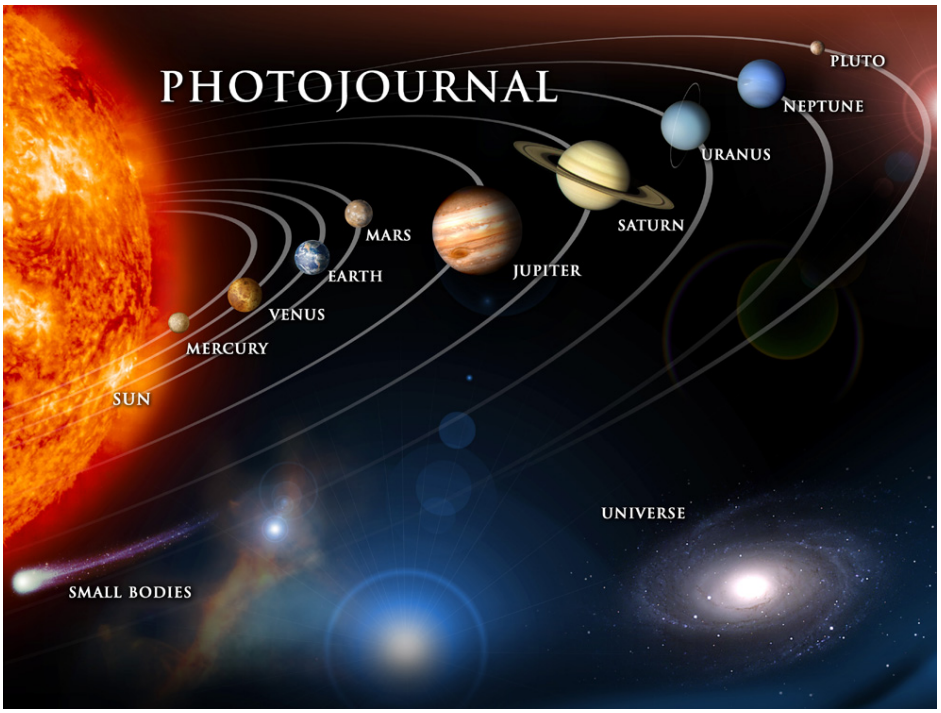
My Planet and Moon Book[1]



Jade W. May

December 14, 2009

[1]All photos courtesy of NASA's Jet Propulsion Laboratory, California Institute of Technology; downloaded from http://photojournal.jpl.nasa.gov/index.html.

Planets

0.1 Mercury

Year = 88 Earth days
Day = 59 Earth days
Temperature = 662° – -272° F
Atmosphere = None
Water = North and South Pole
Composition = Heavy elements
Earth Mass = 0.5
Diameter = .383
Tilt = .5
Distance from Sun = 0.387 AU

Figure 1: Mercury, NASA

0.2 Venus

Year = 225 Earth days
Day = 243 Earth days
Atmosphere = Mostly carbon dioxide, 3% nitrogen
sulfuric acid droplets
Water = None
Composition = Heavy elements
Temperature = 860° F
Earth Mass = .815
Diameter = .949
Tilt = 177.3
Distance from Sun = 0.723 AU

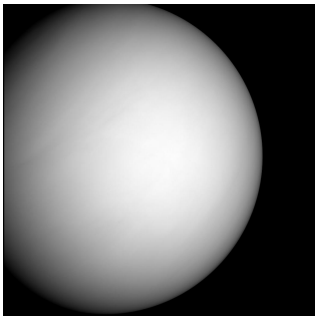


Figure 2: Venus, NASA

0.3 Earth

Year = 365 (Earth) days
Day = 24 hours
Atmosphere = 78% nitrogen, 21% oxygen, 1% other
Water = Liquid, solid, gas
Composition = Heavy elements
Temperature = 140° – -130° F
(Earth) Mass = 1
Diameter = 1
Tilt = 23.45
Distance from Sun = 1 AU

Figure 3: Earth, NASA

0.4 Mars

Year = 1.88 Earth years
Day = 24.5 Earth days
Atmosphere = 95% carbon dioxide, 5% nitrogen
Water = Frozen
Composition = Heavy elements
Temperature = 70° – 20° F
Earth Mass = .107
Diameter = .553
Tilt = 25.19
Distance from Sun = 1.524 AU

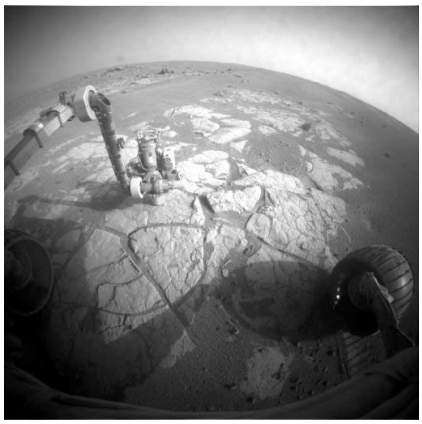


Figure 4: Mars, NASA

0.5 Jupiter

Year = 12 Earth years
Days = 9 hours 55 minutes
Atmosphere = 75% hydrogen, 24% helium, 1% other
Water = Liquid/gas
Composition = Liquid metallic, hydrogen and helium, liquid methane, ammonia & water, heavy element core
Temperature = 162° F at clouds, 305° F 120 miles below clouds
Earth Mass = 317.83
Diameter = 11.209
Tilt = 3.12
Distance from Sun = 5.203 AU

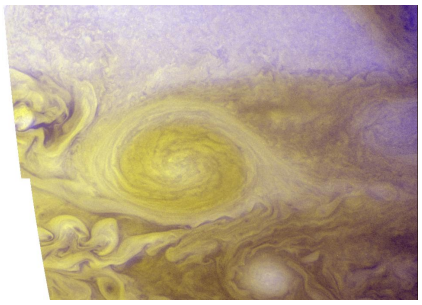


Figure 5: Jupiter, NASA

0.6 Saturn

Year = 29.37 Earth years
Days = 10.5 Earth hours
Atmosphere = 96% hydrogen, 3%helium, 1% other
Water = liquid/gas
Composition = Liquid metallic, hydrogen and helium, liquid methane, ammonia & water, heavy element core
Temperature = -292° F at clouds
Earth Mass = 95.16
Diameter = 9.449
Tilt = 26.73
Distance from Sun = 9.554 AU

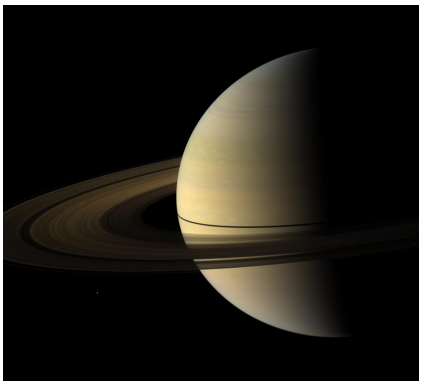


Figure 6: Saturn, NASA

0.7 Uranus

Year = 83.75 Earth years
Days = 17.24 Earth hours
Atmosphere = 84% hydrogen, 14% helium, 2% methane
Water = Liquid
Composition = Liquid molecular hydrogen, helium, hihgly compressed water, heavy element core
Temperature = -360° at clouds F
Earth Mass = 14.5
Diameter = 4.007
Tilt = 97.86
Distance from Sun = 19.22 AU

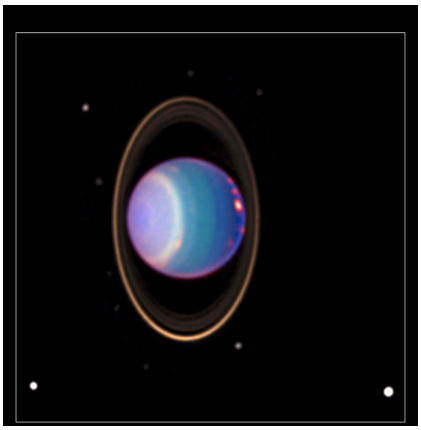


Figure 7: Uranus, NASA

0.8 Neptune

Year = 163 Earth years
Days = 16.11 Earth hours
Atmosphere = 84% hydrogen, 14% helium, 2% methane
Water = Liquid
Composition = liquid molecular hydrogen and helium, hihgly compressed water, heavy element core
Temperature = 360° F at clouds
Earth Mass = 17.204
Diameter = 3.883
Tilt = 29.56
Distance from Sun = 30.11 AU

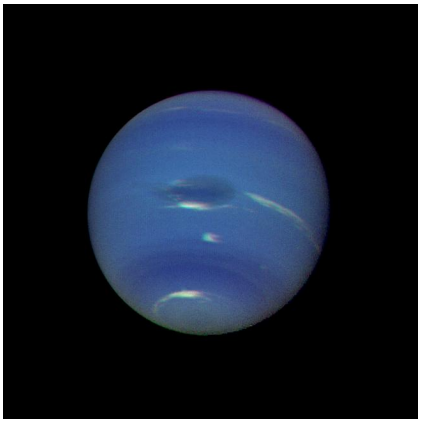


Figure 8: Neptune, NASA

0.9 Pluto

Year = 248 Earth years
Days = 6.93 Earth days
Atmosphere = Very thin
Water = Solid
Composition = Frozen ices of methane, water, nitrogen, carbon monoxide, and heavy element rocks
Temperature = -387° F
Earth Mass = .002
Diameter = .18
Tilt = 118
Distance from Sun = 39.54 AU

Figure 9: Pluto in foreground, NASA

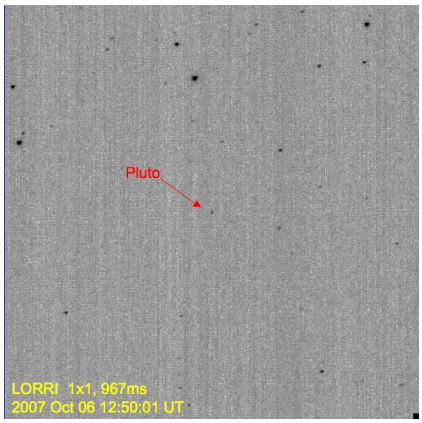


Figure 10: Pluto, NASA

Moons

0.10 Earth

0.10.1 Moon

Year = Earth
Days = 27 Earth days
Atmosphere = None
Water = Frozen underground
Composition = Heavy elements
Temperature = 266° – -292° F
Earth Mass = .0123
Diameter = .272
Tilt = 6.68
Distance from Earth = 238, 900 miles

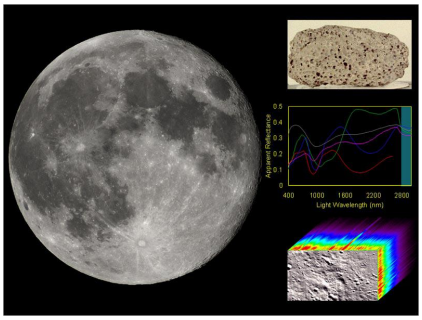


Figure 11: Earth Moon, NASA

0.11 Jupiter

0.11.1 Ganymede

Year = Jupiter
Days = 7.15 days
Atmosphere = slight ozone layer
Water = Frozen, liquid
Composition = ice/rock core, ice crust and liquid water layer
Temperature = -171° F
Earth Mass = .0247

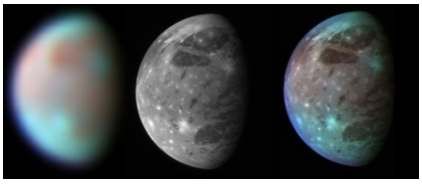


Figure 12: Ganymede, NASA

Diameter = .413
Tilt = .195
Distance from Jupiter = 664, 898 miles

0.11.2 Callisto

Year = Jupiter
Days = 16.69 days
Atmosphere = None
Water = Frozen, possibly liquid
Composition = ice/rock core, ice crust and possible liquid water layer
Temperature = -205° F
Earth Mass = .01807
Diameter = .376
Tilt = .281
Distance from Jupiter = 1, 170, 096 miles

Figure 13: Callisto, NASA

0.11.3 Io

Year = Jupiter
Days = 1.77 days
Atmosphere = None
Water = None
Composition = Heavy elements
Temperature = -143° F
Earth Mass = .0149
Diameter = .285
Tilt = .040
Distance from Jupiter = 261, 982 miles

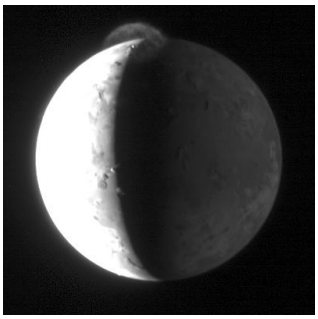


Figure 14: Io, NASA

0.11.4 Europa

Year = Jupiter
Days = 3.55 days
Atmosphere = Slight oxygen
Water = Frozen, liquid
Composition = ice/rock core, ice crust and liquid water layer
Temperature = -230° F
Earth Mass = .00803
Diameter = .246
Tilt = .470
Distance from Jupiter = 416, 897 miles

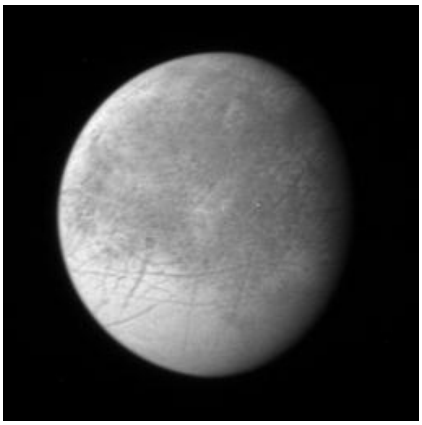


Figure 15: Europa, NASA

0.12 Saturn

0.12.1 Titan

Year = Saturn
Days = 15.95 days
Atmosphere = Nitrogen and methane
Water = solid, maybe liquid rivers and lakes of ethane
Composition = Heavy elements, ice
Temperature = -291° F
Earth Mass = .0226
Diameter = .4037
Tilt = .33
Distance from Saturn = 759, 258 miles

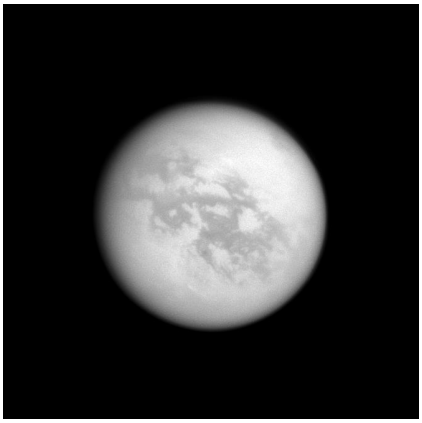


Figure 16: Titan, NASA

0.13 Neptune

0.13.1 Triton

Year = Neptune
Days = 5.87 days
Atmosphere = Nitrogen and methane
Water = Frozen
Composition = Heavy elements, water, nitrogen frost, mehtane, carbon dioxide and carbon monoxide
Temperature = -391° F
Earth Mass = .00358
Diameter = .212
Tilt = 157.35
Distance from Neptune = 220, 473 miles

Figure 17: Triton, NASA