News Release

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GIANT PLANETS: THEY'RE CLOSER THAN YOU THINK
$2.0 MILLION SCIENCE EXHIBIT BEGINS TOUR FEB. 15

Standing on the surface of the moon for the first time in 1968, astronauts Neil Armstrong and Buzz Aldrin were among the first human beings to catch first-hand a glimpse of how tiny our little blue planet really is. Today, we have an even better idea of our place in the universe.

Compared to the giant worlds of our Solar System, Earth is just a bit player: It is about 100 times less massive than Saturn, and more than 300 times less massive than Jupiter.In terms of pure size, a thousand Earths could fit inside of Jupiter. These giant worlds have also had a lot more to do with the history of our Solar System than the little spinning rock we call home.

A new science exhibit, funded by the National Science Foundation and NASA and produced by the Space Science Institute in Boulder, Colorado, will begin its national tour on Feb. 15 at the Orlando Science Center in Orlando, Florida. The exhibit, *Giant Worlds:A Voyage to the Outer Solar System*, will give visitors an out-of-this-world experience, as visitors learn what these planets are and the role they have played in making Earth habitable.

"We're using the best-of-the-best images from Cassini and other recent NASA missions for *Giant Worlds*," said Paul Dusenbery, the project's principal investigator. "It makes for really a great experience for young and old alike."

The exhibit is intimately linked to the progress and discoveries of NASA's outer planets missions, and it provides an engaging, real-life context for learning about science, math and technology.

Giant Worlds invites visitors of all ages to explore our amazing Solar System – the Family of the Sun. They will learn the Tools of the Trade, from Galileo's early telescope to a new, bus-sized spacecraft that orbits Saturn, a billion miles away. Each giant planet is a dynamic and changing family of objects including the planet, its moons and

rings.Today, exploration of the giant planets is an ongoing collaborative effort by scientists, engineers, programmers, students and educators.

SSI is collaborating with scientists and educators to create an education program to accompany the exhibit that consists of workshops for museum educators and teachers, and various outreach programs. SSI is also creating a virtual exhibit website for the project that extends the exhibit's scope and reach and provides resources and dissemination for the education program.

"The education program really encompasses all age groups," said Rosalyn Pertzborn, education and public outreach lead for NASA's Juno mission to Jupiter. "*Giant Worlds* is a key component of our mission to educate people about some of the state-of-the-art science that Juno is carrying out."

Giant Worlds is filled with interactive experiences, models and spectacular murals that reveal the grandeur of these amazing planets. Visitors can learn about gravity by virtually becoming a part of Saturn's spectacular ring system. Virtual ring particles actually interact with a visitor's shadow. They can design and launch a virtual probe into Jupiter's crushing atmosphere and see how far their probe gets before it is destroyed. Visitors can also experiment with the properties of visible and infrared radiation and learn how scientists use light to probe phenomena like Jupiter's Great Red Spot.

"I can certainly say I think it's a fantastic thing that this exhibit will provide the opportunity to get to know the giant planets," said Robert Pappalardo, senior research scientist with NASA's Jet Propulsion Laboratory and *Giant Worlds* collaborator. "To understand what solar systems are like, we really need to understand these giant planets."

The exhibit will also introduce visitors to the ongoing search for extraterrestrial life. Scientists should be looking for this life, most likely in microbial form, wherever we are likely to find liquid water, Pappalardo said.

"There could be a dozen icy moons in our Solar System that might have liquid water," he said. "We might be more likely to find life on or in these satellites than on other terrestrial planets besides Earth."

"In the future, we may discover that we are really the exceptions in the universe," Pappalardo said. "If we really want to understand habitability in the universe we need to look at giant worlds and their satellites."

For more information on *Giant Worlds: A Voyage to the Outer Solar System* visit www.giantworlds.org.

The Space Science Institute is a nonprofit organization that carries out world-class research in space and Earth science, together with innovative science education programs

that inspire and deepen the public's understanding of planet Earth and its place in the grander Universe. The institute's integrated research and education programs span planetary science, space physics, astrophysics, astrobiology, and Earth science.

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