

UNITED NATIONS
OFFICE FOR OUTER SPACE AFFAIRS

Report on World Space Week 2010

Prepared by the World Space Week Association



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UNITED NATIONS OFFICE AT VIENNA

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The views expressed are those of the author(s) and do not necessarily reflect those of the United Nations.

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1 Introduction

World Space Week, October 4 to 10 annually, was declared in 1999 by the United Nations General Assembly in response to a recommendation of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III). The goal of World Space Week (WSW) is to celebrate the contribution of space science and technology to the good of humankind. Its dates commemorate two key events:

- October 4, 1957 – Launch of the first artificial Earth satellite, Sputnik 1, opening space for exploration
- October 10, 1967 – Entry into force of the Treaty on Principles Governing the Activities of States in the Exploration and Peaceful Uses of Outer Space, including the Moon and Other Celestial Bodies.

Consisting of synchronized outreach and education activities by many organizations, UN-declared World Space Week reaches a mass audience each October 4 -10 through attendance and media coverage. The benefits include:

- Building the workforce of tomorrow by inspiring students
- Visibly demonstrating public support for space programs
- Educating the public and government leaders about the benefits of space activities
- Promoting institutions which are involved in space
- Fostering international cooperation in space outreach and education

Since 2007, when detailed reporting began, World Space Week has been observed on a massive scale:

- Participation in 94 nations
- 2,259 events
- Attendance of 1,351,000 people
- Media coverage reaching 296,000,000 people

World Space Week celebrated its 11th year in 2010, with events in 63 nations. Its theme, "Mysteries of the Cosmos," focused on probing what we know, what it means, and what we have yet to learn about the cosmos. Highlights of World Space Week 2010 included:

- Google Lunar X Prize Summit on the Isle of Man, UK
- Festival of Astronomy in Marrakech, Morocco
- Inauguration of a mobile planetarium and telescope in Thrissur, India
- Solar and radio observations in Mexico
- Star camp for high school students in Jeddah, Saudi Arabia
- 1st Annual South African Space Association Congress, Cape Town
- High altitude balloon experiment, Berlin, Germany
- European Space Agency launched online space game
- October skies, a regional rocket launch in Alabama, USA
- Astrophotography workshop, Cork, Ireland

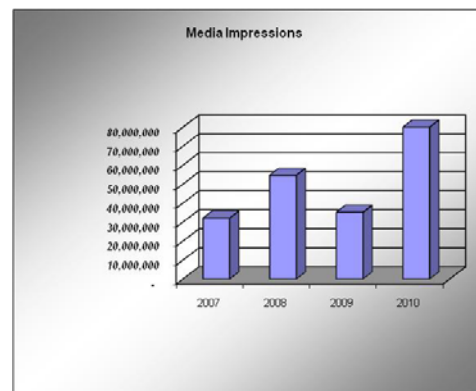
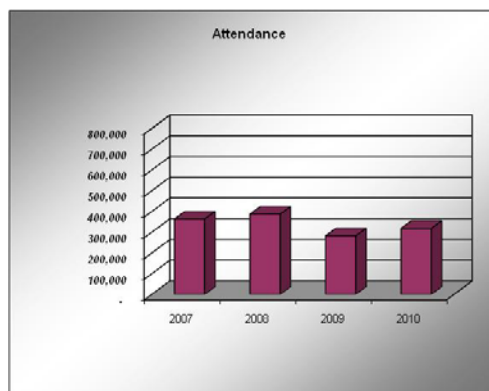
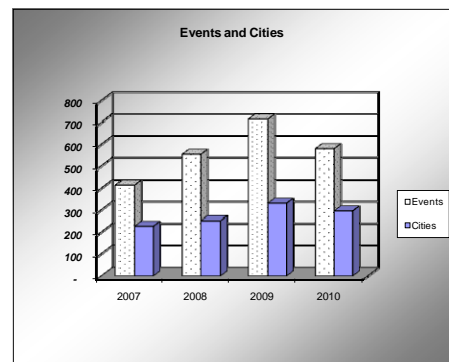
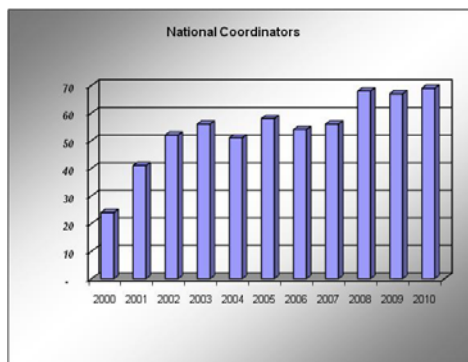
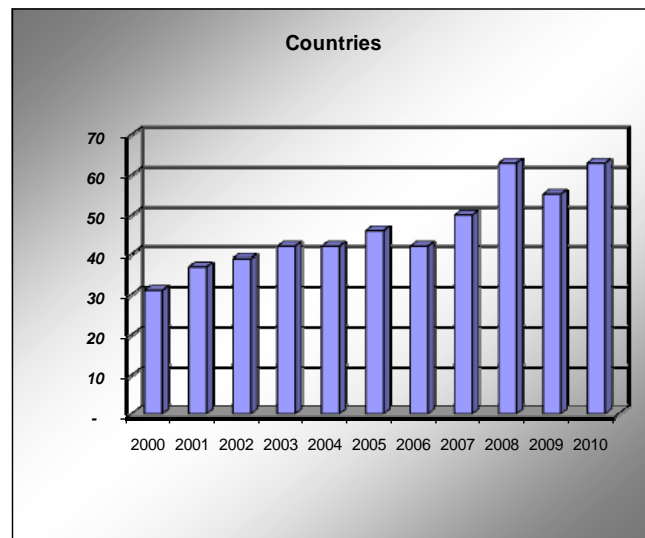


This report was prepared in cooperation with World Space Week Association, a non-government organization which supports the UN in the global coordination of World Space Week. For further information, please visit www.worldspaceweek.org or contact admin@worldspaceweek.org.

2 Global Summary

The section summarizes the scope of UN-declared World Space Week globally and in participating states. The following figures illustrate the growth of this event since 2000. The data presented here was reported by event organizers via the official World Space Week on-line calendar, www.worldspaceweek.org/calendar.

For World Space Week 2010, a total of 585 events were reported in 294 cities in 63 nations. There was attendance of 332,000 people and media coverage reaching 174,000,000 people. (Attendance was reported by 49% of event organizers and media impressions were reported by 25%.)



The following shows which states reported the greatest number of events, attendance, and media coverage of World Space Week 2010:

Top Countries by Number of Events		Top Countries by Attendance		Top Countries by Media Impressions	
Country	Number of Events	Country	Attendance	Country	Media Impressions
Romania	142	India	77,158	Pakistan	157,000,000
India	103	Poland	60,400	Morocco	6,010,000
Slovakia	38	Turkey	33,000	Zambia	5,000,000
United States	33	Ecuador	32,100	India	2,000,000
Pakistan	31	Pakistan	23,010	Vietnam	1,000,000
				Lithuania	1,000,000

The following table summarizes World Space Week 2010 results by state:

State	Events	Attendance	Media Impressions
Afghanistan	1	-	-
Algeria	1	-	-
Argentina	6	140	-
Australia	3	-	-
Austria	5	505	12,500
Azerbaijan	1	248	-
Bangladesh	1	-	-
Belarus	1	-	-
Bolivia	1	-	-
Brazil	9	1,200	1,000
Bulgaria	7	132	-
Cameroon	1	-	-
Canada	3	21	-
Chile	10	-	-
China	4	160	-
Colombia	5	300	20,010
Costa Rica	1	50	2
Cyprus	3	-	-
Czech Republic	19	8,193	-
Ecuador	4	32,100	149,000
Finland	15	500	-
France	5	480	-
Germany	6	-	-
Global	5	10,000	50,000
Greece	3	130	-
Hungary	1	50	250
India	103	77,158	2,000,000
Indonesia	2	62	-
Ireland	11	-	-
Italy	1	-	-
Japan	12	17,861	-
Korea, Republic of	1	10,000	10,000
Lithuania	1	350	1,000,000
Mexico	8	9,700	22,500
Morocco	3	3,000	6,010,000
Nepal	2	900	3,150
Netherlands	1	-	-
New Zealand	1	-	-
Nigeria	1	-	-
Oman	1	100	-
Pakistan	31	23,010	157,000,000

Paraguay	1	150	500
Philippines	4	-	-
Poland	5	60,400	800,000
Portugal	3	160	100
Romania	142	11,490	377,559
Russian Federation	8	2,703	800
Saudi Arabia	5	-	-
Serbia	2	300	100
Slovakia	38	6,088	196,236
South Africa	2	80	500
Spain	2	10	-
Switzerland	2	1,300	38,800
Tanzania	1	-	-
Tunisia	1	100	150
Turkey	12	33,000	119,500
United Arab Emirates	4	60	-
United Kingdom	11	2,067	-
United States	33	2,400	39,170
Venezuela	1	184	200,000
Vietnam	1	1,500	1,000,000
Zambia	1	143	5,000,000

3 National Summaries

This section contains summaries of World Space Week 2010 from a number of national coordinators. The full details and results can be viewed at www.worldspaceweek.org/calendar_2010.

3.1 Algeria

Algeria – and especially Constantine – celebrated World Space Week with enthusiasm. The theme of this year's National Festival in Popular Astronomy (the 9th annual) was The Mysteries of the Cosmos, with a particular focus on the Milky Way. Aiming to disseminate information about astronomy and space to the public, the Festival brought together numerous amateur astronomers from all over the countries. Some of the organizations that participated in this year's Festival included: the AUASS (Arab Union for Astronomy and Space Sciences, Amman) from Jordan, the SAF (Societe Astronomique de France), SAT (the Societe Astronomique de Tunisie) from Tunis, JAS (the Jordanian Astronomical Society), the Shariqa Astronomy and Space Club from the United Arab Emirates, and the Omani Astronomical Society. Representatives from national agencies were also active in the Festival. The agencies included: ASAL (L'Agence Spatiale Algérienne), the CNTS (Centre National des Techniques Spatiales) from Arzew, the CRAAG (Bouzaréah), and the ONM (L'Office National de la Météorologie). Numerous astronomy clubs and organizations from across Algeria brought the total attendance to around 5,000. Even the Mayor of Constantine and the state Governor stopped by. ENTV (National TV) covered the event, which was broadcasted on national news. For more details on the programs and participants, see <http://siriusalgeria.net/salon010>.

In addition to the Festival, a lecture was held at the Mansourah Cultural Center. This lecture included information about space and astronomy, and also included an exposition of space-related artwork. Cirta FM radio station provided live coverage of the event.

3.2 Argentina

Highlights of Argentina's numerous WSW activities include:

- Don Torcuato, Buenos Aires: Middle School No. 3 held a science fair that was open to the community. In the fair, students exhibited posters and models, used observation telescopes, and screened the film, "From the Earth to the Moon." Over 550 students, parents, and teachers participated.
- Ezeiza, Buenos Aires: Elementary School No. 14 held an education camp that included observing satellites, constructing of models of the International Space Station, and counting stars. A video of the event can be found at http://www.youtube.com/watch?v=3WkkFFxC_mY.
- San Carlos de Bariloche, Río Negro, Universidad FASTA: Laura García Oviedo, a freelance science journalist, gave a talk entitled "Galileo Galilei: Space Exploration and Biodiversity." Approximately 30 people attended. Laura García Oviedo gave a similar lecture to primary school students at Woodville School.

- Municipalidad of Bariloche: A public interview was held with Guillermo Abramson, physicist and author of the book *Trip to the Stars*. Approximately 30 people attended this event as well.

3.3 Austria

Austria launched WSW with a lecture about space and security at the Kurpark Oberlaa in Vienna. Many additional events were held, including:

- “Eye in the Sky” Lectures: In a series of more than 20 talks, experts from the Austrian Space Forum spoke to enthusiastic teenagers about how remote sensing technologies in space can help us to understand the changing world in which we live. This project was carried out in collaboration with the European Space Agency as well as the Government of Upper Austria. More than 3,000 students attended.
- “Our Fascinating Solar System”: The Austrian Space Forum presented brand-new images from space probes across our solar system on an exceptionally large screen and at the “Deep Space” facility of the Austrian Ars Electronica Center in Linz, Gernot Groemer presented a breathtaking journey from the ice worlds of Saturn to the mystic cloud systems of Uranus, to the deep canyons of Mars to the hottest spots on Mercury. Approximately 65 people attended.
- “Sun, Moon & Stars” Workshop: Together with kindergarten teachers, the Austrian Space Forum organized a “Space Day” at the Innsbruck kindergarten Haspingerstrasse. Children were introduced to the world of astronomy and spaceflight by means of various hands-on activities. These included guiding a remote-controlled Mars rover through an obstacle course, watching stunning imagery from the Hubble Space telescope, creating their own “moon crater” with a slingshot, marble and flour-powered garden soil, as well as various other activities. The children immersed themselves in this space day and, as a result, the Austrian Space Forum—together with the University of Innsbruck—is now engaged in a year-long pilot project, funded through the Austrian Federal Ministry for Education, (“Sparkling Science”) with the title “Sonne, Mond und Sterne” (Sun, Moon and Stars). The program aims to strengthen the competences of future kindergarten teachers in STEM subjects with space as a primary topic.

3.4 Bangladesh

The Inaugural Ceremony was held in Dhaka and was attended by a large number of students and space enthusiasts. Lecturers represented a number of different organizations, including: the Bangladesh Astronomical Society, the University of Dhaka, the Bangladesh University of Engineering Technology, the Bangladesh Atomic Energy Commission, Science Popularization Society, and the Anusandhitsu Chokro Astronomy Department. The speakers discussed the needs for space education and awareness in Bangladesh and urged the government to allow facilities to the students to study space science. Other WSW activities included:



“Space Technology to Help the Earth” Art Contest: This contest was held on the lawn of Mohakash Bhaban in Enayetpur. It was a spectacular event in which younger students made art, wore space costumes, and danced. A water rocket launch contest was also held on the bank of River Jamuna. Twenty-six students from 13 schools took part in the contest. In total, about 215 students from 14 schools in the locality participated.

Space Rally, Quiz, and Lectures: Outdoor events were cancelled due to weather, but several hundred students came to attend space-related functions in-doors.

3.5 Bulgaria

The formal opening was held at the Astronomical Observatory in Varna, where many lectures and documentary films about astronautics were organized for the public. Several other activities followed. For instance, models of rockets, airplanes, and flying kites were launched on the Alley of the Astronauts, in the Varna Sea Garden, and there was a show with models of rockets and airplanes. Many schools participated as well:

The youth education center in Baykal village, Dolna Mitropolia, organized a small spaceship design workshop for children and students. Students demonstrated their designs and also presented presentations on the successes of space research. Students from several schools in Pleven also made space satellites and rockets from paper. The Children’s Complex school of astronomy at Sliven made astronomical observations.

3.6 Brazil

This year's celebration was marked by the involvement of a wide range of institutions, such as schools, planetariums, science centers, an education secretariat, astronomical observatories and enthusiastic groups across the country. Activities were comprised of workshops in which students learned how to construct and launch their own rockets with inexpensive materials; astronomical observations and associated lectures, such as awareness about WSW; an Astronomy Week, in which students participated in creative competitions and were exposed to challenging hands-on science (one of the most popular activities explored an analogy between black holes gravitation and soccer); a student exploration of Mars via Holodeck technology; an indigenous observatory, and more.

Brazil's participation also included planetary sessions, artistic presentations, a drawing contest with the theme "Mysteries of the Cosmos," and numerous workshops, one of which linked arts and astronomy by comparing Van Gogh's masterpieces and astronomical concepts. In sum, Brazil's celebration offered both students and the general public the opportunity to learn about the universe through an impressive variety of mediums, activities, and venues.

3.7 Cameroon

The Space Generation Advisory Council Cameroon organized public education and outreach activities. Lectures about the importance of space awareness and the contributions of space science and technology to the betterment of mankind were held at Sacred Heart College in Douala. More than 100 students attended.



Local organizer Mr. Yuven Elvis and Mr. Tankam Pierre, an engineer with the Cameroon Civil Aviation Authority (ASECNA) in Douala, appeared on special space-related programs on radio Mont Cameroon FM and FM 105 Douala. They discussed the role of space-based technologies in agriculture, urban planning and navigation. The two radio stations have a joint targeted audience of over 300,000. WSW activities in Cameroon were also mentioned during special TV programs on private-run stations such as Canal 2 International, LTM, STV and Equinox.

3.8 Czech Republic

The main event this year was the International Astronautical Congress 2010 (IAC) in Prague, which took a place in the capital from 27 September to 1 October. As part of the event, Robert Heinlein's book "Have Spacesuit – Will Travel" was translated into Czech language. The publication was handed out during the congress as well as sent out to the teachers participating in WSW. There were 19 WSW events during the Congress, including lectures, exhibitions, observation of satellites, and ISS overflights. Other programs at observatories and planetariums were held for children and adults. Over 8,000 people attended. The Congress was covered by multiple national TV stations.

3.9 France

In France, most of the WSW 2010 activities were coordinated by employees of EADS Astrium, with the support of their company, as part of a global effort to celebrate WSW in Astrium's six home countries (France, Germany, Greece, Spain, the Netherlands and United Kingdom).

In the Bordeaux region, 11 people made presentations in schools, addressing about 700 pupils ranging from 3 to 18 years old. The local philatelic association organized an exhibition and a conference about the Baikonur Launch Center. Site visits were also organized.

In and around Paris, 35 employees of the Les Mureaux site (where the Ariane 5 launcher is built) were able to capture the imagination of around 3,000 children through presentations about the planets, the launchers, and also the day-to-day applications of space. Schools also organized water rocket building and launches.

Similarly, 50 people from Astrium's Toulouse site explained their jobs as satellite manufacturers and transmitted their passion about space to around 2000 pupils of the region. Also, for the first time, Brest Astrium's staff explained space to about 160 children in schools.

The city of Soisy sur Seine organized an exhibition about the exploration of the universe with a focus on Mars exploration. They hosted a scientist from the Institute of Space Astrophysics (Orsay University) on Mars exploration. About 400 people from the general public and the primary schools of Soisy sur Seine came to visit the exhibition.

3.10 Germany

EADS Astrium played a large role in organizing World Space Week events in Germany. As part of its European WSW engagement, the company sent German employees from four locations to give lectures at children's schools. More than 100 lecturers ('ambassadors') were active during WSW, and were heard by more than 5,700 pupils:

The company supported the lecturers with a range of media, pictures, and videos available on its intranet, as well as proposals for tasks to be solved by the pupils. The lectures comprised a broad range of content, among them technical question-and-answer, the use of aerospace technology in everyday life, a theatre piece, a schedule of the ISS appearance on the night sky, and the launch of water rockets. The following public events were also held in Stuttgart and Berlin:

Berlin: Project Nepa started an experimental weather balloon on October 4 as a kick-off event for the WSW and as part of an initiative to introduce 'Astronomy and Spaceflight' as an elective course in schools. Also in Berlin, the OpenMoon group reported from the LunarX Summit on the Isle of Man in an online conference organized by the national coordinator, together with a local gathering at the HBC club. The evening ended in a space lounge with artistic projections of Io and dedicated music.

Stuttgart: The Raumfahrttag (space day) event was a joint effort of public-private associations (LR BW Forum Luft- und Raumfahrt Baden-Wuerttemberg e.V., FAN Future Aerospace Network), the ministry for economy (Wirtschaftsministerium Baden-Wuerttemberg) and the Astrium company. The event was comprised of lectures about current scientific and commercial space projects, among them the manned ATV module, satellite navigation, and the plans for a mission to Mars. Visitors could enter a space flight simulator and compete in a geocaching event. There were approximately 500 attendees.

3.11 India

More than 100 WSW events were planned and celebrated across 13 states. ISRO (Indian Space Research Organisation), VSSC (Vikram Sarabhai Space Centre), Tanmay's Amazing space, SPACE (Science Popularisation Association of Communicators and Educators), Astronomy Club Ahmedabad, and RCSC (Russian Centre for Science and Culture) were some of the many organizations that conducted activities during WSW.

SPACE was particularly active this year. SPACE students at DPS Sonipat made and launched their own water rockets. They also started a special program that took a group of students to Kennedy Space Center in Florida during WSW. In addition, SPACE organized the great Indian star count observation, which functioned as a citizen astronomer event where the public took part in working against light pollution in India.



There were many other 2010 highlights. In Kerala, a new planetarium was inaugurated during WSW. The City of Nagpur held a National conference on space and issues pertaining to nuclear weapons. ISRO celebrated WSW by organizing essay and quiz competitions, an Open House at Vikram Sarabhai Space Centre, and a program for employees of various centers of ISRO in Thiruvananthapuram.

Many TV channels in India aired programs related to space and astronomy, and print media carried special news informing the public about the WSW events happening throughout the country.

3.12 Ireland

Over 12 different Irish events took place at venues in Galway, Cork, Bray, Tyrone and Dublin to celebrate WSW with over 1500 attendees who were exposed to the WSW message. Branded posters were sent to participating venues and the dedicated website was updated by BCO staff with events as they happened around the country. The event was a precursor to National Science Week in Ireland which took the theme *Our Place in Space* for 2010 and synergetic opportunities arose for both print and online media support for WSW as a result.

CIT Blackrock Castle Observatory and Robert Hill, Director of the Northern Ireland Space Office, co-launched World Space Week in Ireland on October 1, giving a lecture demonstration entitled, "From Galileo to the Cosmos" in Alexandra College Dublin and Blackrock Castle Observatory.

Frances McCarthy, CIT Blackrock Castle Observatory's in-house astronomer, led four family friendly half-hour workshops called "The Planisphere, Knowing our Night Sky". Terry Moseley delivered a lecture on "Sun, Moon, Stars and Stones – the

Story of Archaeoastronomy in Ireland". The exhibit Cosmos at the Castle was open and free to visitors. Denis Walsh showed and exciting photography exhibition, Astronomical Use of Cameras.

Regina Mundi College in Douglas, Cork launched their new astronomy club and website, astromundi.ie, on October 4, with the announcement of greater numbers studying physics at the school as a result of enhanced engagement with astronomy at the school.

Several other lectures were given around the country throughout the week, addressing a wide audience from Brownies and Ladybirds, who discovered their special *Place in Space* with Deirdre Kelleghan in Dublin on October, to amateur astronomers, who found out *What Astronomy is – A Cosmic Journey*, in a lecture given by Tom Bonner of the Cork Astronomy Club, followed by guided stargazing facilitated by the club at CIT Blackrock Castle Observatory in Cork on the Amateur Space Night, October 8.

The historic home of astronomy in Ireland, Birr Castle Demense, hosted the Whirlpool Star Party Oct 8-10. Lectures were scheduled along with observing from the grounds of Birr Castle in the lee of the great Leviathan, the historic 72-inch telescope built by the 3rd Earl of Rosse in the 19th Century.

Also during World Space Week, Frances McCarthy, CIT Blackrock Castle Observatory's in-house astronomer, was travelling Cork *Cooking up a Comet* with her accredited workshop and bringing the StarDome, BCO's portable planetarium to schools and libraries retelling the theme for World Space Week 2010, "Mysteries of the Cosmos."

3.13 Libya

The Libyan Center for Remote Sensing & Space Science supervised events across the country. Activities included cultural seminars for students and night sky monitoring with a mobile laparoscopic astronomer. Also, the Libyan Peoples Celebration of the 41st Anniversary of the Great El-Fattah Revolution and the upcoming of the 42nd Anniversary took place on October 10th. An exhibition of remote Sensing, Astronomy and seismology Sciences was held in conjunction with the celebration.

3.14 Malaysia

In order to inform the public about the upcoming events, the RTM1 TV station broadcasted information about WSW on October 2 during national primetime news. This broadcast reached approximately 500,000 viewers nationwide. Highlights of the festivities include the following:

Primary students from 15 states spent 3 days/2 nights at the National Planetarium in Kuala Lumpur as part of a program called National Space Challenge. The main event was a space-science trivia competition with competitors chosen from a national examination held earlier in the year.

In eastern Malaysia, an NGO called Puskal-Sabah held a public awareness event that included sky observation, workshops, and lectures. Also, the National Planetarium of Malaysia opened its doors to the public for free and visitors were given the opportunity to meet experts in astronomy.

3.15 The Netherlands

Dutch Space organized a school competition called "Look, it's Earth!" Over 80 schools in the Leiden area were invited to compete by answering the question: "How do you see the Earth?" After an interactive Earth observation lesson, the children of the class donned clean room coats and were given a tour of some of The Netherlands' most prestigious space projects. After the clean room tour, the children created 'spacescape' artwork.

3.16 Nigeria

African Regional Centre for Space Science and Technology Education (ARCSSTE) organized the celebration of WSW, which took place in Niger State. Three consecutive days of events were held at the College of Education in Minna and were attended by approximately 1,400 participants.

The first day of the program began with a seminar for the general public. Various distinguished guests, including representatives of the Governor of Niger State and the Director General of the Nigerian Space Agency, attended the seminar. The keynote lecture, titled "The Mysteries of the Cosmos", was delivered to an audience of primarily indigenous people by Professor E.E. Balogun, the founding Director of ARCSSTE.

On the second and third days of the celebration, workshops and presentations on space-related issues were held for students and teachers from primary, secondary, and tertiary institutions. Highlights included presentations entitled

"Astronauts in Space", "Voyage through Space", "Cosmos: Closest Mysteries to Man", a movie entitled "The Shuttle and the International Space Station", and a demonstration on the applications of solar energy. A demonstration on Exploration Robots using the Lego Mindstorms kit was received very well by the youngest pupils. Due to its success, ARCSSTE is organizing a space camp in 2011 where students will have the opportunity to build and program their own robots.

The culmination of the celebration in Nigeria was a miniature Science Fair. The winners were students from Adesina College, who presented a model of the universe, depicting the mysteries of the cosmos. The second place went to students from Government Secondary School, who presented a fabricated model of a robot, designed to perform environmental sanitation.

3.17 Pakistan

The Space and Upper Atmosphere Research Commission of Pakistan (SUPARCO) organized a number of events and activities in four major cities of Pakistan: Karachi, Islamabad, Lahore, and, for the first time, Peshawar. The events were a huge success and widely covered by electronic and print media of Pakistan: GEO news, SAMAA TV, Indus TV, Aaj TV, ARY news, Express news, Dunya news, CNBC Pakistan Metro One, Dawn newspaper, The News, Daily Times, and Express Tribune.

Karachi: The WSW inaugural ceremony, organized by SUPARCO, was held at the National Centre for Remote Sensing and Geo Informatics (NCRG). Teachers, students, representatives of public and private sector organizations and delegates attended the ceremony. After the formal inauguration, a bus equipped with audio/visual facilities and a back-up power supply with presenters on-board visited under-privileged schools in the suburbs of Karachi. Students were given lectures and shown movies. Quizzes, speeches, and poster-making contests, and rocket launching competitions were also held in Karachi.

The WSW 2010 celebrations culminated with a Space Family Fair at the National Center for Remote Sensing & Geo Informatics (NCRG). Apart from the colorful fun activities at the fair, SUPARCO organized stalls providing information about different applications of space technologies. A model-making competition and the finals rounds of the declamation and quiz competitions were also held at the fair. A sky observation show was also arranged in which SUPARCO's telescope was used. Hundreds of people observed the crescent moon, the planets Venus and Jupiter and the latter's four moons.

Islamabad: The Institute of Space Technology (IST) held a series of events at its campus, including a two-day lecture series on space technology and a screening of documentary videos. A Space Technology Awareness Walk was also organized at Rawal Lake and was attended by members of the general public as well as school. At the end of walk, students and the public visited a display of various satellite models and satellite images on exhibit at the Street Theatre. To close the celebration, a Space Family Fair was held at IST. Apart from food stalls and games, the event also included the display of models, awareness lectures and documentaries, a declamation contest, painting and sketching competitions, aero modelling, water rockets, and space quiz competitions among schools students. An astronomy night was also arranged with the collaboration of Islamabad Astronomers Club (IAC) for amateur astronomers in order to familiarize them with the modern equipment employed for the purpose of exploring the universe. Movies were shown in a space theatre and planetarium in collaboration with Pakistan Science Foundation.

Peshawar: WSW was celebrated at the University of Engineering and Technology (UET) with the sponsorship of Space and Upper Atmosphere Research Commission (SUPARCO). The event started with the inauguration ceremony, followed by a seminar on the "Mysteries of the Cosmos". Lectures on Space Satellites, GIS &GPS, Materials for Space and Robots in Space were delivered. Activities that followed included: quiz competitions, model-making, poster-making, and declamation contests at UET. A space walk was also organized. The purpose of the space walk was to create awareness in KPK regarding the mission of WSW. The closing ceremony was also held at Peshawar, and prizes were distributed prizes amongst winners.

Lahore: WSW 2010 commenced with an Inauguration Ceremony at Gulshan-e-Iqbal Park, Lahore. A model-making competition was also held, and around sixty models were created by 120 students from 20 schools and colleges. A poster-making competition, paper plane flying competition, essay-writing competition and declamation contest were also held. Space awareness lectures were arranged for school students. Approximately 500 students attended. After the formal closing address, souvenirs were distributed to the winners of each competition held during the week.



3.18 Paraguay

The Foundation CEDIA, a non-profit volunteer organization whose goal is to promote the spread of astronomy, organized the WSW celebration in Paraguay. The event, called "Telescopes, a Window to the Universe" took place at a school called San Ignacio de Loyola, whose astronomy club participated in a lecture about how telescopes, radio telescopes, and binoculars work. The students learned how radio signals are converted into visual data that can be stored and consequently analysed by scientists.

3.19 Poland

The biggest WSW 2010 event in Poland was an interactive exhibition on satellite technologies organized in the center of Warsaw, in the space-age Golden Terraces Gallery. The aim of the exhibition was to present space technologies that are present in our everyday life. The large audience participated in presentations about the Mars rover, MAGMA, and the robotic telescope, Pi of the Sky. Popular attractions were a mobile planetarium, a contest for best LEGO space construction, and pictures of "Satellites Around Us".

The satellite technologies exhibition was a huge success thanks to the interactive stands which presented scientific, technological, and commercial aspects of space exploration. The exhibition was organized by the Polish Space Office in partnership with ESA, Eutelsat, Lego, Samsung, and others. Hosting a very large number of participants (over 60,000) was possible due to the excellent location in a busy shopping gallery in the center of Warsaw.



At the Nicolaus Copernicus College in Zywiec, the pre-premiere of a documentary film about the STS-130 Endeavour mission to ISS in February 2010 was aired. After the film, students shared their reflections about the future of manned space flights.

The Planetarium in Olsztyn also offered several lectures by astronomers, screenings of educational films about space exploration, and a contest for best picture on the subject of "The Mysteries of Space". 481 children from 34 schools competed in this contest.

3.20 Republic of Korea

The national coordinator of World Space Week for the Republic of Korea and Young Astronauts Korea organized events on the web and offline.

Space Puzzle (online): The space-related puzzle appeared on the website www.yak.or.kr (homepage of Young Astronauts Korea) to promote World Space Week.

Model Rocket Launch Contest: The Korea Aerospace Research Institute (KARI) and Young Astronauts Korea (YAK) hosted the National Model Rocket Contest. Eight thousand students from around the country came together to build and launch their own rocket.

Space Olympics: Young Astronauts Korea hosted the "Olympics" around 13 regions. Thousands of students joined various competitions which included water rockets, gliders, air balloons, etc.



3.21 Romania

Romania's celebration of WSW 2010 was wide-spread, featuring 140 events spread over 26 of its counties (two thirds of its territory). From physics experiments to the launching of model rockets, from painting competitions, to various lectures in Romanian and Hungarian, from visits to planetariums to exhibitions of 3D space images, Romania had it all!

More information can be found at: wswromania.blogspot.com.

3.22 Russian Federation

WSW events were held in various educational establishments: aerospace museums, technical universities, aerospace lyceums, space-oriented high schools, creativity centers, and even kindergartens. Thousands of high school students participated in conducting open "space classes" where school teachers and invited guests told students about space exploration, space hardware, and cosmonauts. These "space classes" were conducted in aerospace lyceums of Novosibirsk,

Samara, Korolyev and other towns. Excursions for students and youth were conducted in the aerospace museums of Moscow and Yaroslavl, Kaluga, Samara, Archangelsk, Baikonur and other places. The most significant events in the Russian Federation included:

- All-Russian Student Science and Technical School "Russian Aerospace Decade", held in Crimea at the Alushta Educational-Medical Centre of the Moscow Aviation Institute (MAI). Students from various state technical universities - Kazan, Moscow, Siberian, Samara, Nizhni Novgorod, Baltic, Omsk, Ulyanovsk, South-Ural - as well as from Korolyev College of Space Machinery and Technology, participated in this event. As part of this event, a photo exhibition dedicated to the 50th anniversary of Yuri Gagarin's flight to space opened on October 4, 2010.
- Bauman Moscow State Technical University (BMSTU) held a Scientific Seminar on Space Engineering. The University students demonstrated to high schoolers the methods of controlling the satellites at the University's Mission Control Center and made presentations about the micro- and nano-satellites "Baumanets-2" and "Sail-BMSTU," which are currently being prepared for launch. Two hundred high school students visited BMSTU Mission Control Center that day.
- "Day of Science in Moscow Aviation Institute": the scientific labs of the Moscow Aviation Institute hosted senior high students and radio-control models of aircraft and helicopters were shown in flight. Scientists and Russian cosmonauts led a journey into the "World of Space" in the Cosmonautics Laboratory. More than 1,500 high-school students participated in the event.
- Several WSW events took place in Kaliningrad: "Space Odyssey," "Creation of the World," and "Stars are Calling" excursions were organized. A meeting with military pilots called "View from Above" took place as well as communication with the international space station. In addition, high school students were shown the movie "Space Exploration: Solar System". These events attracted over 1,000 students.
- An aerospace festival for preschoolers was conducted at Novomoskovsk, in the Tula region. More than 100 children participated in sport events, exhibitions of space paintings and crafts, and read poems about space and the first satellite.



3.23 Slovakia

The celebration of WSW was coordinated by the Slovak Space Club. At least 38 public and school events were organized by 25 institutions in 14 Slovak towns and villages. Observatories and planetariums as well as universities, regional centers for education, centers of leisure activities, and museums participated in the activities. Events were organized at nursery, primary, and secondary schools all over the Slovak Republic. The activities included lectures, exhibitions, astronomical observations, observation of satellites and an ISS flyby, as well as creative activities for children. The biggest events were the film festival "Astrofilm 2010" in Spa Piestany and an exhibition, "Slovak Journey to the Microcosmos", located in the Museum of Slovak National Uprising in Banska Bystrica. More than 1,500 visitors attended.



Information about the ideas, goals, and event details of WSW were released through one of the most read daily newspapers in the Slovak Republic, *Novy Cas*, as well as a popular journal for science and astronomy, *KOZMOS*. Radio Regina Banska Bystrica also broadcasted information about WSW.

3.24 Spain

EADS Astrium celebrated World Space Week through the organization of a special visit with their families at the Planetarium of Madrid, with a screening and lecture about space. Micro-rocket launches were also organized in the outdoor amphitheatre.

The event was attended by more than 200 people. In addition, many Astrium employees made individual visits to schools, colleges, and universities in the city. They spoke about what space represents for our everyday lives on Earth and what an inexhaustible source of knowledge and innovation space brings. Their presentations reached over 1,000 people around Madrid.

The AstroAmics organization intended to make a “night of telescopes” close to the city of Gaia. Unfortunately, the weather conditions were not favourable for an astronomic observation, hence the event was converted into a discussion about astronomy and space activities.

3.25 Turkey

Many events were organized in the South Eastern Anatolia Region under the coordination of Turksat A.S. “The Journey of Astronomy” was a major highlight. This Journey consisted of a week of events that were hosted by Turksat and the Southeastern Anatolia Project Regional Development Administration in the cities of Kilis, Gaziantep, Sanliurfa, Mardin, Diyarbakir, Adiyaman, Batman, Siirt and Sirnak. With the portable Turksat planetarium, both students and adults were treated to short movies related to space, the opportunity to observe the skies through a telescope, and a painting exhibition. Detailed satellite images of each city have also been shared with the administrators of the provinces.

3.26 Ukraine

Between 30 September and 4 October, 2010, the 7th International Aviation and Space Salon AVIASVIT-XXI took place in Gostomel (near Kyiv) at Kyiv-Antonov aerodrome. More than 280 organizations from 32 countries participated in this event. The Sich-2 spacecraft dummy was the central point of the exposition. Hundreds of young people, students, university teachers and professors, scientists, engineers and Ukrainian space industry workers visited this event.

The 80th anniversary of the Soviet cosmonaut Pavel Popovich (the first Ukrainian cosmonaut) was celebrated on October 5, 2010. A photo exhibition dedicated to his life and work was displayed on the premises of the National Space Agency of Ukraine in Kyiv and commemorative events in Zhytomyr City at the Zhytomyr Space Museum. More than 50 people attended.

Two lectures about the launch of the first satellite were provided by veterans of the Ukrainian aerospace industry for secondary school students and students of Kiev Polytechnic Institute. More than 30 young people participated in these events. The lectures were held in The State Polytechnic Museum, which was opened at Kiev Polytechnic Institute. A meeting of the officials of the National Space Agency of Ukraine with engineers, scientists, young people, and veterans of the aerospace industry was also devoted to launching the first satellite. In total, more than 50 participants took part in this event.

3.27 United Kingdom

The United Kingdom celebrated WSW through a set of very different events in schools, museums, and other public centres. The Ulsterinity College of Cookstown organized a show of space-related videos on the history of space exploration, the history of the Hubble Telescope, and famous astronomers and cosmologists. A space poem writing event coincided with World Poetry Day.

The World Museum Planetarium of Liverpool held an exhibition of David Malin’s deep space images at the Space Gallery. About 290 school children took part in museum-led education sessions, while almost 2000 members of the public enjoyed planetarium shows and gallery activities during a week-long program of events.

The Isle of Man hosted the Google Lunar X Prize (GLX) Team Summit to discuss upcoming competition items and key initiatives that the teams will encounter over the next four years in their attempt to win the \$30 million GLX prize.

Two events were organized with a strong involvement of EADS Astrium staff: at INTECH in Winchester and in Stevenage. INTECH is the south of England’s hands-on interactive science and technology center and home to the UK’s largest capacity digital planetarium. INTECH and Astrium welcomed over 900 Key Stage 2 (9–10 year old) and Key Stage 3 (11–14 year old) schoolchildren during the week and considerably more over the weekend. Throughout the week workshops featuring the popular egg lander were organized. This potentially messy activity required the children to launch and land (on Mars!) a raw egg – without breaking it. New this year was the Cool Wall: children could design and color a spacecraft that was then displayed on the Cool Wall for all to see. There were hundreds of entries and the winning designer was given a telescope for their school (courtesy of Widescreen). Another very popular activity was a 30-minute planetarium show, taking the audience on a journey to the edge of the universe.

The Astrium Stevenage site hosted centralized event, whereby schools had the opportunity to visit Astrium. With the support of the Stevenage Borough Council, Astrium and its WSW partners (including SETPoint Herts, Wenta, Hertfordshire University and North Herts College) they took over the reception area and the whole of the top floor of Stevenage Business Technology Centre, Stevenage, to stage two and a half days of activities designed to educate and excite the public and more than 500 local schoolchildren about space and the space industry. To mark the official opening of the event, the planetary scientist Colin Pillinger spoke about his work on the Beagle 2 Mars Lander project and signed copies of his latest book *My Life on Mars*.

3.28 United States

WSW 2010 was celebrated in the United States with an eclectic variety of events held throughout the country. Thirty registered events ran the gamut in tone and content from serious policy discussions to informational scientific adventures to fun space-themed parties.

Amongst the more down-to-Earth activities were a multitude of events that focused on creating a future for humankind in space. There were a series of Keep Space for Peace events that took place in 23 cities in 21 states. These events, under the aegis of the Women's International League for Peace and Freedom, included vigils, meetings, and speeches in support of preventing the weaponization of space. Also in the policy realm was a TEDx event in New York City on creating Sustainable Settlement in Space. For science teachers, there was a weeklong conference that taught them about WSW activities and for students, there were several career events in which aerospace professionals spoke to schoolchildren about the pupils' potential futures in space.

That future entails looking to the stars, which proved to be one of the more popular World Space Week activities. There were astronomical viewing events from Texas to Michigan and California to Pennsylvania. Most were hosted by amateur astronomer's associations and astronomical observatories and aimed to show the public what lies beyond the cradle of Mother Earth. To reach those stars, humankind will need rockets and the launching of miniature versions was the most popular WSW activity. Schools and rocketry clubs nationwide held events that showcased Newton's Laws of Motion in action. Also demonstrating the principles of science were the many exhibitions and presentations dedicated to explaining the formation of the universe, galaxies, stars, and planets.

In the realm of out-of-this-world events, there were several space-themed social activities that were timed to coincide with the WSW. One popular activity was the screening of space films, such as *October Sky* and *Orphans of Apollo*, that demonstrate how following your dreams can lead you to the stars. Then, there were the parties. Think alien costumes, spacey music, and weird dance moves. Space-themed parties creatively celebrated the culture of science fiction, which fuels our dreams of a future in space, and the achievements of the pioneers of spaceflight – yesterday, today, and tomorrow.

3.29 Vietnam

An event was held at Gia Dinh High School, in the Binh Thanh District, Ho Chi Minh City to celebrate WSW. Some of the highlights included: a contest about astronomy and ten astronomic demonstration stations, an exhibition of more than 100 posters, an egg dropping contest named "Conquer Mars" (the aim was reproduce the environment that a spacecraft landing on Mars would face), and observation of sunspots using the principles of sundials. In total nearly 1500 participants took part in this event. Many newspapers and TV channels covered the event: Tuoitre Newspaper (14 Oct 2010), Sai Gon Tiep Thi Newspaper, The Gioi So Magazine, HTV9 TV channel (Ho Chi Minh City Television), and the Tuoitre Online channel. Several websites also featured WSW-related content.



4 Organization

UN-declared World Space Week is coordinated via a three-level structure. At the global level, it is coordinated by the UN Office for Outer Space Affairs with support from the World Space Week Association. At the national level, it is coordinated by World Space Week National Coordinators listed below. The actual events and other programs of World Space Week are held by hundreds of participants as listed in www.worldspaceweek.org/calendar.

4.1 World Space Week Association

World Space Week Association is a non-government organization devoted completely to the promotion and coordination of UN-declared World Space Week. The Association's services include the development and support of the global network of national coordinators, preparation and distribution of educational and promotional materials, maintenance of the World Space Week website and publication of this annual report. World Space Week Association is a nongovernmental, non-profit, non-membership organization governed by a distinguished Board of Directors from more than 20 nations, as listed below. Current leaders of the Association are depicted on the following page.

You are invited to participate in UN-declared World Space Week, October 4-10 annually, the largest annual space event on Earth. For information and assistance, please contact: admin@worldspaceweek.org.



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4.2 National Coordinators

World Space Week National Coordinators (NCs) serve a crucial role, promoting and coordinating World Space Week in their respective states. This function is performed by independent committees, organizations, or individuals who volunteer and are approved by World Space Week Association. Current National Coordinators are listed in below.

Country	First Name	Last Name	Organization Name
Afghanistan	Ahmad	Shah	SGAC
Algeria	Jamal	Minouni	Sirius Astronomy Association
Argentina	Viviana	Bianchi	Oficina Gemini Argentina
Austria	Michael	Taraba	University of Vienna and Austrian Space Forum
Bolivia	Rodolfo	Zalles	Observatorio Astronomico Nacional
Brazil	Tania Maria	Sausen	INPE

Bulgaria	Veselka	Radeva	Observatory and Planetarium
Cameroon	Hubert Foy	Kum	Space General Advisory Council
Canada	Jason	Clemen	Canadian Space Agency
Colombia	Beatriz Elena	Hernandez	Voz Infantil- Hola Juventud, WYESR-Colombia
Cuba	Loudres Palacio	Suarez	Instituto de Geofisica y Astronomia
Cyprus	George	Troullias	Kition Planetarium & Observatory
Czech Republic	Milan	Halousek	Czech Space Office
Denmark	Jesper	Jørgensen	SpaceArch
Finland	Harri	Haukka	Finnish Astronautical Society
France	Michel	Laffaiteur	Michel Laffaiteur
Germany	Bernd	Brincken	Orgram GmbH
Ghana	Kwaku	Bonsu	Ashanti Space Agency
Greece	Zoulias	Manolis	National Observatory of Athens
Iran	Parviz	Tarikh	Iranian Space Agency
Ireland	Clair	McSweeney	Blackrock Castle Observatory
Israel	Tal	Inbar	Israeli Space Society
Italy	Adriana Linda	Parlatini	Odisseospace
Japan	Seiichi	Sakamoto	JAXA
Kenya	Peter	Njuguna	Mbaruk Ecology Centre
Kuwait	Maryam	Aljoaan	Maryam Aljoaan
Macedonia, the former Yugoslav Republic of	Aleksandar	Stefanovski	Association for Technical and Technological Education
Malaysia	Azreena	Ahmad	National Planetarium
Netherlands	Erik	Laan	TNO Science & Industry
Nigeria	J.O	Akinyede	African Regional Centre for Space Science and Technology Education
Panama	Azael	Barrera	Florida State University Panama
Philippines	Ester	Ogena	Science Education Institute
Poland	Adam	Ustynowicz	Spaceweek Poland, Committee on Space Research
Portugal	Rui	Agostinho	Universidade de Lisboa
Republic of Korea	Gi-Joong	Kim	Young Astronauts Korea
Romania	Marius-Ioan	Piso	Romanian Space Agency
Russia	Victoria	Maiova	Bauman Moscow State Technical University
Serbia	Dargan	Radmilovic	Amateur Astronomy Association of Serbia
South Africa	Peter	Martinez	SAAO
Spain	Alider	Cragolini	Instituto Nacional de Técnica Aeroespacial
Switzerland	Jean-Daniel	Dessimoz	Schweizerische Raumfahrt Vereinigung (SRV) c/o HEIG-VD
Turkey	Corporate	Department	Turksat Satellite Communication and Cable TV
Ukraine	Sergey	Gerasymchuk	NSAU
United Kingdom	Bev	Merritt	National Museums Liverpool
United States	Angela	Peura	WSW USA Coordinating Committee
Uruguay	Fernando	Gimenez	Comision Tecnica Espacial de Uruguay
Uzbekistan	Yunir	Gataullin	Tashkent Research Institute of Space Engineering
Venezuela	Ana Alexandra	Pérez	Space Generation Advisory Council
Vietnam	Tuan	Nguyen Anh	Hochiminh City Amateur Astronomy Club
Zambia	Prosperity	Simpemba	Astronomers Without Borders

4.3 Global Sponsors

This section recognizes those organizations that currently support the global coordination of World Space Week through their generous voluntary support for the World Space Week Association.

Annual sponsors support the goals of World Space Week and provide yearly financial support to World Space Week Association. Other sponsors listed below are associated with specific programs. In all cases, sponsors receive beneficial recognition, and funds are used with high efficiency to promote and organize the largest annual public space event on Earth.

Organizations are invited to request further information about becoming a World Space Week Association sponsor by contacting admin@worldspaceweek.org.

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The Association also wishes to recognize the UN Office of Outer Space Affairs for sponsoring the World Space Week 2010 poster and for publishing this report.

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*The United Nations Office for Outer Space Affairs
is responsible for promoting international cooperation
in the peaceful uses of outer space and assisting
developing countries in using space science and technology.*



World Space Week

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