

## **INSPIRE AND EXPLORE**

May 15, 2010

### **Inspire**

NASA has initiated an outstanding STEM education program for high schools called INSPIRE (Interdisciplinary National Science Program Incorporating Research Experience). The goal is to provide 9th- through 12th-grade students with both online and hands-on opportunities to explore education and career paths in science, technology, engineering and mathematics, with specific programs tailored to each grade level.

Applications for this program are currently being accepted through June 30, 2010, and NASA will announce its selections in September.

Students admitted to the INSPIRE program will participate in an "online learning community" facilitating interaction with peers and NASA engineers/scientists in diverse educational activities, discussion boards and chat rooms. In addition, INSPIRE students will be able to apply for residential experiences at NASA facilities and participating universities nationwide (during the summer of 2011) that will afford unique introductions to multiple career options in aerospace.

Excited about this program? More detailed information on INSPIRE may be found online at:  
[http://www.nasa.gov/offices/education/programs/descriptions/INSPIRE\\_Project.html](http://www.nasa.gov/offices/education/programs/descriptions/INSPIRE_Project.html)

### **Explore**

Space exploration holds tremendous potential for Hawaii. In 2007, I sponsored a bill, which became law, to create the State Office of Aerospace Development (OAD) to promote this industry. OAD, through its Director Jim Crisafulli, has done commendable work promoting aerospace in Hawaii. Through its tireless advocacy, our State has repeatedly played host to conferences of international aerospace scientists and entrepreneurs, and won legislative support for a federal spaceport license application to help bring space tourism to our islands.

OAD'S efforts at the legislature helped pass another bill I initiated to fund a federal spaceport license application to help bring space tourism to our islands. In addition, OAD supported our State's efforts to establish the Big Island as the preferred site for both the Thirty Meter Telescope and Advanced Technology Solar Telescope projects, which collectively will bring nearly 1.5 Billion to Hawaii through international partnerships, providing substantial employment, research and educational benefits to Hawaii residents statewide.

OAD instituted the Pacific International Space Center for Exploration Systems (PISCES) at the University of Hawaii at Hilo - a unique program dedicated to supporting

scientific research, technology development, and pioneering education programs to advance space exploration and inspire the next generation of space scientists, engineers and entrepreneurs.

Initially funded through a bill I introduced in 2007, PISCES is built on global partnerships among industry, academia and the governments of space-faring nations. Over the past two years, PISCES has initiated innovative university and K-12 education programs on the Big Island, as well as sponsored international field demonstrations on the slopes of Mauna Kea to test new robotic technologies for future space missions. When fully developed, PISCES will feature a simulated lunar outpost on the Big Island where participants can conduct research and develop technologies toward working and living on the Moon and eventually Mars. The site will serve a dual function as an educational center for students, including K-12 pupils who can take a "Space Camp" field trip on the lunar analog site.

The OAD's latest "out-of-this-world" endeavor is PISA, the Pacific International Space Alliance. Being developed in collaboration with NASA Research Park at Ames Research Center in California, PISA will launch in November 2010, with the goal of facilitating collaboration among Asia and Pacific nations to design, develop, and implement both robotic and human missions to space. PISA will be headquartered in Hawaii, with OAD serving as its international Secretariat. Countries throughout Asia and the Pacific will contribute their funding and capabilities toward space exploration programs developed through PISA, which also will work closely with PISCES to foster innovation in scientific research, as well as the development, testing and evaluation of new technologies to support future space missions.

In sponsoring the bill to create the Office of Aerospace Development, my colleagues and I envisioned the space industry as one that will provide many new research and education opportunities for our brightest and most talented residents. I hope to establish Hawaii as a major contributor to global space efforts, as well as expand our State's economic base with these high paying career opportunities. Having the energetic and dedicated Jim Crisafulli as the Director of the Office of Aerospace Industry is a blessing. Hawaii could not ask for a stronger advocate in this field.

The 2010 Legislature passed my resolution recognizing the strategic value of the aerospace industry in diversifying and strengthening Hawaii's economy. The industry possesses great potential for enhancing aviation safety and global security, improving health care diagnostics and delivery worldwide, and advancing the development and implementation of remote sensing and management of critical resources.

All four counties in Hawaii stand to gain from bolstering our aerospace potential. Kauai's Pacific Missile Range Facility already provides the world's largest multi-environment test and evaluation range for aerospace technologies. Mauna Kea is the world's premier astronomical observation site, with scientists from countries all over the globe competing for time to use the facilities. The Air Force Optical and Supercomputing Observatory on Maui supports the most sophisticated deep space

surveillance complex in the U.S. Pioneering research in space-related fields is also being conducted through the UH-Manoa's Institute for Astronomy and Hawaii Institute for Geophysics and Planetology.

Hawaii's future potential in aerospace is even more promising, and I will continue to provide strong leadership through my work with other aerospace advocates and legislative efforts to ensure that we realize the substantial scientific, commercial and educational benefits this dynamic growth industry can bring to our State.