

# BUSSARD SCOOP

## An Exciting Summer

*SpaceX launches, George visits, and the Alliance kicks off*



This summer, SD Space picked up steam and just kept going.

Our first Junior Explorers event (for kids of all ages) was a water bottle **launch picnic** held on July 20th. Attendees brought a picnic lunch, and SD Space

provided a launch pad and materials for creating water rockets out of a soda bottle. The date was chosen because it was the 39th anniversary of Apollo 11 landing on the Moon. Before the main event, members and kids were invited to a preview

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### A Note from My Space

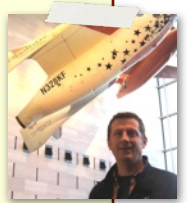
#### *Ups and Downs*

In the three months since our last newsletter, a lot has been going on in space and with SD Space, both ups and downs.

NASA had its 50th birthday, the Hubble repair mission was delayed until Feb. 2009, the Mars Science Laboratory (over budget) kept support for a 2009 launch. SpaceX reached orbit with Falcon 1. SD Space held our first annual awards night as part of a busy World Space Week celebration. And our membership keeps growing as we reach out to San Diego with programs and education.

But we also mourned the loss of SpaceDev founder Jim Benson. Jim was a true visionary, staying the course even when times were lean for a fledgling commercial space company. We will miss you Jim, and we will forge ahead with your memory as inspiration.

*-Jesse Clark, Chapter President.*



### ABOUT THE SAN DIEGO SPACE SOCIETY

The San Diego Space Society was founded in 2008 with the purpose of raising awareness and educating the general public to the benefits of human exploration of space and San Diego's role in space development, as well as to the idea of creating a spacefaring civilization within our lifetimes.



SD Space members meet monthly at local libraries, with special events held periodically around the county. The general public is welcome to attend any meeting listed here or on our website. See the events calendar:

**[sandiegospace.org/calendar](http://sandiegospace.org/calendar)**



# Alliance Focus

The San Diego Space Development Alliance, led by the San Diego Space Society, put together a very successful 2008 **World Space Week San Diego**. Held from Saturday, October 4th through Friday, October 10th, programs and activities celebrating space filled almost every evening.

A kick-off event was held at the San Diego Air and Space Museum starting with a reception for the public and Alliance members followed by a Hubble Space Telescope themed program. Among the highlights: a Hubble exhibit was proposed to the Air and Space Museum to be sponsored by SDspace, and an excellent 90 minute Hubble video rounded out the afternoon.



*SEDS, SD Space, and TMS-SD at World Space Week*

During the week, there were several special movie showings - "Conquest of Space" by the Vintage SciFi Movie Club and "October Sky" by the San Diego Space Society. The Mars Society San Diego held a Mars Exploration lecture and Mars Rover Run at the Pine Valley Academy. Midweek, the San Diego Space Society held its first annual Dinner and Awards Night. Good food and fun were had by all.

World Space Week San Diego is one of four cornerstone annual events of the San Diego Space Development Alliance.

The **San Diego Space Development Alliance** consists of local space, science, and education advocacy groups. Alliance member organizations work together to share events, promotion, project resources in order to benefit the group as a whole.

[sandiegospace.org/alliance](http://sandiegospace.org/alliance)

## BUSSARD SCOOP

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## AN EXCITING SUMMER (CONTINUED FROM PAGE 1)

screening of "Fly Me To The Moon", a 3-D animated film about Apollo 11 and some unlikely passengers.

Phil Blanco brought a launcher courtesy of Grossmont College, and Chris Radcliff and John Tantalo built a second launcher out of PVC pipe. Despite some fuel-leak problems with the home-brew launcher, every child was able to launch rockets and recover them. Phil and Christian even lofted a couple of "satellites" attached Sputnik-style to the tops of the rockets.

On an undisclosed date at an undisclosed location, an undisclosed set of SD Space members met an anonymous source... Okay, it was actually a tour of **Space Exploration Technologies**

was plain that SpaceX would be an amazing place to work.



*Chris and John test-launch a water rocket.*

On August 10th, instead of our regular program meeting, we headed up to **Griffith Observatory** in the hills above Los Angeles for lunch and a tour. Lunch was at the incomparable Philippe The Great in downtown L.A., where the long lines and sawdust on the floor don't deter the faithful from amazing sandwiches and cherry pie.



Corporation, or SpaceX, led by our own James Pura, but it felt like a cloak-and-dagger affair with all the (completely understandable) security they have in place.

The sights certainly tempted us to use spy cameras; the SpaceX factory is huge, a former Boeing 747 construction facility near Hawthorne. We saw rockets under construction, a full-scale mockup of the Dragon capsule, a whole lineup of Merlin 1C engines, the "mission control" trailer, and the test stand James used to make sure it all worked well.

James talked about SpaceX employees coming in on weekends to work, and we could see why. From what we could see, and from what James told us, it



*Phil and Christian with their Sputnik-style rocket.*

The Observatory was recently completely remodeled, restoring the building and adding new exhibits in an underground structure. We saw an active Tesla coil, exhibits on the planets (both familiar and extrasolar), and the Hollywood-slick

AN INTERVIEW WITH

# Scott Carpenter

*by Jesse Clark, San Diego Space Society President.*

On October 25th, the San Diego Air & Space Museum honored national and international air and space legends at its 45th Hall of Fame Induction and Gala. Each inductee was selected for their historic contributions to aviation, space, or aviation technology. Among them was Scott Carpenter, one of the original Mercury Seven astronauts. I had an opportunity to talk with Carpenter about his Mercury space flight experience and his other passion, exploring the ocean.

Carpenter was very pleasant and I enjoyed talking with him. He's a young 83 years and almost always has a smile on his face, often joking with everyone. He took everything in stride, signing prints of his Hall of Fame painting and various and sundry books. After the signing, I had the opportunity to ask him a few questions. My first question was what got him into flying? He said he had grown up dreaming of airplanes, and when WWII came, he joined the Navy to become a pilot and fly. "It was the thing everyone longed to do," Carpenter said. While he missed the opportunity to fly during WWII, he became a naval aviator in 1951 and flew missions during the Korean conflict. He entered Test Pilot School in 1954.

In April 1959, Carpenter was ordered to the Pentagon for a secret project, which turned out to be Mercury program. He followed John Glenn into orbit, becoming the second American to orbit the Earth in Aurora 7. I asked Carpenter what was his most notable memory from that experience. He told

me he would always remember the weightlessness, but the most breathtaking part of the flight was the view. And what a view he must have had. Carpenter orbited at an altitude of 164 miles for just under 5 hours, circling the world three times. His primary

mission was to determine whether an astronaut could work in space, so his flight plan included various scientific and engineering experiments and observational tasks. Even though there were several mechanical malfunctions, Carpenter's piloting skill brought the spacecraft down safely, if somewhat down range. Carpenter never flew a space mission again, partly due to an injury which removed him from flight status in mid-1964. He was assigned to monitor the development of the Apollo Lunar

Excursion Module. He also helped develop underwater EVA training techniques which are still used by astronauts today.

Before he left NASA in 1967, Carpenter took several leaves of absence to indulge his other passion by participating in the Navy Sealab experiments. During Sealab II, he spent 30 days living and working 200 feet below the surface of the ocean – a world record for the

time. This took place just off the coast of La Jolla, CA. He acted as Training Officer for the crew and Officer-In-Charge for the diving teams. While undersea, he even got the chance to speak to the crew of Gemini 5, Gordon Cooper and Pete Conrad – the only such call ever made in history. I asked



*Carpenter's Hall of Fame portrait.*

Carpenter what it was like living in confined quarters for that length of time, and how he thought it compared to what a manned mission to Mars might be like. He said that part of the mission was to see what it would be like for astronauts on long duration flights, such as those to Mars. Carpenter said he never felt confined at all. Everyone was so focused on their job, that claustrophobia never developed.

remains history's only Astronaut/Aquanaut. He now lives in Vail, CO, and winters in Palm Beach, FL.



*Scott Carpenter and Jesse chat before the gala*

Scott retired from the Navy in 1969, after 20 years service, and formed his own ocean research company. He stopped flying after the Navy, but he



I asked Carpenter what he would like to pass on to young people, and what he thinks would inspire them to reach for the stars. His advice was to give them a connection of some kind to science and engineering. Make it hands on, something that they help to create. With that connection, "young people would experience the reward that hard work pays off when reaching for the stars," he said.

## Shop at the SD Space Store

The website has expanded yet again, this time to include logo apparel and other items you can purchase to support the National Space Society and the San Diego chapter.

**T-shirts** featuring the SD Space logo are available in a variety of colors, and other logo apparel will be added soon. (Yes, Adrian, that includes pocket tees.)

The beautiful **Space Settlement 2009 Calendar** is also in stock locally. The gorgeous full-color artwork for this amazing calendar was contributed by NSS members.

**Shop now!** <http://sdspace.org/store>

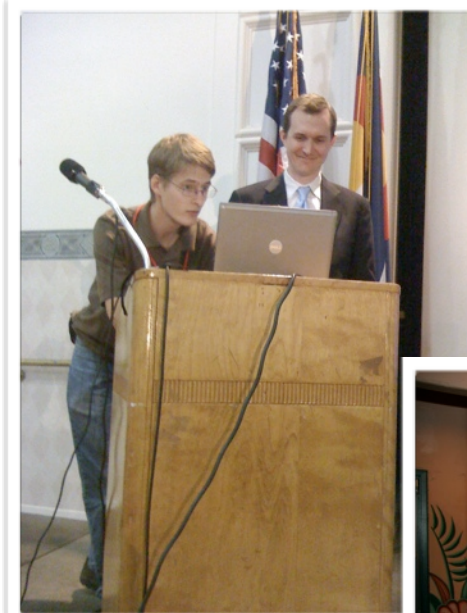


Jesse Clark, Gerry Williams, and Adrian Clausell model the new SD Space logo t-shirts at Philippe The Original in Los Angeles.

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planetarium show. Unfortunately, before we had a chance to look through the public-viewing telescope, fire alarms sounded and we had to evacuate the building. Still, the hilltop view of the moon and the city below was striking even without magnification.

On August 2nd, Gerry Williams and Jesse Clark braved the heat to man the Mars Society display table at the inaugural **Julian Starfest** held at Menghini Winery in Julian. The to-be-yearly event featured some outstanding astronomy (the benefit of 4300-foot elevation), lectures, and a tour of Palomar Observatory. The daytime heat was enough to melt a few gravity bricks, but our stalwart ambassadors kept their cool and spread the word.



*George has laptop trouble*

John Stone, Eric Robinson, and Chris Radcliff traveled to Boulder, Colorado in August for the eleventh annual **Mars Society Convention**. The conference attracts some amazing speakers, and this year was no exception. SpaceX founder Elon Musk, Chris McKay, Vatican astronomer Brother Guy Consolmagno, J. Michael Straczynski, NSS Executive Director George Whitesides and many others presented fascinating content. In the "not so famous" category, Chris presented a talk on Crowdsourcing to an enthusiastic audience. Next year's convention is scheduled for August in Washington, D.C.

Speaking of **George Whitesides**, San Diego space enthusiasts had the pleasure of chatting with our fearless leader at Stout Public House when he visited for the AIAA conference on September 10th.

Topics ranged from space policy decisions to the challenges of creating the Space Ambassadors program to space dinosaur cartoons. (You had to be there.) We hope to host George again sometime soon.

This October, the San Diego Space Development Alliance kicked off **World Space Week** at the San Diego Air & Space Museum with a Hubble-themed reception and video presentation. Later in the week, members shared a relaxed evening at Acapulco Restaurant in Old Town for our first annual **dinner and awards ceremony**. Jesse Clark presented awards: Founders Awards went to members of the Board of Directors for all their work getting the chapter up and running this year; the Peter Diamandis



*John, Eric, and James chat at the annual dinner*

award went to Chris Radcliff for innovation above and beyond; and the Pluto Award went to Ben Radcliff.

World Space Week San Diego was packed full of interesting events. The San Diego Vintage Sci-Fi film club showed "Conquest of Space" (from 1955) on Saturday, the Mars Society presented a Mars Exploration lecture and Mars Rover run at the Pine Valley Academy on Thursday, and SD Space hosted a screening of "**October Sky**" (aka "Rocket Boys") on Friday at Gerry's studio. Jesse particularly enjoyed October Sky because it embodies everything we stand for; he vowed to make it an annual presentation.

# Meeting Minutes

(**Note:** Starting with the July general meeting, most chapter business was moved to board meetings in favor of general-interest programs and chapter reports.)

No general meeting was held in August. SD Space members traveled to Los Angeles to visit Space Exploration Technologies Corporation (SpaceX) and Griffith Observatory. (See the events recap, page 1.)

A board meeting was held at Studio 106 on **August 24th**, starting at noon. All directors attended except James Pura, who was wrapping up his summer SpaceX internship.

Jesse Clark handed over our first check from NSS National, our share of new NSS memberships referred by the San Diego chapter. Dave Dressler reported that the bank balance was in good shape.

The board discussed upcoming big events, including Spacefest 2009 in February and the San Diego Science Festival in April. Jesse proposed an event for World Space Week with a group of related Alliance events.

Adrian Clausell proposed that SD Space sponsor a scholarship prize at an upcoming science fair. Gerry Williams is looking for outlets (print, radio, television, and online) to promote SD Space and Alliance events. Please send suggestions and PR inquiries to [gerry.williams@sdspace.org](mailto:gerry.williams@sdspace.org).

Chris Radcliff proposed moving the website and donated the first year of hosting at LAMPHost, a local company. Maria Catalina started a list of Advisory Board candidates. Suggestions should be sent to [maria.catalina@sdspace.org](mailto:maria.catalina@sdspace.org).

A general meeting was held at the Mission Valley Library on **September 14th**, starting at 3:00pm. Attendance was light. Gerry Williams presented "What's Up At Mars", an overview of exploration efforts on the red planet.

A board meeting was held at Studio 106 on **September 28th**, starting at 6:00pm. Jesse, Maria, Gerry, Adrian, and Chris attended.

The board discussed future program meetings, including schedule and content. Maria agreed to present her Zero G flight experience at a future meeting.

Chris gave a summary of new membership and presented new postcards (with attached bookmarks) for capturing interest at outreach events.

Jesse talked about fundraising efforts. The board agreed to purchase NSS Space Settlement calendars in bulk for resale. It was agreed that the SD Space logo t-shirts, available from Zazzle to those in the know, should be promoted more widely.

Jesse summarized planning efforts for the World Space Week events, as well as his work on the San Diego Space Development Alliance.



*SD Space members at the annual dinner*

Maria updated us on her progress with the list of Advisory Board candidates.

Adrian proposed holding a regular Build Day for working on hands-on projects (as opposed to chapter business or programs). The board agreed, and scheduled the first Build Day for October 26th.

The San Diego Science Festival is coming up, so planning needs to start soon.

A general meeting was held at the Serra Mesa Branch Library on **October 12th**, starting at 3:00pm. About a dozen people attended. Gerry presented "What's Up At Mars", a summary of the last month on the red planet. James talked about his summer engineering internship at SpaceX, including the successful launch of Falcon 1 Flight 4 into orbit. Jesse discussed SD Space projects and recent and upcoming events.



# Upcoming Events

**November 5, after dark**

SDAA "Stars In The Park" public telescope viewing outside the Reuben H. Fleet Science Center in Balboa Park (weather permitting)

**November 8**

Family Day at the San Diego Air & Space Museum

**November 9, 8am to noon**

Diego Area Rocket Team (DART) model rocket launch on Fiesta Island in Mission Bay

**November 14-16**

SEDS SpaceVision 2008 at Texas A&M University

**November 15**

SD Space and OCSS visit Goldstone Deep Space Communications Complex

**November 15, 12am to 3pm**

Family Science Days at Reuben H. Fleet Science Center

**November 16, 3pm**

The Orange County Space Society meets at the Irvine Heritage Park Library

**November 22, 8am to noon**

DART model rocket launch

**December 3, after dark**

SDAA "Stars In The Park"

**December 6**

Sally Ride Science Festival at UCSD

**December 12, 7pm to 9pm**

Mars Society San Diego annual Holiday Dinner at Acapulco Restaurant in Old Town

**December 13**

Family Day at the San Diego Air & Space Museum

**December 14, 8am to noon**

DART model rocket launch

**December 20, 12am to 3pm**

Family Science Days at Reuben H. Fleet Science Center

**December 28, 8am to noon**

DART model rocket launch

**January (dates TBD)**

International Astronomy Year celebrations

Monthly general **meetings** of the San Diego Space Society usually include a short presentation, a review of the last month in space, and discussion of SD Space projects. Anyone with an interest in space exploration is encouraged to attend.

Upcoming meetings:

**no November meeting**  
(Goldstone tour)

**December 14, 3pm - 5pm**  
at Chula Vista Public Library

**January 11, 3pm - 5pm**  
at Serra Mesa Branch Library

For the latest information on SD Space and alliance organization events, please contact [events@sdspace.org](mailto:events@sdspace.org) or visit our online calendar at: [sandiegospace.org/calendar](http://sandiegospace.org/calendar)