Press Release



FOR IMMEDIATE RELEASE



NASA – A Human Adventure lands at ArtScience Museum

Experience forces of up to 2G with G-Force simulator; listen to the sound of space and envision life beyond Earth

SINGAPORE (17 November 2016) – From 19 November, visitors to ArtScience Museum will embark on a once-in-a-lifetime expedition to Singapore's largest space flight exhibition, *NASA* – *A Human Adventure*. The exhibition launches the *Art and Science of Space* season, a series of unique workshops, screenings, performances and other programmes, which will extend well into 2017.

NASA – A Human Adventure brings visitors on an enthralling journey into the world of space exploration, which encompasses the world's most significant accomplishments in space technology. In five galleries, over 200 historically significant artefacts are on show, including many items which have flown in space.

One of the centrepieces of *NASA – A Human Adventure* is a full scale construction of the front section of NASA's iconic Space Shuttle. The massive exhibit enables visitors to see the flight deck, where astronauts fly the orbiter during actual launch and landings, and the middeck, where shuttle crew eat, sleep and work on experiments. The Space Shuttle was the world's first reusable spacecraft for transporting cargo to space and back.



The exhibition also includes a new project commissioned by ArtScience Museum titled, *Indonesia Space Science Society,* by Indonesian artist, Venzha Christ. Working with scientists and engineers in Indonesia, Christ established *Indonesia Space Science Society* as a framework for the exploration of space from a different perspective.

Visitors can look forward to some of the most extraordinary innovations developed by NASA over the past decades.

"This is truly a-once-in-a-lifetime opportunity to see the spacecraft, rockets and technology that changed history and our understanding of our universe. *NASA - A Human Adventure* is a blockbuster exhibition that brings visitors on an extraordinary journey through 100 years of human space adventure, starting with the dreams of artists and writers, and culminating with engineering marvels that changed the world. The inclusion of *Indonesia Space Science Society* by Venzha Christ underscores our commitment to showcasing South East Asian approaches to space exploration. We will also introduce pioneers of the space industry from Singapore, Malaysia and around the region, through our programmes, beginning with the *Dream Space* conference on 19 November. Through this exhibition as well as *The Art and Science of Space* season, we will show that space is a topic that touches all of us. To anyone who has ever dreamed of the stars, this season is for you," said Ms Honor Harger, Executive Director, ArtScience Museum at Marina Bay Sands.

"We are excited to welcome the public to *NASA – A Human Adventure* at ArtScience Museum. This exhibition has something for everybody. We hope that after visiting the exhibition, visitors will be inspired to continue to explore the world and what lies beyond. The exhibition shows that with determination, courage and the spirit of adventure, we can achieve the impossible," added Mr. Jukka Nurminen, Director and CEO of John Nurminen Events B.V., the producer and exhibition curator of *NASA – A Human Adventure*.

Other Key Highlights

Beyond revelling in the breakthroughs achieved by scientists and astronauts, visitors will also have the opportunity to embark on a simulated flight of the 1961 Mercury Liberty Bell 7 with astronaut and test pilot, Gus Grissom. The G-Force Astronaut Trainer ride will take visitors on a short but adrenaline-pumping ride as they withstand forces of up to 2G. Each ride can accommodate up to four guests. Visitors to the exhibition can purchase tickets for the G-Force simulator, each ticket is priced at S\$6 (Mon – Thu) and S\$9 (Fri – Sun).

Also on show in the exhibition is a Jupiter nose cone that was launched into space and later recovered from sea. The experimental nose cone has a covering which was developed to protect the nose from the tremendous heat generated during re-entry to the Earth's atmosphere, where temperatures could climb in excess of 1,000°C. These nose cones were key milestones in developing future re-entry vehicles that enabled manned space flights.

The exhibition also presents film shot by Apollo astronauts. From 1938 to 1972, NASA utilised Swedish-made Hasselblad cameras for its lunar operations. The astronauts left the cameras and lenses behind on the Moon upon departure to save weight. Only the film magazines returned, including three from Apollo 8, 12 and 17 programmes which will be exhibited at *NASA – A Human Adventure*. One of the displayed film magazines was autographed and used by Eugene Andrew "Gene" Cernan, Commander of Apollo 17, on the last moon landing mission on December 1972.



The Art and Science of Space season

A key component of the *Art and Science of Space* season at ArtScience Museum is the new work commissioned from Venzha Christ. Whilst lacking the means that large space agencies such as NASA have, his project, *Indonesia Space Science Society*, provides visitors with a compelling encounter with space. It invites visitors to *listen* to space.

Based on the science of radio astronomy, Christ's unique installation promises to be an audio-visual treat. The three-metre long sculpture and mixed media installation enables visitors to see and hear radio waves from space. The installation presents radio waves sent and collected through radio antennas Christ has made, which gather precise data from astronomical objects in space. The transmitted signals received from the planets and stars are then visually displayed and decoded into an audible soundtrack within the gallery. If you've ever been curious about what space sounds like, *Indonesia Space Science Society* is providing an answer.

As part of the *Art and Science of Space* season, visitors also can participate in a series of unique and engaging programmes, commencing the opening weekend of *NASA – A Human Adventure*, and continuing into 2017. The programmes are specially developed by ArtScience Museum to engage visitors of all ages and generate different contexts for a better understanding of space exploration.

| Event | Date and timings | Venue | Description | Remarks |
|---|--|-------------------------------|--|--|
| Insights Tour Public guided tours | 19 Nov, 11.30am – 12.30pm 20 Nov, 11.30am – 12.30pm Family Fridays: 25 Nov, 3pm – 4pm 27 Nov, 11.30am – 12.30pm | Exhibition entrance, B2 | Join Jukka Nurminen, avid aeronautics enthusiast and curator of <i>NASA – A</i> <i>Human Adventure</i> as he shares exclusive details on the making of the exhibition as well as some of his favourite anecdotes from the history of space flights. Humans are driven to explore the unknown and challenge the boundaries of what we know. Journey through the story of space exploration in this guided tour, as we learn about and celebrate some of the most extraordinary innovations in space technology and scientific achievements that stand up in human history. | Complimentary to ticket-holders of <i>NASA</i> . Up to 25 visitors on a first- come, first-served basis. Stickers will be given out five minutes before tour begins. |
| Conversations: Dream Space | 19 Nov, 2pm | Expression Gallery, L4 | In Conversations: Dream Space, visitors will discover how the human journey to space has progressed through inspiring presentations by scientists and space crusaders. It features leading voices within the South East Asian space | Admission is free. Visitors to register in the lobby |

The Art and Science of Space season starts with the following programmes:



| | | | industry, speaking about regional approaches to space exploration. Bidushi Bhattacharya is an ex-NASA rocket scientist who has worked in spacecraft development and operations. She will speak about using space technology for good in Singapore. Lynette Tan will talk about advancing Singapore's space ecosystem via the Singapore Space & Technology Association (<u>http://www.space.org.sg/</u>) Izmir Yamin will talk about his pioneering plan to send a rover to the Moon, from Malaysia, with his space company, Independent-X. Venzha Christ will talk about the Indonesia Space Sciences Society, and the project ArtScience Museum commissioned for the exhibition. They will be joined by participants of the exhibition and special guests, to talk about how we dream of space, and make those dreams into reality. | |
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| Space Quest Workshop | Family Fridays - 2, 16 & 30 Dec, 4.30pm – 5.30pm | Rainbow Room, Basement 2 | Get ready for your mission to outer space by completing a series of exciting and hands-on activities in this one hour workshop. Race against time and find out if your space agency has what it takes to launch a space mission. | \$8 per participant. Up to 20 participants on a first-come, first- served basis. |
| Make Your Own Cyanotype Universe | Jan 2017 (Refer to the website more details) | Rainbow Room, Basement 2 | Join us in Cyanotype Universe where we use one of the oldest printing techniques to create beautiful photographic blueprints of space. | \$8 per participant. Up to 20 participants on a first-come, first- served basis. |
| Sunday Showcase x SingAstro | 18 Feb, 1pm – 7pm and 19 Feb, 10am – 7pm | ArtScience Galleries, Level 4 | Get ready for a weekend filled with sun and star gazing, listen to the sound of space and see how astronomical instruments have evolved from the past. All you need to know about space in one weekend. | Admission is free. Visitors to register in the lobby |
| Space Hack | Mar 2017 | ArtScience Galleries, Level 4 | Space Hack is a special event bringing innovators, space enthusiasts, investors and creatives together to solve | |



| | problems of the future while racing against time. |
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NASA – A Human Adventure will run from 19 November 2016 to 19 March 2017. Boeing and United Airlines are sponsors for the NASA – A Human Adventure exhibition.

Tickets are available at all Marina Bay Sands box offices and website. Terms and Conditions apply. Tickets prices as follows:

| | | Mon to Thu | | Fri to Sun | |
|--------------------------------|---------------------------------------|------------|---------------|------------|---------------|
| | | NASA | ALL ACCESS | NASA | ALL ACCESS |
| STANDARD TICKET (SGD) | Adult | \$20 | \$35 | \$25 | \$40 |
| | Seniors (65 years and above) | \$17 | \$30 | \$21 | \$34 |
| | Child (2-12 years) | \$12 | \$20 | \$15 | \$24 |
| | Family package (2 kids & 2 adults) | \$55 | \$90 | \$65 | \$100 |
| SINGAPORE RESIDENT (SGD) | Adult | \$15 | \$30 | \$19 | \$34 |
| | Seniors (65 years and above) | \$12 | \$25 | \$16 | \$29 |
| | Child (2-12 years) | \$9 | \$15 | \$11 | \$20 |
| | Family package (2 kids & 2 adults) | \$40 | \$70 | \$50 | \$80 |

For more information on the exhibition, please visit www.marinabaysands.com/ArtScienceMuseum.

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About Marina Bay Sands Pte Ltd

Marina Bay Sands is the leading business, leisure and entertainment destination in Asia. It features large and flexible convention and exhibition facilities, 2,560 hotel rooms and suites, the rooftop Sands SkyPark, the best shopping mall in Asia, world-class celebrity chef restaurants and an outdoor event plaza. Its two theatres showcase a range of leading entertainment performances including world-renowned Broadway shows. Completing the line-up of attractions is ArtScience Museum at Marina Bay Sands which plays host to permanent and marquee exhibitions. For more information, please visit <u>www.marinabaysands.com</u>

About ArtScience Museum

ArtScience Museum at Marina Bay Sands is Southeast Asia's leading cultural institution that explores the interrelationship between art, science, technology and culture. Featuring 21 galleries totalling 50,000 square feet, the iconic lotus-inspired building has staged major exhibitions by some of the 20th century's key artists, including Salvador Dalí, Andy Warhol and Vincent Van Gogh, as well as major exhibitions which explore aspects of scientific history.



About John Nurminen Events

John Nurminen Events B.V. is the Dutch subsidiary of John Nurminen Oy and it specialises in developing as well as producing large scale touring exhibitions. John Nurminen Events' blockbuster production is *NASA – A Human Adventure*, which tells a thrilling journey of the history of the NASA's manned space flights and the Space Race.

About United Airlines

United Airlines and United Express operate more than 4,500 flights a day to 339 airports across five continents. In 2015, United and United Express operated more than 1.5 million flights carrying more than 140 million customers. United is proud to have the world's most comprehensive route network, including U.S. mainland hubs in Chicago, Denver, Houston, Los Angeles, New York/Newark, San Francisco and Washington, D.C. United operates more than 720 mainline aircraft, and this year, the airline anticipates taking delivery of 21 new Boeing aircraft, including 737NGs, 787s and 777s, as well as six used Airbus A319 aircraft. The airline is a founding member of Star Alliance, which provides service to 192 countries via 28 member airlines. For more information, visit united.com, follow @United on Twitter or connect on Facebook. The common stock of United's parent, United Continental Holdings, Inc., is traded on the NYSE under the symbol UAL.

About Boeing

Boeing is the world's largest aerospace company and leading manufacturer of commercial jetliners and defense, space and security systems. A top U.S. exporter, the company supports airlines and U.S. and allied government customers in 150 countries. Boeing products and tailored services include commercial and military aircraft, satellites, weapons, electronic and defense systems, launch systems, advanced information and communication systems, and performance-based logistics and training.

With corporate offices in Chicago, Boeing employs approximately 160,000 people across the United States and in more than 65 countries. Boeing has worked in partnership with Singapore for 70 years which is headquarters for our Southeast Asia operations. For more information, please visit <u>www.boeing.com</u>

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For high-res images:

<u>https://www.dropbox.com/sh/akirdc3lzogvcrt/AABBVVWBg5GjlkeEDerbs-fua?dl=0</u> (Credit: NASA/Marina Bay Sands)