

ROVER OPERATIONS CENTER at THE NATIONAL AUTOMOBILE MUSEUM in RENO, NV



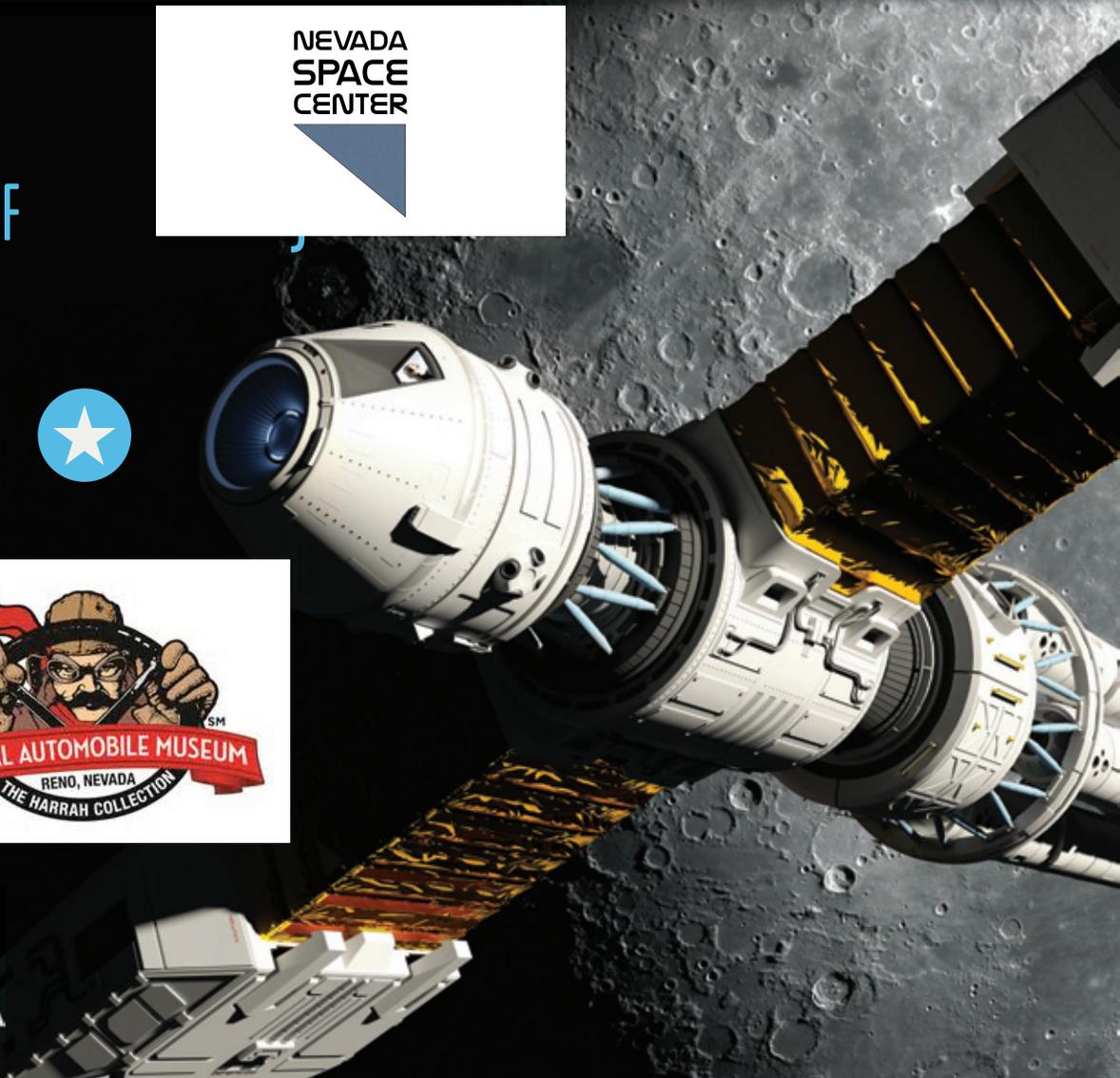
BE THE ASTRONAUT

MOON | MARS | ASTEROIDS & JUPITER

made possible through the generosity of the William N. Pennington Foundation

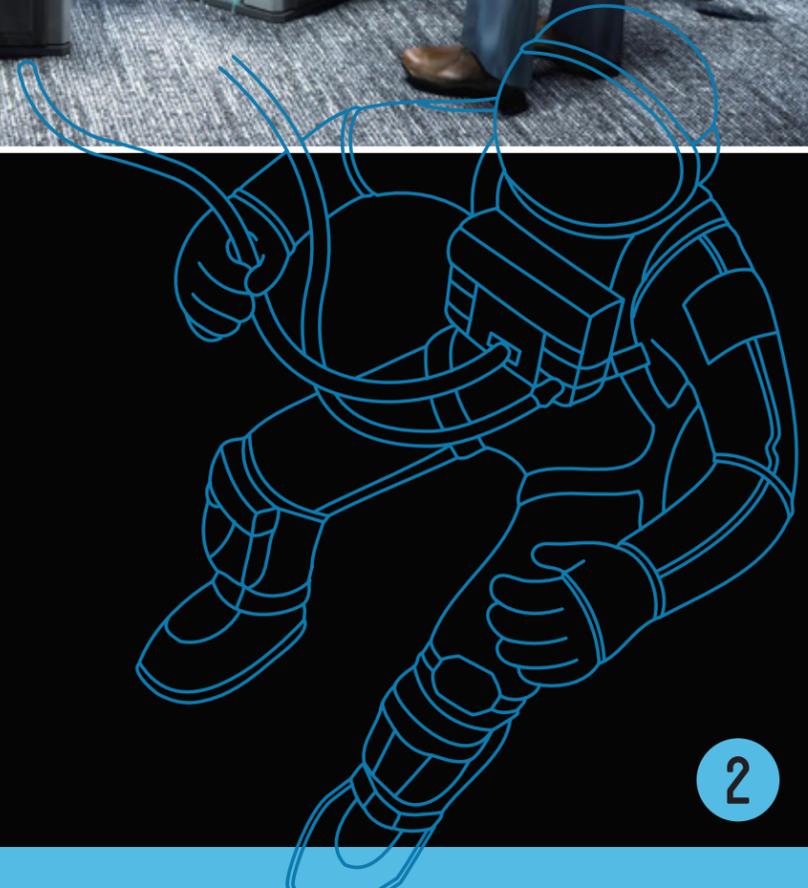
Experience
THE SPACESHIP OF
TOMORROW

TODAY! 



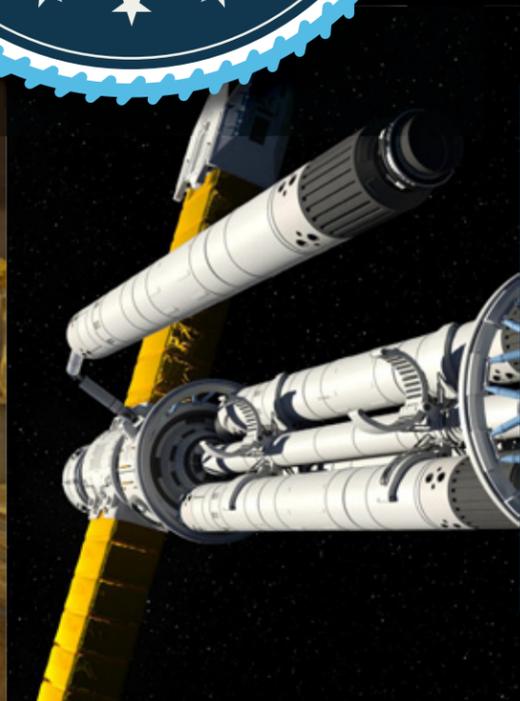
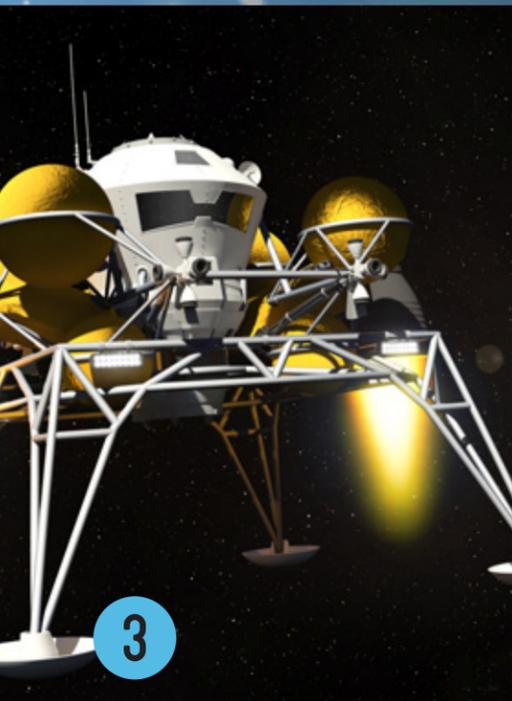


Participants of all ages can now enjoy a futuristic space adventure that they can play. As astronauts, they journey through the exhibit, plan their missions, learn about the concepts and technology — and apply that knowledge as they interact with touchscreens, launch rockets and drive rovers.



MISSION BRIEF

- * Learn **STEM subjects** that help you explore space.
- * Blast off seated in your very own **space capsule**.
- * Meet a **real telepresence robot**.
- * **Visit the Moon, Mars and the dwarf planet Ceres**.
- * Drive a **rover** in the Noctis Labrinthus.
- * Pilot a **lander** to the Taurus-Littrow Valley.
- * Get your own **Astronaut ID**.
- * See space toys & **artifacts**.



WHAT IS BE THE ASTRONAUT?

Be the Astronaut is a world-class exhibit experience that teaches STEM based content via a fusion of physical exhibitry and state-of-the-art video game technology.

Scientifically verified by experts at NASA for accuracy and feasibility, the exhibit teaches visitors about the concepts, challenges, and excitement of spaceflight, through the use of touch-screen stations, artifacts, and interactive simulator pods built to look like space capsules.

Visitors will have their own crew of virtual content experts throughout every stage of the exhibit. These digital characters will help visitors learn what's needed to fly a spaceship, pilot a lander, and drive a surface rover — then will be there as visitors climb in the simulators to actually perform these feats, in a thrilling narrative adventure that spans the solar system.

In each space capsule, a massive monitor serves as the 'windshield,' giving visitors a first-person view of their adventures. Touch-screens and an industrial-quality joystick put visitors in command. During missions, the entire cockpit comes alive with **NASA data-driven** game visuals and sounds that make visitors believe they ARE astronauts.

During Science Saturday programs, a telepresence robot will move about the hall and interact with visitors.

In addition visitors can try their hand at over 20 astronaut challenge stations — or peruse a collection of pop culture and NASA artifacts including a full-scale mockup of the JPL Mars rover *Opportunity*.

BE THE ASTRONAUT'S GOAL IS TO INSPIRE WHILE IT EDUCATES, AND TO CREATE A NEW KIND OF VISITOR EXPERIENCE.

I love this approach. It is new and will be better than a history-oriented exhibit at inspiring a new generation to look boldly to the future and to humanity's destiny to become a multi-planet species, both for survival and for fulfillment.

- DR. STEVEN P. SANDFORD, Member of the Be the Astronaut Advisory Panel and Director of the Space Technology and Exploration Group, NASA.

BE THE CREW MEMBERS ASTRONAUT



VISITORS will meet the crew, a cast of characters there to help them on their adventure. These virtual characters provide feedback and guidance as visitors move through the exhibit. Each character is there to put a human face on a specific educational goal of Be the Astronaut's STEM-based content.



THE SCIENTIST

is an expert in astronomy and geology. He has an informed approach and a sense of wonder about the cosmos and humans' place in it.



THE NAVIGATOR

is an expert in mathematics and physics. At the 'NAV' station, she helps visitors understand and interactively experiment with the scientific principles behind spaceflight.



THE ENGINEER

is an expert in technology and engineering, present at the 'SCI' station. He is optimistic, with a can-do attitude and a sense of wonder about human ingenuity. To his mind, engineering is the application of technology to solve a problem.



THE DOCTOR

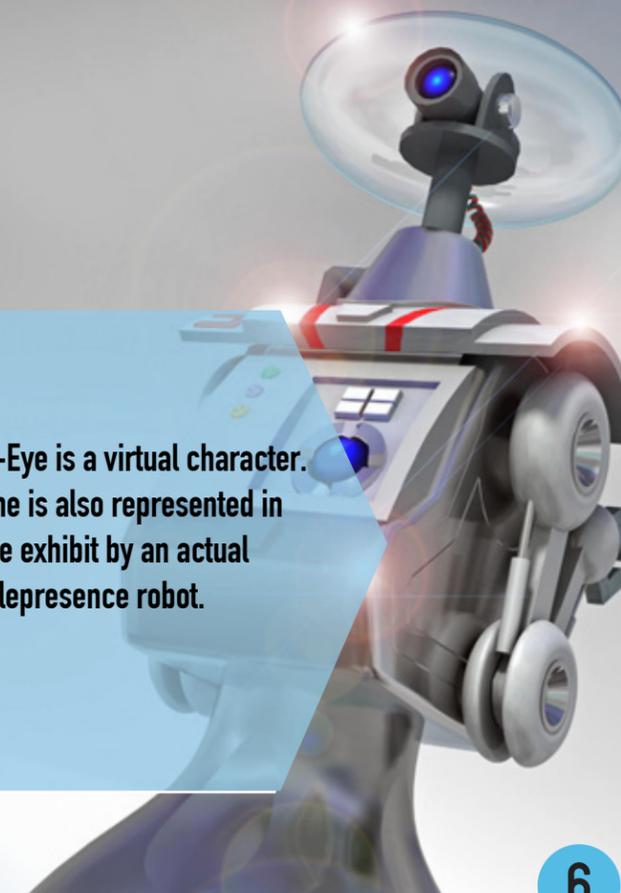
is an expert in biology and the effects of space on the human body. Her motto is, "Space is a dangerous place. My job is to keep you healthy and alive."



AND A-EYE

A-EYE is the exhibit's 'Artificial Intelligence Program.' This electronic copilot guides visitors from station to station, through the exhibit, and is there to provide instructions and tips, both on-screen and through vocal performance. A-Eye's goal is to ensure that all visitors — from expert gamers to absolute novices — have a fun and frustration-free educational experience.

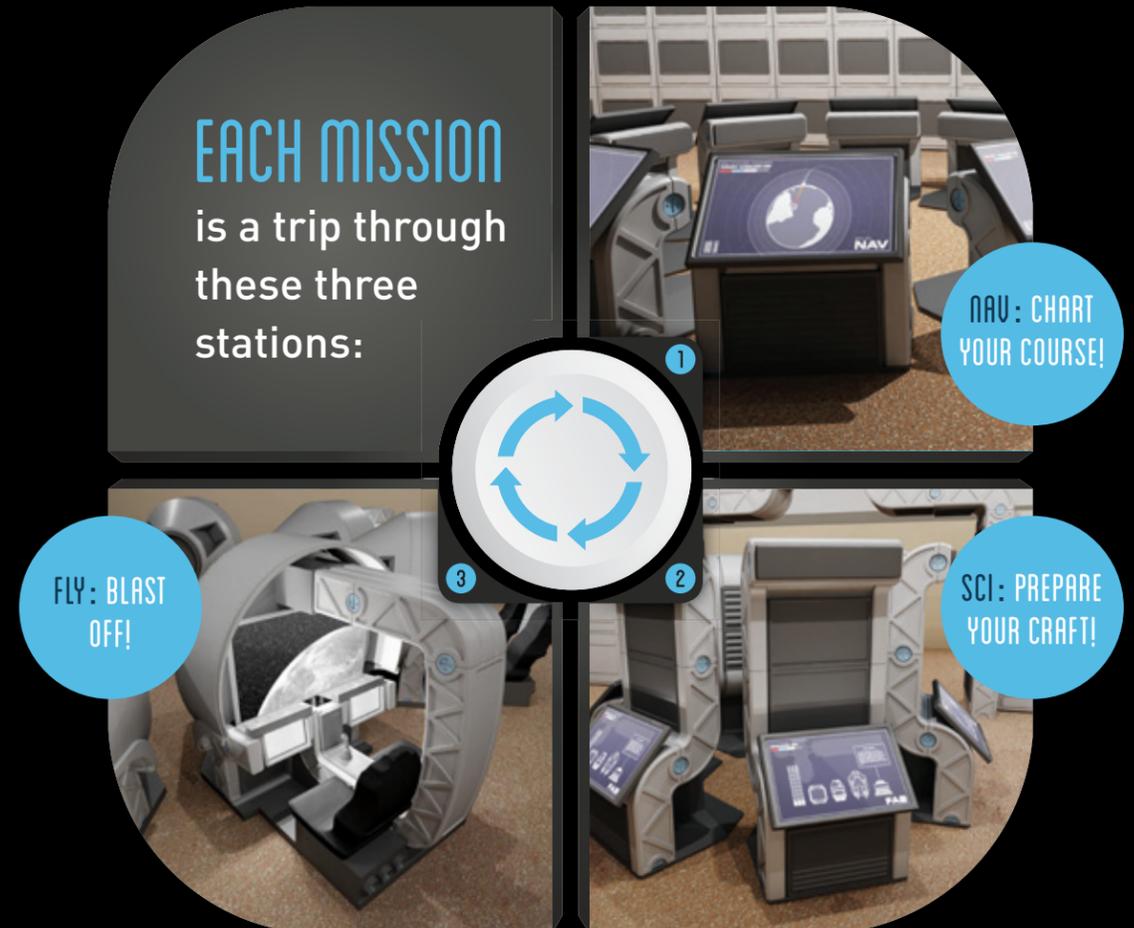
A-Eye is a virtual character. She is also represented in the exhibit by an actual telepresence robot.



BE THE ASTRONAUT EXHIBIT FORMAT

BE THE ASTRONAUT is designed to create flow across the museum floor. Each mission — like the launch into Earth orbit or driving a rover on Mars — is one cycle through three visually distinct station-types: the NAV module, the SCI module and the FLY module.

EACH MISSION is a trip through these three stations:



VISITORS must complete the first two stations before they can climb in the third station — the simulator — to fly the mission. When visitors complete one cycle, they start on the next.

It will take multiple cycles to complete the storyline and experience all available missions in the exhibit, but a sense of achievement is imparted after each cycle.

A magnetic 'Astronaut ID' card tracks visitors' progress, allowing them to proceed through the exhibit's adventure at their own pace — and even over multiple visits.



NAV
MODULES

NAV is short for Celestial Navigation. At this touch-screen station, visitors use 2D gameplay to learn basic principles of physics (e.g., energy and motion) and concepts about the workings of the universe on a macro scale.



FLY
MODULES

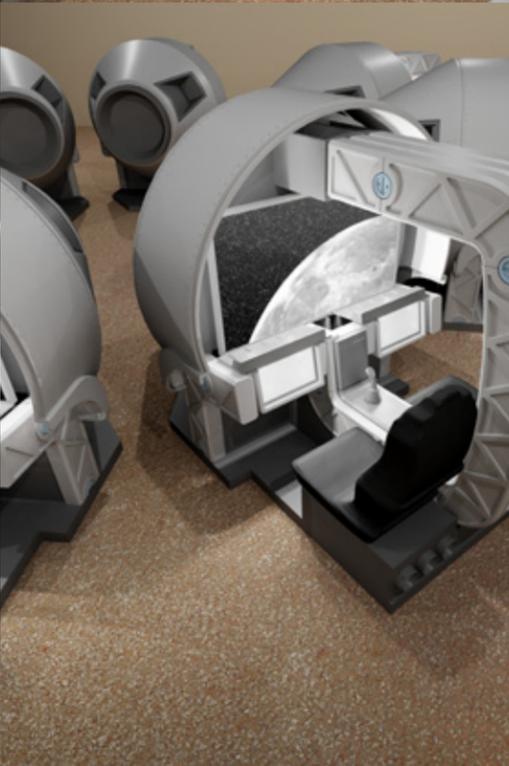
FLY is the spectacular capstone to each mission. It highlights the feats of math and engineering that enable humans to travel into space. Seated before a massive monitor, touch-screens, and an industrial-quality joystick, visitors operate the spacecraft on their chosen mission cycle, such as driving into a crater at the Moon's north pole.

The entire cockpit comes alive with NASA data-driven game visuals and sounds that make visitors believe they ARE astronauts. The exhibit employs multiple copies of each station-type. (Quantities are determined by the size of the particular installation and number of anticipated visitors.)



SCI
MODULES

SCI is short for Science & Technology. At this touch-screen station, visitors use a drag-and-drop interface to learn in greater depth about the science and technology needed to keep humans alive and healthy in space.





★ BE THE ★
ASTRONAUT

ADVISORY PANEL

EUREKA EXHIBITS holds scientific integrity at the highest level. Be the Astronaut has been developed with the ongoing collaboration of our distinguished advisory panel. We sought advisors within related fields who care about humanity's future in space and who would like to help inspire visitors.

DR. STEVEN P. SANDFORD
Director of the Space Technology & Exploration Group,
NASA Langley Research Center

DANIEL D. MAZANEK
Senior Space Systems Engineer,
NASA Langley Research Center

ALICIA DWYER CIANCIOLO
Aerospace Engineer,
NASA Langley Research Center.
Member of the Entry, Descent and Landing Team - Mars Curiosity Rover

DR. CHARLES BEHRE
Chief Engineer & Lead Scientist,
Excelis-ITT,
GPS Navigation & Satellite Systems

DAVID S. PORTREE
Science Journalist, WIRED Magazine

HARDY SPIRE
Senior Producer CNN

DR. JOHN HUTCHINSON
Director of the Structure & Motion Lab,
University of London

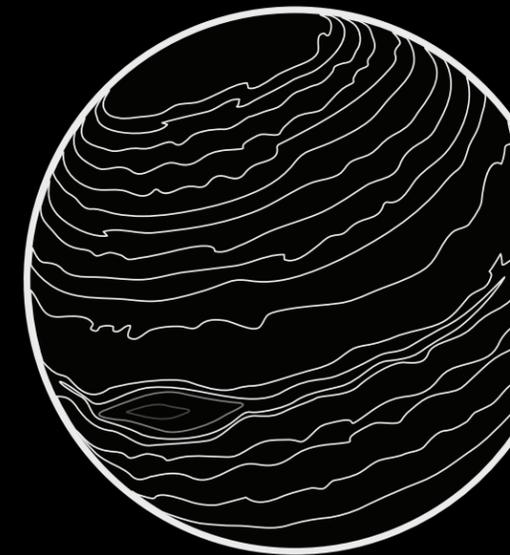
KATHLEEN KELLY
Managing Director, Digital Delivery,
Ogilvy & Mather

JOSH KESSLER
Project Manager, COSI-Columbus

DR. EDWIN Z. CRUES
Simulation and Graphics branch (ER7) of the
Software, Robotics and Simulation Division (ER),
NASA Johnson Space Center Engineering Directorate.

The exhibit designers have wisely been extremely serious about two critical issues in science education: portraying scientific evidence accurately, and taking advantage of the opportunity to address where that evidence remains ambiguous. I wish more exhibits were this fun and honest.

- **DR. JOHN HUTCHINSON**, Director, Structure & Motion Lab,
University of London



CHALLENGER LEARNING CENTER

Challenger Center and its global network of Challenger Learning Centers use space-themed simulated learning and role-playing strategies to help students bring their classroom studies to life and cultivate skills needed for future success, such as problem solving, critical thinking, communication and teamwork.

Inspiring. Exploring. Learning. It's our mission. That's hard to beat.

- **JOHN GLENN**, Former Senator and Astronaut



Challenger Center Partners



The Challenger Center model was wildly ahead of its time...how astronauts go about learning, with purpose-driven eagerness.

- **DR. KATHRYN SULLIVAN**, NOAA Administrator, former Astronaut and first American woman to walk in space

WE applaud Challenger Center for creating experiences that nurture the natural enthusiasm and curiosity of young minds while connecting their learning to scientific and mathematical concepts. The organization is developing young minds today to ensure strong talent for tomorrow.

- **ROBERT J. STEVENS**, Chairman, President & CEO, Lockheed Martin Corporation

What Challenger Center has done with respect to educating America's youth is truly commendable. I salute you.

- **GENERAL COLIN L. POWEL**, USA (Ret.)

LEARN MORE ABOUT OUR S.T.E.A.M. PROGRAMS AT
NEVADACHALLENGER.ORG

For more information, please contact us at (775) 830-5295
or FLIGHTDIRECTORJENNY@GMAIL.COM.