

Space  
Flight  
Awareness  
NASA

# SFA

## PROGRAM PLAN

## 2015





# 2015 SPACE FLIGHT AWARENESS PROGRAM PLAN

NASA's Vision, Mission, and Strategic Goals .....	1
Associate Administrator Message .....	2
SFA Program Goals, Objectives, and Teams .....	4
SFA Activities, Visits, and Products .....	5
SFA Awards .....	6
2015 Events .....	7
FY 2014 Metrics .....	8
SFA Members .....	11

# TABLE OF CONTENTS





# SPACE FLIGHT AWARENESS VISION, MISSION, AND STRATEGIC GOALS



## The NASA Vision

To reach for new heights and reveal the unknown, so that what we do and learn will benefit all humankind.

## The NASA Mission

Drive advances in science, technology, and exploration to enhance knowledge, education, innovation, economic vitality, and stewardship of Earth.

## NASA's Strategic Goals

1. Extend and sustain human activities across the solar system.
2. Expand scientific understanding of the Earth and the universe in which we live.
3. Create the innovative new space technologies for our exploration, science and economic future.
4. Advance aeronautics research for societal benefit.
5. Enable program and institutional capabilities to conduct NASA's aeronautics and space activities.
6. Share NASA with the public, educators, and students to provide opportunities to participate in our Mission, foster innovation and contribute to a strong national economy.



## ASSOCIATE ADMINISTRATOR MESSAGE

---

NASA continued to make remarkable accomplishments over the past year. A major milestone was achieved in December 2014 when an uncrewed Orion spacecraft completed its first voyage to space during a four-and-a-half-hour flight test. Orion is part of NASA's plan to

develop new technologies and capabilities to send astronauts beyond low Earth Orbit. The flight was designed to test heat shield performance with return entry velocities approaching lunar return velocity. The test used Orion avionics systems and tested critical ascent deploy and jettison systems as well as the entry reentry parachute systems. This extremely complex and demanding flight showed that the Orion systems design is progressing well toward its ultimate capability to carry humans beyond low Earth orbit to the vicinity of the moon in the proving ground of space. The success of this test is a direct result of the hard work and dedicated efforts of the human spaceflight team. The Space Flight Awareness Program is designed to recognize the exemplary efforts by our workforce needed for success in human spaceflight.

NASA's human spaceflight efforts also took a step forward last September when the agency selected Boeing and SpaceX to provide transport services for U.S. crews to and from the space station using their CST-100 and Crew Dragon spacecraft, respectively. The effort was enabled by a dedicated NASA team that developed the acquisition approach, authored the request for proposal, performed the evaluation and ultimately made the selection. The contractor teams spent countless hours developing proposals for this novel acquisition. Both the successful and unsuccessful offerors are to be commended for their efforts in support of human spaceflight. This approach for acquisition is very different than past acquisitions for crew transportation to low Earth Orbit and ISS. The contractors will own the spacecraft designs and be able to market their spacecraft to a non NASA market. This is a remarkable change for human spaceflight and again enabled solely by the efforts of our amazing workforce. Further this approach allows NASA to focus its design efforts on deep space exploration missions with Orion and the Space Launch System (SLS) rocket.

The SLS rocket, the most powerful under development, moved from the concept phase to the development phase in 2014. All major tools were installed at NASA's Michoud Assembly Facility in New Orleans to enable rocket development. These tools are state of the art in manufacturing and will allow the SLS to be produced in a safe and cost effective manner. The large welding tool encountered an alignment problem. This is not unexpected in a first of a kind manufacturing system. The response by the team to this problem was outstanding. Rather than pointing blame the teams set to work to fix the problem and get back on track with manufacturing and test. Human spaceflight is demanding and problems will occur, our success depends on people working together to solve these difficult challenges. We can only be successful by working together. This is the spirit drives the success of the human spaceflight team. In March, we conducted a successful test firing of the five-segment solid rocket booster that will help SLS leave the gravity of the Earth. This was not just any test, but rather a qualification test at high temperature. Only one more qualification test is needed at low temperature and the booster will be ready for flight. The SFA honorees got to witness this amazing test. The liquid engines for the SLS system are beginning tests at Stennis flight center to understand the engine start conditions. Just like the booster test SFA honorees will get to witness the power of the rockets that will enable our crews to fly beyond low Earth Orbit. The SLS team has made amazing progress and are just beginning the rocket's critical design review.

NASA continued to advance the journey to Mars through progress on the Asteroid Redirect Mission (ARM), which will test a number of new capabilities needed for future human expeditions to deep space, including to Mars. The ARM efforts enabled the teams to consider new approaches for pioneering Mars. This includes advanced Solar Electric Propulsion -- an efficient way to move heavy cargo using solar power, which could help preposition cargo for future human missions to the Red Planet. The ARM work allowed the teams to invest Mars pioneering approaches such staging missions from the vicinity of the moon rather than Earth and to look at prepositioning cargo needed for pioneering missions prior to crew departure by solar electric propulsion. The ARM team recently completed a major milestone, mission concept review. The ARM efforts demonstrate



the innovation required for successful human spaceflight by our team members.

NASA's journey to Mars includes time aboard the International Space Station (ISS). The agency is using the space station to conduct cutting-edge research and technology development and to increase our knowledge about what it takes to live and work for long periods of time in space. This November will mark 15 years of continuous human presence on the orbiting laboratory. Recognizing the long-term benefits of the space station, the Obama Administration announced last year it intends to extend operations on the ISS until at least 2024, and the Canadian Space Agency has also said it will support the extension. A total of 12 crew members lived and worked aboard the ISS in 2014. In the last year, crew members, conducted the first spacewalks to begin reconfiguring the ISS to accommodate future U.S. commercial crewed spacecraft. During their time aboard the ISS, our crew members are also gaining a large following on social media, which they use to bring the wonders of human spaceflight directly to the public. In March, Scott Kelly began his one-year mission aboard the space station. This one-year mission provides the opportunity for researchers to advance their knowledge of the medical, psychological and biomedical challenges faced by astronauts during long duration spaceflight, in addition to developing countermeasures that would reverse those effects. Mark's twin brother on Earth gives genetic researchers a unique chance to see how the human genome changes when exposed to the microgravity environment of Space.

Eight different cargo spacecraft delivered more than 50,000 pounds of supplies and science research to the station in 2014. Already in 2015, SpaceX has conducted two supply missions to the ISS. Orbital ATK is expected to resume its resupply missions later this year. Science research aboard the space station reached new heights in 2014. Crew members conducted hundreds of scientific investigations focused on human health and exploration, technology testing for enabling future exploration, research in basic life and physical sciences, and earth and space science. Currently about 1900 investigations have been performed on ISS. The space station also shines as a technology test-bed. This included continuing work with the bowling ball-sized satellites that operate inside the ISS known as SPHERES, Robonaut 2 getting its experimental

legs attached in August and the first 3-D printing ever in space in November. All of these accomplishments could not be achieved without the support of our strong and dedicated team. Operating the ISS safely is no small task for the ISS teams. Problems arise all of the time and the responses must be precise and timely to prevent damage to ISS or the crew. The recent loss of the Orbital ATK cargo vehicle and the Russian cargo vehicle could have been devastating, because of the preparation by the ISS teams the losses had minimal impact. The outside world may think this easy, but it is not easy and requires total and dedicated commitment by the ISS team.

Thanks to our talented and committed NASA and contractor workforce, the future of human spaceflight continues to be bright. Thank you also to the NASA Space Flight Awareness (SFA) Program in recognizing our workforce for their exemplary human spaceflight contributions. The SFA Program plays a vital role in the continued recognition and motivation of our civil servant and contractor workforce to focus on safety and mission success across the array of human spaceflight programs. You are part of one of the most amazing teams on the Earth. You are doing things that others only dream.

Let's continue to work together and focus on the challenging and exciting days ahead!

A handwritten signature in black ink that reads "William H. Gerstenmaier".

William H. Gerstenmaier  
NASA Associate Administrator for  
Human Exploration & Operations Mission Directorate

# SPACE FLIGHT AWARENESS PROGRAM GOALS, OBJECTIVES, AND TEAMS

NASA established the Space Flight Awareness (SFA) program in 1963. It was established as a formal program after the Mercury and Gemini program, to infuse the space program with a renewed and strengthened consciousness of quality and flight safety. Since its inception, SFA's mission has been to ensure that all employees involved in human space flight are aware of the impact their actions can have on astronaut safety and mission success. During this time, thousands of individuals have been recognized for their contributions to the safety and success of NASA's programs. The key to SFA's longevity is its two-pronged approach to meeting its goal – awareness and recognition.

## 2015 Space Flight Awareness Program Goals

1. Sponsor employee recognition and motivation events utilizing our Astronaut Corps and senior management.
2. Sponsor three major milestone events.
3. Continue to promote International Space Station missions and other future human spaceflight program missions. Recognize significant accomplishments.
4. Promote awareness of future programs by developing awareness and safety products, and recognize significant program milestones.

## Space Flight Awareness Objectives

1. Improve employee awareness on the importance of their role in promoting safety, quality, and mission success.
2. Conduct events that motivate and recognize the workforce and improve employee morale.
3. Function as an internal communications team to disseminate key program safety, quality, and mission messages.
4. Increase awareness of the spaceflight program with a focus on safety and mission success. Acknowledge objectives, accomplishments, and milestones.
5. Maintain supplier motivational and recognition programs.

## Space Flight Awareness Program Teams

**Cost and Performance:** Provide input of costs incurred on the program, as well as data on awards presented and astronaut visits.

**Products:** Produce products that highlight safety and awareness of human spaceflight programs.

**Program Plan:** Establish a comprehensive plan of the SFA history, current year objectives, schedule, recognition program, and metrics.

**Supplier:** Promote awareness and provide recognition to critical suppliers which provide outstanding products and services in support of the human spaceflight programs and mission.





# SPACE FLIGHT AWARENESS ACTIVITIES, VISITS, AND PRODUCTS

## SFA Activities

SFA activities include motivational visits and the development, display, and distribution of awareness tools.

## SFA Visits

SFA works to arrange executive and astronaut visits to help remotely located employees feel that they are part of the human spaceflight team, and to give them an opportunity to get to know those who will use the products they design and build.

## SFA Products

SFA uses a variety of products to focus on key aspects of human spaceflight requirements and mission activities:

- Printed products – safety, quality, reliability, mission, astronauts, significant milestones
- Decals – Space Shuttle and International Space Station missions
- Lapel Pins – vehicle, mission, milestones
- Safety Day activities.



# SPACE FLIGHT AWARENESS AWARD RECOGNITION

The SFA Program uses a variety of awards as part of its recognition activities.



## Silver Snoopy Award

This is the astronauts' personal award. To qualify for this award, eligible candidates will have made contributions toward enhancing the probability of mission success, or made improvements in design, administrative/technical/production techniques, business systems, flight and/or systems safety, or identification and correction or preventive actions for errors. This award is generally not intended for management. Only one Silver Snoopy award per individual is permitted.

## Team Award

This award is used to recognize small groups of employees that have demonstrated exemplary teamwork while accomplishing a particular task or goal in support of the human spaceflight program.

## Honoree Award

This award is one of the highest presented to NASA and industry and is for first-level management and below. This award is presented to employees for their dedication to quality work and flight safety. To qualify, the individual must have contributed beyond his or her normal work requirements to achieve significant impact on attaining a particular human spaceflight program goal; contributed to a major cost savings; been instrumental in developing modification to hardware, software, or materials that increase reliability, efficiency, or performance; assisted in operational improvements; or been a key player in developing a beneficial process improvement.

## Management Award

This award is intended for recognition of proactive mid-level managers who consistently demonstrate loyalty, empowerment, accountability, diversity, excellence, respect, sharing, honesty, and integrity.

## Trailblazer Award

This award is used to recognize employees who are in the early stages of their career. Awardees must demonstrate strong work ethic and creative, innovative thinking in support of human spaceflight.

## Flight Safety Award

This award recognizes significant, outstanding individual or team contributions related to the prevention of anything that could lead to a catastrophic mishap to the vehicle, crew or mission. The approval process for this award includes the SFA National Panel, the Flight Safety Panel, and the NASA Associate Administrator for Safety and Mission Assurance.

## Supplier Award

This annual award honors outstanding performance by hardware, software, or service suppliers who support NASA human spaceflight programs. Awardees are chosen based on their production of high-quality products, excellent technical and cost performance and adherence to schedules.

# SPACE FLIGHT AWARENESS 2015 EVENTS



**Exploration Flight  
Test-1 (EFT-1)**  
Kennedy Space Center  
December 2014



**Qualification Motor-1  
Test (QM-1)**  
Orbital ATK Inc.  
Promontory, Utah  
March 2015



**RS-25 Test Firing**  
Stennis Space Center  
July/August 2015



# FY 2014 METRICS

---

<b>Team Awards</b>	<b>45</b>	<b>Total Members Recognized</b>	<b>2731</b>
Headquarters	1	Headquarters	6
Ames Research Center	1	Ames Research Center	566
Armstrong Research Center	0	Armstrong Research Center	0
Glenn Research Center	3	Glenn Research Center	26
Goddard Space Flight Center	5	Goddard Space Flight Center	494
Johnson Space Center	13	Johnson Space Center	676
Kennedy Space Center	9	Kennedy Space Center	450
Langley Research Center	4	Langley Research Center	0
Marshall Space Flight Center	2	Marshall Space Flight Center	175
NASA Engineering and Safety Center	0	NASA Engineering and Safety Center	0
NASA Shared Services Center	0	NASA Shared Services Center	0
Stennis Space Center	0	Stennis Space Center	0
The Boeing Company	5	The Boeing Company	310
Aerojet Rocketdyne	1	Aerojet Rocketdyne	20
Lockheed Martin	1	Lockheed Martin	8



# FY 2014 METRICS

## Silver Snoopy Award 227

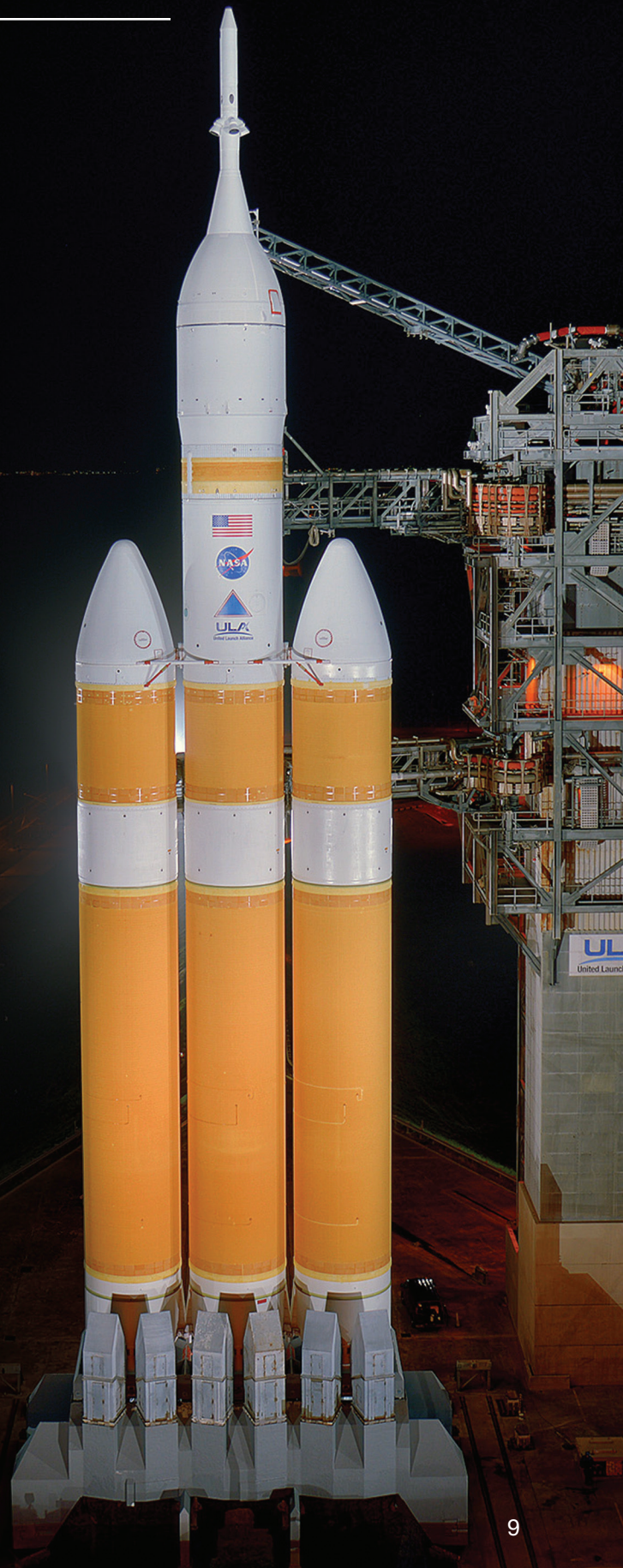
Headquarters	1
Ames Research Center	0
Armstrong Research Center	0
Glenn Research Center	7
Goddard Space Flight Center	2
Johnson Space Center	53
Kennedy Space Center	44
Langley Research Center	6
Marshall Space Flight Center	64
NASA Engineering and Safety Center	1
NASA S Safety Center	0
Stennis Space Center	18
The Boeing Company	7
Aerojet Rocketdyne	2
Lockheed Martin	22

## Honoree Award 28

Headquarters	0
Ames Research Center	0
Armstrong Research Center	0
Glenn Research Center	0
Goddard Space Flight Center	0
Johnson Space Center	9
Kennedy Space Center	0
Langley Research Center	0
Marshall Space Flight Center	0
NASA Engineering and Safety Center	0
NASA S Safety Center	0
Stennis Space Center	0
The Boeing Company	0
Aerojet Rocketdyne	3
Lockheed Martin	16

## Flight Safety Award 6

Headquarters	0
Ames Research Center	0
Armstrong Research Center	0
Glenn Research Center	0
Goddard Space Flight Center	0
Johnson Space Center	0
Kennedy Space Center	4
Langley Research Center	1
Marshall Space Flight Center	1
NASA Engineering and Safety Center	0
NASA S Safety Center	0
Stennis Space Center	0
The Boeing Company	0
Aerojet Rocketdyne	0
Lockheed Martin	0



# FY 2014 METRICS

---

## Management Awards

**19**

Headquarters	0
Ames Research Center	1
Armstrong Research Center	0
Glenn Research Center	0
Goddard Space Flight Center	1
Johnson Space Center	5
Kennedy Space Center	10
Langley Research Center	0
Marshall Space Flight Center	0
NASA Engineering and Safety Center	0
NASA S Safety Center	0
Stennis Space Center	0
The Boeing Company	0
Aerojet Rocketdyne	0
Lockheed Martin	2

## Astronaut Visits

**22**



# SPACE FLIGHT AWARENESS WORKING GROUP MEMBERS

The SFA working group strives to ensure an effective program, one of value to the human space flight workforce. The focus of the program continues to be excellence in quality, safety and mission success.

**Sallie Bilbo\***

NASA Stennis Space Center

**Gena Cox**

NASA Marshall Space Flight Center

**Kara Denny**

Lockheed Martin

**Amy Griggs**

NASA Goddard Space Flight Center

**Shera McNeill**

NASA Headquarters

**Michele Martin**

NASA Johnson Space Center

**Jane Mosconi**

NASA Kennedy Space Center

**Dayna Serna**

Orbital ATK

**Agnes Vargas**

The Boeing Company

**Julie Zingerman**

Aerojet Rocketdyne

**Dr. Alotta Taylor**

Office of Human Exploration and Operations  
NASA Headquarters, Program Manager



\* **SFA working group member also represents:** Ames Research Center, Armstrong Flight Research Center, Defense Contract Management Agency, Glenn Research Center, Langley Research Center, NASA Shared Services Center, and NASA Engineering & Safety Center



---

# **SFA** PROGRAM PLAN

# 2015

National Aeronautics and Space Administration

**NASA Headquarters**  
300 E. Street, SW  
Washington, DC 20546  
[www.nasa.gov/centers](http://www.nasa.gov/centers)

[www.nasa.gov](http://www.nasa.gov)

NP-2015-05-1803-HQ

---