



National Aeronautics and  
Space Administration

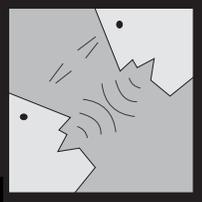
**Langley Research Center**  
Hampton, VA 23681-2199

Educational Product

Educators Grades K-12

ET-2002-11-17-LARC

## NASA Learning through Interactive Videoconferencing Experiences



*Communicating NASA Knowledge to K-12 Educators and Students*

**LIVE**

<http://live.larc.nasa.gov>

NASA Langley's Center for Distance Learning in Hampton, VA has designed a FREE videoconferencing program for educators and students in grades K-12. NASA LIVE (Learning through Interactive Videoconferencing Experiences) represents a new dimension in educational outreach and professional development. NASA LIVE™ is a series of a free, standards-based videoconferencing programs that (1) emphasizes the connection between mathematics, science, engineering, technology and NASA; (2) increases awareness of careers in mathematics, science, engineering, and technology; (3) helps model the effective use of technology and develop a professional strategy for integrating technology in the classroom; and (4) raises awareness of and interest in NASA student support programs.

NASA LIVE™ connects K-12 educators and students to NASA in an interactive, virtual setting without the inconveniences and expenses of travel and time spent away from the classroom. Students and educators across the nation will have the unique experience of visiting NASA experts and learning how they use the mathematics, science, engineering, and technology found in the classroom in their daily NASA duties.

### The Videoconference:

- 60-minute program session divided into two segments: a 45-minute presentation and a 15-minute Q&A segment;
- A facilitator who manages the over all session;
- A presenter (i.e., a NASA LaRC engineer, scientist, and/or technician).

### Recommended Technology Requirements

- ISDN Phone Lines (H.320) or Internet Protocol (H.323)
- TANDBERG\* type System (128-384 kbs)
- Solutions: AGT, VA-DIT Contract Holder\*

### Web site

<http://live.larc.nasa.gov>

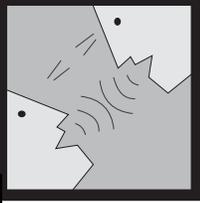
### How to Get Started:

1. ACCESS the NASA LIVE Web site at <http://live.larc.nasa.gov>
2. SELECT the intended audience
3. SELECT a presentation topic.
4. COMPLETE the on-line registration form.

*You will receive a response within 72 hours of your request.*

### Contact Information:

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LIVE

<http://live.larc.nasa.gov>

## **Selected Offerings**

***A complete description of these topics is available online.***

### ***Biomimetic Flight: Learning from Nature***

From Leonardo da Vinci's early drawings, the Wright Brothers' historical accomplishment to present-day aeronautical wonders, man has been intrigued by the ability to fly. Explore how NASA engineers and scientists study insects and birds to improve human-powered flight.

### ***Aviation History: The Wright Way***

Come celebrate the 100<sup>th</sup> anniversary of powered flight and explore how brothers, Orville and Wilbur Wright, gave birth to human-powered flight.

### ***Model Making: Yes, It Takes Math***

Did you know that the airplane flying in the sky was a model airplane first? Learn how NASA engineers use mathematics, science, and technology to create scale models while exploring how ratios and proportions relate to model making.

### ***Quiet Aircraft Technology: Hear the Latest Buzz***

Airplanes make a lot of noise on the ground and in the air. Discover the difference between noise and sound, and how sound travels as well as what NASA researchers are doing to make today's airplanes even quieter.

### ***Planetary Exploration: Mars or Bust***

Why is NASA interested in sending spacecrafts to the Red Planet? Could water exist on Mars? Find the answer to these questions and others as NASA's plan to travel to Mars in the coming decade.

### ***Satellites: Tracking Weather to Your Front Door***

Explore how NASA uses weather satellites to investigate Earth's climate, clouds, and global warming. In the process, learn about weather satellites and view some of the latest satellite data.

### ***The Future of Flight: Hyper X***

Traveling at two miles per second or 10 times the speed of sound, the Hyper X is set to revolutionize the future of hypersonic aircraft and/or reusable space launch vehicles. Discover how NASA is preparing to create the next generation of faster air vehicles.

### ***Career Choices: Apply Here***

What do you want to be when you grow-up? Learn what NASA researchers, engineers, and scientists do and about related career opportunities. Careers requiring math, science, and technology can be "out of this world."

### ***Nanotechnology: It is a Smaller World After All***

Learn what nano means and what nanotechnology is. Explore how NASA is involved in the small world of nanotechnology.

### ***Flight: The Four Forces***

Flying an airplane may be difficult, but understanding how an airplane flies is easy. Learn about the four forces of flight: thrust, lift, drag, and weight, and discover how planes really fly.