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Chabot Space & Science Center
"Your Place in the Universe"

December, 2004–March 31, 2005
(Issued November 30, 2004)

This document and all Chabot Space & Science Center news releases and photos may be found online at www.chabotspace.org under Press room.

**** PUBLIC HOURS ****

Monday–Tuesday CLOSED
Wednesday–Friday, 10 am – 5 pm;
Friday & Saturday 10 am – 10 pm; Sunday 12 Noon – 5 pm
Closed 4th of July, Thanksgiving, Christmas

Telescope Viewing

Friday & Saturday, 7 – 10 pm (weather permitting)

Special Extended Holiday Hours

Winter Break
Check website for details

**** ADMISSION ****

\$13 Adult / \$9 Youth, Student & Senior
Movies & Live Planetarium shows: \$6 Adult / \$5 Youth, Student & Senior
Telescope viewing only: Free

CHABOT SPACE & SCIENCE CENTER — Indoor stargazing in Ask Jeeves Planetarium, outdoor viewing through telescopes, large format films in Tien MegaDome Theater, interactive exhibits and hands-on activities. Open Wed. – Sun. Observatory hours Fri. & Sat., 7 - 10 pm. 10000 Skyline Blvd., Oakland. (510) 336-7300. www.chabotspace.org

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TRAVELING EXHIBITS

NEW—*Mirror Mirror* — OPENS January 29 – June 6, 2005

Direct from Switzerland, *Mirror Mirror* contains over thirty interactive exhibits from the internationally famed Swiss science museum, Technorama. In this exhibition, curved mirrors distort, shrink or magnify your reflection and a flexible flat mirror undulates to reflect an almost hallucinogenic wobbly world. From kaleidoscopes to mirror mazes to mirages, visitors of all ages can reflect on the intriguing and surprising world that exists just beyond the looking glass.

***Dragon Skies: Astronomy of Imperial China* — CLOSSES January 2, 2005**

Learn the secret knowledge of the Emperor in this new exhibit that tells the 5,000 year-old story of ancient China's astronomical achievements. This exhibit includes ancient artifacts, such as armillary spheres and oracle bones, and hands-on interactives that invite visitors to predict the future, interpret signs and measure time.

ONGOING EXHIBITS

Destination Universe — Take a journey from our Sun to the farthest reaches of the cosmos! Along the way, you'll see where stars are born, how they die, meet nebulae of all kinds, and travel to distant galaxies. Experience the Origins Theater; crawl into a black hole; see what happens when galaxies collide; and view stunning space images!

Mars Encounter — The exhibit features a four-foot tactile Mars globe, complete with craters and volcanoes; a Martian meteorite; a Martian Sci-fi theater; a Mars Mission Control where visitors can obtain data on current and past missions; videos of Rover missions; a wall-size mural embedded with quiz games; a vacation to Mars planning station and a play area for the younger crowd. Sponsored by the National Aeronautics & Space Administration, with additional support from Microsoft, Inc.

One Giant Leap: A Moon Odyssey

For all astronaut wannabees— take a simulated Moon-walk, try on a space helmet, climb into a Mercury capsule, and land a lunar module in this new hands-on exhibit that explores the legends and science fiction about the Moon; the Space Race and the Moon landings; and the Earth-Moon system. Learn what the Moon is made of, how it affects the Earth, what causes Moon phases, gravity on the Moon, and more. You can even take a look at an ancient piece of the Moon up close! The exhibit includes space artifacts and replicas, from Sputnik and Mercury to Gemini and Apollo.

A New Space Race: ANSARI X PRIZE — Check out the latest rocket science and learn about the talented teams that competed for the ten million dollar prize in the international X Prize competition. Try “launching” a rocket yourself, place your vote on how much you would pay to travel into suborbital space, view short video clips from the competitors, and learn about engineering strategies used by each team.

Astronomy In California 1850–1950: Telescope Makers, Telescopes, and Artifacts — Explore California's rich astronomical history and Chabot Observatory's own 120-year history through a display of telescopes, artifacts, and the histories of their makers, on loan from the Smithsonian Institution.

Skywise—Astronomy Cartoon Exhibit — Have you ever tried to picture how far the Sun is from Earth? Or wondered what the skies would look like from another place on Earth -- or another place in our Solar System? This exhibit of astronomy comic strips provides an entertaining and informative vehicle for discovering and understanding astronomical phenomena. The exhibit is made possible in part through support from the Ask Jeeves Foundation and *Sky & Telescope Magazine*.

SPECIAL EVENTS

Winter Solstice Celebration

Tuesday, December 21; 10 am - 9 pm

All activities free with General Admission

Celebrate the Winter Solstice and meet “Saturn-Claus”, see a holiday planetarium show, view a special solar alignment webcast (12 – 1 pm), make a space-related holiday ornament, be entertained by master magician Ashkenazi the Pretty Good, visit hands-on exhibits and view Saturn through the telescopes (weather permitting.)

Annual New Year’s Eve Balloon Drop

Friday, December 31, 2003, 3:45 - 5 pm

Free with General admission

Join us for our annual Balloon Drop in the Rotunda to cheer the arrival of New Year 2005. At the strike of 4:00 pm (midnight Greenwich Mean Time) celebrate the start of the real New Year with balloons dropping from our Rotunda, many filled with prizes. A separate balloon drop will be held at the same time in the Discovery Lab for the youngest ones, ages 5 and under.

Celebrating Black History

Saturday, February 19, 10:30 am -4 pm

Activities free with General Admission

A day of activities that include Meet a Scientist, hands-on spotlight activities, and “Inventions and Inventors” in the Discovery Lab. In the planetarium, **free** showings of *Follow the Drinking Gourd* throughout the day, 10:30 am, 12:30 pm, 3 pm.

“Love Mission” to Mars

Saturday, February 12, 6 pm & 8 pm

Tickets: \$50 per couple; available at the Box Office, 510-336-7373

Celebrate with your Valentine and take a simulated space mission to the Red Planet. Includes chocolates, fizzy beverage and a souvenir of your trip to outer space.

Sun-Earth Day: Ancient Observatories, Timeless Knowledge

Sunday, March 20, 12 Noon – 5 pm

Activities free with General Admission

This year’s themes features solar alignments with structures that mark the equinoxes and/or solstices. The program will feature several sites including: Chaco Canyon (New Mexico), Hovenweep (Utah), and Chichen Itza (Mexico). Many of these sites present unique opportunities to develop authentic cultural connections to Native Americans, highlighting the importance of the Sun across the ages. Activities at Chabot on this day will include solar viewing, live webcast of a solar alignment from Mexico (1 – 2:45 pm), sun videos, various hands-on activities and demos, and planned showings of the large format film *Solarmax* and the planetarium show *By the Light of the Sun*.

Science Fair Display

Wednesday & Thursday, March 23 & 24, 10 am – 5 pm

Free with General Admission

View entries to the Oakland Unified School District’s annual science fair.

HANDS-ON ACTIVITIES

NEW—Natural Disasters

January 8 – 27; Saturday & Sundays, 12 Noon – 4 pm
FREE with General Admission

Make a bottle tornado, watch lightning form in front of your eyes and experience simulated volcanic eruptions, or observe on computers where the latest severe weather storms, volcanic eruptions and earthquakes are occurring right now around the Earth. These natural disaster activities will reinforce and help you better understand the remarkable, fascinating and sometimes deadly scenes in our new MegaDome Theater show *Forces of Nature*.

NEW—Spotlights: Optics and Lenses and Mirrors, Oh My!

January 29 – March 27; Saturday & Sundays, 12 Noon – 4 pm
FREE with General Admission

Explore the world of optics in these hands-on activities. You can build your own telescope, see the world in a different way using lenses and mirrors, use a periscope, examine your eye and see your pupil close-up, play with prisms and learn about the light spectrum, see your reflection in large parabolic mirrors, and create illusions using 3-D optical devices.

Garden Days in the EnviroGarden

Saturdays, 12 noon – 4 pm
FREE with General Admission

Come join in the fun as Chabot's Environmental Team of staff, interns and volunteers help you explore some of the mysteries of planet Earth. Every Saturday afternoon during the fall you'll have the opportunity to learn more about Earth's atmosphere, solar energy, our surrounding redwood forest, and composting with worms. Build a solar car, take a hike in the forest, have fun with worms or learn about tornados and volcanoes.

Simulated Space Missions

Escape from the Red Planet!

Saturdays at 12:30 & 2:30; Sundays at 1:30 and 3:30

Children, ages 6-12 must be accompanied by an adult. Not appropriate for children under 6 years old.

Tickets: \$10 for adults and \$5 for children, available on a first come, first serve basis at the Chabot ticket desk

ALERT!! ALERT!! The shuttle you need to leave the surface of Mars has been severely damaged in a crash landing, your replacement crew is gone, a dust storm is approaching and air, food and water are extremely low... You are the crew of a doomed landing. Your mission: Get the shuttle working again and into orbit before you are hit with the worst dust storm ever recorded on Mars. These hour-long mini-missions are run in the Challenger learning Center, a simulated Mission Control and Space Capsule.

Discovery Lab

The Discovery Lab is a place especially for the younger crowd, ages 3–7

FREE with General Admission

Wednesday & Thursday, 1– 3 pm; Friday, 1 – 4:30 pm; Saturday, 10:30 am – 4:30 pm; Sunday, 12 Noon – 4:30 pm

A hands-on, open lab, an environment where you and your child can interact through play and inquiry take time out to experience and explore, stop and think and wonder, spend time together, listen to a story, try on a costume, have fun with friends and clean up when done!

Monthly themes:

January — **The Sun's Family**: Learn about our wonderful Solar System, make and take a planet you create.

February — **Inventors and Their Inventions**: Experience simple machines then create your own.

March — **Capture the Wind**: Test the wind and make things fly.

WORKSHOPS AND CLASSES

Introduction to Celestial Navigation

Thursdays, February 3 – 24; 7:30 – 9:30 pm

Fee: \$55 for members, \$65 for non-members; Reservations required, 510-336-7373

In this four-session evening class, you will learn the basics of the centuries-old technique of Celestial Navigation, the art and science of finding one's way through the world by observing the sky. In a mixture of presentations, hands-on activities, and exploration of the night sky, you will learn to recognize and use some of the basic navigational stars and constellations, how to operate a sextant and use its measurements to pinpoint your location on Earth, and a bit of the history of some ancient peoples who used the stars to guide them across the Earth.

You do not need background knowledge in astronomy, navigation, or geography to take this class: the basics of the motions of the sky and positions on Earth will be covered. (Basic mathematical skills are a plus.) You may optionally bring any of the following materials if you like, though they are not required: 1) Starfinder (planisphere); 2) binoculars; 3) a book on Celestial Navigation or a sky guide; 4) a GPS receiver.

Discovery Club

Every other Wednesdays, 3:30 – 5pm, FREE, Registration required

This after-school workshop for children ages 4–8 to explores the theme “Our Place in the Universe.” Meet new friends, brainstorm, problem-solve, design, create, and explore the scientific process. For registration, call at (510) 336-7362 or email dlaffoon@chabotspace.org.

January 12— *The Nine Planets and the Sun*: Make a model to take home, create a favorite planet and eat it!

January 26— *Things That Move and Go*: Work with things that roll, spin and move.

February 9— *Simple Machines*: See how machines work and design your own.

February 23—*Block Party*: Build things with blocks and other materials on hand.

March 9— *Things That Fly*: Test the force of the wind, then design and fly a craft that moves with the wind.

March 23— *The Many Faces of the Moon*: Learn about the phases of the Moon.

Visit the Chabot Space & Science Center website at www.chabotspace.org

ASK JEEVES PLANETARIUM SHOWS

NEW—Holiday Shows:

The Alien Who Stole Christmas (December 8 – January 2) — Hop aboard a flying saucer with Santa Claus and his new friend, Mr. Freep. Join them as they explore the planets in our Solar System in this delightful holiday adventure. Recommended for families with young children.

'Tis the Season (December 8 – January 2) — This holiday show explores Yuletide customs and seasons, solstice celebrations, centuries-old traditions of bringing light to a dark time of the year, and astronomical phenomena that could explain the Star of Bethlehem. *Created by Loch Ness Productions.*

OPENING SHOWS:

Destiny of the Stars — (Opens January 5 – March 24) — The lives of the stars unfold before us in the winter sky, from star birth to star death, including a look at the final fate of our own sun.

Other Worlds! Other Beings? — (Opens March 25) — If aliens really are out there, what would they be like? Join a team of scientists in their search for other worlds and their thinking inhabitants. *Written and developed by the SETI Institute*

Sky Quest — (Opens March 25)— Come along with a young woman on her personal quest to find a special place in the night sky, from her childhood adventures on “Mars” (via a cardboard rocket), to the discovery of her “birthday star” that led her to become an astronomer and build a mountain observatory. Narrated by Roxanna Dawson, who played B'Elanna Torres of TV's *Star Trek: Voyager*.

CLOSING SHOWS:

Return to the Red Planet—CLOSES December 3

The show includes a live presentation that will teach visitors how to find Mars in the current night sky; features the latest images from telescopes, orbiters, and rovers; includes breaking news from the NASA missions; and presents audiences with a timeline for exploration.

Dragon Skies—CLOSES January 2

Dragon Skies takes the viewer back to ancient times and tells the story of one court astronomer who is charged with the duty of teaching the Boy Emperor the harmony of the night sky.

ONGOING SHOWS:

Ring World—ongoing

RingWorld is a planetarium show about the Cassini-Huygens mission to the planet Saturn and its moons. Come along on a NASA space spectacular, a two billion mile odyssey to Saturn and its fascinating satellites, including a moon that may hold secrets to the rise of life on Earth. The show is narrated by Star Trek's John Billingsley.

Sunshine! — ongoing after January 5

This 15 minute-long program lets the younger set interact with our closest star, The Sun, as he takes them through a quick look at the work he does all day and the many friends he has—the other stars!

The Sky Tonight — ongoing, Friday and Saturday evenings at 7:30pm

Presented live, the show is a current look at the stars, constellations, and planets from our perspective here in Oakland. The content of this show changes monthly. (40 min.)

For showtimes, visit the Chabot Space & Science Center website at www.chabotspace.org

TIEN MEGADOME THEATER

Holiday Shows:

Mysteries of Egypt — (December 18 – January 2) — Soar over the great pyramids of Giza, cross the deathly quiet Valley of the Kings, and descend into the shadowy chambers of the sacred tomb of King Tut. *A co-production of National Geographic Films and Destination Cinema.* (40 min)

NEW—OPENING SHOWS:

Forces of Nature — (Opens January 8, 2005 – July 30, 2006) — Witness the awesome power and the unimaginable destruction of explosive volcanoes, ground-buckling earthquakes, and deadly tornadoes as you head into the field with scientists who risk their lives exploring the origins and behaviors of these fearsome natural disasters. Narrated by Kevin Bacon. *A National Geographic Film, produced by Graphic Films, made possible by Amica Insurance and funded in part by the National Science Foundation.* (40 min)

CLOSING SHOWS:

Solarmax — (Closes January 7)
Featuring live images of the Sun and footage from around the world of solar observatories of the past, present, and future, *SolarMax* tells of humankind's struggle to understand the Sun. Travel around the world to visit historical sites of sun worship, see scientists studying the Sun, and view the majesty of a total solar eclipse. (40 min)

ONGOING SHOWS:

Cosmic Voyage
A breathtaking journey through time and space! Zoom from the surface of the Earth to the largest observable structures of the Universe, and back down to the sub-nuclear realm—a guided tour across some 42 orders of magnitude! Explore some of the greatest scientific theories, many of which have never before been visualized on film. *Cosmic Voyage* was nominated for an Academy Award® in the Best Documentary Short Subject Category. (40 min)

The Human Body

The incredible story of our inner universe and looks at the daily biological processes that go on without our control and often without our notice. Peek inside and follow a tomato on it's journey to the biological blender of our stomach, accompany a red blood cell on it's journey to the heart and see the cells inside of an ear dance to music. *A presentation by The Learning Channel (TLC) and BBC Worldwide of a Discovery Pictures/BBC co-production done in association with the Maryland Science Center and the Science Museum, London, with major funding provided by the National Science Foundation and distributed by nWave Pictures Distribution.* (43 min)

The Living Sea

Take an action packed journey to the depths of the ocean. Swim with jellyfish and whales, surf thundering waves, and meet strange creatures living at the bottom of the sea. Featuring songs and music by Sting and narrated by Meryl Streep. *Produced by MacGillivray Freeman Films* (45 min)

For showtimes, visit the Chabot Space & Science Center website at www.chabotspace.org

CHABOT SPACE & SCIENCE CENTER FACTS

- Location:** 10000 Skyline Blvd., Oakland (in the Oakland Hills)
- Hours:** Closed Mondays & Tuesdays; Wednesday–Thursday, 10 am – 5 pm; Friday–Saturday, 10 am – 10 pm; Sunday, 12 Noon – 5 pm
(Closed July 4th, Thanksgiving & Christmas; Open New Year’s Day and other major holidays)
Telescope Viewing: 7 – 10 pm, weather permitting
- Admission:** **General admission** (includes a Planetarium show and free parking): \$13 Adult / \$9 Youth (ages 4-12), Students and Seniors (65+); Children 3 and under admitted free
MegaDome Theater Show only — \$6 Adult / \$5 Youth, Student & Senior
Sky Tonight Planetarium Show — \$6 Adult / \$5 Youth, Student & Senior
- Tickets:** Tickets may be purchased at the door, or by calling (510) 336-7373.
- Celestial Cafe:** Snacks available. Indoor and outdoor seating.
- Disabled Access:** Chabot Space & Science Center is wheelchair accessible. A limited number of wheelchairs are available without charge on site. Designated parking is available near the main entrance.
- Parking:** Convenient free parking is available in the adjacent parking structure or in the Knoll Lot off Skyline Blvd. Spaces for disabled visitors are located near the main entrance (outside of parking structure).
- Directions:** **** Please Note: Public transportation via AC Transit is no longer available****
From downtown Oakland or San Francisco: Go east on I 580 to Highway 24 (towards Walnut Creek). From 24, go south on Highway 13 (Warren Freeway) towards Hayward. Take the Joaquin Miller/ Lincoln Avenue exit. Turn left and proceed up the hill on Joaquin Miller to the crest, then turn left at the signal onto the two-lane portion of Skyline Blvd. Chabot Space & Science Center is 1.3 miles up Skyline on the right.
From eastern Berkeley, Orinda etc.: Go south on Highway 13 (Warren Freeway) towards Hayward. Take the Joaquin Miller/ Lincoln Avenue exit. Turn left and proceed up the hill on Joaquin Miller to the crest, then turn left at the signal onto the two-lane portion of Skyline Blvd. Chabot Space & Science Center is 1.3 miles up Skyline on the right.
From Hayward, Castro Valley and points East: Go west on I 580 and take the Highway 13 (Warren Freeway) turnoff. Take the Joaquin Miller/Lincoln Avenue exit. Turn right, and proceed up the hill on Joaquin Miller to the crest, then turn left at the signal onto the two-lane portion of Skyline Blvd. Chabot Space & Science Center is 1.3 miles up Skyline on the right.
- Info Phone:** (510) 336-7300
- Website:** www.chabotspace.org

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