The International Space Station (ISS) is one of the greatest technological, geopolitical, and engineering accomplishments in human history. The completion of the ISS on-orbit assembly allows for a focus on the multifaceted purpose of the ISS, one of scientific research, technology development, exploration, and education.

As a National Laboratory, the ISS will provide opportunity beyond NASA to academia, commercial entities, and other government agencies to pursue their research and development needs in science, technology development and education.

With everyone working together, we look forward to extending human presence beyond and improving life here on Earth.

This calendar is designed to show all facets of the ISS using displays of astounding imagery and providing significant historical events with the hope of inspiring the next generation. NASA is appreciative of the commitment that America’s educators demonstrate each and every day as they instruct and shape the young students who will be tomorrow’s explorers and leaders. I hope you enjoy the calendar and are encouraged to learn new and exciting aspects about NASA and the ISS throughout the year.

Regards,

MICHAEL T. SUFFREDINI
ISS Program Manager
NASA has powered us into the 21st century through signature accomplishments that are enduring icons of human achievement. Among these accomplishments are technological innovations and scientific discoveries that have improved and shaped our lives on Earth in myriad ways.

**January 2011**

- **1959 –** Luna 1, first spacecraft to reach escape velocity and orbit the sun
- **2004 –** Spirit lands on Mars
- **1997 –** STS-81, Shuttle - Mir
- **2003 –** STS-107, Inaugural Spacehab flight
- **1998 –** STS-89 Shuttle - Mir

**New Year's Day**

- **2002 –** STS-112 Space Shuttle Endeavour
- **2003 –** STS-110, Space Shuttle Challenger

**January 2011 Calendar**

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15 16 17 18 19 20 21
22 23 24 25 26 27 28
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1. An overhead view of the Skylab space station cluster in Earth orbit as photographed from the Skylab 4 command and service modules (CSM) during the final fly-around by the CSM before returning home.
2. A view of the space station after the crew of STS-130 undocked.
3. Astronaut Edward White II, pilot on the Gemini-Titan 4 spaceflight, is shown during his egress from the spacecraft. White became the first American astronaut to walk in space.
4. Astronaut Steve Robinson, STS-114 mission specialist, anchored to a foot restraint on the station Canadarm2 during the mission's third spacewalk.
5. Edwin Aldrin, Jr., lunar module pilot, walks on the surface of the moon during the Apollo 11 extravehicular activity. Neil Armstrong, commander, took this photograph and can be seen in Aldrin's visor.
6. STS-130 Space Shuttle Endeavour after departure from the ISS.
7. The Gemini 3 spacecraft “Molly Brown” carrying astronauts Virgil Grissom, command pilot, and John Young, pilot, on the first crewed mission of Project Gemini.
8. A spectacular picture of a space shuttle night launch.

**SUNDAY**

- **2003 –** STS-107, Shuttle - Mir
- **2004 –** Spirit lands on Mars
- **1997 –** STS-81, Shuttle - Mir

**FEBRUARY**

- **1958 –** Explorer 1, first U.S. satellite
- **1964 –** Mariner 4–Mars
- **1966 –** Gemini XII
- **1967 –** Apollo 4
- **1969 –** Apollo 12
- **1971 –** Mariner 9–Mars
- **1973 –** Skylab 4
- **1982 –** STS-5. First space shuttle operational mission
- **1984 –** President Ronald Reagan announces U.S. plans to build a space station
- **1986 –** STS-51L, Space Shuttle Challenger accident
- **1986 –** Voyager 2, first spacecraft to observe Uranus
- **1996 –** Mars Global Surveyor
- **1998 –** Intergovernmental Agreement on Space Station Cooperation signed
- **1998 –** Zarya Control Module. ISS construction begins
- **1999 –** Endless Frontier Rogers recommendation U.S. plans to build a space station
- **2000 –** STS-97 P6 truss. First set of ISS solar arrays
- **2000 –** STS-97 P6 truss. First set of ISS solar arrays
- **2002 –** STS-113 P1 truss, Expedition 6
- **2008 –** STS-126 Supply Mission
- **2010 –** STS-114, Space Shuttle Atlantis
- **2011 –** STS-115, Space Shuttle Discovery
- **2011 –** International Agreement on Space Station Cooperation signed
For nearly a decade, crew members on board the space station have taken thousands of photos of the Earth below. From fiery volcanoes spewing smoke and lava to icy lakes and glaciers in the coldest environments of our planet, views have given humanity a new sense of our natural phenomena from one of the most unusual perspectives available.
Living aboard the space station presents some unique challenges for the astronauts. Sleeping, eating and exercising are just as critical in space as they are on Earth, but all have to be done in an almost weightless environment. Astronauts have to remember to attach their food to something when they are not holding it to make sure it doesn’t float away. While living in space takes a lot of adjusting, working to help improve life on Earth makes it all worthwhile.

Spring Begins

Astronaut Jeffrey Williams exercises on the Cycle Ergometer with Vibration Isolation System (CEVIS) in the Destiny laboratory of the International Space Station.

JAXA astronaut Soichi Noguchi, Expedition 22 flight engineer, uses a vacuum cleaner during housekeeping.

Astronaut Steve Robinson plays a guitar in the Cupola of the International Space Station.

**HOME AWAY FROM HOME**

**MARCH 2011**

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**SUNDAY**
- 11 April 5, first授课 on the space station.
- 14 April 5, first授课 on the space station.
- 17 April 8, first授课 on the space station.
- 20 April 11, first授课 on the space station.

**MONDAY**
- 12 April 6, first授课 on the space station.
- 15 April 9, first授课 on the space station.
- 18 April 12, first授课 on the space station.
- 21 April 15, first授课 on the space station.

**TUESDAY**
- 13 April 7, first授课 on the space station.
- 16 April 10, first授课 on the space station.
- 19 April 13, first授课 on the space station.

**WEDNESDAY**
- 14 April 8, first授课 on the space station.
- 17 April 11, first授课 on the space station.
- 20 April 14, first授课 on the space station.

**THURSDAY**
- 15 April 9, first授课 on the space station.
- 18 April 12, first授课 on the space station.
- 21 April 15, first授课 on the space station.

**FRIDAY**
- 16 April 10, first授课 on the space station.
- 19 April 13, first授课 on the space station.

**SATURDAY**
- 17 April 11, first授课 on the space station.
- 20 April 14, first授课 on the space station.

Spring Begins

- **17 April 5**, first授课 on the space station.
- **20 April 8**, first授课 on the space station.
- **23 April 11**, first授课 on the space station.
- **26 April 14**, first授课 on the space station.

**2008 – STS-137/DJ, JOULES**
- 08 January 2008, first授课 on the space station.
- 11 January 2008, first授课 on the space station.
- 14 January 2008, first授课 on the space station.
- 17 January 2008, first授课 on the space station.

**2009 – STS-119/15A, S6 truss**
- 01 February 2009, first授课 on the space station.
- 04 February 2009, first授课 on the space station.
- 07 February 2009, first授课 on the space station.
- 10 February 2009, first授课 on the space station.

**2010 – STS-123/1JA, JAXA-ELM-PS**
- 11 March 2010, first授课 on the space station.
- 14 March 2010, first授课 on the space station.
- 17 March 2010, first授课 on the space station.
- 20 March 2010, first授课 on the space station.

**2011 – STS-130/DA, JOULES**
- 20 February 2011, first授课 on the space station.
- 23 February 2011, first授课 on the space station.
- 26 February 2011, first授课 on the space station.
- 29 February 2011, first授课 on the space station.

**2012 – STS-133/DA, JOULES**
- 01 March 2012, first授课 on the space station.
- 04 March 2012, first授课 on the space station.
- 07 March 2012, first授课 on the space station.
- 10 March 2012, first授课 on the space station.

**2013 – ISS Expedition 19**
- 01 April 2013, first授课 on the space station.
- 04 April 2013, first授课 on the space station.
- 07 April 2013, first授课 on the space station.
- 10 April 2013, first授课 on the space station.

**2014 – ISS Expedition 20**
- 01 May 2014, first授课 on the space station.
- 04 May 2014, first授课 on the space station.
- 07 May 2014, first授课 on the space station.
- 10 May 2014, first授课 on the space station.

**2015 – ISS Expedition 21**
- 01 June 2015, first授课 on the space station.
- 04 June 2015, first授课 on the space station.
- 07 June 2015, first授课 on the space station.
- 10 June 2015, first授课 on the space station.

**2016 – ISS Expedition 22**
- 01 July 2016, first授课 on the space station.
- 04 July 2016, first授课 on the space station.
- 07 July 2016, first授课 on the space station.
- 10 July 2016, first授课 on the space station.

**2017 – ISS Expedition 23**
- 01 August 2017, first授课 on the space station.
- 04 August 2017, first授课 on the space station.
- 07 August 2017, first授课 on the space station.
- 10 August 2017, first授课 on the space station.

**2018 – ISS Expedition 24**
- 01 September 2018, first授课 on the space station.
- 04 September 2018, first授课 on the space station.
- 07 September 2018, first授课 on the space station.
- 10 September 2018, first授课 on the space station.

**2019 – ISS Expedition 25**
- 01 October 2019, first授课 on the space station.
- 04 October 2019, first授课 on the space station.
- 07 October 2019, first授课 on the space station.
- 10 October 2019, first授课 on the space station.

**2020 – ISS Expedition 26**
- 01 November 2020, first授课 on the space station.
- 04 November 2020, first授课 on the space station.
- 07 November 2020, first授课 on the space station.
- 10 November 2020, first授课 on the space station.

**2021 – ISS Expedition 27**
- 01 December 2021, first授课 on the space station.
- 04 December 2021, first授课 on the space station.
- 07 December 2021, first授课 on the space station.
- 10 December 2021, first授课 on the space station.
**GOING GREEN: THE ULTIMATE RECYCLING EXPERIENCE**

**APRIL 2011**

Rationing and recycling are essential parts of life on the station. For power, light from the sun is converted into electricity through the use of solar arrays. Water is collected, processed and stored from the space shuttle’s fuel cells as well as from urine, oral hygiene and hand washing, and by condensing humidity from the air. Careful water recycling reduces the amount required from Earth to resupply the station by 60 percent.

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1. While anchored to a foot restraint on the end of the Orbiter Boom Sensor System, astronauts Scott Parazynski, STS-120 mission specialist, assesses his repair work as the solar array is fully deployed during the mission’s fourth spacewalk.
2. Russian cosmonaut Valery Tokarev holds a full Russian water (EDV) container as he conducts a water transfer from Progress water tanks.
3. NASA astronaut Jeffrey Williams installs a Urine Processor Assembly/Distillation Assembly (UPA DA) in the Water Recovery System (WRS) rack in the Destiny laboratory of the station.
4. The Expedition 19 crew celebrates the station’s recycled water system with a “toast.”
5. Russian cosmonaut Fyodor Yurchikhin conducts a session for Russia’s Environmental Safety Agency (EKON), making observations and taking aerial photography of environmental conditions on Earth.

**MARCH 2011**

- STS-131/19A, MPLM
- ISS Expedition 15
- 1984 – STS-41C, first orbital satellite repair mission
- 2002 – STS-110/8A, S0 truss
- 2010 – ISS Expedition 20
- 1964 – Gemini I test flight
- 2008 – ISS Expedition 17
- 1990 – STS-31, Hubble Space Telescope launched
- 2004 – ISS Expedition 9
- 1971 – Mariner 9–Mars. First spacecraft to orbit another planet
- 2001 – STS-100/6A, CSA-Canadarm2 and MPLM
- 1998 – Zarya Control Module. ISS construction begins
- 1973 – Skylab 4
- 1969 – Apollo 12
- 2000 – STS-97 P6 truss. First set of ISS solar arrays
- 1966 – Gemini XII
- 1967 – Apollo 4
- 2000 – STS-97 P6 truss. First set of ISS solar arrays
- 1996 – Mars Global Surveyor
- 1961 – Cosmonaut Yuri Gagarin, first human in space
- 1981 – STS-1, first space shuttle (Columbia) mission
- 2005 – ISS Expedition 11
- 1959 – NASA announces the seven Mercury astronauts, NASA’s first astronaut class
- 1973 – Skylab 4
- 1964 – Mariner 4–Mars
- 1982 – STS-5. First space shuttle operational mission
- 1967 – Apollo 4
- 2000 – Expedition 1 arrives at ISS. Continuous human occupation of ISS begins
- 1971 – Mariner 9–Mars. First spacecraft to orbit another planet
- 1996 – Mars Global Surveyor
- 1969 – Apollo 12
- 1967 – Apollo 4
- 2000 – STS-97 P6 truss. First set of ISS solar arrays
- 1998 – Zarya Control Module. ISS construction begins
- 2002 – STS-113 P1 truss, Expedition 6
- 1973 – Skylab 4
- 1969 – Apollo 12
- 1971 – Mariner 9–Mars. First spacecraft to orbit another planet
- 1996 – Mars Global Surveyor
- 1967 – Apollo 4
- 1998 – Zarya Control Module. ISS construction begins
- 2002 – STS-113 P1 truss, Expedition 6
- 1967 – Apollo 4
- 1984 – STS-41C, first orbital satellite repair mission
- 2007 – ISS Expedition 13
- 2000 – Expedition 1 arrives at ISS. Continuous human occupation of ISS begins
- 1964 – Mariner 4–Mars
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- 1967 – Apollo 4
- 2000 – STS-97 P6 truss. First set of ISS solar arrays
### Not Your Average Day Job: May 2011

Spacewalks, global photography, scientific research, robotics – it’s just another day at the office for space station crew members. Add in the responsibilities of operating the size of a football field and it’s easy to see how busy life on orbit can be for the space station’s international crew. Inside the station, astronauts prepare for spacewalks, perform important science experiments, and maintain equipment. All of these tasks keep the station an exciting place to live and work in, one that benefits people here on Earth.

#### Spacewalking

- **May 3**: Astronauts Sunita Williams uses the Lab-on-a-Chip Application Development-Portable Test System (LOCAD-PTS) to test for biological and chemical substances from surfaces on board the station.

- **May 4**: European Space Agency astronaut Thomas Reiter works with the Passive Observatories for Experimental Microbial Systems (POEMS) payload in the Minus Eighty Degree Laboratory Freezer for ISS (MELFI).

- **May 5**: Astronauts Sunita Williams and Greg Chamitoff conduct a spacewalk to install a new component on the exterior of the station and to carry out maintenance.

#### Global Photography

- **May 10**: astronauts Julie Payette and Tim Kopra work the controls of the Space Station Remote Manipulator System (SSRMS) or Canadarm2.

- **May 12**: JAXA astronaut Soichi Noguchi, Expedition 22 flight engineer, uses a still camera to photograph Earth from a window in the Cupola.

- **May 13**: Thanks to the weightlessness of space, astronaut Greg Chamitoff isn’t toting the excessive weight load he appears to be while moving an experiment rack.

#### Scientific Research

- **May 21**: Astronauts Julie Payette and Tim Kopra work the controls of the Space Station Remote Manipulator System (SSRMS) or Canadarm2.

### Calendar

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- **May 1**: Freedom 7, Alan Shepard Jr., first American in space
- **May 3**: Skylab 2, first U.S. space station crew
- **May 5**: Apollo 4
- **May 7**: Mariner 4–Mars
- **May 9**: Mariner 9–Mars
- **May 11**: Apollo 12
- **May 12**: Mariner 10. First spacecraft to explore Mercury
- **May 16**: Mars Global Surveyor
- **May 18**: STS-101/2A.2a, Spacehab
- **May 19**: STS-113 P1 truss, Expedition 6
- **May 20**: STS-96/2A-1, first space shuttle to dock with ISS
- **May 21**: STS-8/2A.1, first non-American participates in U.S. mission
- **May 23**: STS-124/1JA, JAXA-JEM-PM, JEM-RMS
- **May 24**: STS-132/ULF4, MRM1
- **May 25**: ISS Expedition 20
- **May 26**: ISS Expedition 21
- **May 27**: STS-97 P6 truss
- **May 28**: Zarya Control Module. ISS construction begins
- **May 29**: STS-98 P6 truss

**NOTES:**

- **May 13**: Freedom 7, Alan Shepard Jr., first American in space
- **May 21**: Mariner 10. First spacecraft to explore Mercury
From astronaut trainers, food scientists and scuba divers to the men and women of Mission Control, it takes more than a village to support the International Space Station. Ground support for the station involves more than 100,000 people in space agencies and contractor facilities in 37 U.S. states.

2002 – STS-111/UF-2, MBS (Mobile Base System) and MPA/M-SSS Expedition 5

2007 – STS-120/VAB, ISS/SSM crew and side entries

2010 – ISS Expedition 24

2000 – U.S. Spacewalk 1, first U.S. astronauts to walk back on the moon

2010 – SpaceX Falcon 9 Block 1, first successful flight

1966 – Surveyor I, first U.S. spacecraft to soft land on the moon

1971 – Soyuz 13, first flight

1963 – Valentina Tereshkova, first female in space

1983 – STS-7, Sally Ride, first U.S. female in space

1995 – STS-71

1973– Skylab 4

1966 – Gemini XII

1967 – Apollo 4

2000 – STS-97 P6 truss, first set of ISS solar arrays

2000 – Expedition 1 arrives at ISS. Continuous human occupation of ISS begins

1964 – Mariner 4–Mars

1971 – Mariner 9–Mars


1996 – Mars Global Surveyor

1973 – Skylab 4

2000 – STS-126 Supply

2002 – STS-131 P1 truss, Expedition 6

1969 – Apollo 12


1971 – Mariner 9–Mars

1982 – STS-5. First space shuttle operational mission

1969 – Soyuz 11 accident

1967 – Apollo 4

2000 – Expedition 1 arrives at ISS. Continuous human occupation of ISS begins

1998 – Zarya Control Module. ISS construction begins

2002 – STS-113 P1 truss, Expedition 6

Summer Begins

2000 – Expedition 1 arrives at ISS. Continuous human occupation of ISS begins

2010 – ISS Expedition 24

2010 – Expedition 24, first family in space

1983 – STS-7, Sally Ride, first U.S. female in space

1973 – Skylab 4

1996 – Mars Global Surveyor

1971 – Mariner 9–Mars

1967 – Apollo 4


1902 – STS-114/STCHE-2, MBS (Mobile Base System) and MPA/M-SSS Expedition 5

1966 – Surveyor I, first U.S. spacecraft to soft land on the moon

2010 – SpaceX Falcon 9 Block 1, first successful flight

1963 – Valentina Tereshkova, first female in space

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1966 – Gemini XII

1967 – Apollo 4
It takes an enormous effort from people around the world to construct and maintain the International Space Station. Across hundreds, people from a variety of professions work together, meet challenges and collaborate down to the last detail to achieve one of the greatest technological, geopolitical and engineering accomplishments in human history. Fifteen nations have contributed to the building of the station with over 40 missions and more than 140 spacewalks.
### VISITING VEHICLES

**August 2011**

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- **ISS** = Russian automated resupply vehicle
- **Shuttle** = Japanese automated resupply craft
- **Soyuz** = Russian spacecraft that makes deliveries and keeps the station “stocked.”

**Key Events:**
- **May 2010:** Expedition 5, first expedition to keep the station “stocked.”
- **July 2010:** Expedition 6, first expedition to keep the station “stocked.”
Pressurized Section (ELM-PS), mounted on top, and JEM Exposed Facility (EF), mounted to the right.

Fuglesang, both STS-116 mission specialists, participate in the mission’s first of three planned sessions of extravehicular activity.

Destiny is the primary U.S. payloads research laboratory, supporting a wide range of experiments and studies.

This football field-sized machine flies about 230 miles above the Earth, going 17,500 mph. It is the first shuttle to soft land on moon – Surveyor I becomes first U.S. spacecraft to soft land on moon in 1966.


IN THE ZONE

2011

The station is the largest structure made on Earth to be placed in orbit. The largest object the size of a football field, including end doors and windows, is needed to accommodate 2.5 times the width, which makes the station about 770 ft long and 360 ft wide.

It was assembled in space like building blocks, demonstrating the station’s capability to perform construction in space. It can be moved to the ground with the naked eye (go to http://spaceflight.nasa.gov/realdatasightings/ and enter Jupiter’s atmosphere) with the naked eye (go to http://spaceflight.nasa.gov/realdatasightings/).

July 2010

2004 – STS-106/2A, Spacehab

2005 – STS-112/2B, Spacehab

2005 – First JAXA HII-T Transfer Vehicle

July 2010

Autumn Begins

STS-134, free flight – visiting the Space Shuttle Challenger

STS-131, free flight – visiting the Space Shuttle Atlantis

1 The Unity module (connecting module) is shown with the Russian segment Zarya to the right (all), the U.S. Laboratory Destiny to the left (left), the Quest Airlock at the bottom (left), and the PMA-5 at the top (right). 2 Set against the blackness of space, the station appears to climb, keeping to the horizon, on the Unity module, Destiny, and a Russianservice module. Images of the station were taken in green, red, and infrared light wavebands.

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Williams receives assistance from astronaut Michael Lopez-Alegria in donning a sensor-studded cap as she prepares equipment for radiation exposure astronauts receive inside their bodies, especially to blood-forming organs. Facility-2 (HRF-2) for data entry during a blood draw as part of the Nutritional Status Assessment (Nutrition) study.

Exercises on the Combined Operational Load Bearing External Resistance Treadmill (COLBERT) on board the station.
The Saibo Experiment Rack is a multipurpose payload rack system that sustains life science experiments at microgravity. The rack uses the International Space Station (ISS) as its platform. It is a series of external exchangeable test beds for studying the durability of materials such as optics, sensors, electronics, communications devices, coatings and structural materials. The rack’s design allows experiments to be conducted under a variety of microgravity conditions, including exposure to space radiation, changes in gravity, and varying environmental conditions.

The rack is part of the Japanese Experiment Module (JEM), which is one of the components of the ISS. The JEM is a complex laboratory facility that provides a range of facilities for scientists to conduct research in various fields, including biology, physics, and technology. Scientists from all over the world use the ISS to conduct research, share their knowledge and work in almost all areas of science and technology, and share their findings to work in almost all areas of science and technology.

Experiments are conducted in a controlled environment, allowing researchers to study the effects of microgravity on various scientific issues. These include research on the effects of microgravity on human physiology, biological and material sciences, and Earth and space science. Researchers have found that microgravity influences the behavior of cells, tissues, and organs in various ways, including changes in gene expression, altered metabolism, and changes in the immune system.

One of the most significant findings from microgravity research has been the observation that microgravity affects bone density. In fact, the loss of bone density is one of the most significant health issues associated with prolonged exposure to microgravity. This has led to the development of new treatments and therapies to counteract the effects of microgravity on bone density.

Scientists have also conducted experiments on the effects of microgravity on the cardiovascular system, the immune system, and the nervous system. These experiments have provided valuable insights into the mechanisms underlying these systems and have led to the development of new treatments and therapies to address these issues.

Overall, the Saibo Experiment Rack and the ISS provide a unique platform for conducting research on a wide range of scientific issues. It is a powerful tool for advancing our understanding of the effects of microgravity on various biological and physical processes and for developing new treatments and therapies to address these issues.
In the 20th century, space exploration has profoundly impacted the way we view ourselves, our world, and the way we live. Our modern understanding of space has evolved to encompass various parameters and phenomena that affect our everyday lives. Whether we are looking at a space shuttle telephone call, coming with a compensate-related design task, using our mobile phones to send a pacemaker, or undergoing an MRI, we are using technology that space exploration either developed or improved.

In 1971, Soviet cosmonaut Valentina Tereshkova became the first woman in space. In 1983, the first U.S. spacecraft to softly land on the moon, Apollo 11, was launched. In 1995, the first U.S. spacecraft to dock with a Russian space station, Mir, became the first shuttle to make a successful landing back to Earth.

In the 20th century, space exploration has profoundly impacted our everyday lives. Whether we are undergoing an MRI, we are wearing a pacemaker, or making a Pacific telephone call, our mobile phones, space exploration either developed or improved our daily lives. Whether we view ourselves, our world, and the way we live has evolved to encompass various parameters and phenomena that affect our everyday lives.

Using the Advanced Diagnostic Ultrasound in Microgravity protocols, astronaut Leroy Chiao performs an advanced examination of the eye on cosmonaut Salizhan Sharipov. This technology enables users with little training to send diagnostic-quality ultrasound images to medical professionals remotely.

NASA helped industry leaders develop cool, lightweight, aerodynamic biking helmets and special bike wheels using NASA research in airfoils (wings) and design software. The ADVANCED ASTROCULTURE™ (ADVASC) Module, first U.S. component added to the ISS Expedition 4, became the first shuttle to successfully land on another planet (Mars) and to transmit data back from Mars.

### Sunday, December 25, 2011
- **Christmas Day**

### December 2011
- **December 1**: STS-116/12A, Spacehab, STS-117 S3/S4
- **December 2**: Expedition 5
- **December 3**: Expedition 5
- **December 4**: Expedition 5
- **December 5**: Expedition 5
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