

IX. Jupiter

A. Visits (1973 to now) - 9; 7 flybys (*Pioneer 10 & 11, Voyager 1 & 2, Ulysses, Cassini, New Horizons*) & 2 orbiters (*Galileo, Juno*)

B. Basics

1. Location

2. Orbit & rotation style

3. Gas giant planet - largest in the Solar System

4. Density

5. Day & year

1 Jupiter day =

1 Jupiter year =

6. Axial tilt

7. 79 known moons; 4 large moons

8. Thin ring system

9. Albedo

10. Very strong magnetic field

11. Permanent auroras

C. Jupiter's interior

- 4 layers

1) Relatively small, compact core at center: rocks and/or metal

2) Thick layer of “fuzzy”, dilute core

3) Thick layer of liquid metallic hydrogen (H)

4) Outer layer of H₂ gas

D. Atmosphere

1. Composition

2. Color-banded with obvious storms

- light-colored bands**

- dark-colored bands**

3. Winds

4. Great Red Spot - larger than Earth

5. Polar areas

E. Impacts