Space And Beyond

You are being provided with a book chapter by chapter. I will request you to read the book for me after each chapter. After reading the chapter, 1. shorten the chapter to no less than 300 words and no more than 400 words. 2. Do not change the name, address, or any important nouns in the chapter. 3. Do not translate the original language. 4. Keep the same style as the original chapter, keep it consistent throughout the chapter. Your reply must comply with all four requirements, or it's invalid. I will provide the chapter now.

SPACE AND BEYOND

- ? Earth is located within the Milky Way galaxy. The Milky Way is about 100,000 to 200,000 light-years in diameter, but it's just one of possibly billions of galaxies in the known universe.
- ? The star Alpha Scorpii, or "Antares," is more than 550 light-years from our Sun but it's the 15th brightest star in the sky and has 15 times the mass of the Sun.
- ? Although Mercury is the closest planet to the Sun, Venus has the hottest average temperatures at 867 °F.
- ? Alpha Centauri is the closest solar system to our own at only four light-years away. It has two stars and a planet that could potentially sustain life.
- ? Captured German rocket scientists helped the early American and Soviet space programs. The Soviets, though, had developed rocket technology earlier, giving them an early advantage in the Space Race.
- ? NASA started the National Aero-Space Plane (NASP) program in 1986 to build the world's first passenger, suborbital space liner. It was cancelled in 1993 before there were any flights.
- ? Mercury and Saturn are both visible to the naked eye. Their names come from the Greeks and Romans, and when modern astronomy was born astronomers decided to keep the tradition of giving celestial bodies Hellenic names.
- ? An astronomical unit (AU) is the distance of the Earth to the Sun. One AU is about 93 million miles or eight light minutes.
- ? Priests doubled as scientists in ancient societies. After 1,800 BCE, Babylonian priests/astronomers were the first to document patterns in the movements of celestial bodies by using math.
- ? Ceres is the largest asteroid in the solar system as well as a "dwarf planet." The planet/asteroid is also a happening place in the sci-fi TV series, The Expanse.

- ? The terms "astronomy" and "astrophysics" mean the same thing. They both refer to the study of celestial objects and phenomena that take place beyond the Earth's atmosphere.
- ? El Caracol is a spiral staircase structure located in the Maya city of Chichen Itza that was believed to have been built around CE 906. It's believed that the structure served as an astronomical observatory.
- ? The planets Mercury and Venus have no moons due to the Sun's gravity. By comparison, the outer planet Saturn has at least 83 moons.
- ? Most sci-fi TV shows and films depict space battles with raging explosions and fire everywhere. Since there's very little oxygen in space, though, there'd also be very little fire.
- ? Elon Musk's Space X company was founded in 2002, two years after Jeff Bezos founded Blue Origin. Space X currently focuses on transporting people and materials to the International Space Station.
- ? The Kuiper Belt is a ring of asteroids, comets, and dwarf planets just beyond Neptune. It's about 30 to 50 astronomical units from the Sun and is about 20 times as wide and as much as 200 times more massive than the asteroid belt.
- ? Jupiter may be comprised primarily of gas, but it still has two and a half times more mass than all the other planets in the solar system combined.
- ? Richard Branson founded Virgin Galactic in 2004 with the intent of it being the world's first passenger, suborbital space liner. In 2018, the