

Kulia i ka Lanī



Hawaii's Rendezvous with Space

SPACE

**Some have called it
our next horizon,**

**others,
the “Final Frontier” ...**



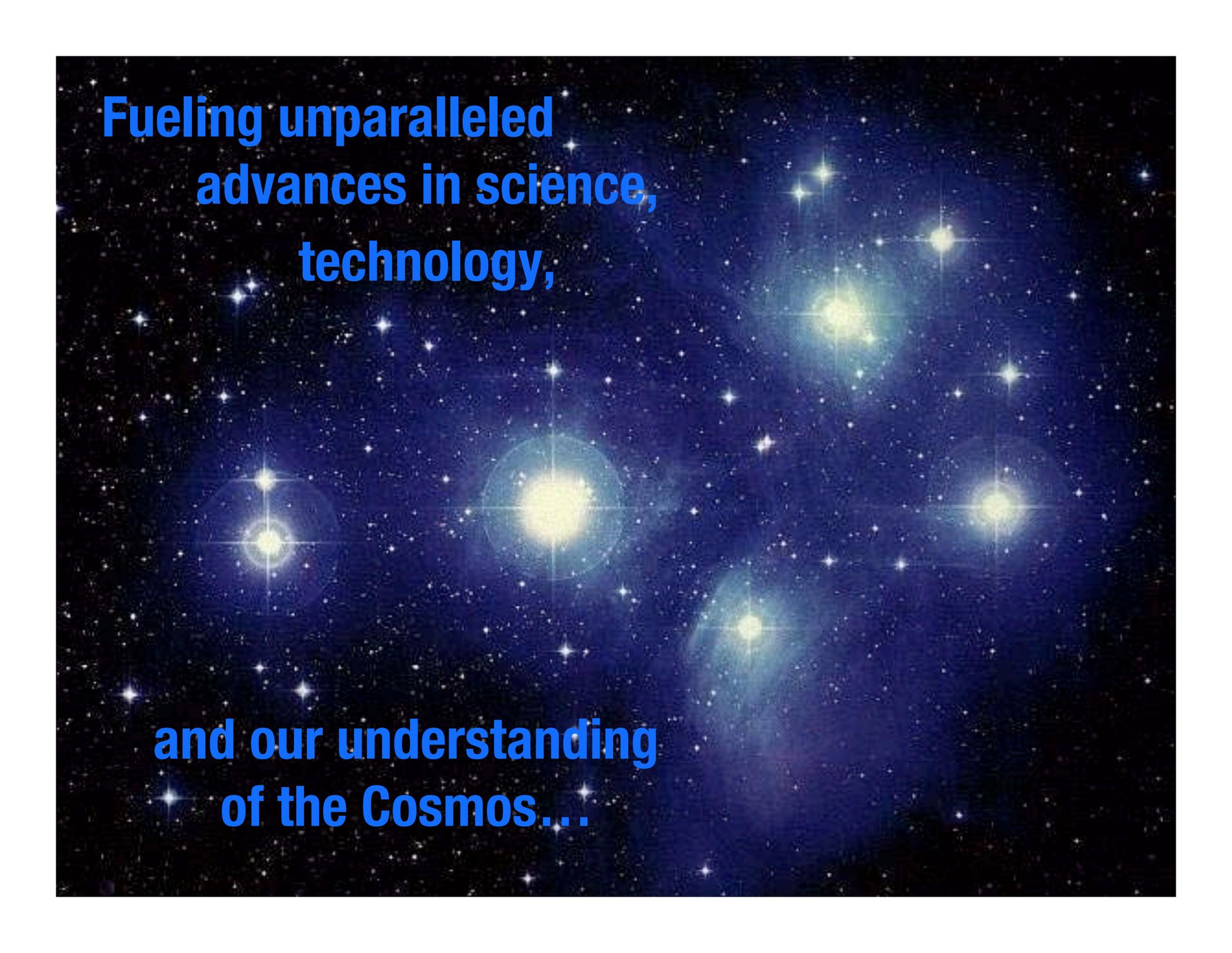


**The challenge and adventure in
exploring the unknown**

**propels the human spirit to
explore the heavens ...**

**A seemingly limitless
expanse for learning,
discovery,
and innovation...**



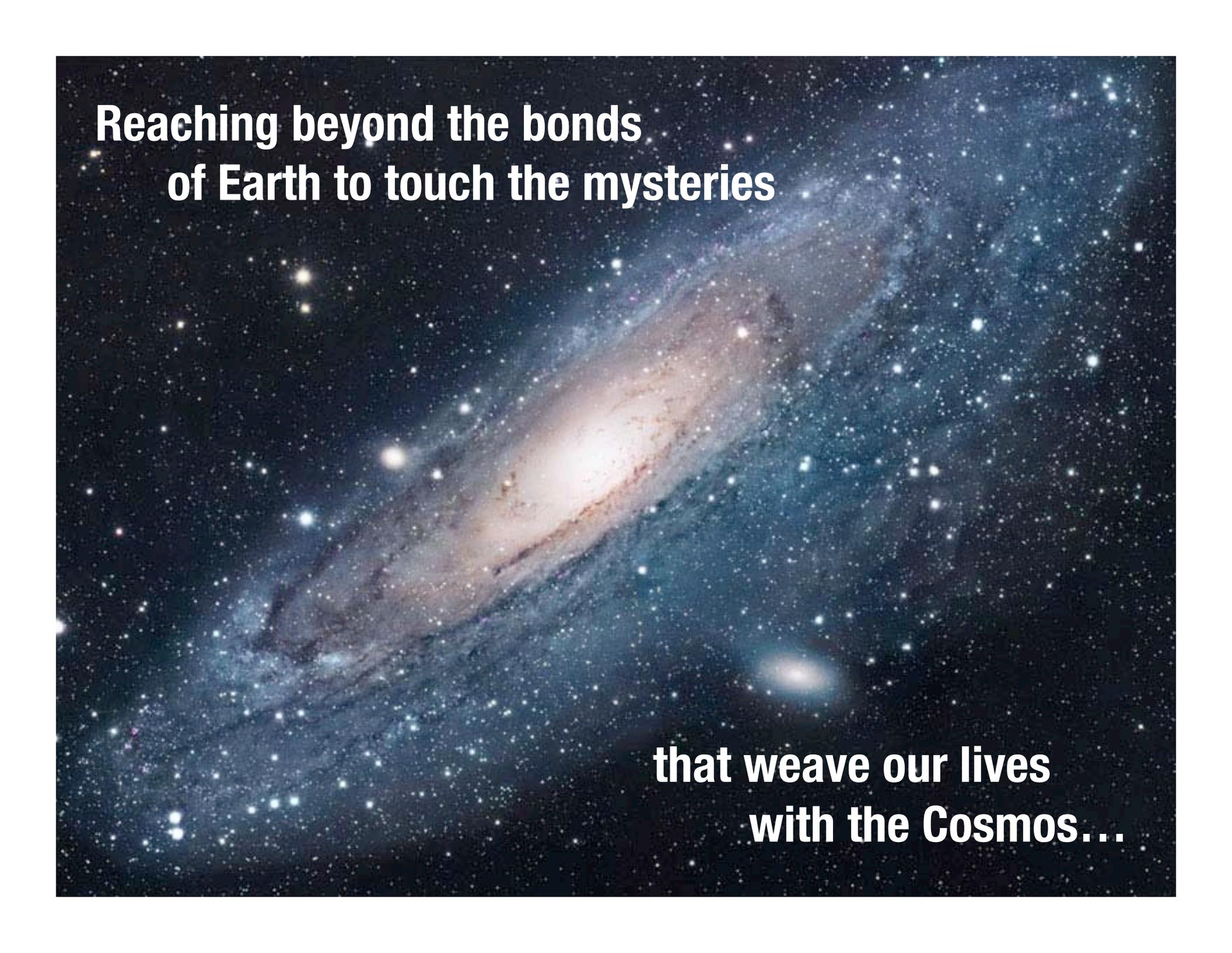


**Fueling unparalleled
advances in science,
technology,**

**and our understanding
of the Cosmos...**



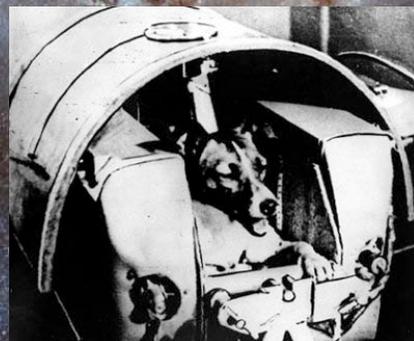
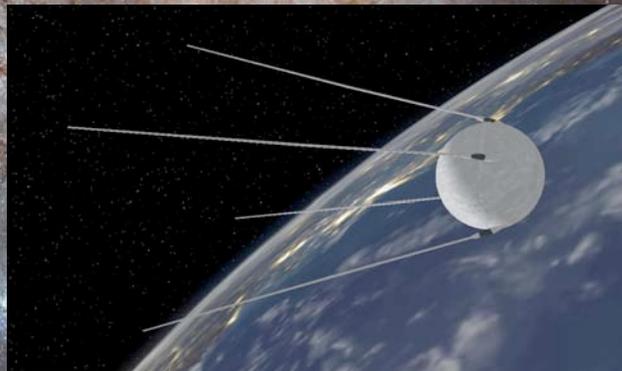
**Fledgling purveyors
of the Universe,
we have taken
our first,
yet tentative,
steps
to the stars...**



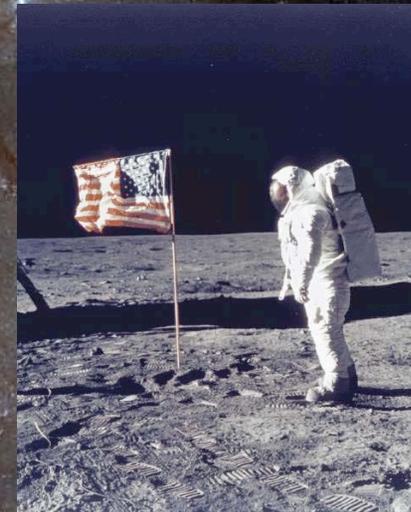
**Reaching beyond the bonds
of Earth to touch the mysteries**

**that weave our lives
with the Cosmos...**

Fueled by the fires of international competition, the nascent space programs of both the Soviet Union and the United States were built upon the technological capabilities and “Cold War” imperatives of military programs.



Yet the vision for space exploration articulated by President John F. Kennedy, and the Mercury, Gemini and Apollo programs that followed, propelled humankind to its first forays with space...



leaving an indelible record of the diverse, courageous, and inspirational achievements of which our species is capable.

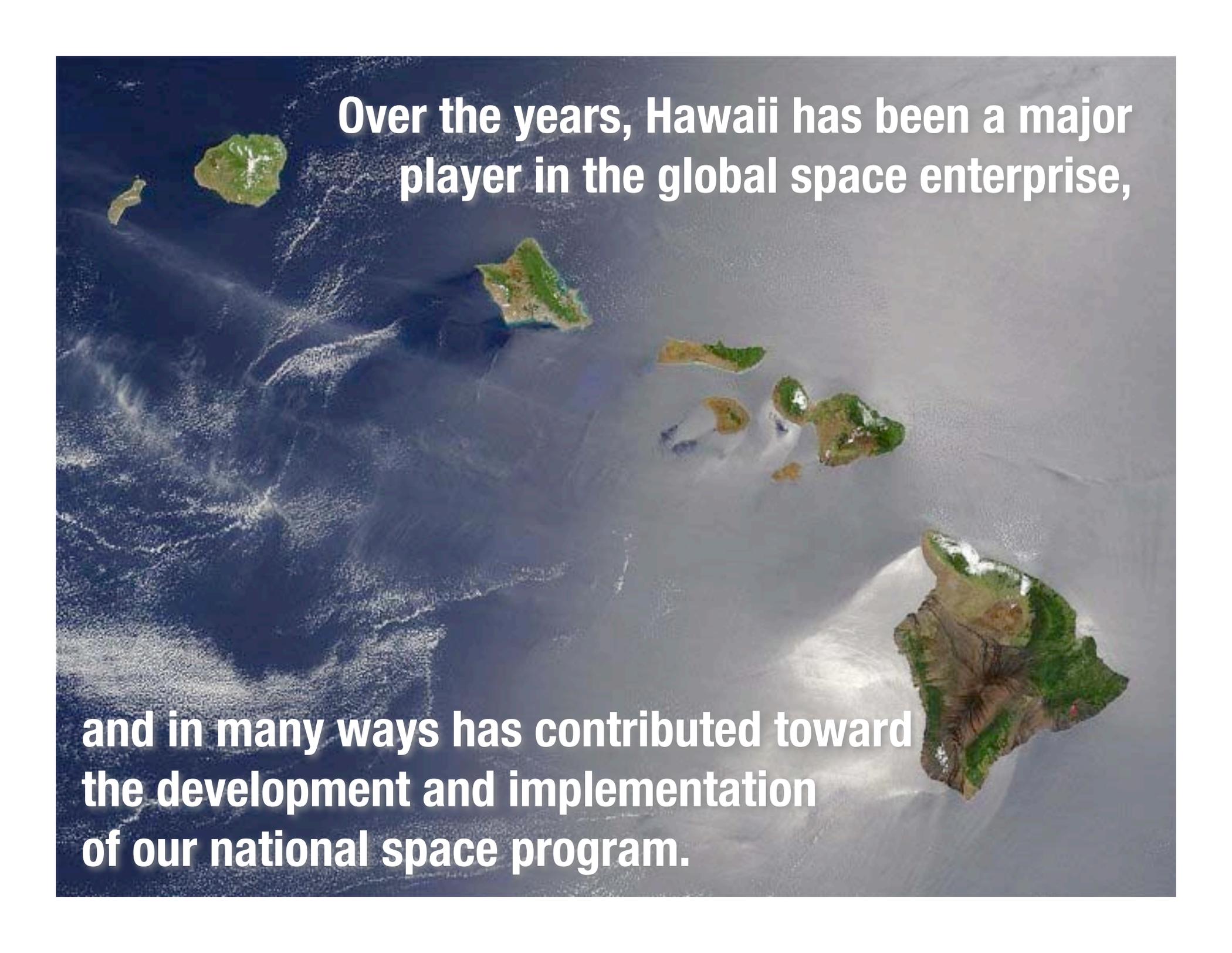
The road to Space has engaged many partners from around the globe,



and from all walks of life,



for the challenges of space exploration impact every dimension of the human experience.

A satellite photograph of the Hawaiian Islands, showing the main islands of Hawaii, Maui, Molokai, Oahu, and Kauai, along with several smaller islands. The islands are green and brown, set against the deep blue of the Pacific Ocean. The text is overlaid on the image in white, bold font.

Over the years, Hawaii has been a major player in the global space enterprise,

and in many ways has contributed toward the development and implementation of our national space program.

Beginning in the early 1960's, NASA astronauts came to Hawaii to train on lunar-like terrain for the Apollo moon missions.

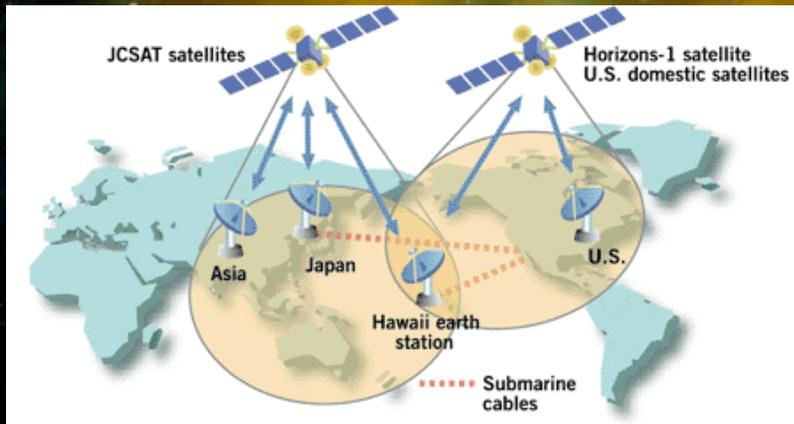




The clear skies and grand vistas atop Hawaii's volcanic peaks soon made the islands a premier site for astronomy and astrophysics...

...and the University of Hawaii and numerous Hawaii-based companies statewide developed extensive experience and expertise in

planetary geosciences,

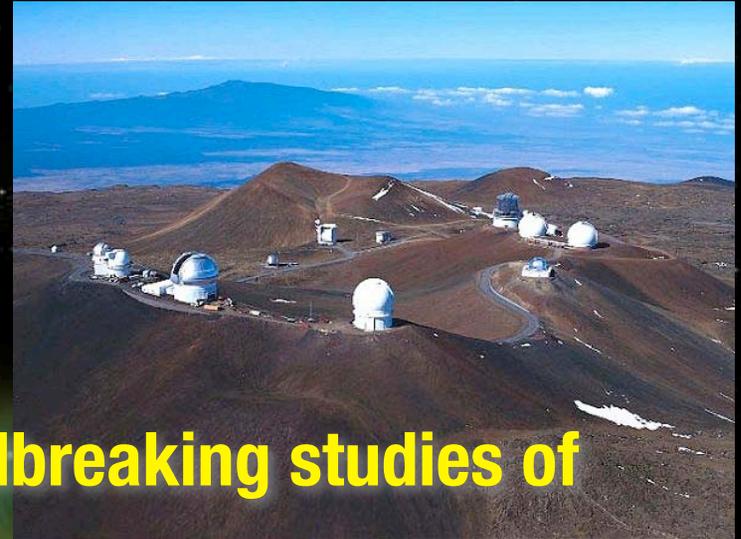


advanced satellite communications,

and space-based remote sensing.



**Today, the journey continues at the
Mauna Kea Observatories,**



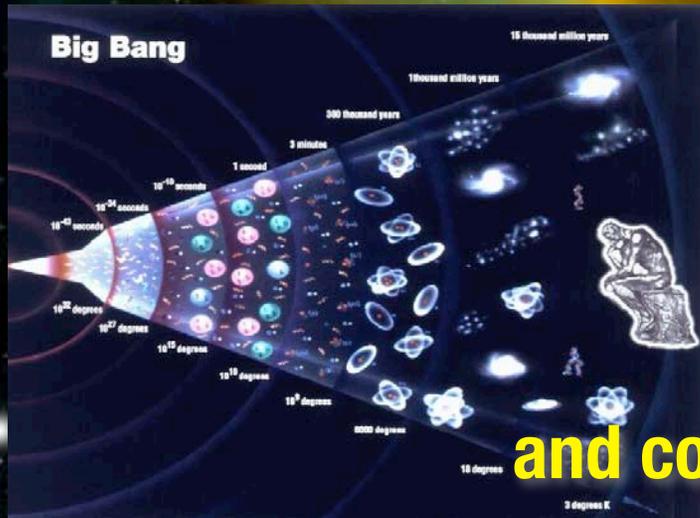
with groundbreaking studies of



galaxy and star formation,



interstellar matter,

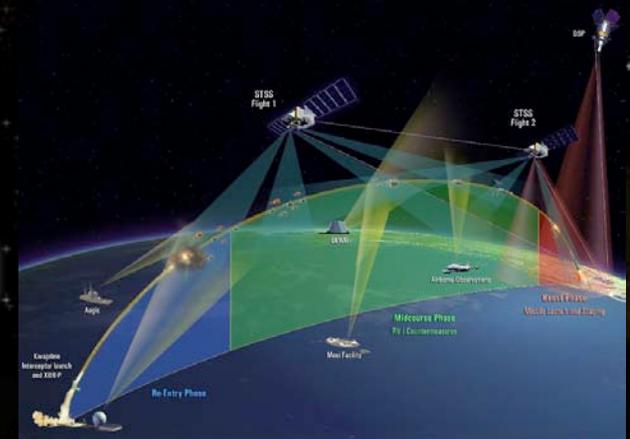


and cosmology.

Science City atop Mt. Haleakala supports the nation's most sophisticated space surveillance site,



with state-of-the-art electro-optical sensors for tracking satellites, orbital debris, and astronomical objects.



The University of Hawaii supports research and development of new technologies for environmental monitoring and studies of solar system objects from space...



and promotes interdisciplinary education and public service programs in space & earth science, remote sensing, robotics, and human space exploration.

And the Pacific Missile Range Facility on Kauai provides the world's largest multi-environment theater...



**supporting surface, subsurface,
air and space operations.**

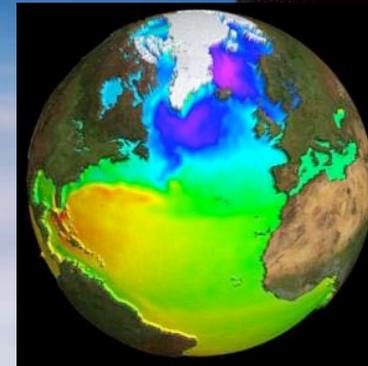
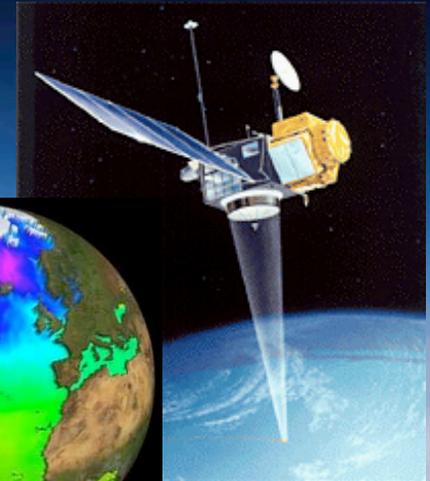


***But Hawaii's future potential in space
is even more compelling!...***

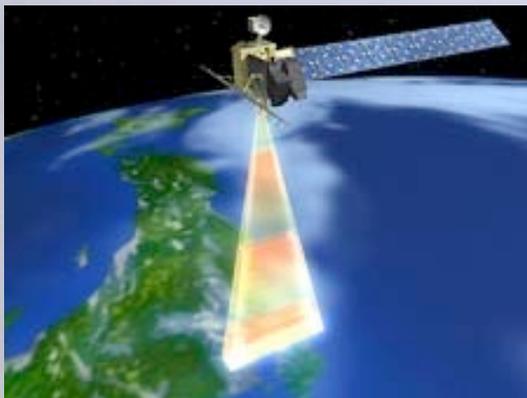
The University of Hawaii is pioneering adaptive optics, lidar/laser and remote sensing technologies to support new applications in



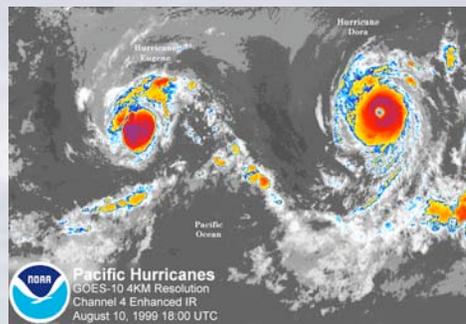
astronomical research,



atmospheric and oceanic monitoring & modeling,

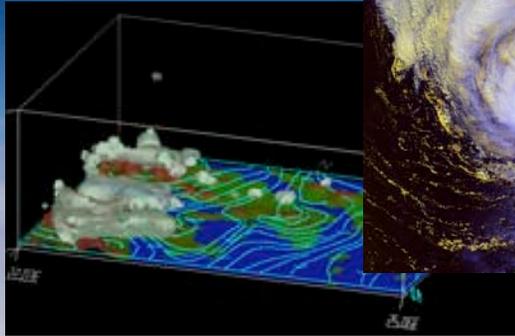


land, sea and coastal resource assessment,



and disaster management.

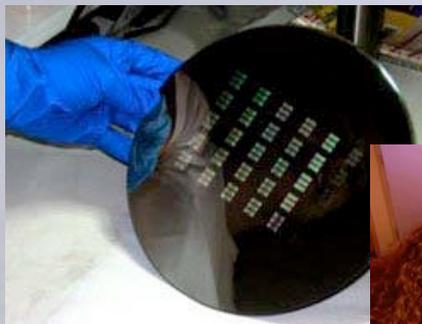
Hawaii-grown companies are developing new space-based commercial products and services that will support advanced



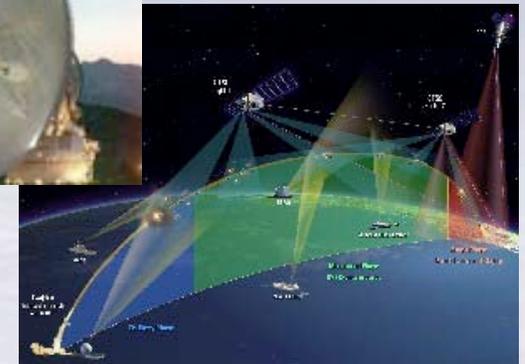
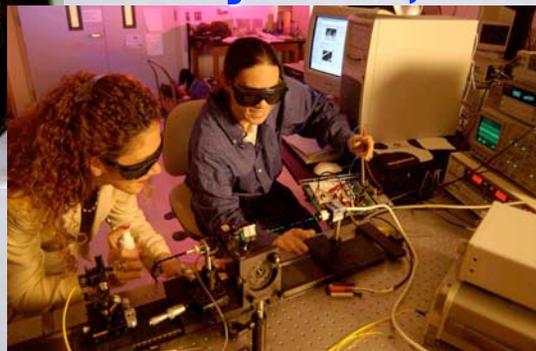
weather forecasting,



air traffic control,

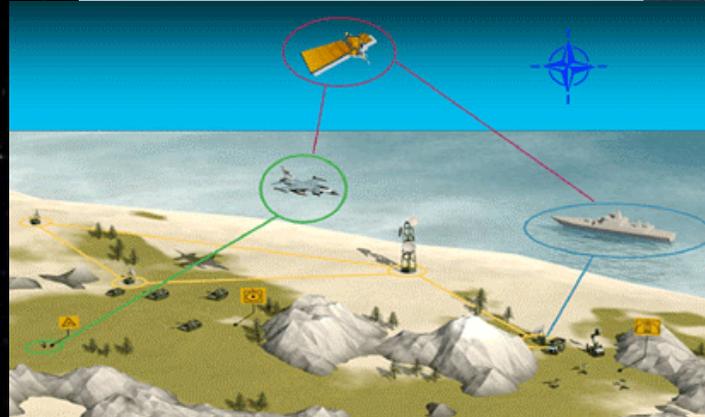


optical communications systems,



and space tracking & surveillance.

Major aerospace corporations have the potential of expanding operations in Hawaii as a bridge to Asia-Pacific markets...



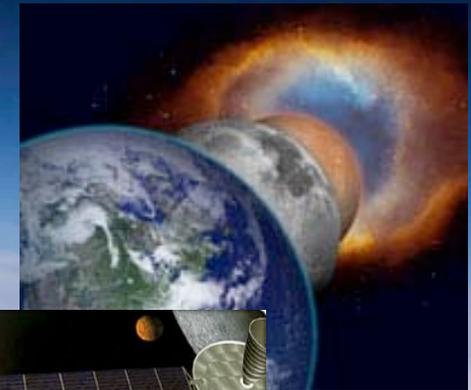
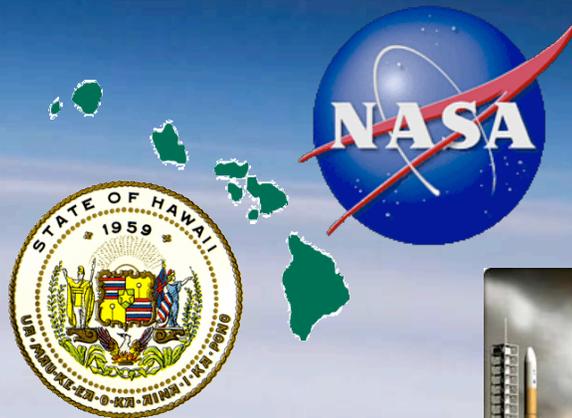
...developing space communications, environmental monitoring, and reconnaissance systems for the Asia-Pacific region.

And Hawaii's mid-Pacific, near equatorial location and both scientific and commercial ties with Asia-Pacific nations make the islands an ideal venue for commercial launch activities...



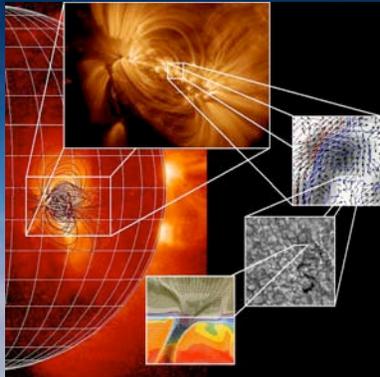
...to bring experimental payloads, small satellites and tourists to space!

Working closely with national space agencies, industry, and educational institutions worldwide, Hawaii is pioneering collaboration on future space exploration missions...



...promoting innovative public-private partnerships that will pioneer new technologies and space systems to support our National Vision for Space Exploration.

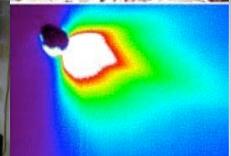
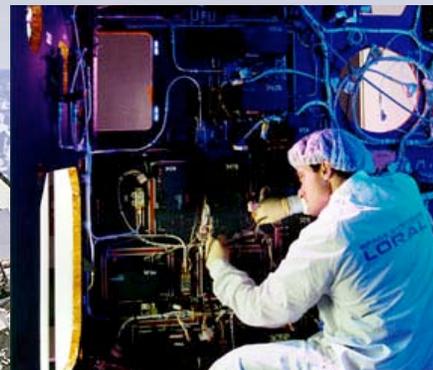
These partnerships will bring significant scientific, educational and commercial development opportunities to Hawaii...



in science,



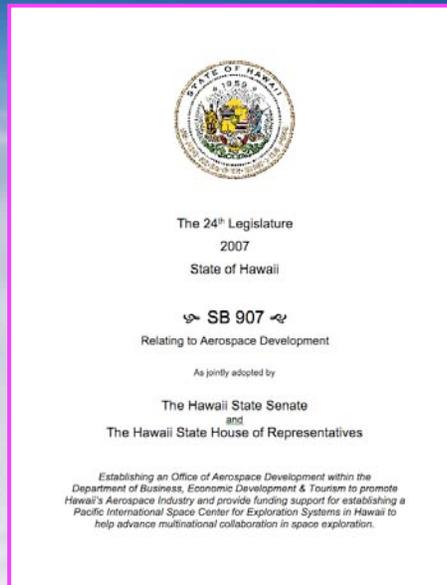
education,



and commercial space enterprise.

**Unanimously passed by the Hawaii State Legislature
and signed into law by Governor Lingle,
Senate Bill 907 (2007) established an
Office of Aerospace Development
in State government...**

**...to facilitate dialogue
and coordination among
our government, private
and academic sectors,**



**and between our
islands and the global
space community,**

**to promote the growth and diversification of
Hawaii's aerospace industry.**

The opportunities before us are legion, and will engage local scientists, entrepreneurs, educators and students in the development and implementation of...



telecommunications, life support, power, and in-situ resource utilization systems;



intelligent networks, test facilities, and simulated space habitats;

and other pioneering technologies supporting both robotic and human missions to our Moon, Mars and beyond.

A major catalyst for these initiatives will be the Pacific International Space Center for Exploration Systems, or PISCES, in Hawaii...



proposed through the Japan-U.S. Science, Technology & Space Applications Program (JUSTSAP),



supported by our State Legislature and Administration,

and engaging the multiple talents and resources of the University of Hawaii,



national space agencies,

local industry,

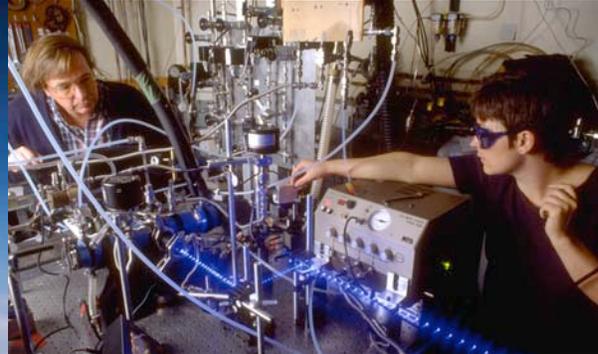
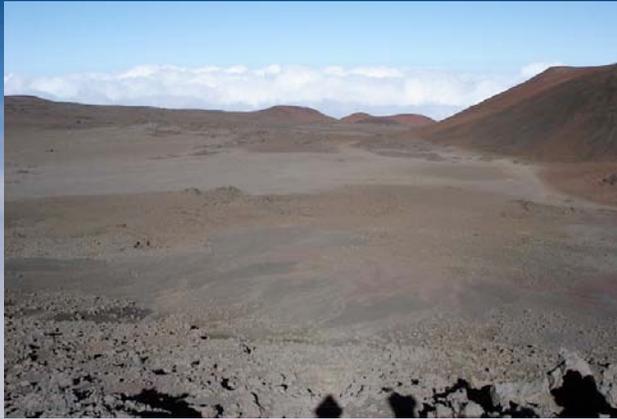


major aerospace corporations,



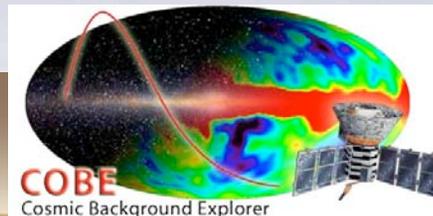
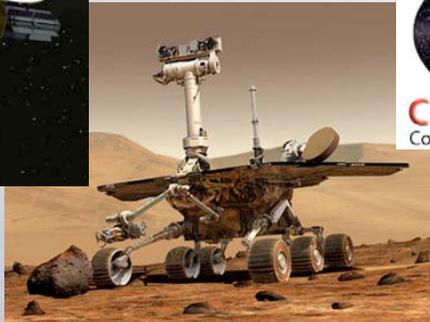
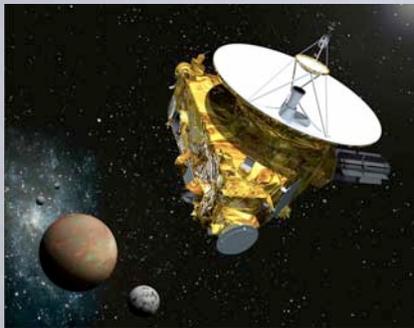
and international space organizations and institutions worldwide.

**Headquartered at the University of Hawaii
at Hilo, PISCES is leveraging our State's
resident expertise in space
science & technology,**



Moon and Mars-like environments,

unique mid-Pacific location,

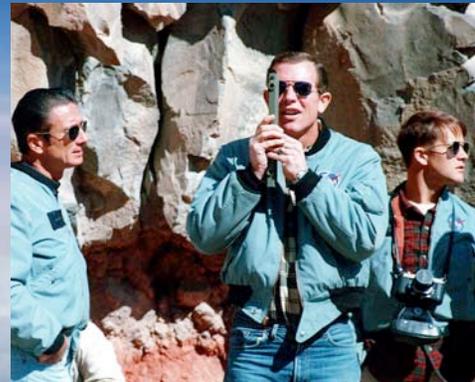


**and over 4 decades of experience
supporting major NASA missions...**

...to provide a unique multinational and interdisciplinary environment supporting future space exploration through



aerospace education,



astronaut training,



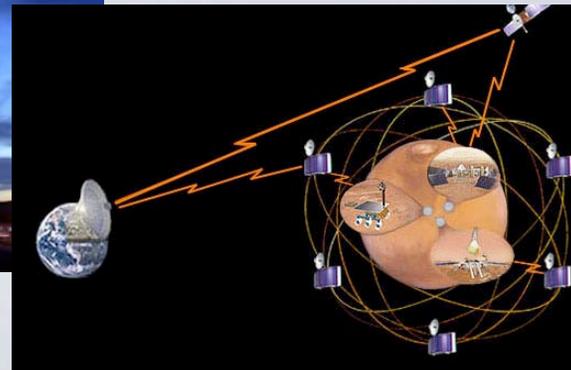
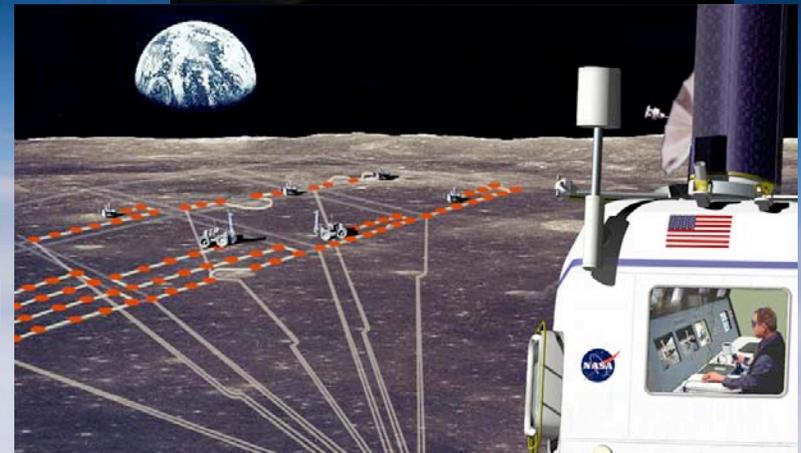
**professional workshops
and symposia...**



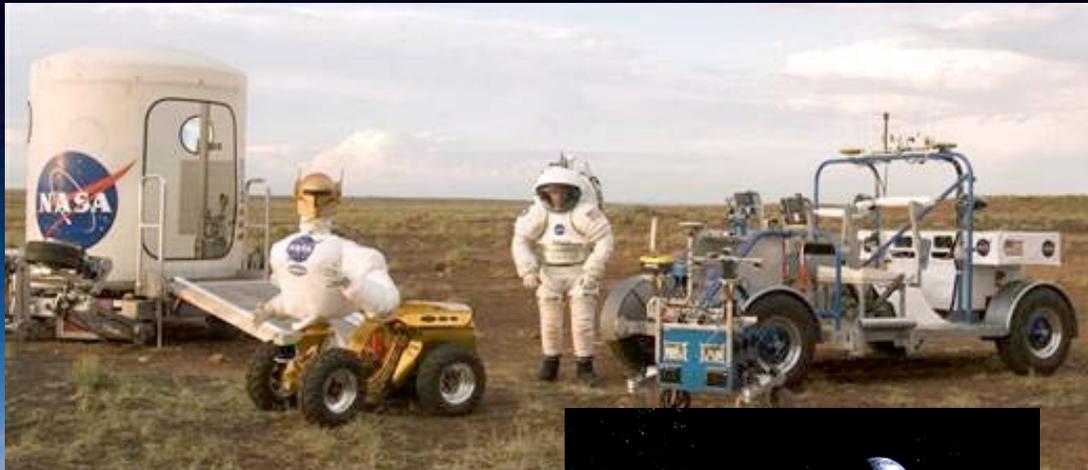
...and the design, development, integration, testing and evaluation of space systems and technologies, including



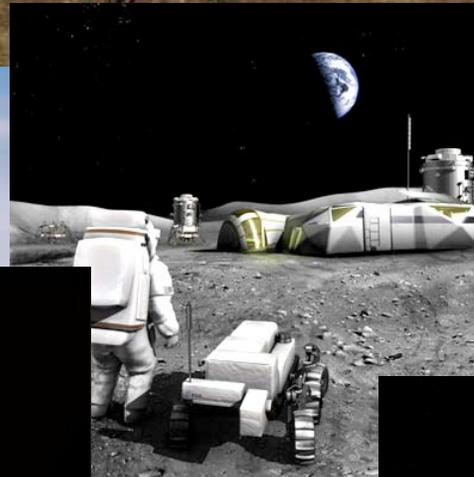
**robotic precursors,
mobility, sensor, and
imaging systems;**



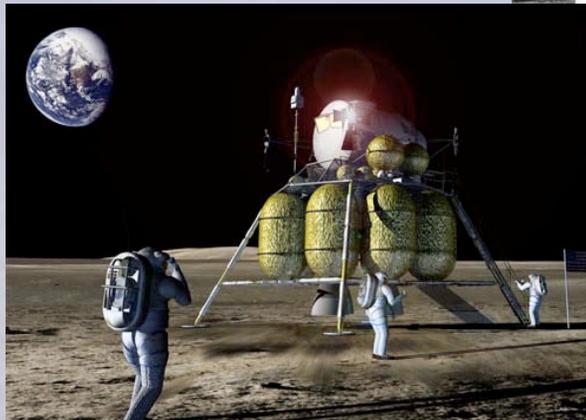
**navigation and
communications
networks;**



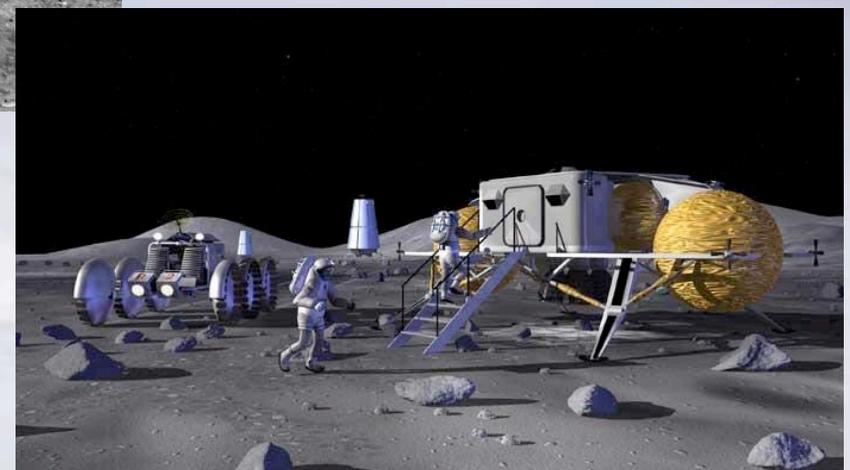
**outpost construction
design and hardware;**



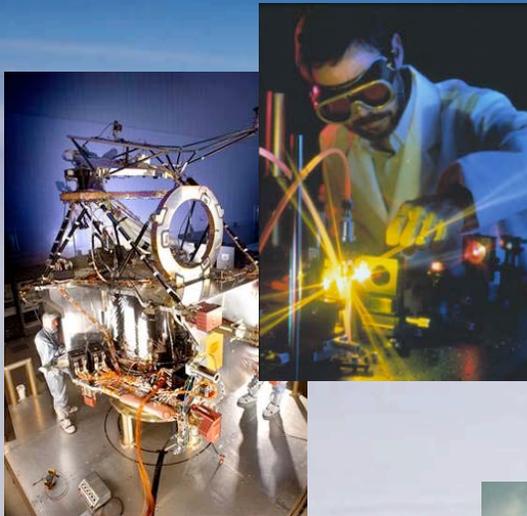
**surface operations
methodologies;**



**and habitability, resource mining
and life support systems.**



While providing a resource-rich testing and training environment to service the global space community, PISCES will afford multiple and sustained benefits to Hawaii, including

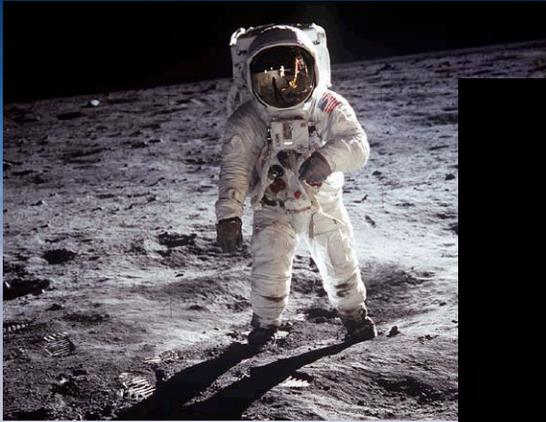


diverse professional training and employment opportunities in scientific and technical fields;
enriched “hands-on” education programs in STEM disciplines;



expanded tourism and public education opportunities;

And the emergence of Hawaii as a major contributor to and participant in future space exploration missions...



As the Polynesian voyagers who sojourned to Hawaii pioneered the principles of oceanic navigation,



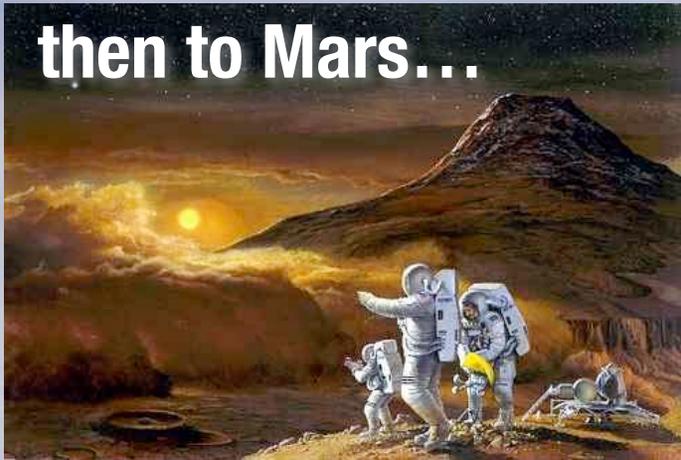
so will Hawaii's future space explorers voyage beyond today's scientific and technological horizons to reach for the heavens...



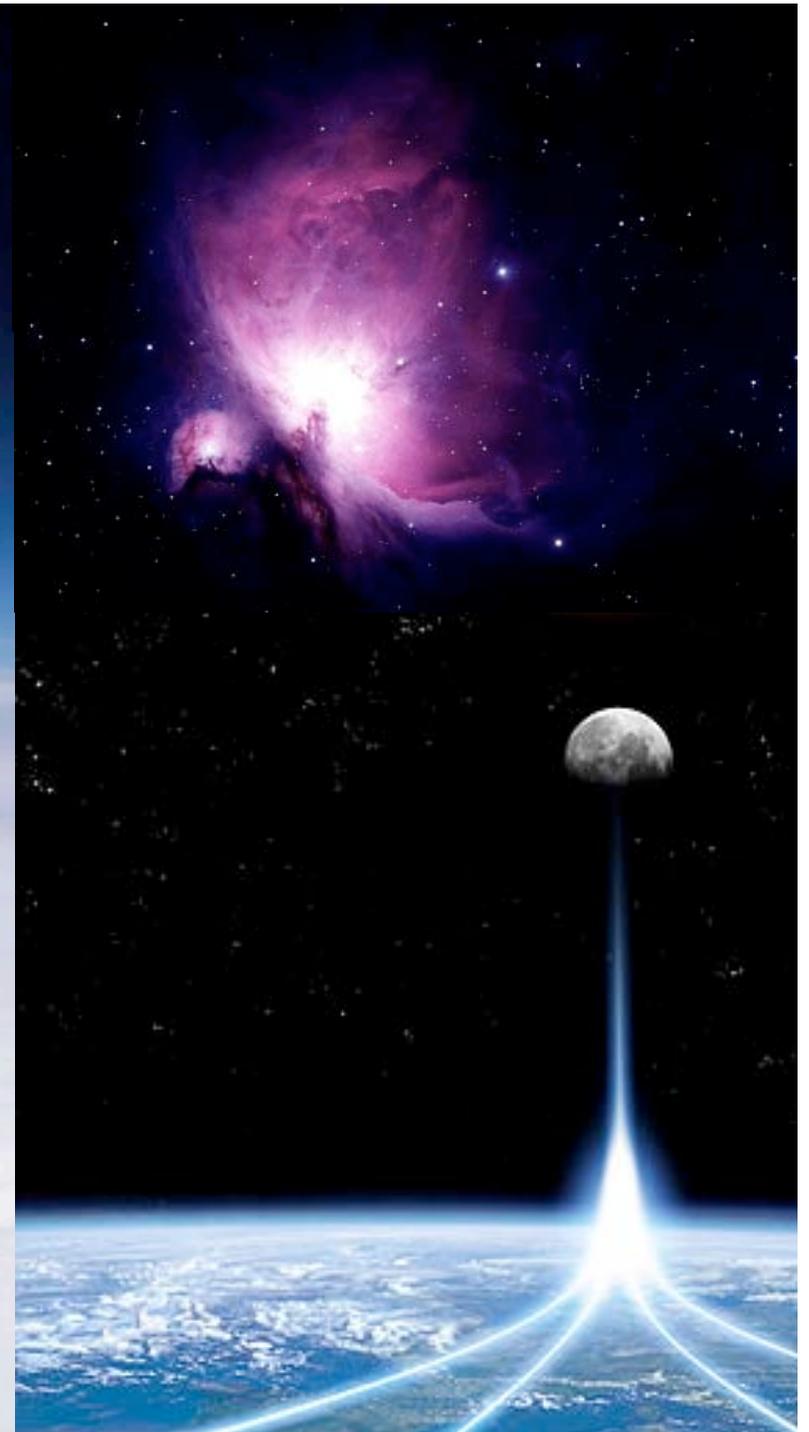
First to the moon,



then to Mars...



**...and ultimately,
to the stars!...**





*It is difficult to say what is impossible,
for the dream of yesterday is the hope of
today and the reality of tomorrow.*

- Robert Goddard

A vibrant space scene featuring a satellite in orbit, a large planet, and a glowing nebula. The text "To the Future, With Aloha!" is prominently displayed in the center.

**To the Future,
With Aloha!**