In the small-satellite industry, firmer plans emerged for several proposed low-Earth-orbit constellations. In June, OneWeb announced that Airbus will build more than 900 satellites for its planned constellation of broadband satellites, with the first to be launched in 2018. OneWeb also placed the largest commercial launch order to date, contracting with Arianespace and Virgin Galactic for a combined total of 60 satellite launches worth about $500 million. That same month, Seattle-based BlackSky Global announced plans for a 60-satellite Earth imaging system, with the first launches planned for late 2015. In July, Planet Labs acquired BlackBridge of Berlin, Germany, and its RapidEye constellation of satellites to accelerate its growth in the Earth observation market.

The emerging marketplace for commercially operated weather satellites saw San Francisco-based Spire send four cubesats to orbit in September to detect automatic-identification-system beacons from ships under the company’s plans to deliver maritime services, including weather data.

While early planning continued for a human journey to Mars in the 2030s, NASA managers are analyzing possible interim missions between low-Earth orbit and Mars. To set the stage for more detailed Mars exploration, the Curiosity rover continued ground-breaking science on the surface of the planet. Those findings will sharpen planning for future robotic sample return missions and manned missions after that. On the Asteroid Redirect Mission, NASA chose to capture a boulder off a large asteroid and deliver it to a lunar retrograde orbit for rendezvous with a subsequent human mission via the SLS and Orion.

A study is underway on a possible unmanned mission to Jupiter’s moon Europa, whose icy exterior is thought to cover an ocean of liquid water that could harbor a simple form of life. After traveling through space for almost 10 years, the New Horizons spacecraft flew by Pluto and its moon, gathering images and data that will continue to arrive well into 2016.