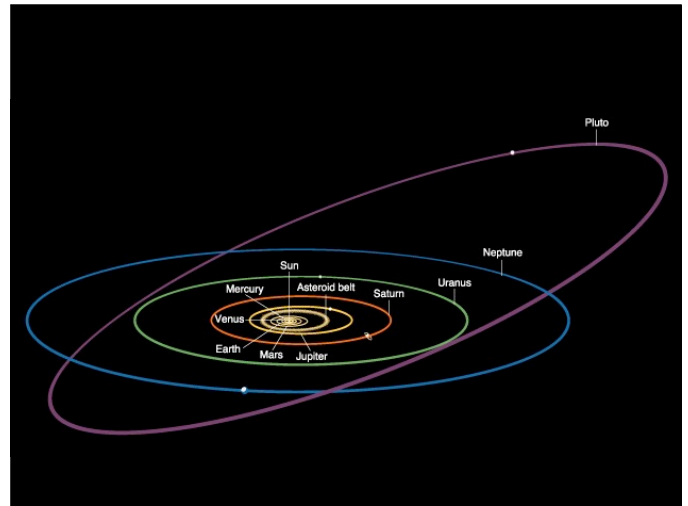
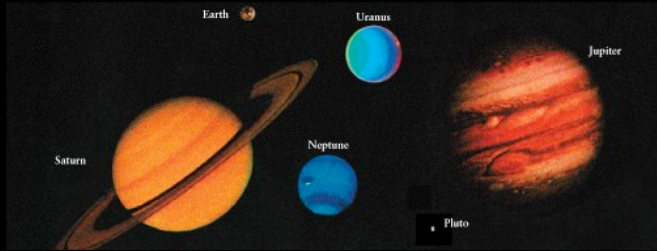


Planetas Gigantes



Jupiter's Vital Statistics



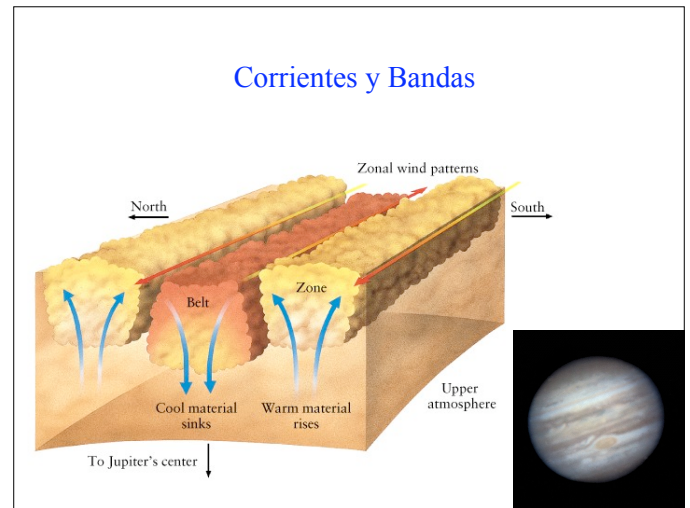
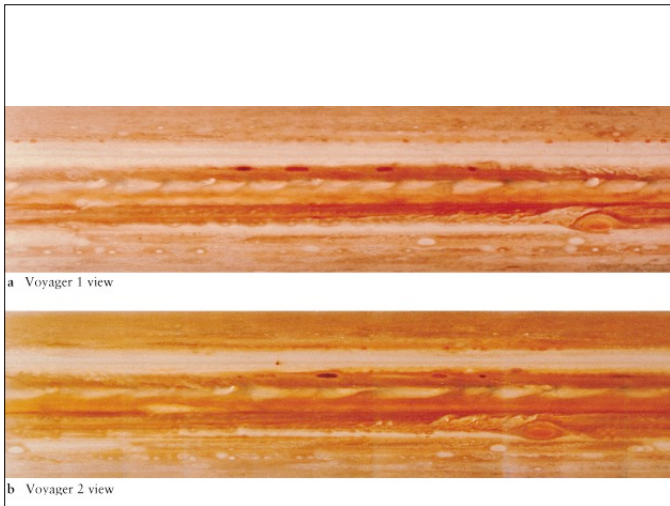
Mass	1.90×10^{27} kg (318 $M_{\oplus}$)
Equatorial radius	71,490 km (11.2 $R_{\oplus}$)
Average density	1330 kg/m ³
Orbital eccentricity	0.048
Sidereal period of revolution (year)	11.86 Earth years
Average distance from Sun	7.78×10^8 km (5.20 AU)
Equatorial rotation period	9 h 50 min 28 s
Internal sidereal rotation period	9 h 55 min 30 s
Albedo (average)	0.51



Gran Mancha Roja
= huracán en
existencia por >300
años!
Su tamaño a variado
entre 1 y 3 diámetros
terrestres.



**Rotación rápida
produce bandas
(clima)**



Química

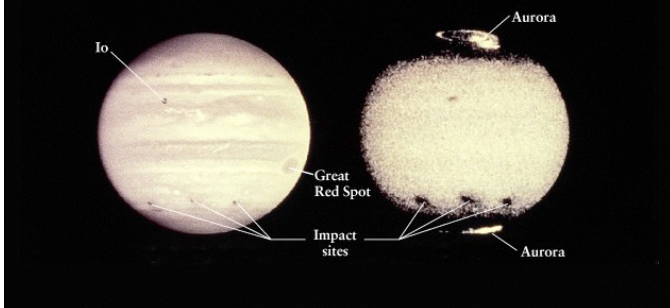
- 86% hidrógeno
- 13% helio
- 1% otros
 - metano CH_4
 - amonia NH_3
 - H_2O



Interior

- Atmósfera superior (nubes)
- Hidrógeno líquido metálico
- Núcleo rocoso

En 1994 el cometa Shoemaker-Levy se estrelló contra Júpiter.



Satélites Galileanos



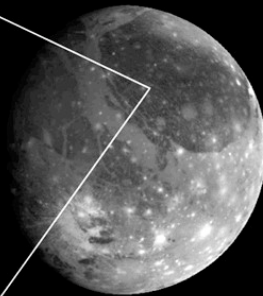
Volcanismo en Io



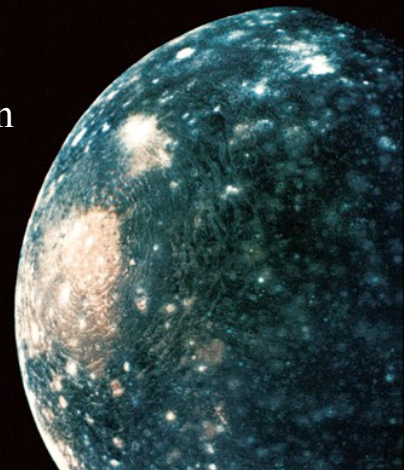
Europa:
agua líquida?



Ganymide



Callisto:
huellas de gran
impacto
pasado



Vital Statistics of the Galilean Moons, Mercury, and the Moon

	Mean distance from Jupiter (km)	Sidereal period (d)	Diameter (km)	Mass (kg)	Mass (Moon = 1)	Mean density (kg/m ³)
Io	421,600	1.77	3630	8.94×10^{22}	1.22	3570
Europa	670,900	3.55	3138	4.80×10^{22}	0.65	2970
Ganymede	1,070,000	7.16	5262	1.48×10^{23}	2.01	1940
Callisto	1,883,000	16.69	4800	1.08×10^{23}	1.47	1860
Mercury	—	—	4878	3.30×10^{22}	4.49	5430
Moon	—	—	3476	7.35×10^{22}	1.00	3340



Io



Europa



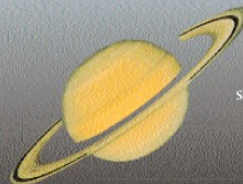
Ganymede

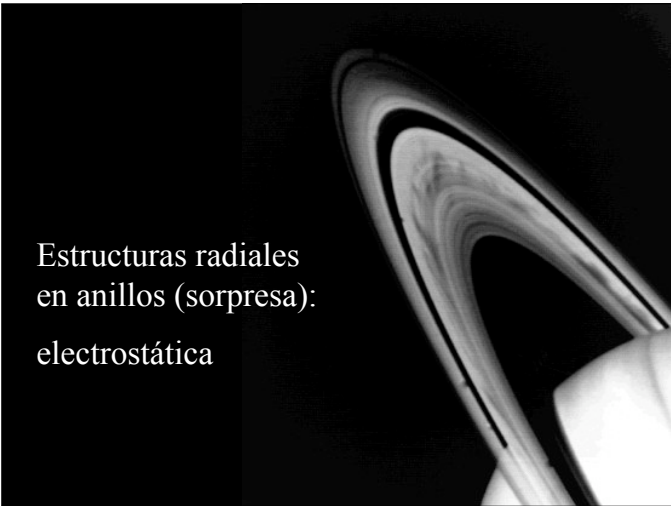
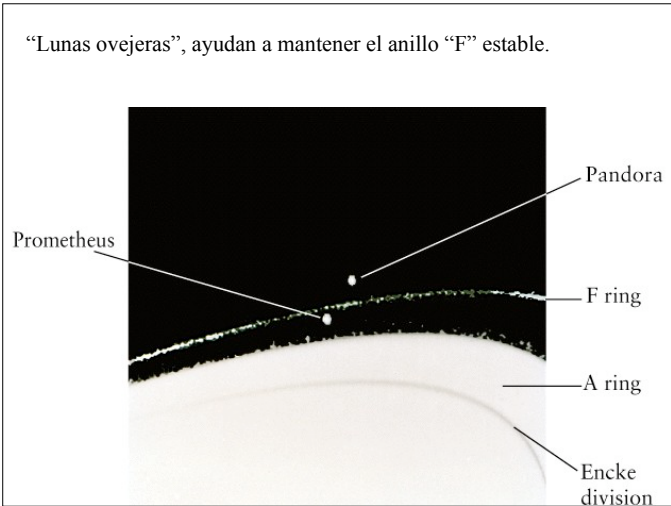
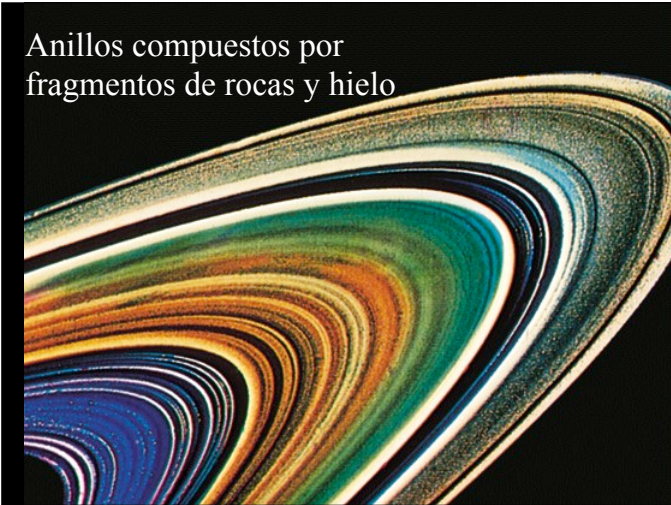
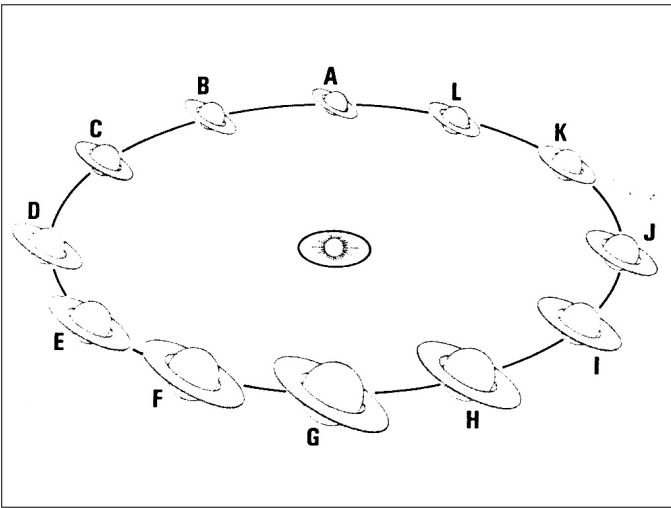
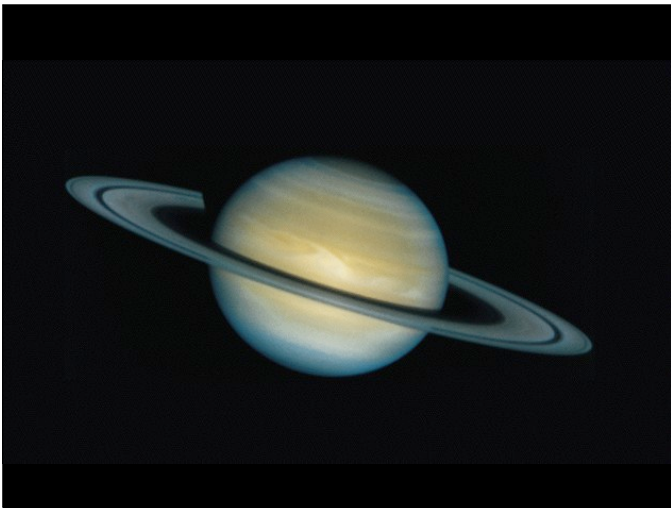


Callisto

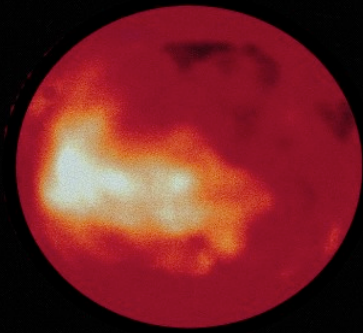
Saturn's Vital Statistics

Mass	5.69×10^{26} kg (95.2 $M_{\oplus}$)
Equatorial radius	60,270 km (9.45 $R_{\oplus}$)
Average density	690 kg/m ³
Orbital eccentricity	0.056
Sidereal period of revolution (year)	29.5 Earth years
Average distance from Sun	1.43×10^9 km (9.53 AU)
Equatorial rotation period	10 h 13 min 59 s
Internal sidereal rotation period	10 h 39 min 25 s
Albedo (average)	0.50

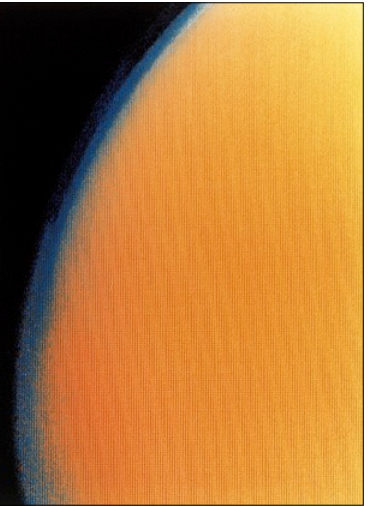




Titan

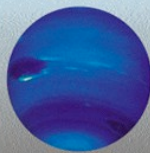


Titan es el único
satélite con
atmósfera



Uranus's Vital Statistics

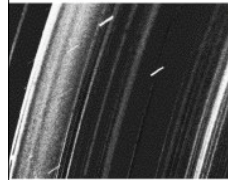
Neptune's Vital Statistics



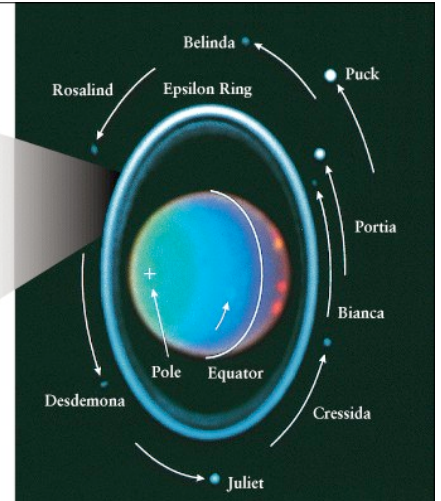
Mass	8.68×10^{25} kg (14.5 $M_{\oplus}$)
Equatorial radius	25,559 km (4.01 $R_{\oplus}$)
Average density	1290 kg/m ³
Orbital eccentricity	0.047
Sidereal period of revolution (year)	84.0 Earth years
Average distance from Sun	2.87×10^9 km (19.2 AU)
Equatorial rotation period	16 h 30 min (retrograde)
Interior sidereal rotation period	17 h 14 min (retrograde)
Albedo (average)	0.66

Mass	1.02×10^{26} kg (17.1 $M_{\oplus}$)
Equatorial radius	24,764 km (3.88 $R_{\oplus}$)
Average density	1640 kg/m ³
Orbital eccentricity	0.009
Sidereal period of revolution (year)	164.8 Earth years
Average distance from Sun	4.50×10^9 km (30.1 AU)
Equatorial rotation period	19 h 6 min
Interior sidereal rotation period	16 h 7 min
Albedo (average)	0.62

Anillos de Urano



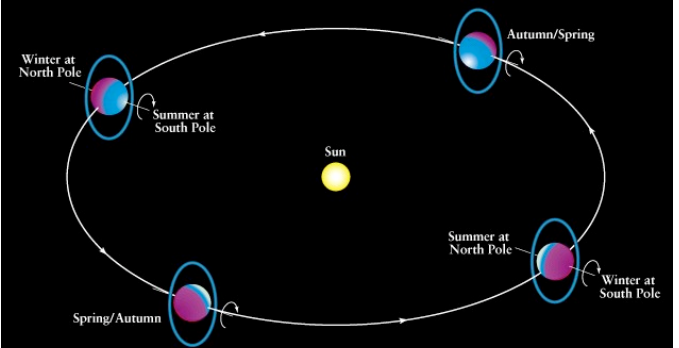
Pocas nubes

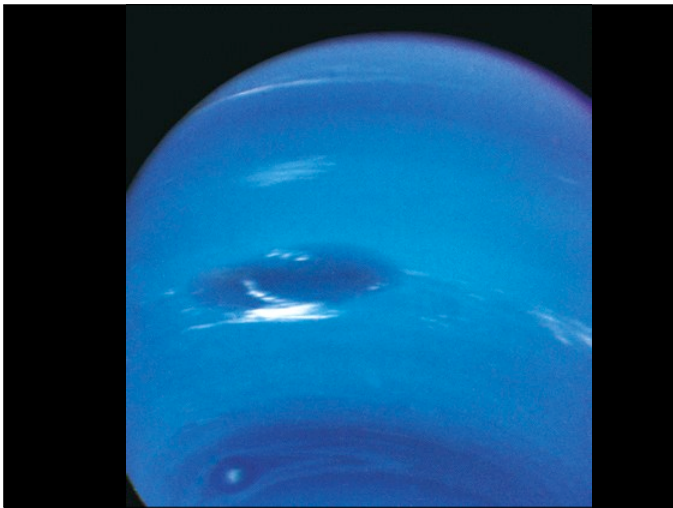
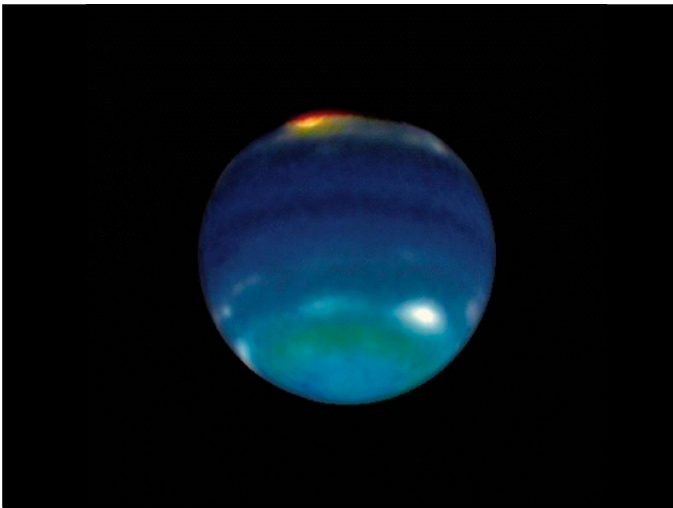


Miranda:
luna de
Urano

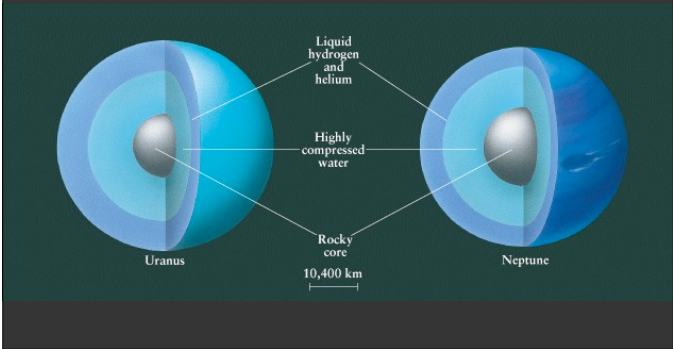


Estaciones en Urano





Interiores de Urano y Neptuno



The Outer Planets: A Comparison

	Interior	Surface	Rings	Atmosphere	Magnetic Field*
Jupiter	Terrestrial core, liquid metallic shell, liquid hydrogen mantle	No solid surface; atmosphere gradually thickens to liquid state, belt and zone structure, hurricanelike features	Yes	Primarily H, He	19,000 × Earth's total field, 14 × stronger than Earth's surface field
Saturn	Similar to Jupiter, with bigger terrestrial core and less metallic hydrogen	No solid surface, less distinct belt and zone structure than Jupiter	Yes	Primarily H, He	570 × Earth's total field, 1/3 × Earth's surface field
Uranus	Terrestrial core, liquid water shell, liquid hydrogen and helium mantle	No solid surface, weak belt and zone system, hurricanelike features, color from methane absorption of red, orange, yellow	Yes	Primarily H, He, some CH ₄	50 × Earth's total field, 0.7 × Earth's surface field
Neptune	Similar to Uranus	Like Uranus	Yes	Primarily H, He, some CH ₄	35 × Earth's total field, 0.4 × Earth's surface field
Pluto	Unknown	Apparently rock and ice	No	Unknown	Unknown