

Wisconsin-Grown Plant Growth Chamber to Launch on Space Shuttle to International Space Station

Madison, Wisconsin - August 3: Orbital Technologies Corporation is eagerly awaiting the launch of Space Shuttle Endeavor. Scheduled to launch on August 8, Endeavor will take along ORBITEC's Astro Garden plant growth chamber and deliver it to the International Space Station.

The Astro Garden is one of NASA's Education Payload Operations kits, going into space to support the Educator Astronaut Project. Built by ORBITEC as a miniature garden for growing flowers, herbs and small vegetables in orbit with minimal resources, the Astro Garden will be used as part of NASA's national engineering design challenge for students in grades K-12. Using their own growth chambers, students will conduct science experiments with basil seed and discuss their projects with Astronauts using the Astro Garden on the ISS.

Educator Astronaut Barbara Morgan, who served as Christa McAuliffe's backup for the 1986 Challenger flight, is enthusiastic about the educational possibilities for students with the Astro Garden in space. The point, says Morgan, is to "get [students] thinking about one of many, many questions that need to be answered...How do you sustain life for long duration on the moon or on Mars and beyond?...What kinds of plants are the best to grow? How are you going to grow them?"

On orbit, crewmembers will capture video of ORBITEC's growth chambers, and send them back to Earth to education organizations to used with students in grades K-12. Crewmembers will also conduct a 12-day to 21-day on orbit plant growth investigation using basil seeds. Click [here](#) to see more information on Astro Garden.

ORBITEC has also designed a ground-based version of the Astro Garden, called the Space Garden, which is sold by their sister company, PLANET LLC. "Space Garden is one of the most realistic and educational – but fun – growth systems available for kids," said PLANET's President Thomas Crabb. "Space Garden is even being used underwater in NASA's NEEMO habitat, where it's helping study the positive psychological effects of plants for humans in harsh environments." More information about Space Gardens is available on their website at www.spacegarden.net.

Both the Space Garden and Astro Garden are a continuation of ORBITEC's work with controlled environments. The company's Biomass Production System spent 73 days in orbit on the International Space Station in 2002.

ABOUT ORBITEC

Headquartered in Madison, ORBITEC is Wisconsin's aerospace research and product development leader, proving strong in the use of the Small Business Innovative Research Program as a catalyst for technology and product development. ORBITEC has been awarded over 180 government contracts exceeding a total of over \$125M. Most of ORBITEC's current activities and revenue base are technology developments and implementations that have evolved from the SBIR program. ORBITEC was awarded Wisconsin's Professional Service Business of the Year (1995), and the Tibbitts Award (1996 and 1999) from the Small Business Administration for outstanding work for the U.S. Government.

ORBITEC's sister company, PLANET LLC, provides an outlet to commercial markets for ORBITEC's advanced space technologies. In return, PLANET's products have had continuous access to ORBITEC's experienced research team to support future developments and improvements. Current products include LED lighting systems for controlled environments, the Space Garden educational plant growth chamber, Hypercosm web-based 3D software, and JSC-1A lunar regolith simulant. For more information on Space Garden, visit www.spacegarden.net.

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