 2266  
 Population: 5,500,000

## Parth

S/2172(Bellerophon)03  
 Orbit: 192,200km  
 Period (days): 13.65  
 Diameter: 1,006km  
 Mass: 3.871x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0391  
 Terraformed (year): 2266  
 Population: 3,000,000

## Ariel

P/2027(White Sun)07  
 Primary: White Sun  
 Position: 11<sub>th</sub> from primary  
 Orbit: 3,085,456,069km (20.625 AU)  
 Period (years): 93.67 (days): 34,212  
 Diameter: 13,016km  
 Mass: 6.323x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0140  
 Terraformed (year): 2266  
 Population: 3,615,995,500

## Ariopolis

S/2176(Ariel)01  
 Orbit: 307,520km  
 Period (days): 21.84  
 Diameter: 1,075km  
 Mass: 4.143x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9739  
 Terraformed (year): 2266  
 Population: 4,500

## Shiva

S/2176(Ariel)02  
 Orbit: 334,428km  
 Period (days): 23.75  
 Diameter: 1,003km  
 Mass: 3.563x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9621  
 Terraformed (year): 2266  
 Population: 4,570,000

## Poseidon

S/2176(Ariel)03  
 Orbit: 372,868km  
 Period (days): 26.48  
 Diameter: 1,024  
 Mass: 3.889x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0075  
 Terraformed (year): 2266  
 Population: 5,000,000

## Albion

P/2028(White Sun)11  
 Primary: White Sun  
 Position: 12<sub>th</sub> from primary  
 Orbit: 3,197,654,471km (21.375 AU)  
 Period (years): 98.82 (days): 36,095  
 Diameter: 10,760km  
 Mass: 4.196x10<sub>21</sub> tonnes  
 Surface Gravity: 0.9847  
 Terraformed (year): 2270  
 Population: 2,154,500,000

## Avalon

S/2172(Albion)01  
 Orbit: 384,400km  
 Period (days): 27.30  
 Diameter: 1,589km  
 Mass: 9.042x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9729  
 Terraformed (year): 2270  
 Population: 10,000,000

## Lux

P/2020(White Sun)02  
 Class: Artificial Star  
 Heliiformed: 2261  
 Radius: 0.39 Sol - Brown Dwarf  
 Radius: 0.23 Sol - Protostar  
 Mass: 0.39 Sol  
 Orbit: 4,487,936,100km (30.000 AU)  
 Period (years): 164.32

## Persephone

S/2040(Lux)02  
 Primary: Lux  
 Position: 1<sub>st</sub> from primary  
 Orbit: 5,495,784km  
 Period (days): 121  
 Diameter: 14,613km  
 Mass: 8.096x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0300  
 Terraformed (year): 2308  
 Population: 2,570,000,000

## Hades

S/2176(Persephone)01  
 Surface Gravity: 0.9888 G  
 Period (days): 10.92  
 Diameter: 1,018km  
 Mass: 3.828x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0036  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Renao

S/2177(Persephone)02  
 Orbit: 234,484km  
 Period (days): 16.65  
 Diameter: 992km  
 Mass: 3.608x10<sub>19</sub> tonnes  
 Surface Gravity: 0.9960  
 Terraformed (year): 2308  
 Population: 42,000

## Halo

## Pelorum

S/2040(Lux)01  
 Primary: Lux  
 Position: 2<sub>nd</sub> from primary  
 Orbit: 8,524,784km  
 Period (days): 188  
 Diameter: 5,700km  
 Mass: 1.208x10<sub>21</sub> tonnes  
 Surface Gravity: 1.0100  
 Terraformed (year): 2308  
 Population: 563,500,000

## Kaleidoscope

S/2173(Pelorum)01  
 Orbit: 319,052km  
 Period (days): 22.66  
 Diameter: 993km  
 Mass: 3.695x10<sub>19</sub> tonnes  
 Surface Gravity: 1.0180  
 Terraformed (year): 2308  
 Population: 750,000

## Halo

Asteroid Belt  
 Primary: White Sun  
 Inner Boundary: 5,983,914,800km (40 AU)  
 Outer Boundary: 6,432,708,410km (43 AU)  
 Average Width: 448,793,610km (3 AU)  
 Number of cataloged objects: 78,472,112  
 Asteroid designation uses numbers and letters (excluding i, l, o, and z):  
 Example: A/2223(White Sun)3a/45b

## Dukkha

DP/2170(White Sun)14  
 Primary: White Sun  
 Position: 14<sub>th</sub> from primary  
 Orbit: 5,913,000km (35.060 AU)  
 Period (years): 27.00 (days): 9,862  
 Diameter: 2,274km  
 Mass: 1.210x10<sub>20</sub> tonnes  
 Surface Gravity: 0.0600 G  
 Terraformed (year): N/A  
 Population: -1,750+ (Mining Crew)

## Samudaya

DP/2170(Dukkha)01  
 Orbit: 18,350km  
 Period (days): 6.39  
 Diameter: 1,207km  
 Mass: 1.520x10<sub>21</sub> tonnes  
 Surface Gravity: N/A  
 Terraformed (year): N/A  
 Population: -300+ (Mining Crew)

## Nirodha

S/2170(Dukkha)03  
 Orbit: 48,708km  
 Period (days): 24.86  
 Diameter: 96km  
 Mass: 3.500x10<sub>17</sub> tonnes  
 Surface Gravity: N/A  
 Terraformed (year): N/A  
 Population: -270+ (Mining Crew)

## Magga

S/2170(Dukkha)02  
 Orbit: 64,749km  
 Period (days): 38.21  
 Diameter: 102km  
 Mass: 3.740x10<sub>17</sub> tonnes  
 Surface Gravity: N/A  
 Terraformed (year): N/A  
 Population: -350+ (Mining Crew)

## Ra Amiran

DP/2190(White Sun) 15  
 Primary: White Sun  
 Position: 15<sub>th</sub> from primary  
 Orbit: 6,133,662,309km (41.001 AU)  
 Period (years): 555 (days): 202,869  
 Diameter: 2,498km  
 Mass: 1.671x10<sub>22</sub> tonnes  
 Surface Gravity: 0.9888 G  
 Terraformed (year): Partial/Ongoing  
 Population: ~1,300+ (Terraform Crew + Depot Crew + other)

## Namira

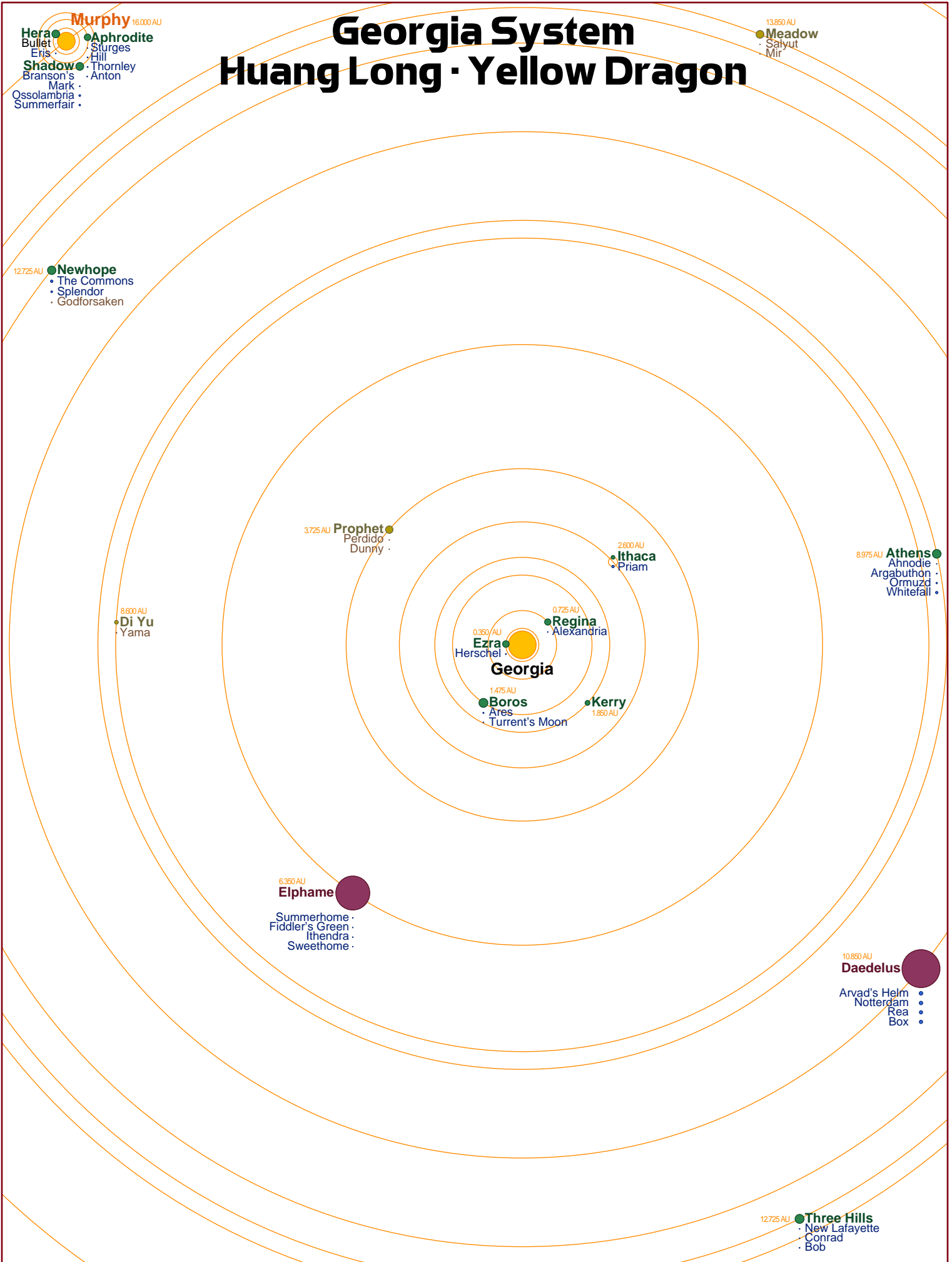
S/2190(Ra Amiran)01  
 Orbit: 37,347km  
 Period (days): 15.774  
 Diameter: 242km  
 Mass: ? tonnes  
 Surface Gravity: N/A  
 Terraformed (year): N/A  
 Population: ~1,300+ (Mining Crew + Research Crew + other)

## Ra Amiran Namira

41,001 AU

# Georgia System

## Huang Long · Yellow Dragon





## Ezra

P/2027(Georgia)03  
Primary: Georgia  
Position: 1<sup>st</sup> from primary  
Orbit: 52,359,255km (0.350 AU)  
Period (years): 0.21 (days): 76  
Diameter: 9,287km  
Mass: 3.111x10<sup>21</sup> tonnes  
Surface Gravity: 0.9798  
Terraformed (year): 2350  
Population: 200,000,000

## Herschel

S/2176(Ezra)01  
Orbit: 345,960km  
Period (days): 24.57  
Diameter: 1,527km  
Mass: 8.370x10<sup>19</sup> tonnes  
Surface Gravity: 0.9752  
Terraformed (year): 2350  
Population: 67,000,000

## Regina

P/2027(Georgia)03  
Primary: Georgia  
Position: 2<sup>nd</sup> from primary  
Orbit: 108,458,456km (0.725 AU)  
Period (years): 0.62 (days): 225  
Diameter: 8,809km  
Mass: 4.1322.976x10<sup>21</sup> tonnes  
Surface Gravity: 1.0100  
Terraformed (year): 2352  
Population: 250,000,000

## Alexandria

S/2174(Regina)01  
Orbit: 422,640km  
Period (days): 30.03  
Diameter: 1,089km  
Mass: 4.354x10<sup>19</sup> tonnes  
Surface Gravity: 0.9973  
Terraformed (year): 2352  
Population: 50,000,000

## Boros

P/2027(Georgia)03  
Primary: Georgia  
Position: 3<sup>rd</sup> from primary  
Orbit: 220,656,858km (1.475 AU)  
Period (years): 1.79 (days): 654  
Diameter: 12,500km  
Mass: 5.917x10<sup>21</sup> tonnes  
Surface Gravity: 1.0287  
Terraformed (year): 2350  
Population: 550,000,000

## Ares

S/2177(Boros)01  
Orbit: 284,456km  
Period (days): 20.20  
Diameter: 1,824km  
Mass: 1.190x10<sup>20</sup> tonnes  
Surface Gravity: 0.9718  
Terraformed (year): 2350  
Population: 34,000,000

## Turrent's Moon

S/2177(Boros)02  
Orbit: 353,648km  
Period (days): 25.12  
Diameter: 1,168km  
Mass: 5.046x10<sup>19</sup> tonnes  
Surface Gravity: 1.0048  
Terraformed (year): 2350  
Population: 1,000,000

## Kerry

P/2027(Georgia)03  
Primary: Georgia  
Position: 4<sup>th</sup> from primary  
Orbit: 276,756,060km (1.850 AU)  
Period (years): 0.21 (days): 919  
Diameter: 6,825km  
Mass: 1.714x10<sup>21</sup> tonnes  
Surface Gravity: 0.9995  
Terraformed (year): 2335  
Population: 550,000,000

## Ithaca

P/2027(Georgia)03  
Primary: Georgia  
Position: 5<sup>th</sup> from primary  
Orbit: 388,954,462km (2.600 AU)  
Period (years): 4.19 (days): 1,531  
Diameter: 5,117km  
Mass: 9.681x10<sup>20</sup> tonnes  
Surface Gravity: 1.0045  
Terraformed (year): 2348  
Population: 800,000,000

## Priam

S/2172(Ithaca)01  
Orbit: 99,944km  
Period (days): 7.10  
Diameter: 3,640  
Mass: 4.926x10<sup>20</sup> tonnes  
Surface Gravity: 1.0100  
Terraformed (year): 2348  
Population: 250,000,000

**Note:** Ithaca and Priam are close enough in size and mass to be a double-planet, orbiting around a barycenter about 33,700km above the surface of Ithaca.

## Prophet

P/2031(Georgia)14  
Primary: Georgia  
Position: 6<sup>th</sup> from primary  
Orbit: 557,252,066km (3.725 AU)  
Period (years): 7.19 (days): 2,626  
Diameter: 10,521km  
Mass: 4.075x10<sup>21</sup> tonnes  
Surface Gravity: 1.0002  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Perdido

S/2178(Prophet)02  
Orbit: 123,008km  
Period (days): 8.74  
Diameter: 992km  
Mass: 3.530x10<sup>19</sup> tonnes  
Surface Gravity: 0.9746  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Dunny

S/2176(Prophet)01  
Orbit: 242,172km  
Period (days): 17.20  
Diameter: 1,014km  
Mass: 3.698x10<sup>19</sup> tonnes  
Surface Gravity: 0.9770  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Elphame

P/2020(Georgia)02  
Primary: Georgia  
Position: 7<sup>th</sup> from primary  
Surface Gravity: 2.6012  
Orbit: 949,946,475km (6.350 AU)  
Period (years): 16.00 (days): 5,845  
Diameter: 143,749km  
Mass: 2.122x10<sup>24</sup> tonnes

## Summerhome

S/2173(Elphame)01  
Orbit: 1,249,300km  
Period (days): 88.73  
Diameter: 1,294km  
Mass: 5.887x10<sup>19</sup> tonnes  
Surface Gravity: 0.9551  
Terraformed (year): 2355  
Population: 75,000,000

## Fiddler's Green

S/2173(Elphame)02  
Orbit: 2,690,800km  
Period (days): 191.10  
Diameter: 1,073km  
Mass: 4.141x10<sup>19</sup> tonnes  
Surface Gravity: 0.9772  
Terraformed (year): 2355  
Population: 16,000,000

## Ithendra

S/2176(Elphame)03  
Orbit: 4,420,600km  
Period (days): 313.95  
Diameter: 1,161km  
Mass: 5.162x10<sup>19</sup> tonnes  
Surface Gravity: 1.0404  
Terraformed (year): 2355  
Population: 19,000,000

## Sweethome

S/2176(Elphame)04  
Orbit: 5,766,000km  
Period (days): 409.50  
Diameter: 980km  
Mass: 3.603x10<sup>19</sup> tonnes  
Surface Gravity: 1.0193  
Terraformed (year): 2355  
Population: 4,500,000

## Di YU

P/2030(Georgia)09  
Primary: Georgia  
Position: 8<sup>th</sup> from primary  
Orbit: 1,286,541,682km (8.600 AU)  
Period (years): 25.22 (days): 9,212  
Diameter: 5,250km  
Mass: 5.555x10<sup>21</sup> tonnes  
Surface Gravity: 1.0057  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Yama

S/2180(Di Yu)01  
Orbit: 73,036km  
Period (days): 5.19  
Diameter: 1,371km  
Mass: 6.926x10<sup>19</sup> tonnes  
Surface Gravity: 1.0011  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Athens

P/2027(Georgia)03  
Primary: Georgia  
Position: 9<sup>th</sup> from primary  
Orbit: 1,342,640,883km (8.975 AU)  
Period (years): 26.89 (days): 9,821  
Diameter: 12,103km  
Mass: 5.344x10<sup>21</sup> tonnes  
Surface Gravity: 0.9912  
Terraformed (year): 2360  
Population: 775,000,000  
Georgia Capital

## Ahnooie

S/2176(Athens)03  
Orbit: 76,880km  
Period (days): 5.46  
Diameter: 1,000km  
Mass: 3.675x10<sup>19</sup> tonnes  
Surface Gravity: 0.9984  
Terraformed (year): 2360  
Population: 525,000

## Argabuthon

S/2172(Athens)01  
Orbit: 165,292km  
Period (days): 11.74  
Diameter: 1,500km  
Mass: 8.087x10<sup>19</sup> tonnes  
Surface Gravity: 0.9765  
Terraformed (year): 2360  
Population: 1,500,000

## Ormuzd

S/2173(Athens)02  
Orbit: 319,052km  
Period (days): 22.66  
Diameter: 2,200km  
Mass: 1.792x10<sup>20</sup> tonnes  
Surface Gravity: 1.0060  
Terraformed (year): 2360  
Population: 2,225,000

## Whitefall

S/2177(Athens)04  
Orbit: 395,932km  
Period (days): 28.12  
Diameter: 3,600km  
Mass: 4.629x10<sup>20</sup> tonnes  
Surface Gravity: 0.9704  
Terraformed (year): 2360  
Population: 2,500,000

## Daedelus

P/2020(Georgia)03  
Primary: Georgia  
Position: 10<sup>th</sup> from primary  
Surface Gravity: 2.6427  
Orbit: 1,623,136,890km (10.850 AU)  
Period (years): 35.74 (days): 13,054  
Diameter: 160,465km  
Mass: 3.000x10<sup>24</sup> tonnes

## Arvad's Helm

S/2176(Daedelus)04  
Orbit: 576,600km  
Period (days): 40.95  
Diameter: 5,262km  
Mass: 9.752x10<sup>20</sup> tonnes  
Surface Gravity: 0.9568  
Terraformed (year): 2360  
Population: 275,000,000

## Notterdam

S/2173(Daedelus)03  
Orbit: 864,900km  
Period (days): 61.43  
Diameter: 5,151km  
Mass: 9.889x10<sup>20</sup> tonnes  
Surface Gravity: 1.0125  
Terraformed (year): 2360  
Population: 115,000,000

## Rea

S/2172(Daedelus)01  
Orbit: 1,153,200km  
Period (days): 81.90  
Diameter: 4,821km  
Mass: 8.375x10<sup>20</sup> tonnes  
Surface Gravity: 0.9789  
Terraformed (year): 2360  
Population: 200,000,000

## Box

S/2172(Daedelus)02  
Orbit: 2,344,840km  
Period (days): 166.53  
Diameter: 4,887km  
Mass: 8.710x10<sup>20</sup> tonnes  
Surface Gravity: 0.9908  
Terraformed (year): 2360  
Population: 152,500,000

## Newhope

P/2027(Georgia)03  
Primary: Georgia  
Position: 11<sup>th</sup> from primary  
Orbit: 1,903,632,896km (12.725 AU)  
Period (years): 45.39 (days): 16,580  
Diameter: 11,784km  
Mass: 5.214x10<sup>21</sup> tonnes  
Surface Gravity: 1.0200  
Terraformed (year): 2358  
Population: 500,000,000

## The Commons

S/2174(Newhope)01  
Orbit: 180,668km  
Period (days): 12.83  
Diameter: 3,640km  
Mass: 4.978x10<sup>20</sup> tonnes  
Surface Gravity: 1.0206  
Terraformed (year): 2358  
Population: 75,000,000

## Splendor

S/2176(Newhope)02  
Orbit: 272,924km  
Period (days): 19.38  
Diameter: 2,705km  
Mass: 2.806x10<sup>20</sup> tonnes  
Surface Gravity: 1.0417  
Terraformed (year): 2358  
Population: 50,000,000

## Godforsaken

S/2176(Newhope)03  
Orbit: 349,804km  
Period (days): 24.84  
Diameter: 1,530km  
Mass: 8.302x10<sup>19</sup> tonnes  
Surface Gravity: 0.9635  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Three Hills

P/2027(Georgia)03  
Primary: Georgia  
Position: 12<sup>th</sup> from primary  
Orbit: 2,015,831,288km (13.475 AU)  
Period (years): 49.46 (days): 18,067  
Diameter: 12,640km  
Mass: 5.214x10<sup>21</sup> tonnes  
Surface Gravity: 1.0200  
Terraformed (year): 2370  
Population: 1,0219

## New Lafayette

S/2164(Three Hills)01  
Orbit: 57,660km  
Period (days): 4.10  
Diameter: 1,213km  
Mass: 5.414x10<sup>19</sup> tonnes  
Surface Gravity: 0.9997  
Terraformed (year): 2370  
Population: 27,500,000

## Conrad

S/2164(Three Hills)02  
Orbit: 96,100km  
Period (days): 6.83  
Diameter: 1,180km  
Mass: 4.967x10<sup>19</sup> tonnes  
Surface Gravity: 0.9692  
Terraformed (year): 2370  
Population: 82,000,000

## Bob

S/2164(Three Hills)03  
Orbit: 134,540km  
Period (days): 9.56  
Diameter: 1,345km  
Mass: 6.858x10<sup>19</sup> tonnes  
Surface Gravity: 1.0299  
Terraformed (year): 2370  
Population: 16,000,000

## Meadow

P/2027(Georgia)07  
Primary: Georgia  
Position: 13<sup>th</sup> from primary  
Orbit: 2,071,930,500km (13.850 AU)  
Period (years): 51.54 (days): 18,826  
Diameter: 11,000km  
Mass: 4.436x10<sup>21</sup> tonnes  
Surface Gravity: 0.9959  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Saljut

S/2176(Meadow)01  
Orbit: 92,256km  
Period (days): 6.55  
Diameter: 1,469km  
Mass: 7.912x10<sup>19</sup> tonnes  
Surface Gravity: 0.9960  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Mir

S/2177(Meadow)02  
Orbit: 357,492km  
Period (days): 25.39  
Diameter: 1,161km  
Mass: 4.944x10<sup>19</sup> tonnes  
Surface Gravity: 0.9965  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Murphy

P/2020(Georgia)01  
Class: Artificial Star  
Heliiformed: 2260  
Radius: 0.36 Sol – Brown Dwarf  
Radius: 0.22 Sol – Protostar  
Mass: 0.36 Sol  
Orbit: 2,393,565,920km (16.000 AU)  
Period (years): 64.00

## Hera

S/2041(Murphy)03  
Primary: Murphy  
Position: 1<sup>st</sup> from primary  
Orbit: 4,503,425km  
Period (days): 99  
Diameter: 10,881km  
Mass: 4.407x10<sup>21</sup> tonnes  
Surface Gravity: 1.0113  
Terraformed (year): 2407  
Population: 377,000,000  
Georgia Capital

## Bullet

S/2177(Hera)02  
Orbit: 38,440km  
Period (days): 2.73  
Diameter: 175km  
Mass: 6.335x10<sup>16</sup> tonnes  
Surface Gravity: 0.0562  
Terraformed (year): N/A  
Population: 0

## Eris

S/2176(Hera)01  
Orbit: 103,788km  
Period (days): 7.37  
Diameter: 1,321km  
Mass: 6.289x10<sup>19</sup> tonnes  
Surface Gravity: 0.9791  
Terraformed (year): 2407  
Population: 38,000

## Aphrodite

S/2037(Murphy)01  
Primary: Murphy  
Position: 2<sup>nd</sup> from primary  
Orbit: 6,510,381km  
Period (days): 143  
Diameter: 9,256km  
Mass: 3.175x10<sup>21</sup> tonnes  
Surface Gravity: 1.0068  
Terraformed (year): 2405  
Population: 280,000,000

## Sturges

S/2164(Aphrodite)01  
Orbit: 269,080km  
Period (days): 19.11  
Diameter: 998km  
Mass: 3.747x10<sup>19</sup> tonnes  
Surface Gravity: 1.0219  
Terraformed (year): 2405  
Population: 12,575,000

## Hill

S/2164(Aphrodite)02  
Orbit: 345,960km  
Period (days): 24.57  
Diameter: 1,498km  
Mass: 8.384x10<sup>19</sup> tonnes  
Surface Gravity: 1.0150  
Terraformed (year): 2405  
Population: 3,500,000

## Thornley

S/2164(Aphrodite)03  
Orbit: 399,776km  
Period (days): 28.39  
Diameter: 1,586km  
Mass: 9.268x10<sup>19</sup> tonnes  
Surface Gravity: 1.0010  
Terraformed (year): 2405  
Population: 2,750,000

## Anton

S/2164(Aphrodite)04  
Orbit: 442,060km  
Period (days): 31.40  
Diameter: 1,379km  
Mass: 6.709x10<sup>19</sup> tonnes  
Surface Gravity: 0.9585  
Terraformed (year): 2405  
Population: 7,500,000

## Shadow

S/2037(Murphy)02  
Primary: Murphy  
Position: 3<sup>rd</sup> from primary  
Orbit: 8,906,726km  
Period (days): 196  
Diameter: 10,973km  
Mass: 4.527x10<sup>21</sup> tonnes  
Surface Gravity: 1.0215  
Terraformed (year): 2404  
Population: 13,300

## Branson's Mark

S/2172(Shadow)01  
Orbit: 126,852km  
Period (days): 9.01  
Diameter: 1,397km  
Mass: 7.044x10<sup>19</sup> tonnes  
Surface Gravity: 0.9806  
Terraformed (year): 2404  
Population: 1,317

## Ossolambria

S/2172(Shadow)02  
Orbit: 230,640km  
Period (days): 16.38  
Diameter: 2,684km  
Mass: 2.766x10<sup>20</sup> tonnes  
Surface Gravity: 1.0430  
Terraformed (year): 2404  
Population: 38,450

## Summerfair

S/2172(Shadow)03  
Orbit: 430,528km  
Period (days): 30.58  
Diameter: 2,486km  
Mass: 2.258x10<sup>20</sup> tonnes  
Surface Gravity: 0.9925  
Terraformed (year): 2404  
Population: 167,000

# Red Sun System

## Zhu Que · Red Phoenix

● Silverhold  
Beggars Tin

● Triumph  
Mycroft

● Paquin  
Shinbone  
Clawthorn

● Lazarus  
Dora

● Heinlein  
19,000 AU

● Jubilee  
Covenant  
12,900 AU

● Greenleaf  
Dyton  
Agyar  
Bryson's Rock  
6,900 AU

● Anson's World  
Spider  
Varley  
Steele  
11,400 AU

● Harvest  
Farraday  
Higgin's Moon  
8,400 AU

### Motherlode

### Red Sun

● Jiangyin  
Tongyi  
Dangun  
Rhilidore  
0.525 AU

● New Melbourne  
Maria  
Destiny  
2.025 AU

4,935 AU • Bashful Sapphire  
4,572 AU • Goodwolf  
4,514 AU • Blue Sun - Red 6-9  
4,996 AU • Farigiss  
4,690 AU • Niflheim  
4,061 AU • Mund  
4,233 AU • YE-DOB 1119  
4,703 AU • Fat Sal  
3,711 AU • Romanj 2  
3,575 AU • Romani 1  
3,923 AU • Thales  
4,662 AU • Lupus A  
4,418 AU • Blue Sun - Red 10  
4,436 AU • Survivor's Eye  
4,751 AU • CMC N-1  
3,589 AU • Stardust 12  
3,275 AU • Huffman-Purrrington  
4,965 AU • CMC N-2  
3,866 AU • Ra Sahara  
4,377 AU • Le Cratère de la Tortue  
4,413 AU • Vortis M  
4,884 AU • New Comstock  
4,066 AU • Mayyadah  
3,627 AU • Blue Sun - Red 11-19  
3,837 AU • S-Bar Ranch  
4,547 AU • Lanier  
5,043 AU • Mad Dog  
3,530 AU • Antwaris  
4,544 AU • Eve  
3,549 AU • Raphael  
4,472 AU • Hihújio  
3,373 AU • K4JE-475  
3,525 AU • Kayenta Mine  
4,136 AU • Yuri Gagarin  
3,586 AU • Little Lucifer  
3,410 AU • New Mercury  
3,833 AU • Sevda  
4,141 AU • Marcus  
4,476 AU • Euryale  
3,322 AU • Easthollow  
4,258 AU • Medusa  
4,271 AU • Stheno  
4,476 AU • Euryale  
3,627 AU • Blue Sun - Red 1-4  
4,985 AU • Hopes Rest  
3,223 AU • Easthollow  
3,643 AU • Blue Sun - Red 5  
3,677 AU • Tong xio wn  
3,673 AU • Deborah  
4,900 AU • Pipestem  
3,673 AU • Deborah  
4,827 AU • Orichalcum Horizon  
4,031 AU • Robinson Run No95  
3,738 AU • Sumra  
4,394 AU • CMC 1-4  
4,218 AU • CMC 5-15  
4,378 AU • Gogol  
4,706 AU • Muramets  
4,467 AU • Bix  
4,850 AU • TY  
4,817 AU • Park Pobyedi  
5,038 AU • Pryeispodnyaya Moe  
3,242 AU • Brand  
4,215 AU • Cathen  
4,838 AU • CMC 18  
3,900 AU • Ankanseki  
4,124 AU • Backbreaker  
3,196 AU • Shems  
4,062 AU • Kinza  
4,062 AU • Kinza  
3,727 AU • Chameleon  
4,385 AU • Red Ruth 7  
4,948 AU • Bourdier

● St. Albans  
Pi Gu  
10,650 AU





## Jiangyin

P/2027(Red Sun)03  
 Primary: Red Sun  
 Position: 1<sup>st</sup> from primary  
 Orbit: 78,538,882km (0.525 AU)  
 Period (years): 0.38 (days): 139  
 Diameter: 14,007km  
 Mass: 7.227x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0007  
 Terraformed (year): 2280  
 Population: 1,400,000,000  
 Red Sun Capital

## Tongyi

S/2176(Jiangyin)01  
 Orbit: 126,852km  
 Period (days): 9.01  
 Diameter: 1,793km  
 Mass: 1.146x10<sup>20</sup> tonnes  
 Surface Gravity: 0.9683  
 Terraformed (year): 2280  
 Population: 124,000,000

## Danguin

S/2176(Jiangyin)02  
 Orbit: 257,548km  
 Period (days): 18.29  
 Diameter: 1,123km  
 Mass: 4.551x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9804  
 Terraformed (year): 2280  
 Population: 64,500,000

## Rhildore

S/2176(Jiangyin)03  
 Orbit: 384,400km  
 Period (days): 27.30  
 Diameter: 1,158km  
 Mass: 5.051x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0232  
 Terraformed (year): 2280  
 Population: 17,500,000

## New Melbourne

P/2027(Red Sun)03  
 Primary: Red Sun  
 Position: 2<sup>nd</sup> from primary  
 Orbit: 302,935,687km (2.025 AU)  
 Period (years): 2.88 (days): 1,053  
 Diameter: 9,713km  
 Mass: 3.503x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0087  
 Terraformed (year): 2280  
 Population: 27,000,000

## Maria

S/2173(New Melbourne)01  
 Orbit: 230,640km  
 Period (days): 16.38  
 Diameter: 1,169km  
 Mass: 5.118x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0175  
 Terraformed (year): 2280  
 Population: 26,000,000

## Destiny

S/2173(New Melbourne)02  
 Orbit: 461,280km  
 Period (days): 32.76  
 Diameter: 1,207km  
 Mass: 5.174x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9649  
 Terraformed (year): 2280  
 Population: 17,500,000

## Motherlode

Asteroid Belt  
 Primary: Red Sun  
 Inner Boundary: 471,293,291km (3.150 AU)  
 Outer Boundary: 751,729,297km (5.025 AU)  
 Average Width: 280,496,006km (1.875 AU)  
 Number of cataloged objects: 476,915  
 Asteroid designation uses numbers and letters (excluding i, l, o, and z).  
 Example: A/2260(Red Sun)1ya59

## Greenleaf

P/2027(Red Sun)03  
 Primary: Red Sun  
 Position: 3<sup>rd</sup> from primary  
 Orbit: 1,032,225,303km (6.900 AU)  
 Period (years): 18.12 (days): 6,620  
 Diameter: 7,139km  
 Mass: 1.857x10<sup>21</sup> tonnes  
 Surface Gravity: 0.9898  
 Terraformed (year): 2281  
 Population: 220,000,000

## Dyton

S/2172(Greenleaf)01  
 Orbit: 115,320km  
 Period (days): 8.19  
 Diameter: 1,040km  
 Mass: 4.121x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0352  
 Terraformed (year): 2281  
 Population: 6,000,000

## Agyar

S/2172(Greenleaf)02  
 Orbit: 269,080km  
 Period (days): 19.11  
 Diameter: 1,598km  
 Mass: 9.650x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0266  
 Terraformed (year): 2281  
 Population: 2,000,000

## Bryson's Rock

S/2172(Greenleaf)03  
 Orbit: 345,960km  
 Period (days): 24.57  
 Diameter: 1,573km  
 Mass: 9.511x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0443  
 Terraformed (year): 2281  
 Population: 1,750,000

## Harvest

P/2027(Red Sun)03  
 Primary: Red Sun  
 Position: 4<sup>th</sup> from primary  
 Orbit: 1,256,622,108km (8.400 AU)  
 Period (years): 24.35 (days): 8,892  
 Diameter: 17,984km  
 Mass: 1.220x10<sup>22</sup> tonnes  
 Surface Gravity: 1.0245  
 Terraformed (year): 2251  
 Population: 1,600,000

## Farraday

S/2174(Harvest)01  
 Orbit: 76,880km  
 Period (days): 5.46  
 Diameter: 2,158km  
 Mass: 1.650x10<sup>20</sup> tonnes  
 Surface Gravity: 0.9602  
 Terraformed (year): 2251  
 Population: 200,000

## Higgins' Moon

S/2178(Harvest)02  
 Orbit: 119,164km  
 Period (days): 8.46  
 Diameter: 3,590km  
 Mass: 4.657x10<sup>20</sup> tonnes  
 Surface Gravity: 0.9817  
 Terraformed (year): 2251  
 Population: 640,000

Note: Harvest has become known as the Verse' Breadbasket, producing more natural and manufactured foodstuffs than any other world.

## St. Albans

P/2027(Red Sun)03  
 Primary: Red Sun  
 Position: 5<sup>th</sup> from primary  
 Orbit: 1,593,217,316km (10.650 AU)  
 Period (years): 34.76 (days): 12,694  
 Diameter: 12,500km  
 Mass: 5.883x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0229  
 Terraformed (year): 2290  
 Population: 30,000,000

## Pi Gu

S/2172(St. Albans)01  
 Orbit: 76,880km  
 Period (days): 5.46  
 Diameter: 1,389km  
 Mass: 7.120x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0026  
 Terraformed (year): 2290  
 Population: 4,000,000

## Anson's World

P/2027(Red Sun)03  
 Primary: Red Sun  
 Position: 6<sup>th</sup> from primary  
 Orbit: 1,705,415,718km (11.400 AU)  
 Period (years): 38.49 (days): 14,059  
 Diameter: 13,802km  
 Mass: 7.067x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0078  
 Terraformed (year): 2290  
 Population: 125,000,000

## Spider

S/2176(Anson's World)02  
 Orbit: 76,880km  
 Period (days): 5.46  
 Diameter: 2,707km  
 Mass: 2.610x10<sup>20</sup> tonnes  
 Surface Gravity: 0.9675  
 Terraformed (year): 2290  
 Population: 40,000,000

## Varley

S/2174(Anson's World)01  
 Orbit: 130,696km  
 Period (days): 9.28  
 Diameter: 2,390km  
 Mass: 2.065x10<sup>20</sup> tonnes  
 Surface Gravity: 0.9823  
 Terraformed (year): 2290  
 Population: 33,500,000

## Steele

S/2176(Anson's World)03  
 Orbit: 311,364km  
 Period (days): 22.11  
 Diameter: 1,896km  
 Mass: 1.316x10<sup>20</sup> tonnes  
 Surface Gravity: 0.9942  
 Terraformed (year): 2290  
 Population: 21,575,000

## Jubilee

P/2030(Red Sun)09  
 Primary: Red Sun  
 Position: 7<sup>th</sup> from primary  
 Orbit: 1,929,812,523km (12.900 AU)  
 Period (years): 46.33 (days): 16,923  
 Diameter: 11,952km  
 Mass: 5.310x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0099  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Covenant

S/2173(Jubilee)01  
 Orbit: 261,392km  
 Period (days): 18.56  
 Diameter: 1,421km  
 Mass: 7.451x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0025  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Himinbjorg

P/2027(Red Sun)01  
 Class: Artificial Star  
 Heliiformed: 2259  
 Radius: 0.38 Sol – Brown Dwarf  
 Radius: 0.23 Sol – Protostar  
 Mass: 0.38 Sol  
 Orbit: 2,543,163,790km (17.000 AU)  
 Period (years): 70.09

## Aesir

S/2035(Himinbjorg)01  
 Primary: Himinbjorg  
 Position: 1<sup>st</sup> from primary  
 Orbit: 2,501,258km  
 Period (days): 55  
 Diameter: 11,925km  
 Mass: 5.339x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0200  
 Terraformed (year): 2295  
 Population: 110,000,000

## Bestla

S/2172(Aesir)01  
 Orbit: 76,880km  
 Period (days): 5.46  
 Diameter: 2,707km  
 Mass: 2.605x10<sup>20</sup> tonnes  
 Surface Gravity: 0.9656  
 Terraformed (year): 2295  
 Population: 18,500,000

## Borr

S/2172(Aesir)02  
 Orbit: 115,320km  
 Period (days): 8.19  
 Diameter: 1,529km  
 Mass: 8.827x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0258  
 Terraformed (year): 2295  
 Population: 790,000

## Odin

S/2174(Aesir)03  
 Orbit: 153,760km  
 Period (days): 16.38  
 Diameter: 1,472km  
 Mass: 7.840x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9830  
 Terraformed (year): 2295  
 Population: 17,450,000

## Moab

S/2035(Himinbjorg)02  
 Primary: Himinbjorg  
 Position: 2<sup>nd</sup> from primary  
 Orbit: 4,879,215km  
 Period (days): 107  
 Diameter: 9,001km  
 Mass: 2.985x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0009  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Red Rock

S/2175(Moab)01  
 Orbit: 80,724km  
 Period (days): 5.73  
 Diameter: 975km  
 Mass: 3.449x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9856  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Mesa

S/2175(Moab)02  
 Orbit: 169,136km  
 Period (days): 12.01  
 Diameter: 1,086km  
 Mass: 4.320x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9951  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Brisingamen

S/2035(Himinbjorg)03  
 Primary: Himinbjorg  
 Position: 3<sup>rd</sup> from primary  
 Orbit: 7,502,674km  
 Period (days): 165  
 Diameter: 7,458km  
 Mass: 2.055x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0039  
 Terraformed (year): 2300  
 Population: 74,500,000

## Freya

S/2172(Brisingamen)01  
 Orbit: 57,660km  
 Period (days): 4.10  
 Diameter: 1,236km  
 Mass: 5.409x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9619  
 Terraformed (year): 2300  
 Population: 2,541,000

## Alberich

S/2173(Brisingamen)03  
 Orbit: 115,320km  
 Period (days): 8.19  
 Diameter: 2,369km  
 Mass: 2.033x10<sup>20</sup> tonnes  
 Surface Gravity: 0.9840  
 Terraformed (year): 2300  
 Population: 1,478,000

## Beowulf

S/2172(Brisingamen)02  
 Orbit: 230,640km  
 Period (days): 16.38  
 Diameter: 1,478km  
 Mass: 8.408x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0456  
 Terraformed (year): 2300  
 Population: 1,239,000

## Anvil

S/2035(Himinbjorg)04  
 Primary: Himinbjorg  
 Position: 4<sup>th</sup> from primary  
 Orbit: 9,327,101km  
 Period (days): 205  
 Diameter: 8,880km  
 Mass: 2.845x10<sup>21</sup> tonnes  
 Surface Gravity: 0.9801  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Hammer

S/2174(Anvil)01  
 Orbit: 138,384km  
 Period (days): 9.83  
 Diameter: 972km  
 Mass: 3.513x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0101  
 Terraformed (year): Scheduled  
 Population: 5,000 (Terraform Crew)

## Heinlein

P/2020(Red Sun)02  
 Class: Artificial Star  
 Heliiformed: 2258  
 Radius: 0.40 Sol – Brown Dwarf  
 Radius: 0.24 Sol – Protostar  
 Mass: 0.40 Sol  
 Orbit: 2,842,359,530km (19.000 AU)  
 Period (years): 82.82

## Triumph

S/2036(Heinlein)01  
 Primary: Heinlein  
 Position: 1<sup>st</sup> from primary  
 Orbit: 3,000,213km  
 Period (days): 66  
 Diameter: 3,640km  
 Mass: 4.929x10<sup>20</sup> tonnes  
 Surface Gravity: 1.0107  
 Terraformed (year): 2360  
 Population: 32,500,000

## Mycroft

S/2164(Triumph)01  
 Orbit: 342,116km  
 Period (days): 24.30  
 Diameter: 1,040  
 Mass: 3.850x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9669  
 Terraformed (year): 2360  
 Population: 12,000,000

## Paquin

S/2038(Heinlein)03  
 Primary: Heinlein  
 Position: 2<sup>nd</sup> from primary  
 Orbit: 5,000,687km  
 Period (days): 110  
 Diameter: 10,579km  
 Mass: 4.231x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0271  
 Terraformed (year): 2415  
 Population: 175,000,000

## Shinbone

S/2176(Paquin)02  
 Orbit: 111,476km  
 Period (days): 7.92  
 Diameter: 1,210km  
 Mass: 5.515x10<sup>19</sup> tonnes  
 Surface Gravity: 1.0233  
 Terraformed (year): 2415  
 Population: 3,000,000

## Clawthorn

S/2174(Paquin)01  
 Orbit: 161,448km  
 Period (days): 11.47  
 Diameter: 1,002km  
 Mass: 3.571x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9663  
 Terraformed (year): 2415  
 Population: 750,000

## Lazarus

S/2038(Heinlein)04  
 Primary: Heinlein  
 Position: 3<sup>rd</sup> from primary  
 Orbit: 6,999,126km  
 Period (days): 154  
 Diameter: 8,962km  
 Mass: 3.029x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0246  
 Terraformed (year): 2410  
 Population: 143,000,000

## Dora

S/2164(Lazarus)01  
 Orbit: 288,300km  
 Period (days): 20.48  
 Diameter: 1,430km  
 Mass: 7.409x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9843  
 Terraformed (year): 2410  
 Population: 250,000

## Silverhold

S/2036(Heinlein)02  
 Primary: Heinlein  
 Position: 4<sup>th</sup> from primary  
 Orbit: 9,000,212km  
 Period (days): 198  
 Diameter: 9,887km  
 Mass: 3.617x10<sup>21</sup> tonnes  
 Surface Gravity: 1.0052  
 Terraformed (year): 2417  
 Population: 744,000,000

## Beggar's Tin

S/2173(Silverhold)01  
 Orbit: 269,080km  
 Period (days): 19.11  
 Diameter: 1,147km  
 Mass: 4.666x10<sup>19</sup> tonnes  
 Surface Gravity: 0.9636  
 Terraformed (year): 2417  
 Population: 377,000

# Kalidasa System

## Xuan Wu · Black Tortoise

Salisbury 14,350 AU

Aberdeen 10,975 AU

Beaumont 12,850 AU  
Hastur ·

Whittier 5,725 AU  
Ita

Zephyr

Angel 4,600 AU

Verbana 1,225 AU  
Lassek ·  
Barrimend ·

Sho-Je Downs 0,850 AU  
Miyazaki ·  
Kuan Lo

Heaven 3,850 AU  
Urvasi ·  
Menaka ·  
Rambha ·  
Tilottama

Kalidasa

Glacier 2,350 AU  
Denali

Constance 1,600 AU  
Barrowclough ·  
Disraeli

Vishnu 2,725 AU  
Ganesha ·  
Rama

Ghost 10,600 AU  
Inferno ·  
Xibalba ·

8,163 AU  
Oberon  
Puck  
Quince  
Bottom  
Beylix  
Charity ·  
Cinote ·  
St. Lucius ·

Penglai

Newhall  
Severance ·  
Darche ·  
Mohenrichia

Delphi 4,975 AU  
Clio ·  
Thalia ·  
Calliope

New Kashmir 5,350 AU

Zeus 12,100 AU  
Isabel ·  
Sophie ·  
Victoria ·  
Delynn ·  
Gayle ·  
Betty ·

13,600 AU  
Djinn's Bane

Illat ·  
Hilal ·  
Hubal ·  
Sin ·  
Ta'lab ·  
Wadd

## Sho-Je Downs

P/2028(Kalidasa)10
Primary: Kalidasa
Position: 1st from primary
Orbit: 127,158,190km (0.850 AU)
Period (years): 0.78 (days): 286
Diameter: 8,057km
Mass: 2.445x10z1 tonnes
Surface Gravity: 1.0231
Terraformed (year): 2410
Population: 114,750,000

### Miyazaki

S/2176(Sho-Je Downs)02
Orbit: 130,696km
Period (days): 9.28
Diameter: 970km
Mass: 3.343x10z19 tonnes
Surface Gravity: 0.9651
Terraformed (year): 2410
Population: 215,000

### Kuan Lo

S/2174(Sho-Je Downs)01
Orbit: 165,292km
Period (days): 11.74
Diameter: 1,030km
Mass: 3.849x10z19 tonnes
Surface Gravity: 0.9856
Terraformed (year): 2410
Population: 75,000

## Verbena

P/2030(Kalidasa)14
Primary: Kalidasa
Position: 2nd from primary
Orbit: 183,257,391km (1.225 AU)
Period (years): 1.36 (days): 495
Diameter: 11,538km
Mass: 4.798x10z19 tonnes
Surface Gravity: 0.9792
Terraformed (year): 2415
Population: 78,500,000

### Lassek

S/2172(Verbena)01
Orbit: 219,108km
Period (days): 15.56
Diameter: 1,465km
Mass: 7.639x10z19 tonnes
Surface Gravity: 0.9760
Terraformed (year): 2415
Population: 1,200,000

### Barrimend

S/2172(Verbena)02
Orbit: 288,300km
Period (days): 20.48
Diameter: 2,009km
Mass: 1.528x10z20 tonnes
Surface Gravity: 1.0284
Terraformed (year): 2415
Population: 3,000,000

## Constance

P/2027(Kalidasa)07
Primary: Kalidasa
Position: 3rd from primary
Orbit: 239,356,592km (1.600 AU)
Period (days): 2.02 (days): 739
Diameter: 11,976km
Mass: 5.527x10z19 tonnes
Surface Gravity: 1.0469
Terraformed (year): 2415
Population: 85,000,000

### Barrowclough

S/2173(Constance)01
Orbit: 142,228km
Period (days): 10.10
Diameter: 1,278km
Mass: 6.051x10z19 tonnes
Surface Gravity: 1.0065
Terraformed (year): 2415
Population: 250,000

### Disraeli

S/2173(Constance)02
Orbit: 280,612km
Period (days): 19.93
Diameter: 1,169km
Mass: 4.856x10z19 tonnes
Surface Gravity: 0.9653
Terraformed (year): 2415
Population: 600,000

## Glacier

P/2028(Kalidasa)09
Primary: Kalidasa
Position: 4th from primary
Orbit: 351,554,995km (2.350 AU)
Period (years): 3.60 (days): 1,316
Diameter: 6,890km
Mass: 1.752x10z20 tonnes
Surface Gravity: 1.0027
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Denali

S/2178(Glacier)01
Orbit: 157,604km
Period (days): 11.19
Diameter: 996km
Mass: 3.670x10z19 tonnes
Surface Gravity: 1.0050
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

## Vishnu

P/2029(Kalidasa)11
Primary: Kalidasa
Position: 5th from primary
Orbit: 407,654,196km (2.725 AU)
Period (years): 4.50 (days): 1,643
Diameter: 7,342km
Mass: 2.008x10z20 tonnes
Surface Gravity: 1.0121
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Ganesh

S/2179(Vishnu)02
Orbit: 146,072km
Period (days): 10.37
Diameter: 984km
Mass: 3.453x10z19 tonnes
Surface Gravity: 0.9689
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Rama

S/2177(Vishnu)01
Orbit: 315,208km
Period (days): 22.39
Diameter: 1,006km
Mass: 3.613x10z19 tonnes
Surface Gravity: 0.9700
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

## Heaven

P/2027(Kalidasa)02
Primary: Kalidasa
Position: 6th from primary
Surface Gravity: 2.4870
Orbit: 575,951,800km (3.850 AU)
Period (years): 7.55 (days): 2,759
Diameter: 135,709km
Mass: 1.708x10z20 tonnes

### Urvasi

S/2170(Heaven)03
Orbit: 691,920km
Period (days): 49.14
Diameter: 4,281km
Mass: 6.658x10z20 tonnes
Surface Gravity: 0.9869
Terraformed (year): 2420
Population: 77,500,000

### Menaka

S/2164(Heaven)01
Orbit: 768,800km
Period (days): 54.60
Diameter: 1,535km
Mass: 8.387x10z19 tonnes
Surface Gravity: 0.9670
Terraformed (year): 2420
Population: 1,450,000

### Rambha

S/2164(Heaven)02
Orbit: 1,441,500km
Period (days): 102.38
Diameter: 1,827km
Mass: 1.211x10z20 tonnes
Surface Gravity: 0.9857
Terraformed (year): 2420
Population: 962,000

### Tilottama

S/2170(Heaven)04
Orbit: 1,633,700km
Period (days): 116.03
Diameter: 2,154km
Mass: 1.648x10z20 tonnes
Surface Gravity: 0.9648
Terraformed (year): 2420
Population: 5,210,000

## Angel

P/2027(Kalidasa)06
Primary: Kalidasa
Position: 7th from primary
Orbit: 688,150,202km (4.600 AU)
Period (years): 9.87 (days): 3,604
Diameter: 10,739km
Mass: 5.037x10z19 tonnes
Surface Gravity:
Terraformed (year): 2410
Population: 62,000,000

### Zephyr

S/2165(Angel)01
Orbit: 688,150,202km (4.600 AU from Kalidasa – Angel's L4)
Period (years): 9.87 (days): 3,604
Diameter: 5,870km
Mass: 1.278x10z21 tonnes
Surface Gravity: 1.0078
Terraformed (year): 2410
Population: 19,500,000

**Note:** Angel and Zephyr share the same orbit around Kalidasa. Zephyr was originally thought to be Angel's moon, and was classified as such, but Zephyr leads Angel by 60z, in her L4 position.

## Delphi

P/2029(Kalidasa)13
Primary: Kalidasa
Position: 8th from primary
Orbit: 744,249,403km (4.975 AU)
Period (years): 11.10 (days): 4,053
Diameter: 11,946km
Mass: 5.132x10z21 tonnes
Surface Gravity: 0.9736
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Clio

S/2176(Delphi)02
Orbit: 69,192km
Period (days): 4.91
Diameter: 994km
Mass: 3.637x10z19 tonnes
Surface Gravity: 1.0000
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Thalia

S/2174(Delphi)01
Orbit: 188,356km
Period (days): 13.38
Diameter: 1,020km
Mass: 3.833x10z19 tonnes
Surface Gravity: 1.0009
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Calliope

S/2176(Delphi)03
Orbit: 303,676km
Period (days): 21.57
Diameter: 981km
Mass: 3.539x10z19 tonnes
Surface Gravity: 0.9991
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

## New Kasmir

P/2028(Kalidasa)08
Primary: Kalidasa
Position: 9th from primary
Orbit: 800,348,605km (5.350 AU)
Period (years): 12.37 (days): 4,520
Diameter: 12,670km
Mass: 5.917x10z21 tonnes
Surface Gravity: 1.0014
Terraformed (year): 2410
Population: 68,500,000

## Whittier

P/2030(Kalidasa)15
Primary: Kalidasa
Position: 10th from primary
Orbit: 856,447,806km (5.725 AU)
Period (years): 13.70 (days): 5,003
Diameter: 11,468km
Mass: 4.985x10z21 tonnes
Surface Gravity: 1.0297
Terraformed (year): 2410
Population: 36,500,000

### Ita

S/2176(Whittier)01
Orbit: 968,688km
Period (days): 68.80
Diameter: 965km
Mass: 3.155x10z19 tonnes
Surface Gravity: 0.9204
Terraformed (year): Ongoing
Population: ~8,000+ (Terraform Crew + Depot Crew + other)

## Penglai

P/2020(Kalidasa)1
Class: Artificial Star
Heliiformed: 2270
Radius: 0.32 Sol – Brown Dwarf
Radius: 0.19 Sol – Protostar
Mass: 0.32 Sol
Orbit: 1,221,092,614km (8.163 AU)
Period (years): 23.32

## Beylix

S/2040(Penglai)01
Primary: Penglai
Position: 1st from primary
Orbit: 4,138,472km
Period (days): 91
Diameter: 10,300km
Mass: 3.779x10z21 tonnes
Surface Gravity: 0.9677
Terraformed (year): 2425
Population: 23,000,000

### Charity

S/2165(Beylix)01
Orbit: 246,016km
Period (days): 17.47
Diameter: 1,470km
Mass: 7.705x10z19 tonnes
Surface Gravity: 0.9687
Terraformed (year): 2425
Population: 750,000

### Cinote

S/2165(Beylix)02
Orbit: 384,400km
Period (days): 27.30
Diameter: 1,358km
Mass: 6.546x10z19 tonnes
Surface Gravity: 0.9643
Terraformed (year): 2425
Population: 400,000

### St. Lucius

S/2165(Beylix)03
Orbit: 442,060km
Period (days): 31.40
Diameter: 1,029km
Mass: 3.852x10z19 tonnes
Surface Gravity: 0.9882
Terraformed (year): 2425
Population: 330,000

## Newhall

S/2040(Penglai)02
Primary: Penglai
Position: 2nd from primary
Orbit: 6,857,463km
Period (days): 151
Diameter: 9,806km
Mass: 3.591x10z21 tonnes
Surface Gravity: 1.0145
Terraformed (year): 2425
Population: 8,000,000

### Severance

S/2165(Newhall)01
Orbit: 230,640km
Period (days): 16.38
Diameter: 1,172km
Mass: 5.102x10z19 tonnes
Surface Gravity: 1.0091
Terraformed (year): 2425
Population: 400,000

### Darcke

S/2165(Newhall)02
Orbit: 326,740km
Period (days): 23.21
Diameter: 2,183km
Mass: 1.839x10z20 tonnes
Surface Gravity: 1.0482
Terraformed (year): 2425
Population: 2,000,000

### Mohenrichia

S/2165(Newhall)03
Orbit: 384,400km
Period (days): 27.30
Diameter: 1,846km
Mass: 1.239x10z20 tonnes
Surface Gravity: 0.9874
Terraformed (year): 2425
Population: 500,000

## Oberon

S/2042(Penglai)03
Primary: Penglai
Position: 3rd from primary
Orbit: 8,997,052km
Period (days): 198
Diameter: 10,155km
Mass: 3.914x10z21 tonnes
Surface Gravity: 1.0310
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Puck

S/2170(Oberon)01
Orbit: 113,398km
Period (days): 8.05
Diameter: 1,007km
Mass: 3.807x10z19 tonnes
Surface Gravity: 1.0200
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Quince

S/2171(Oberon)03
Orbit: 292,144km
Period (days): 20.75
Diameter: 990km
Mass: 3.611x10z19 tonnes
Surface Gravity: 1.0010
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Bottom

S/2170(Oberon)02
Orbit: 376,712km
Period (days): 26.75
Diameter: 1,050km
Mass: 4.066x10z19 tonnes
Surface Gravity: 1.0020
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

## Ghost

P/2032(Kalidasa)17
Primary: Kalidasa
Position: 12th from primary
Orbit: 1,585,737,422km (10.600 AU)
Period (years): 34.51 (days): 12,605
Diameter: 11,750km
Mass: 5.267x10z21 tonnes
Surface Gravity: 1.0365
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

## Inferno

S/2173(Ghost)01
Orbit: 65,348km
Period (days): 4.64
Diameter: 1,057km
Mass: 4.137x10z19 tonnes
Surface Gravity: 1.0060
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

### Xibalia

S/2173(Ghost)02
Orbit: 149,916km
Period (days): 10.65
Diameter: 1,101km
Mass: 4.471x10z19 tonnes
Surface Gravity: 1.0021
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

## Aberdeen

P/2029(Kalidasa)12
Primary: Kalidasa
Position: 13th from primary
Orbit: 1,641,836,623km (10.975 AU)
Period (years): 36.36 (days): 13,280
Diameter: 9,931km
Mass: 3.733x10z21 tonnes
Surface Gravity: 1.0284
Terraformed (year): 2430
Population: 12,000,000

## Zeus

P/2020(Kalidasa)03
Primary: Kalidasa
Position: 14th from primary
Surface Gravity: 2.4169
Orbit: 1,810,134,227km (12.100 AU)
Period (years): 42.09 (days): 15,373
Diameter: 132,741km
Mass: 1.553x10z24 tonnes

### Isabel

S/2178(Zeus)05
Orbit: 661,168km
Period (days): 46.96
Diameter: 1,000km
Mass: 3.565x10z19 tonnes
Surface Gravity: 0.9684
Terraformed (year): 2420
Population: 60,000

### Sophie

S/2166(Zeus)01
Orbit: 757,268km
Period (days): 53.78
Diameter: 4,892km
Mass: 8.817x10z20 tonnes
Surface Gravity: 1.0009
Terraformed (year): 2420
Population: 22,000,000

### Victoria

S/2166(Zeus)02
Orbit: 826,460km
Period (days): 58.70
Diameter: 5,310km
Mass: 1.041x10z20 tonnes
Surface Gravity: 1.0027
Terraformed (year): 2420
Population: 50,000,000

### Delynn

S/2166(Zeus)03
Orbit: 922,560km
Period (days): 65.52
Diameter: 5,111km
Mass: 9.659x10z20 tonnes
Surface Gravity: 1.0045
Terraformed (year): 2420
Population: 35,000,500

### Gayle

S/2169(Zeus)04
Orbit: 1,137,824km
Period (days): 80.81
Diameter: 2,486km
Mass: 2.283x10z20 tonnes
Surface Gravity: 1.0036
Terraformed (year): 2420
Population: 250,000

### Betty

S/2178(Zeus)06
Orbit: 1,476,096km
Period (days): 104.83
Diameter: 1,234km
Mass: 5.615x10z19 tonnes
Surface Gravity: 1.0018
Terraformed (year): Scheduled
Population: 5,000 (Terraform Crew)

## Beaumonde

P/2031(Kalidasa)16
Primary: Kalidasa
Position: 15th from primary
Orbit: 1,922,332,630km (12.850 AU)
Period (years): 46.06 (days): 16,825
Diameter: 12,026km
Mass: 5.339x10z21 tonnes
Surface Gravity: 1.0029
Terraformed (year): 2433
Population: 184,000,000
Kalidasa Capital

### Hastur

S/2164(Beaumonde)01
Orbit: 1,115,320km
Period (days): 8.19
Diameter: 1,340km
Mass: 6.401x10z19 tonnes
Surface Gravity: 0.9684
Terraformed (year): 2433
Population: 1,100,000

## Djinn's Bane

P/2027(Kalidasa)04
Primary: Kalidasa
Position: 16th from primary
Surface Gravity: 3.1340
Orbit: 2,034,531,032km (13.600 AU)
Period (years): 50.15 (days): 18,319
Diameter: 201,568km
Mass: 7.052x10z24 tonnes

### Illiat

S/2170(Djinn's Bane)01
Orbit: 1,499,160km
Period (days): 106.47
Diameter: 1,450km
Mass: 7.658x10z19 tonnes
Surface Gravity: 0.9895
Terraformed (year): 2420
Population: 47,000

### Hilal

S/2170(Djinn's Bane)02
Orbit: 1,672,140km
Period (days): 118.76
Diameter: 3,004
Mass: 3.200x10z20 tonnes
Surface Gravity: 0.9635
Terraformed (year): 2420
Population: 250,000

### Hubal

S/2170(Djinn's Bane)03
Orbit: 1,845,120km
Period (days): 131.04
Diameter: 2,870km
Mass: 3.181x10z20 tonnes
Surface Gravity: 1.0493
Terraformed (year): 2420
Population: 6,000,000

### Sin

S/2170(Djinn's Bane)04
Orbit: 2,114,200km
Period (days): 150.15
Diameter: 5,100km
Mass: 9.291x10z20 tonnes
Surface Gravity: 0.9704
Terraformed (year): 2420
Population: 16,500,000

### Ta'lab

S/2170(Djinn's Bane)05
Orbit: 2,267,960km
Period (days): 161.07
Diameter: 4,270km
Mass: 6.928x10z20 tonnes
Surface Gravity: 1.0323
Terraformed (year): 2420
Population: 12,000,000

### Wadd

S/2170(Djinn's Bane)06
Orbit: 2,402,500km
Period (days): 170.63
Diameter: 1,905km
Mass: 1.349x10z20 tonnes
Surface Gravity: 1.0102
Terraformed (year): 2420
Population: 20,000

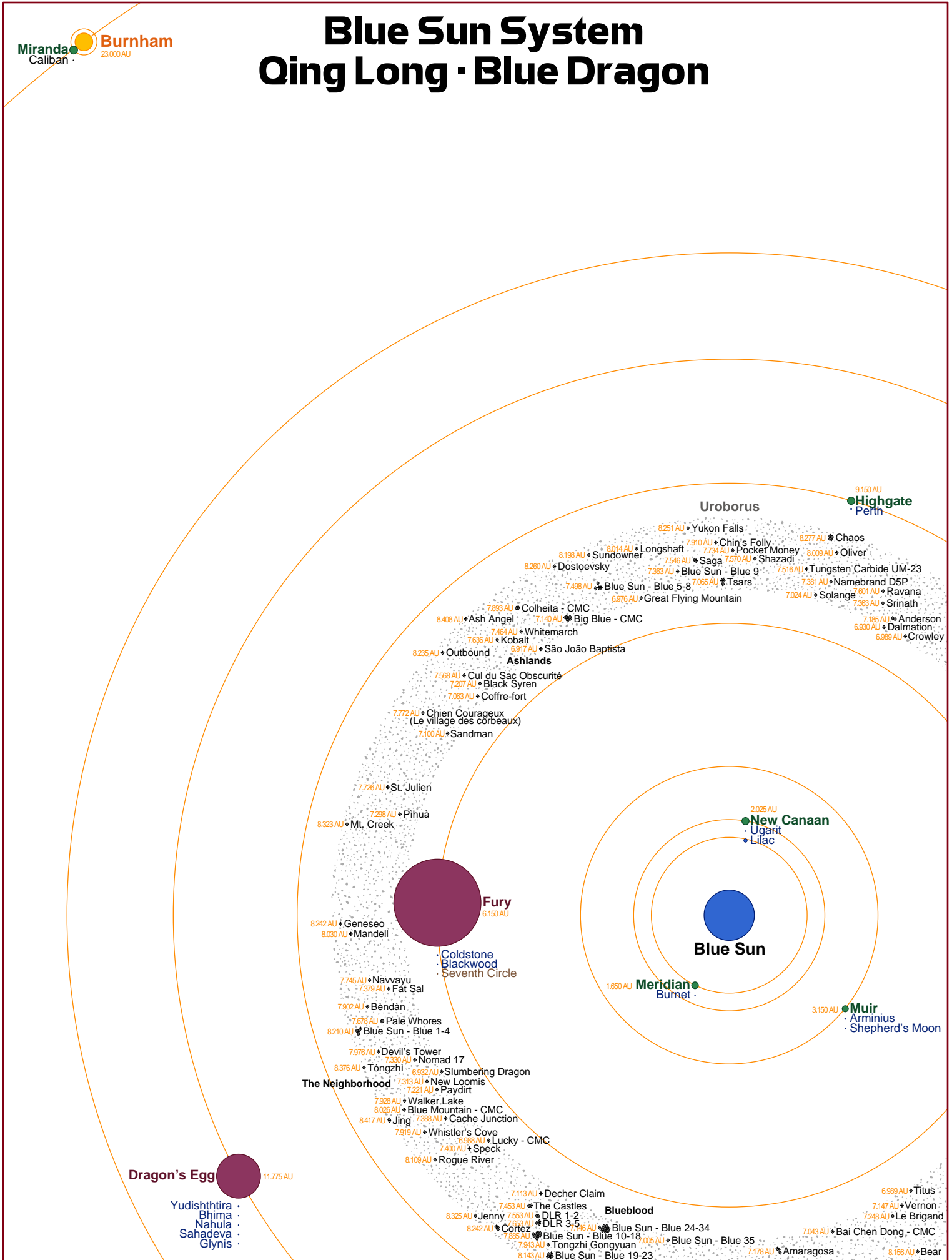
## Salisbury

P/2027(Kalidasa)05
Primary: Kalidasa
Position: 17th from primary
Orbit: 2,146,729,435km (14.350 AU)
Period (years): 54.36 (days): 19,855
Diameter: 8,094km
Mass: 2.447x10z21 tonnes
Surface Gravity: 1.0147
Terraformed (year): 2430
Population: 2,000,000



# Blue Sun System

## Qing Long - Blue Dragon



## Meridian

P/2031(Blue Sun)08  
Primary: Blue Sun  
Position: 1<sup>st</sup> from primary  
Orbit: 246,836,486km (1.650 AU)  
Period (years): 2.12 (days): 774  
Diameter: 9,476km  
Mass: 3.402x10<sup>21</sup> tonnes  
Surface Gravity: 1.0294  
Terraformed (year): 2430  
Population: 7,500,000  
Blue Sun Capital

## Burnet

S/2179(Meridian)01  
Orbit: 299,832km  
Period (days): 21.29  
Diameter: 1,004km  
Mass: 3.721x10<sup>19</sup> tonnes  
Surface Gravity: 1.0029  
Terraformed (year): 2430  
Population: 750,000

## New Canaan

P/2027(Blue Sun)04  
Primary: Blue Sun  
Position: 2<sup>nd</sup> from primary  
Orbit: 302,935,687km (2.025 AU)  
Period (years): 2.88 (days): 1,053  
Diameter: 10,171km  
Mass: 3.710x10<sup>21</sup> tonnes  
Surface Gravity: 0.9743  
Terraformed (year): Ongoing  
Population: 238,000

## Ugarit

S/2170(New Canaan)01  
Orbit: 211,420km  
Period (days): 15.02  
Diameter: 1,123km  
Mass: 4.696x10<sup>19</sup> tonnes  
Surface Gravity: 1.0115  
Terraformed (year): 2435  
Population: 46,000

## Lilac

S/2170(New Canaan)02  
Orbit: 238,328km  
Period (days): 16.93  
Diameter: 4,830km  
Mass: 8.508x10<sup>20</sup> tonnes  
Surface Gravity: 0.9908  
Terraformed (year): 2435  
Population: 150,000

## Muir

P/2030(Blue Sun)07  
Primary: Blue Sun  
Position: 3<sup>rd</sup> from primary  
Orbit: 471,233,291km (3.150 AU)  
Period (years): 5.59 (days): 2,042  
Diameter: 8,649km  
Mass: 2.650x10<sup>21</sup> tonnes  
Surface Gravity: 0.9623  
Terraformed (year): 2440  
Population: 3,500,000

## Arminius

S/2170(Muir)01  
Orbit: 130,696km  
Period (days): 9.28  
Diameter: 1,523km  
Mass: 8.300x10<sup>19</sup> tonnes  
Surface Gravity: 0.9721  
Terraformed (year): 2440  
Population: 450,000

## Shepherd's Mission

S/2170(Muir)02  
Orbit: 249,860km  
Period (days): 17.75  
Diameter: 971  
Mass: 3.363x10<sup>19</sup> tonnes  
Surface Gravity: 0.9691  
Terraformed (year): 2440  
Population: 175,000

## Fury

P/2020(Blue Sun)02  
Primary: Blue Sun  
Position: 4<sup>th</sup> from primary  
Surface Gravity: 4.2750  
Orbit: 920,028,901km (6.150 AU)  
Period (years): 15.25 (days): 5,571  
Diameter: 368,970km  
Mass: 5.900x10<sup>25</sup> tonnes

## Coldstone

S/2165(Fury)02  
Orbit: 3,459,600km  
Period (days): 245.70  
Diameter: 1,578km  
Mass: 9.066x10<sup>19</sup> tonnes  
Surface Gravity: 0.9891  
Terraformed (year): 2420  
Population: 89,000

## Blackwood

S/2164(Fury)01  
Orbit: 3,844,000km  
Period (days): 273.00  
Diameter: 1,001km  
Mass: 3.812x10<sup>19</sup> tonnes  
Surface Gravity: 1.0336  
Terraformed (year): 2420  
Population: 48,750

## Seventh Circle

S/2165(Fury)03  
Orbit: 7,688,000km  
Period (days): 546.00  
Diameter: 1,020km  
Mass: 3.879x10<sup>19</sup> tonnes  
Surface Gravity: 1.0128  
Terraformed (year): Scheduled  
Population: 5,000 (Terraform Crew)

## Uroborus

Asteroid Belt  
Primary: Blue Sun  
Inner Boundary: 1,032,225,303km (6.900 AU)  
Outer Boundary: 1,256,622,108km (8.400 AU)  
Average Width: 224,396,805km (1.500 AU)  
Number of cataloged objects: 372,971  
Asteroid designation uses numbers and letters (excluding l, i, o, and z).  
Example: A/2235(Blue Sun)1cj59

## Highgate

P/2029(Blue Sun)05  
Primary: Blue Sun  
Position: 5<sup>th</sup> from primary  
Orbit: 1,368,820,511km (9.150 AU)  
Period (years): 27.68 (days): 10,109  
Diameter: 10,350km  
Mass: 3.958x10<sup>21</sup> tonnes  
Surface Gravity: 1.0038  
Terraformed (year): 2435  
Population: 2,750,000

## Perth

S/2164(Highgate)01  
Orbit: 219,108km  
Period (days): 15.56  
Diameter: 1,400km  
Mass: 7.158x10<sup>19</sup> tonnes  
Surface Gravity: 0.9921  
Terraformed (year): 2435  
Population: 250,000

## Dragon's Egg

P/2027(Blue Sun)03  
Primary: Blue Sun  
Position: 6<sup>th</sup> from primary  
Surface Gravity: 2.7124  
Orbit: 1,761,514,919km (11.775 AU)  
Period (years): 40.41 (days): 14,758  
Diameter: 186,300km  
Mass: 4.819x10<sup>24</sup> tonnes

## Yudhishtira

S/2165(Dragon's Egg)01  
Orbit: 1,151,200km  
Period (days): 81.90  
Diameter: 1,738  
Mass: 1.070x10<sup>20</sup> tonnes  
Surface Gravity: 0.9619  
Terraformed (year): 2420  
Population: 200,000

## Bhima

S/2165(Dragon's Egg)02  
Orbit: 1,345,400km  
Period (days): 95.55  
Diameter: 1,160km  
Mass: 5.140x10<sup>19</sup> tonnes  
Surface Gravity: 1.0378  
Terraformed (year): 2420  
Population: 46,000

## Nakula

S/2165(Dragon's Egg)03  
Orbit: 1,537,600km  
Period (days): 109.20  
Diameter: 988km  
Mass: 3.499x10<sup>19</sup> tonnes  
Surface Gravity: 0.9738  
Terraformed (year): 2420  
Population: 65,500

## Sahadeva

S/2165(Dragon's Egg)04  
Orbit: 1,729,800km  
Period (days): 122.85  
Diameter: 1,392km  
Mass: 6.917x10<sup>19</sup> tonnes  
Surface Gravity: 0.9698  
Terraformed (year): 2420  
Population: 8,000

## Glynis

S/2165(Dragon's Egg)05  
Orbit: 1,922,000km  
Period (days): 136.50  
Diameter: 990km  
Mass: 3.734x10<sup>19</sup> tonnes  
Surface Gravity: 1.0349  
Terraformed (year): 2420  
Population: 1,000

## Deadwood

P/2030(Blue Sun)06  
Primary: Blue Sun  
Position: 7<sup>th</sup> from primary  
Orbit: 2,098,110,127km (14.025 AU)  
Period (years): 52.52 (days): 19,184  
Diameter: 9,930km  
Mass: 3.646x10<sup>21</sup> tonnes  
Surface Gravity: 1.0046  
Terraformed (year): 2400  
Population: 1,570,000

## Haven

S/2164(Deadwood)01  
Orbit: 184,512km  
Period (days): 13.10  
Diameter: 3,012km  
Mass: 3.386x10<sup>20</sup> tonnes  
Surface Gravity: 1.0141  
Terraformed (year): 2400  
Population: 78,000

## New Omaha

S/2164(Deadwood)02  
Orbit: 369,024km  
Period (days): 26.21  
Diameter: 1,025km  
Mass: 3.716x10<sup>19</sup> tonnes  
Surface Gravity: 0.9608  
Terraformed (year): 2400  
Population: 50,000

## Burnham

P/2020(Blue Sun)1  
Class: Artificial Star  
Heliiformed: 2253  
Radius: 0.30 Sol – Brown Dwarf  
Radius: 0.18 Sol – Protostar  
Mass: 0.30 Sol  
Orbit: 3,440,751,010km (23.000 AU)  
Period (years): 110.30  
Historical Note: Burnham was the first brown dwarf to be Heliiformed, or compressed and ignited into an artificial sun, also called a "protostar."

## Miranda

S/2038(Burnham)1  
Primary: Burnham  
Position: 1<sup>st</sup> from primary  
Orbit: 5,534,318km  
Period (days): 122  
Diameter: 11,023km  
Mass: 4.473x10<sup>21</sup> tonnes  
Surface Gravity: 1.0001  
Terraformed (year): 2433  
Population: ~5,200+ (Reavers)

## Caliban

S/2190(Miranda)01  
Orbit: 88,412km  
Period (days): 6.28  
Diameter: 1,025km  
Mass: 3.004x10<sup>20</sup> tonnes  
Surface Gravity: 0.9637  
Terraformed (year): On Hold  
Population: 0

8.267 AU • Wildcard  
8.207 AU • Olympia  
  
8.288 AU • Grafton  
  
7.765 AU • Gore  
8.172 AU • Ipswich Docks  
7.968 AU • Wales  
  
7.446 AU • Wayward 1  
7.403 AU • Maybelle  
  
**Waytown**  
7.886 AU • Wayward 2  
7.525 AU • Governess  
8.236 AU • Franklin  
  
7.365 AU • Iron Jon  
7.826 AU • Lennox  
7.854 AU • MacRican  
  
7.301 AU • Piibox  
7.966 AU • Tolstoy  
7.684 AU • Le Trou du Diable  
8.351 AU • Cooper  
  
8.130 AU • Propitious Beginnings  
  
8.303 AU • La Blanquilla

14.025 AU • Deadwood  
• Haven  
• New Omaha





## **-ARC of the VERSE-**

### **Version 1.3**

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The names of the mining asteroid facilities were contributed by fans of Firefly  
from many role-playing, prop and writing communities spread around the world.