Astronomy 311: Jovian Planets atmospheres worksheets

- Describe if each of the following are a surprise or to be expected explaining your reasoning. There may not be only one right answer.

- Saturn’s core is pockmarked with impact craters and dotted with volcanoes erupting basaltic lava.

- Neptune’s deep blue color is not due to methane, as previously thought but is due to its surface being covered with an ocean of liquid water.

- A Jovian planet in another system has a moon as big as Mars.

- An extrasolar planet is made primarily of H,He. It has about the same mass as Jupiter but the same size as Neptune.

- A new small moon orbits Jupiter outside the orbits of other known moons. It is smaller than Jupiter’s other moons but has several large, active volcanoes.

- A new moon orbits Neptune in the planet’s equatorial plane and in the same direction that Neptune rotates but it is made almost entirely of iron and nickel.

- An icy, medium-size moon orbits a jovian planet in a star system that is a few hundred million years old. The moon shows evidence of active tectonics.

- A jovian planet is discovered in a star system that is much older than the solar system. The planet has no moons at all, but has a system of rings.

- Radar measurements of Titan indicate that most of the moon is heavily cratered.

- 20 more moons of Saturn are discovered.