

## [Challenger Learning Center New Mexico Learning Community](#)

### Useful Web Sites For Mission Teams

- **WIRED Science**, a PBS information and educational site which hopes to inspire students to pursue a college education and a career in science. The section called "Careers in Science" showcases successful individuals revealing what inspired them to pursue a rewarding career in science and technology.

<http://www.pbs.org/kcet/wiredscience>

<http://www.pbs.org/kcet/wiredscience/education/careers-in-science/>

- NASA Teams: This is a great NASA webquest site that describes in detail the roles and responsibilities of NASA astronaut teams: <http://quest.nasa.gov/space/events/simulations/roles.html>

### NAVIGATION TEAM

- **Human Space Flight** site allows users to find out when a spacecraft will be flying over their city, using up-to-the minute data from NASA's Mission Control Skywatch 2.0 .  
<http://spaceflight.nasa.gov/home/index.html>
- The **NASA Deep Space Network** - or **DSN** - is an international network of antennas that supports interplanetary spacecraft missions and radio and radar astronomy observations for the exploration of the solar system and the universe. The network also supports selected Earth-orbiting missions.  
<http://deepspace.jpl.nasa.gov/dsn/>
- **NASA Stardust**-The primary objective of the Stardust mission is to capture both cometary samples and interstellar dust and return them to Earth for laboratory analysis  
<http://stardust.jpl.nasa.gov/home/index.html>
- **Aerogel**- an extraordinary silicon-based solid substance with a porous, sponge-like structure, in which 99.8% of its volume is empty space. Aerogel is used in the Stardust mission to collect particles without damaging them. <http://stardust.jpl.nasa.gov/tech/aerogel.html>
- **Comets**- Everything you want to know about comets is here at this site.  
<http://www.space.com/comets/>
- This site takes you through aviation navigation training, from beginner to "certification"  
<http://virtualskies.arc.nasa.gov/navigation/index.html>

## REMOTE TEAM

- Scientists are researching how greenhouses will work on other planets  
[http://science.nasa.gov/headlines/y2004/25feb\\_greenhouses.htm](http://science.nasa.gov/headlines/y2004/25feb_greenhouses.htm)
- Scientists are learning how to grow greenhouses in space  
[http://science.nasa.gov/headlines/y2001/ast09apr\\_1.htm](http://science.nasa.gov/headlines/y2001/ast09apr_1.htm)
- **Engineering 'Reliable Robots' on The Futures Channel***The new micro-documentary, "Reliable Robots," features NASA robotics engineers using mathematics, engineering, science and technology to build dependable, durable robots for space exploration.*  
<http://quest.arc.nasa.gov/projects/FuturesChannel/index.html>
- In article titled **Leafy Green Astronauts**, NASA scientists are learning how to grow plants in space. Such far-out crops will eventually take their place alongside people, microbes and machines in self-contained habitats for astronauts. [http://science.nasa.gov/headlines/y2000/ast26nov\\_1.htm](http://science.nasa.gov/headlines/y2000/ast26nov_1.htm)
- [Microscopic Stowaways on the ISS](#) -- *Science@NASA article*: Wherever humans go microbes will surely follow, and the Space Station is no exception. This article discusses how the ISS will keep microbes to a minimum. [http://science.nasa.gov/science-news/science-at-nasa/2000/ast26nov\\_1/](http://science.nasa.gov/science-news/science-at-nasa/2000/ast26nov_1/)
- [Space food](#) –space food systems lab at Johnson Space Center- how space food for astronauts is created, interesting facts [http://www.nasa.gov/vision/space/livinginspace/spacefood\\_feature.html](http://www.nasa.gov/vision/space/livinginspace/spacefood_feature.html)
- **Comets and Meteor Showers**- This site will help you learn about “shooting stars” and other cosmic interlopers. Lots of pictures and hints for observing. <http://medicine.wustl.edu/~kronkg/index.html>
- **NOAA- National Oceanic and Atmospheric Administration**  
<http://www.noaa.gov/>

## ISOLATION TEAM

- NASA scientists are working to find out how hazardous space radiation from Earth to Mars is to astronauts [http://science.nasa.gov/headlines/y2004/17feb\\_radiation.htm](http://science.nasa.gov/headlines/y2004/17feb_radiation.htm)
- The new micro-documentary, “**Reliable Robots**,” features NASA robotics engineers using mathematics, engineering, science and technology to build dependable, durable robots for space exploration <http://quest.arc.nasa.gov/projects/FuturesChannel/index.html>
- **Comets and Meteor Showers**- This site will help you learn about “shooting stars” and other cosmic interlopers. Lots of pictures and hints for observing. <http://medicine.wustl.edu/~kronkg/index.html>
- [All about the space shuttle heat-protecting tiles](#)- This is a great, informative site created by the Smithsonian Air and Space Museum: [http://www.airspacemag.com/how-things-work/shuttle\\_tiles.html](http://www.airspacemag.com/how-things-work/shuttle_tiles.html)
- [All about chemistry](#)- Information, pictures, and activities to learn chemistry:  
<http://library.thinkquest.org/J001539/>
- What is radioactivity? A straightforward guide: <http://www.wisegeek.com/what-is-radioactivity.htm>

- [All about Los Alamos National Labs](http://www.bing.com/reference/semhtml/Los_Alamos_National_Laboratory?fwd=1&qpvt=los+alamos+national+lab&src=abop&q=los+alamos+national+lab)- history, The Manhattan Project, etc:  
[http://www.bing.com/reference/semhtml/Los\\_Alamos\\_National\\_Laboratory?fwd=1&qpvt=los+alamos+national+lab&src=abop&q=los+alamos+national+lab](http://www.bing.com/reference/semhtml/Los_Alamos_National_Laboratory?fwd=1&qpvt=los+alamos+national+lab&src=abop&q=los+alamos+national+lab)

## LIFE SUPPORT:

- [Water on the Space Station](http://science.nasa.gov/headlines/y2000/ast02nov_1.htm) -- *Science@NASA article*: Rationing and recycling will be an essential part of life on the International Space Station. In this article, Science@NASA explores where the crew will get their water and how they will (re)use it. Entertaining article about rationing and recycling water on board the ISS [http://science.nasa.gov/headlines/y2000/ast02nov\\_1.htm](http://science.nasa.gov/headlines/y2000/ast02nov_1.htm)
- [Breathing Easy on the Space Station](http://science.nasa.gov/headlines/y2000/ast26nov_1.htm) -- *Science@NASA article*: Life support systems on the ISS provide oxygen, absorb carbon dioxide, and manage vaporous emissions from the astronauts themselves. It's all part of breathing easy in our new home in space.  
[http://science.nasa.gov/headlines/y2000/ast26nov\\_1.htm](http://science.nasa.gov/headlines/y2000/ast26nov_1.htm)
- [Microscopic Stowaways on the ISS](http://science.nasa.gov/science-news/science-at-nasa/2000/ast26nov_1/) -- *Science@NASA article*: Wherever humans go microbes will surely follow, and the Space Station is no exception. This article discusses how the ISS will keep microbes to a minimum. . [http://science.nasa.gov/science-news/science-at-nasa/2000/ast26nov\\_1/](http://science.nasa.gov/science-news/science-at-nasa/2000/ast26nov_1/)
- [Space food](http://www.nasa.gov/vision/space/livinginspace/spacefood_feature.html) –space food systems lab at Johnson Space Center- how space food for astronauts is created, interesting facts [http://www.nasa.gov/vision/space/livinginspace/spacefood\\_feature.html](http://www.nasa.gov/vision/space/livinginspace/spacefood_feature.html)
- [Space Suits](http://www.astronautix.com/craftfam/spasuits.htm): All about spacesuits, including the history and evolution of spacesuit design.  
<http://www.astronautix.com/craftfam/spasuits.htm>
- [Spacecraft Waste Management](http://spaceflight.nasa.gov/shuttle/reference/shutref/orbiter/eclss/wcs.html)- everyone wants to know—where and how does it all go? All the answers here at <http://spaceflight.nasa.gov/shuttle/reference/shutref/orbiter/eclss/wcs.html>
- [Solar Power](http://www.msfc.nasa.gov/news/news/releases/1999/99-096.html): NASA is looking for new ways to harness energy from the sun  
<http://www.msfc.nasa.gov/news/news/releases/1999/99-096.html>

## MEDICAL TEAM:

- [Microscopic Stowaways on the ISS](http://science.nasa.gov/headlines/y2000/ast26nov_1.htm) -- *Science@NASA article*: Wherever humans go microbes will surely follow, and the Space Station is no exception. This article discusses how the ISS will keep microbes to a minimum. [http://science.nasa.gov/headlines/y2000/ast26nov\\_1.htm](http://science.nasa.gov/headlines/y2000/ast26nov_1.htm)
- [Space food](http://www.nasa.gov/vision/space/livinginspace/spacefood_feature.html) –space food systems lab at Johnson Space Center- how space food for astronauts is created, interesting facts [http://www.nasa.gov/vision/space/livinginspace/spacefood\\_feature.html](http://www.nasa.gov/vision/space/livinginspace/spacefood_feature.html)
- [Biography of Lisa Ristow, food scientist at NASA](http://www.challenger.org/students/careers/profile.cfm?profiled_id=17). She discusses the things the space food creators have to consider when creating space food for the astronauts, like if a food item makes too many crumbs, those crumbs can float around in the ISS, get into astronauts' eyes, equipment, etc. Also has to consider special nutritional needs in a microgravity environment.  
[http://www.challenger.org/students/careers/profile.cfm?profiled\\_id=17](http://www.challenger.org/students/careers/profile.cfm?profiled_id=17)
- Astronaut health care and fitness testing:  
<http://academy.grc.nasa.gov/y2007/guest-speakers/judith-hayes>

## PROBE TEAM:

- **NASA Stardust**-The primary objective of the Stardust mission is to capture both cometary samples and interstellar dust and return them to Earth for laboratory analysis  
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<http://deepspace.jpl.nasa.gov/dsn/>
- **Electricity**: everything you wanted to know about electricity and more. This site has an enormous collection of links:  
<http://suelebeau.com/electricity.htm>
- **Orbits**: All about orbits  
:http://www.bing.com/reference/semhtml/Orbit?src=abop&fwd=1&qpv=orbits&q=orbits

## COMMUNICATIONS and DATA TEAMS:

- **ARRL**- American Radio and Relay League- This is a national association site for amateur radio operators and fans  
<http://www.arrl.org/>
- **How Radio communication works**- a site by the National Radio Astronomy Observatory  
<http://www.nrao.edu/index.php/learn/radioastronomy/radiocommunication>
- **Radio Broadcasting as an art form**- [http://www.bing.com/reference/semhtml/Radio\\_broadcasting](http://www.bing.com/reference/semhtml/Radio_broadcasting)
- In this site you'll find information about [Radio Communication](#) and the [Phonetic Alphabet](#).  
<http://www.gg-pilot.com/radiocommunication.htm>
- Introduction to the world of radio communications: <http://www.roity.com/rc/index.asp>