

The NRP POST

A publication of NASA Research Park

Summer 2010

Singularity University Addressing Humanity's Greatest Challenges

10⁹+

Top grad and postgrad students and entrepreneurial leaders worldwide engage in "groundbreaking disruptive thinking" aimed at solving some of our most pressing challenges.



Larry Page, co-founder of Google, spoke at the opening ceremony. "If I was a student today, this is where I would want to be."



story on page 10

KleenSpeed Sets EV Lap Record

Claims First in All Classes for Second Consecutive Year

by Lita Vallis and Diane Farrar

The KleenSpeed WX10 set a new lap record for electric vehicles with a historic 2.238 mile, 11 turn race averaging 94 miles per hour at the Second Annual Sport Electric Time Trials on July 11, 2010.

cont'd page 6



Race driver and KleenSpeed President Timothy Collins flies by the competition at Mazda Raceway. Not quite airborne, but... "We want Electric Aviation (EA) companies to know about our interest in EA, and our newly developed telemetry/intuitive Battery Management / Charge system," said Collins, a former general aviation and aerobatic pilot.

NASA Ames Stimulates Economy Economic Benefits Study Shows Jobs, Innovation

by Karen Hanner
NASA Ames Public Affairs

NASA's Ames Research Center generated 5,300 jobs and \$877 million in total annual economic activity in the nine-county San Francisco Bay Area in 2009, according to a new economic benefits study.

The study found that nationally, NASA Ames supports more than 8,400 jobs and generates \$1.3 billion in annual economic activity. Coordinated by the NASA Research Park Office and prepared by Emeryville-based Bay Area Economics (BAE) in association with Architecture, Engineering, Consulting, Operations and Management's San Francisco office, the study also reported that NASA Ames produced 5,900 jobs and contributed \$932 million to California's economy in 2009. The study also forecast that NASA Ames' total economic impacts will grow

significantly as its NASA Research Park (NRP) is completed.

"As Ames explores space and our planet, it stimulates economic growth by employing scientists and engineering professionals, promoting technology innovation, and preparing the workforce of the future — all to enhance the health, growth, and long-term competitiveness of the Bay Area and the nation," said Ames Director S. Pete Worden.

Currently host to more than 70 on-site industry, university and non-profit partners, NRP will ultimately comprise 5.7 million square feet of new construction for research and development offices, university classrooms and laboratories, rental housing, museums, and a conference and education center.

New construction at NRP is expected to total approximately \$2.8 billion, generating an average of 1,700 construction jobs annually over the next 15 years in the Bay Area, 1,900 in California, and more than 2,800 nationally.

"With the unemployment rate in the Bay Area for construction workers at 30 percent, the development of the NASA Research Park may create thousands of jobs that will help put people to work and stimulate the local economy. It is these types of projects that create a triple bottom line: higher education, economic development and good jobs," said Neil Struthers, chief executive officer of the Santa Clara and San Benito Building and Construction Trades Council.

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photo courtesy of SU

photo courtesy of SU

photo courtesy of Kleenspeed

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photo by Meighan Haider



NRP outreach at the Sunnyvale Art & Wine Festival on June 5 and 6, 2010

NRP Welcomes

Five9 Network Systems

Bldg 566, Rooms 100-102, 107, 109, 109a
Commencement date: 7/1/10

Founded just two short years ago, Five9 Network Systems' mission is to design and manufacture computer systems with the latest industry standard technology for workstation, server, software, storage and networking products, optimized for the rigorous requirements of the world's most demanding networks. Focused on providing systems to Original Equipment Manufacturers (OEMs), Five9NS' offerings include specialty services to help customers design solutions ideally suited for their environments. For more information, please see our website at <http://www.five9network.com> or come see us in 566!



photo courtesy of Five9

L to R: Mark Warda, Norm Erwin, Deira Gerritsen, Nicola Sessions, Annie Lin-Johnson, Regina Saliba, Souheil Saliba, Aileen Casanave, Rabih Saliba. Staff not pictured: Cecilia Lancaster, Dan Baigent, Carl Meske and our summer intern- Haki Saliba

LatIPnet, Inc.

Bldg 19, Room 1074
Commencement date: 7/1/10

LatIPnet's focus is on entrepreneurial education, technology licensing and commercialization. The staff works with leading scientists, entrepreneurs, universities and corporations in Latin countries building collaborations, and catalyzing businesses with US partners.



California Institute NanoTechnology

Bldg 19, Room 1076
Commencement date: 8/1/10

CAInstNanoTech conducts research in emerging nanotechnology working with NASA researchers and Stanford University Research on advanced workforce training on thin film nano-coating and photovoltaics.



Purdue Research Foundation

Bldg 19, Rooms 2021, 2023
Commencement date: 8/1/10

PRF is a nonprofit corporation that manages and licenses Purdue University's intellectual property, accepts gifts, administers trusts, acquires property, negotiates research contracts and performs other services helpful to Purdue. Numerous restricted and unrestricted contributions have enabled the foundation to provide the university with scholarship funding; to assist the university in its economic development initiatives; to provide technology transfer assistance; and to acquire real estate for the expansion of the university's main campus in West Lafayette, Indiana as well as its regional campuses and agricultural centers.



Economic Benefits Study cont'd from page 1

Upon full occupancy, NRP partners may further stimulate the local, state, and national economy with new jobs and economic activity. Bay Area Economics estimated that NRP would trigger \$4 billion in new annual economic activity resulting in an additional 21,400 jobs in the Bay Area region. The study also predicted that nationally, NRP will contribute \$5.8 billion in new annual economic activity and 33,800 new permanent jobs.

The NRP was developed in partnership with the neighboring cities of Mountain View and Sunnyvale. "For many years the City of Mountain View and NASA Ames have enjoyed a close partnership. This Economic Benefits Study quantifies Ames', and particularly the Research Park's, employment and economic output contribution to our region, and the city looks forward to continuing this partnership to enhance these benefits for our community," said Mountain View City Manager Kevin C. Duggan.

The study concluded that NASA Ames also plays a critical role in supporting the nation's drive to promoting future economic growth. NASA Ames has forged numerous partnerships with private industry, educational institutions, and nonprofit organizations that have contributed to breakthroughs in climate change research, disaster response capacity, commercialization of space, robotics, supercomputing, nanotechnology, small satellites, and green/clean technology.

"NASA Ames fuels innovation through exploration that creates jobs and helps power the Silicon Valley economy," said Silicon Valley Leadership Group Chief Executive Officer Carl Guardino. "This is yet one more stellar example of NASA Ames' contributions to our region, state and nation."

NASA is working to educate the next generation of scientists, engineers, and technical professionals, and operates a comprehensive set of educational programs that teach students and train teachers in science, technology, engineering and math. The NRP's educational partners include the University of California Santa Cruz, Carnegie Mellon University, Santa Clara University, Foothill/ De Anza Community College, United Negro College Fund Special Programs Corporation, and Singularity University.

"In addition to the NRP research and development collaborations, we are developing more formal multi-party relationships, including science, technology, engineering and math education and regional disaster assistance, with the fundamental premise of leveraging all parties' expertise, facilities and resources to accomplish more than we can as individual organizations," said NRP Director Michael Marlaire.



Senseta Corporation's Max 5R rover, Carnegie Mellon Innovation Lab, NASA Research Park

photo courtesy of CMU

Alavita CEO Gordon Ringold to Head UCSC Silicon Valley initiatives

Silicon Valley / San Jose Business Journal
June 10, 2010



photo courtesy of SJ Business Journal

Alavita Pharmaceuticals Inc. CEO Gordon Ringold will take the reins of UC Santa Cruz's growing initiatives in Silicon Valley.

UC Santa Cruz said it currently oversees \$35 million annually in Silicon Valley-related research, has about 600 employees here and is developing a 75-acre education and research community in partnership with NASA Ames. Ringold, a UCSC alumnus, will step down from his post at Mountain View-based Alavita. He replaces Martin Chemers, professor of psychology, who retired in March.

"Gordon Ringold is uniquely qualified to lead our Silicon Valley Initiatives. He is a successful entrepreneur with strong connections in the valley as well as academic and research experience," said UCSC chancellor George Blumenthal.

Ringold co-founded several biotechnology companies including SurroMed Inc., Maxygen Inc., Alexza Pharmaceuticals Inc. and Alavita. He was chairman and CEO of SurroMed from 2000 to 2005, and he serves on the boards of Maxygen, Alexza, and 3V Pharmaceuticals.

UCSC's Silicon Valley Initiatives focus on professional and executive education and research efforts designed to fuel technological innovation. The campus has established a broad-based partnership with the NASA Ames Research Center in Mountain View that includes the University Affiliated Research Center and the Advanced Studies Laboratories. A range of academic programs are offered at the UCSC Silicon Valley Center in the NASA Research Park, as well as through UCSC Extension in Santa Clara.

"Part of the reason for UCSC to be in Silicon Valley is to connect with the incredible breadth and depth of the high-tech community, and I look forward to strengthening campus relationships there, not only to build our Silicon Valley programs, but to raise awareness on this side of the hill of the superb academics and research efforts on the Santa Cruz campus," said Ringold.

NRP IMPACTS LOCAL JOBS and REAL ESTATE

Tibion Corporation, co-founded by former Tibion CEO Kern Bhugra, began leasing at NASA Research Park in 2003 with a core team huddled in 200 square feet. Tibion occupied almost 6,000 sf in the spring of 2010 before moving to Sunnyvale to set up shop in an expansive manufacturing space. "NRP was very instrumental in Tibion's build up -- the perfect place for product development" said Charles Remsberg, Tibion's new CEO hired to lead the marketing and scalability phases.

Former NRP Partner Aprion grew from 700 sf to 10,000 sf occupancy in 2009 before leasing their own building in Mountain View to begin their manufacturing phase.

NRP's Bloom Energy, in addition to their NRP Test Facility, now count 500 people in a 50,000 sf facility in Sunnyvale.

Additionally, Nanostellar Inc., originally based in NRP, moved to Redwood City in 2004, and Benetech Technology, formerly Arkenstone, grew at NRP and moved to Palo Alto in early 2000.

Associate Dean Martin Griss to Chair MobiCASE 2010

by Sylvia Leong

The International Conference on Mobile Computing, Applications, and Services

MOBICASE

2010



Dr. Martin Griss, Director of Carnegie Mellon Silicon Valley and Associate Dean of the College of Engineering, will be chairing the 2nd annual MobiCASE Conference, to be held October 25-28, in Santa Clara, CA. The Second International Conference on Mobile Computing, Application, and Services, continues to provide great opportunities to researchers and practitioners, from both academia and industry, to present and discuss their work on mobile applications and service provisioning.

Extensive research efforts in mobile computing have led to increased results in the consumer space. The ultimate goal of mobile computing is to build useful applications and services that meet people's needs. Based on this premise, the MobiCASE conference specifically focuses on application-layer research and development in mobile computing: applications, application management, and application services. The increasingly larger customer base that's moving towards an almost all-mobile lifestyle is what compels the consumer space today: high-end mobile phones, high-bandwidth wireless networks, novel applications, and scalable software infrastructures. This focus differentiates MobiCASE from other conferences.

"I'm excited to be part of a conference that focuses so much on real solutions and tangible results," said Griss. "The CyLab Mobility Research Center partners with industry collaborators for this very reason, to create solutions for real needs. Carnegie Mellon's strong reputation in research and innovative technology helps us lead the way in defining the way research can be done in the mobile computing space. MobiCASE gives us an opportunity to work with some of the brightest leading researchers and industry leaders in this area. I look forward to the collaborations that will be formed as a result of this conference."

MobiCASE currently has an open call for papers and an open call for demos and posters. MobiCASE organizers seek novel submissions in all areas in mobile applications, services, and systems research above the transport layer (i.e. above TCP/IP or equivalent), with an emphasis on complete end-to-end solutions and their components.

The satellite Workshop on Mobile Security has an open call for workshop papers, and the satellite Workshop on Mobile Software Engineering has an open call for position papers.

Carnegie Mellon Silicon Valley

CalEMA Selects Carnegie Mellon as Site for Latest Emergency Unit

by Linda Kloth

The California Emergency Response Agency (CalEMA) has selected Carnegie Mellon Silicon Valley as the site for one of twelve OASIS "COM62" Emergency Units. Hosting the Emergency unit on campus is one way Carnegie Mellon supports the CalEMA mission.

"By locating this important emergency response resource at Carnegie Mellon Silicon Valley, CalEMA has provided the Disaster Management Initiative with a number of valuable opportunities for experimentation, training, and exercises," said David Coggeshall, Adjunct Associate Professor at Carnegie Mellon Silicon Valley and Program Director of the Golden Gate Safety Network.

The OASIS emergency unit sports a new/recently-upgraded AVL Technologies/Trackstar auto-deploying 11/14 GHz dish and RF system which automatically determines the trailer's location and orientation then seeks the target satellite. The trailer system is complemented by redundant earth stations supporting connection to the state wide-area network for the 12 mobile units and over 57 fixed stations in each county plus



Carnegie Mellon Silicon Valley Director Martin Griss with CalEMA officials

photo courtesy of CMU

Carnegie Mellon's Silicon Valley Campus Partners with Institut Telecom to Expand Research and Educational Opportunities

by Chris Swaney

additional agency locations. Built as a military-transportable chassis, they are designed for transport by C-130 cargo planes and can be air-lifted and set down by helicopter.

"These recently upgraded OASIS trailers provide key linkage among State and local responders when traditional communications infrastructure may be compromised," said Coggeshall. "The ability to relocate the unit to the scene of an incident, and quickly establish voice and data linkage among field personnel and the State Operating Center, will greatly enhance our ability to mount an effective and coordinated response to a wide range of emergency situations."

The wide-area network connection on OASIS provides state network access, primarily for the RIMS (Regional Information Management System) ICS (Incident Command System) and data collection databases, Internet access for other agencies' web services, and customized access to the AT&T public phone system. The current bandwidth is roughly 1-1.5 Mbps with higher bandwidth available later this year.

Recent deployments for this and similar units have been to the Southern California/Mexican-border earthquake area, the Cosco Buson oil spill command post, and the Indians Complex fire command post at Fort Hunter-Liggett. They often support training and situation awareness video and data for large exercises such as Golden Guardian and Urban Shield.

The Carnegie Mellon Silicon Valley campus is located at NASA Research Park on Moffett Field, which is growing as a disaster response area due to its secure, central location and access to communications technology. Carnegie Mellon Silicon Valley has recently launched the Disaster Management Initiative, developing next-generation solutions to coordination and collaboration in disaster and emergency situations.



Institut Telecom Silicon Valley's Director, Christian Martin, at ribbon cutting ceremony with Martin Griss, Carnegie Mellon Silicon Valley Director

photo courtesy of CMU

Carnegie Mellon University's Silicon Valley campus is partnering with the prestigious Institut Telecom, a consortium of European higher education and research institutes involved in telecommunications and mobility research.

"We are extremely bullish about this new partnership as we continue to make our Silicon Valley campus more global and industry-friendly," said Martin Griss, director of the Silicon Valley campus and co-director of the CyLab Mobility Research Center.

Institut Telecom inaugurated a new Institut Telecom Silicon Valley on May 11 with a three-continent video teleconference of a joint ribbon cutting at Carnegie Mellon Silicon Valley and the launch of a series of monthly Institut Telecom alumni meetings.

Griss said the joint Carnegie Mellon and Institut Telecom working groups have identified several areas of potential research collaboration with American academic and industrial sectors, including biometric security technology, microchip cards, mobile applications and globalization. Both partners also will collaborate to host the international MobiCASE conference in Santa Clara in October.

Philippe Letellier, deputy research director at Institut Telecom, said they are excited to partner with Carnegie Mellon to push open innovation between California and Europe, initiating collaboration between large companies and small businesses from both Carnegie Mellon and Institut Telecom. They intend to support several small French innovative companies seeking to come to Mountain View, Calif., the hottest site of innovation in California. Letellier is responsible for international development, valuation, technology transfer and partnerships.

Because Carnegie Mellon's Silicon Valley campus has a suite of research projects similar to those also under way at Institut Telecom, the match is a perfect mix of innovation and collaboration and a platform for future entrepreneurship, according to Griss, an associate dean of the College of Engineering at Carnegie Mellon.

"Mobile computing is dynamic and ubiquitous and we have to be prepared to understand, measure and innovate to enhance the experience and impact organizations are having with all these new mobile technologies," Griss said. "The new business startup activity in this area of mobility has been exceptional and we are here to help industry leverage those technologies."

Startups are also the lifeblood of Institut Telecom, which has 5,400 students and 650 professors. It spins off 65 startups a year from its five incubators.

In May, Carnegie Mellon researchers at Silicon Valley launched an initiative to address the need for industry-wide, globally accepted measures for calculating the benefits and risks of cloud-computing services, and a disaster management initiative to develop emergency service technologies in the public interest.

Kleenspeed cont'd from page 1

Hosted by REFUEL in cooperation with Speed Ventures at Mazda Raceway, Laguna Seca, near Monterey, CA, the event fosters innovation in the face of environmental challenges.

The KleenSpeed WX10 also set the Electric Vehicle lap record in 2009, but in 2010 KleenSpeed broke its own record and the competition was at least 10 seconds behind. The KleenSpeed Electric Vehicle system was refined this past year, most significantly adding a new battery management system coupled to a high-power charging station. The system includes a custom display which communicates the most pertinent information to the driver. It is now possible to wirelessly transmit this data, allowing KleenSpeed engineers to monitor the car's operating parameters from the pit.



photo courtesy of Kleenspeed

KleenSpeed Team with First Place Trophy at Mazda Raceway (L-R) Matt Klein, Kyle Greenhaw, Kevin Mitz, Laurence Rivard, Darrin Vallis, Timothy Collins, Dante Zeviar, Lita Vallis, Morgan Cunningham, Kevin Jones, Mr. Jones

The new KleenSpeed WX10 system was developed by Dante Zeviar, the Chief Technology Officer, and a team of other KleenSpeed officers and advisors. "Thanks to our telemetry, we know exactly what is going on with the race car, in real time, as things happen. The information we have collected under a variety of driving cycles played a crucial role in gaining invaluable understanding of our

systems. Such an approach allows us to make correct decisions and helps us transform our R&D efforts into real-world products for the commercial Electric Vehicle sector," Zeviar said.

According to race driver Timothy Collins, President and Founder of KleenSpeed Technologies Inc., "The fact that I do not need to shift gears and worry about over-revving the motor allows me to concentrate on driving to a greater extent than when I drive internal combustion engine race cars. The performance characteristics of Electric Vehicle systems deliver instantaneous torque, which makes for a smoother driving experience and explosive response."

The KleenSpeed WX10 is the product of a joint venture between West Race Cars, who provided a state of the art prototype sport racer platform, and KleenSpeed, who sourced, developed, installed and integrated the complete electric power system.

REFUEL created three classes of Electric Vehicles: Prototype (KleenSpeed and other race cars), Production (Tesla) and Electric Motorcycles. The 2010 event brought stiff competition with about 20 entries over the three classes. Several new prototype cars made their first appearance.

KleenSpeed's Eiata Project

by Diane Farrar

*"To Teach You is the Greatest Honor
To Learn from You is the Greatest Gift"*

This original quote by Dante Zeviar, KleenSpeed's Chief Technology Officer, is prominent in KleenSpeed's shop where summer interns converted a Miata original sport model to an electric vehicle (dubbed the "Eiata" and pronounced "ee-ata") under Zeviar's inspired and friendly guidance.

"KleenSpeed selected the 1990 Mazda Miata for conversion and kit production because the first-year-of-production car is the lightest -- changes in subsequent models invariably add weight. Kleenspeed purchased the one owner car because it needed a major engine overhaul," said KleenSpeed President Timothy Collins. Approximately 800,000 Miatas have sold since 1990, making it the world's most popular sports car.

"Our conversion utilizes the "KleenSpeed Project" low power system, which incorporates a 110 volt AC motor with a peak of 50 horsepower available (equivalent to the original 116 horsepower gasoline motor) and 36 lithium ion Prismatic batteries, giving the system 20.7 kWh of battery energy. The KleenSpeed battery management system and charge system, developed for use in the KleenSpeed WX 10 race car, is utilized and further updated with data, with a display tailored for a mainstream consumer EV."

Zeviar assembled a team of four gifted interns who devoted the summer to this project. "I am going to disclose all my technical knowledge to you and I expect no less from you in regard to the others. Teamwork is most important," Zeviar told the dedicated young men at their daily team meeting.

Zeviar divided the interns into electrical and mechanical divisions. "Interdisciplinary teaching was the theme of this summer internship. I wanted the electrical engineers to teach the mechanical engineers and vice versa. I want them all to be well rounded."

KleedSpeed's Eiata Intern Team

Mechanical Division: Matt Klein and Kyle Greenhaw

Matt Klein, 24, a mechanical engineering graduate of UC Davis, was responsible for design and construction of the Eiata's motor mount, battery boxes and electrical rack. Matt enters graduate school this fall and KleenSpeed plans to collaborate as an industry partner on his master's thesis.

Kyle Greenhaw, 25, met Zeviar at the CA Space Authority/NASA Lunar Regolith Competition held last October in Bldg. 503, next door to KleenSpeed's shop. Kyle was responsible for chassis modifications, fabrication, welding and installation of components. With his father, Jim Greenhaw, Kyle and other team members built and entered a robot in last year's lunar regolith competition.



Rear battery pack in KleenSpeed Eiata trunk provides 10.5 kWh, with room for golf clubs or suitcase. KleenSpeed Eiata has two battery packs (one in front and rear) for balance, each comprised of 18 prismatic lithium ferrous phosphate cells.

Partner Magenn Power CEO Pierre Rivard, Morgan was responsible for the electrical utilities, wiring harness, and diagram. Morgan redesigned the wiring harness and managed the conversion of Eiata lighting to LED.

Says Zeviar, "Doing my master's thesis at BMW while attending the Technical University of Munich brought me much more understanding – it helped shape me, made me better. Learning about teamwork and working outside the university changed my life. I want these students to have the same opportunity. I want to give back and make them better," adding that KleenSpeed hopes to continue to mentor their interns and assist them in career development.



L-R Timothy Collins, President, KleenSpeed; Dante Zeviar, CTO, KleenSpeed; with interns Morgan Cunningham, Matt Klein, Kevin Jones, Kyle Greenhaw

"EV technology is going to be a dominant transportation technology in the 21st century. I want to set up young people for this revolution. I want them to be ready when it goes big. I think luck favors the prepared. We are going to send them off prepared," Zeviar said.

"The Eiata should travel 100 miles on a charge. The conversion retains the transmission, and top speed of 100 mph should be available to the driver. Most of the drive time will occur in third gear and below 70 mph. KleenSpeed's Eiata conversion package will be offered as a kit, with or without the transmission, creating a new maintenance-and-carbon-free life for the car and driver," said Collins.

Electrical Division: Kevin Jones and Morgan Cunningham

Kevin Jones is entering his senior year in Electrical Engineering at North Carolina A&T State University, Greensboro, NC. Kevin was responsible for the motor controller hardware in the loop testing, programming and high voltage system design. Kevin also installed all electronic systems, batteries, and the battery management and charge system.

Morgan Cunningham, 21, is a senior at McMaster University in Hamilton, Ontario, Canada. The son-in-law of NRP

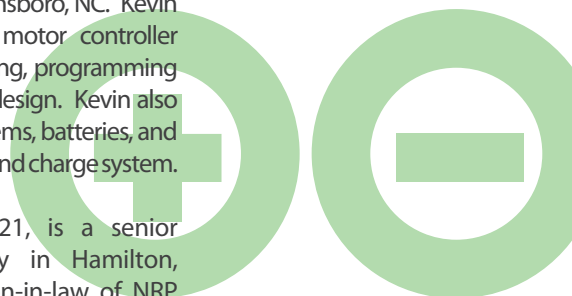


photo by Eric James

photo by Eric James

photo by Eric James

NRP Post

Success Cubed: Kentucky Space Celebrates Three Launches With More Underway

by Miki Huynh

NRP followed up with Kris Kimel on developments for Kentucky Space, LLC and their non-profit entrepreneurial space ventures.

CubeLab

On July 12, 2010, the first Nanorack platform housing the first CubeLab was plugged in and powered up inside the International Space Station. The NanoRack was launched in two phases: Space Shuttles Discovery (STS 131) on April 5 and Atlantis (STS-132) on May 14.

The 4"x4"x4" Kleenex box-sized units, fitting into racks along the walls of the space station, create the lab area needed to conduct studies in Exomedicine, a new initiative defined by Kentucky Space as "the study of disease mitigation and health enhancement in space." Kimel says that experimenting in the microgravity environment may offer breakthroughs in the fields of biology and medicine, and a number of outside companies have voiced interest in CubeLabs to research microgravity's affect on tissue growth, cancer cell growth, disease treatment, and drug development.

The units will be tested and used for several months in orbit. Following the success of this first testing period, Kentucky Space plans to launch 6 to 8 CubeLabs a year, each intended to stay online for an entire Earth orbital period.

CubeSats

Kentucky Space served as integrator for the first ever ejection of CubeSats into space on a sub-orbital mission. CubeSats developed by Kentucky and Cal Poly students were ejected from a Terrier-Improved Malemute sounding rocket at Wallops Flight Facility in Virginia on March 27, 2010. The spacecraft reached an altitude of 270km and remained in space for 10 minutes.

The Taurus XL rocket carrying the KY Sat-1 CubeSats built by Kentucky students will launch on November 10, 2010 from Vandenberg Air Force Base. As a part of the NASA ELaNa (Educational Launch of NanoSatellites) program, the mission will be the first orbital launch of student-built CubeSats by NASA.

Idea Festival

Louisville, KY

KSTC (Kentucky Science and Technology Corporation), an NRP partner since 2004, continues to encourage the mingling of great minds and emergent ideas in science, art, design, business, education, technology, and numerous fields at its annual Idea Festival, taking place September 29 to October 2 at the Kentucky Center for the Performing Arts. The event features a diverse set of speakers and performers such as designer Stefan Sagmeister, theoretical physicist Sean Carroll, author Sapphire, and singer songwriter Janelle Monáe. This and more information is found at their website: <http://ideafestival.com>.



Faculty Advisor Dr. James Lumpp, University of Kentucky (left) and Daniel Erb, University of Kentucky (right) take a break from work on the Nanoracks and CubeLab modules.

photo courtesy of Kentucky Space



Jason Bratcher, University of Kentucky (left), Tyler Burba, Morehead State University (center) and Faculty Advisor Dr. Benjamin Malphrus, Morehead State University (right) calibrate the mobile earth station at NASA Wallops Flight Facility during the Frontier-1 Launch

photo courtesy of Kentucky Space



Nathan Fite, Morehead State University (left); Anthony Karam, University of Kentucky (back); Daniel Erb, University of Kentucky (front) and Tyler Rose, Morehead State University (right) receive their first data packet from Frontier-1 proving their satellite worked.

photo courtesy of Kentucky Space



Orange carpet event of the 2009 Idea Festival

photo courtesy of Kentucky Space

UNCF Special Programs - NASA Science and Technology Institute for Minority Institutions

by Sheryl Karpowicz
UNCFSP

2010 marks the fourth anniversary of the NASA Science and Technology Institute for Minority Institutions (NSTI) Project. Under the administration of the United Negro College Fund Special Programs (UNCFSP), the project has grown to include three different programs, bringing the talent and expertise of students and faculty from Minority Institutions to different NASA Centers. Minority Institutions include Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), and Other Minority Institutions (OMIs).

The NSTI Summer Scholars (NSTI SS) program offers undergraduate minorities in science, technology, engineering and mathematics (STEM) fields the opportunity to participate in cutting edge research over the course of 10 weeks. Students are placed at one of three NASA centers: Glenn Research Center, Johnson Space Center, and here at the Ames Research Center. The 18 participants of the 2010 NSTI Summer Scholars are working on a wide range of research projects relating to their chosen field of study at their home academic institution.



Bottom Row (L to R): Najjiyya Franklin-Huff, Adrienne Haynes, Roger Riviere, Edgar Ferrer. Middle (L to R): Crystal Arrington and Dr. Gbemeloluwa Oguntimein. Top Row (L to R): Dr. Duane Carbon, Dr. William Warmbrodt, Dr. Ole Mengshoel, Dr. Carla Cotwright-Williams and Ray Gilstrap

The NSTI Faculty Fellowship (NSTI FF) offers early career STEM faculty at Minority Institutions the chance to further their research experience at NASA. Faculty incorporate what they learn from their summer experience into their curriculum once they return to their home institution.

Since its inception in the summer of 2009, the NSTI FF has grown rapidly to provide faculty from MIs research opportunities at several different NASA centers. The nine participants of the 2010 NSTI FF program were placed at Marshall Space Flight Center, Goddard Space Flight Center, Johnson Space Center, and Ames Research Center.

The Summer Scholar and Faculty Fellow projects feed into and support a third component of the NSTI program, called the NSTI Research Clusters. The three research cluster teams provide the means and opportunity for engaging the minority higher education community in government and private industry research. NSTI Research Clusters facilitate research collaboration among MIs, NASA, government agencies, and private STEM organizations.

For more information about UNCFSP and the NSTI project, log on to www.uncfsp.org/nsti or visit our office in Building 19, Room 2015 at NASA Research Park.

Meet Google's Space Commander

by Ashlee Vance
New York Times Blog
July 27, 2010



Tiffany Montague, the manager of Google's space initiatives, once hoped to become an astronaut.

Google, as you may know, runs a search engine and sells ads. How odd then that Tiffany Montague works at the company.

Ms. Montague is the manager of Google's space initiatives -- overseeing things like sending robots to the moon and ogling Mars. It's not exactly the stuff that keeps the lights on at the Googleplex, but this type of work seems to make Sergey Brin and Larry Page happy.

Unlike many Google employees, Ms. Montague is not an engineer by trade. Rather, she arrived at Google about five years ago, after serving as an officer for the Air Force and working at the National Reconnaissance Office. Ms. Montague's specialty centered on flying high altitude aircraft and snooping on stuff.

"I had a down-looking sensor," Ms. Montague said, during a recent interview, declining to share more information about the nature of this sensor or what it observed.

Here's something else that's odd about Ms. Montague -- she speaks with an American accent but was raised in England.

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Montague cont'd from page 9

"I was very in love with the United States," she explained. "I learned everything I could from the 'Dukes of Hazzard' and 'Hawaii Five-O'. I grew up with a very romanticized notion of America."

Since she can remember, Ms. Montague has dreamed of going to space. It's why she joined the Reserve Officers' Training Corps (ROTC) while attending the ultra-liberal Smith College, and why she ended up in the Air Force. Ms. Montague skipped a couple of grades, crossed the pond and went to university at 16.

Ultimately, however, Ms. Montague figured that her odds of getting to space as a NASA astronaut were thin.

"It was clear to me that there are people who are more qualified than I am who are not selected," she said. "I joined Mensa. I went to a great school. I did all the right things. There was just no way I was going to make it."

Ms. Montague would seem to have a bit of the renegade in her. Her dark hair — except for one blue streak — goes with her black leather jacket and black boots.

Google first hired Ms. Montague as a project manager in the engineering group only to see her aim her "20 percent time" at the nearby NASA Ames Research Center, and for that 20 percent time to turn into her full-time job.

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Singular Summer

by Miki Huynh and Diane Farrar

The opening ceremony of Singularity University's Graduate Studies Program (GSP-10) on June 19 grabbed attention throughout the media after keynote speakers Ray Kurzweil, Larry Brilliant, Larry Page, Peter Diamandis, Pete Worden, and Dan Barry welcomed the entering class to the school of "groundbreaking, disruptive thinking." Each speaker mentioned the opportunity awaiting these students and instructed them to put out ideas, Dan Barry stated, "as crazy as they might be... until you change the world."

In the following weeks, students accepted the challenge to combine the Singularity University mission to harness the growth and combination of exponential technologies with profitable world improvement. The SU program, "10[^]9+" (ten to the ninth power plus), tasked the students with devising strategies to positively impact a billion people within ten years guided by five topics for group projects: Food for Cities, Home Energy Usage, Upcycle: Waste Reduction and Reprocessing, Sustainable Water Assets, and To Boldly Stay: Extending Humanity into the Solar System. Team projects were presented at the end of the program on August 26 in Building 583C.

To assemble their business plans, students spent ten intensive weeks in classes and lectures split into ten tracks covering subjects such as forecasting, entrepreneurship, neuroscience, and engineering. They also received Zero G and NASA-style educational perks.

The 78 students--doubled from 2009--arrived from multiple disciplines and 35 different countries, linked together by demonstrations of brains, leadership, and initiative. Those who shared their 2010 experience included Mercy Njima from Kenya, co-founder of two companies focused on career opportunities for women and creating investments, Justin Pahara from Canada whose aim was to "start economic revolutions on Aboriginal reservations in Canada and Pakistan where synthetic biology can help transform societies to knowledge-based economies," and Alison Lewis, a fashion, design and technology expert who maintains the site Switch.

To engage the greater public, SU held a discussion panel on July 13 entitled "Women at the Frontier." Sonia Arrison Senkut of Pacific Research Institute moderated panelists Yvonne Cagle of NASA, Susan Fonseca-Klein of SU, Liddy Karter of Karter Capital Advisors, Cynthia Kenyon of UCSF, Laurie Yoler of GrowthPoint Technology Partners, and Rebecca Moore of Google as they discussed ways to address 10[^]9+. On August 10 - 11, SU offered a public two-day seminar about future technologies. SU cofounder Dr. Peter H. Diamandis, Ames Center Director Dr. Pete Worden and new NASA HQ Chief Technologist Dr. Bobbie Braun welcomed guests. SU AI/Robotics Co-Chair Dr. Neil Jacobstein reviewed the challenge of Artificial General Intelligence; three-time shuttle astronaut Dan Barry, MD, PhD, discussed robotics and the challenge of "adaptation." Other presenters included Scott Summit of Summit Design on 3-D printing, and SU Nanotechnology Chair Dr. Ralph Merkel. Each lecture was followed by Q & A and group discussion.

Following the summer program that concluded with Closing Ceremonies on August 28, several 4 and 9 day Executive Programs are scheduled through 2010 and into 2011. For more information, please visit www.singularityu.org.



Three time shuttle astronaut and co chair for SU's AI and Robotics Track Dan Barry, MD, PHD speaking at GSP-10

photo courtesy of SU



NASA's new Chief Technology Officer Robert Braun discussed the role of innovation and technology in NASA's future at SU's public seminar.

photo courtesy of NASA.gov

RMV Technology Group, LLC September 16 Open House: Showcasing Expanded ESD Materials Testing Lab and Training Facility at NRP

by Renee Mitchell

NRP tenant RMV Technology recently expanded their operations with a move to Bldg. 19's Room 1073, commonly referred to as the "Map Room".

To showcase their expansion, RMV will host an Open House at their new lab on September 16, 2010 from 8AM to 12PM to demonstrate their technology to NASA-Ames engineering and technical staff and NRP partners.

At the Open House, Doug Smith of RMV, former Distinguished Member of the Technical Staff, Bell Labs, will conduct live demonstrations of electro-static discharge (ESD) effects on electronic equipment. In addition, Bob Vermillion, RMV's founder, will demonstrate a simple method for measuring electrification of materials in a lunar environment.



photo by Miki Huynh

Douglas Smith, Renee Mitchell, and Bob Vermillion in the Map Room

With RMV's recent expansion, the team now can conduct system level ESD testing of electronic products in compliance with IEC 61000-4-2 or to customer requirements. For basic system level testing, RMV can test to the actual failure level for each test point or test to a pre-determined level above the standard test level. Smith, a renowned ESD/EMC expert on design troubleshooting, can also conduct enhanced system level testing using two separate "worst case" simulators, uncovering problems due to inadequate simulator specifications in the testing standards.



ESD testing machine components

photo by Miki Huynh

RMV's unique, specialized testing services include small metal ESD testing, internal chair ESD testing, and applying system level tests to devices. System Level Problem troubleshooting is another unique capability that RMV has developed, which is not available at other ESD labs.

RMV has had several business successes lately including a DOD contract to provide ESD technology engineering services for a USAF prime contractor. In addition, RMV will provide suspect counterfeit training for the avoidance, mitigation and evaluation of aircraft parts packaging and materials.

According to a recent Department of Commerce study, the rapid increase in counterfeit parts globally has affected every type of business but is especially critical in the aerospace/defense and space technology sectors.

At the recent NASA Cape Canaveral Quality Leadership Forum held in March 2010, Vermillion gave a talk that focused on the cost savings that result from combatting the global proliferation of counterfeit parts. Al Cook (Lockheed Martin Space Opns.) commented, "Your presentation made a BIG splash and was noticed! Fresh and new! You offered a totally different angle about understanding counterfeit problems and issue."

Montague cont'd from page 10

It turns out that Pete Worden, the head of NASA Ames, used to mentor Ms. Montague during her days with the Air Force. And the two have rekindled their relationship.

"NASA Ames is very innovative for a NASA center," Ms. Montague said. "I think that is largely due to the fact that Pete Worden runs the show over there. He is not afraid of consulting with industry."

Google already works with NASA on a number of projects, including gathering astronomical data and images and making them available to the public. In addition, Google sponsors the Singularity University, which is run on the NASA campus.

Soon enough, Google will open a new campus on the NASA Ames site as well.

Ms. Montague, who plays a role in all these efforts, said she's encouraged by the progress various groups are making as they try to commercialize space.

"At Google, we are cheerleaders of those guys," she said. "We look at space like any other problem that Google attacks and say, 'I think this should be a lot simpler.' We are outlandishly big thinkers. We are audacious."

Perhaps Ms. Montague will have a chance to direct that audacity and her past experience with spy craft toward building a new fleet of Mars-mapping Google bots.

Draw your shades, Martians.
Draw your shades.

NRP Post

RMV Open House cont'd from page 11

The specialized RMV engineering staff also provide design troubleshooting seminars, NASA ANSI/ESD S20.20-2007 and NASA-STD-8739.7 Compliance Training, Advanced Troubleshooting Techniques, Suspect Counterfeit Avoidance, Detection & Mitigation of Electronic Parts & Packaging, iNARTE FCC Testing, including iNARTE ESD Engineer & Technician Preparation Training. Other courses are available by clicking on the www.esdrmv.com website.

RMV Technology Group, LLC is a California Small Business, SDVOSB/8(a) and SDB firm. It is a service disabled veteran-owned company, with over 30 years of leadership in the electronics industry for electrostatic mitigation of materials in harsh environments. A published author and international speaker, Vermillion has developed a conductive material for a future MARS mission. He can be reached at 650.964.4792 or bob@esdrmv.com.

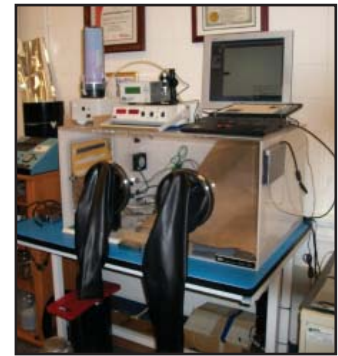


photo by Miki Huynh

Anti-static workspace

Total reQall

Infocomm News From Singapore
Aug 4, 2010

NRP's reQall, the company behind the voice-enabled memory aid that integrates the mobile phone, e-mail, text messaging, and instant messaging into a powerful organizer, reminder system and productivity assistant, is setting up its regional headquarters in Singapore. It has also taken the high-tech reminder system, popularised on the iPhone and Blackberry mobile platforms, into the Android space as well.

As a service, reQall lets users capture key action items and ideas through their mobile devices, either by voice or text, and integrate that information into their mobile phone, e-mail, and messaging applications, turning it into a powerful organizer and reminder system.

reQall-captured information is automatically processed and organised into the user's schedules, and the application also stays aware of context changes, such as location and the time of day. Finally, it lets the user know via voice, e-mail, text, or instant messaging services, not only what needs to be done, but when and where as well.

"We help people by precisely bringing the relevant information to them just when they need it based on the context and location," said Mr Rao Machiraju, Co-founder and Chief Executive Officer of reQall. "Therefore, location is very important for reQall. reQall uses both text and voice as input mechanisms and this is pretty much industry standard for input on smart phone applications."

While these functions have already been available on the iPhone and Blackberry platforms for a few years, they have earlier this year debuted on Android-based devices as well.

"Android is slated to be released by many carriers around the world," said Mr Machiraju. "We think this is a significant opportunity for reQall and we are excited about the possibilities on this platform."

Founded four years ago as a MIT (Massachusetts Institute of Technology) spinoff, the company decided to set up its regional HQ in Singapore earlier this year.

"The ease with which one can do business, have easy access to various Asian countries, and to the regional offices of many international companies right here in Singapore are all pluses," said Mr Machiraju. "Obviously, as a company you want to be in a place where you can do your business very effectively and infrastructure and people, all these things, will be a part of it."

reQall lets users capture key action items and ideas through their mobile devices and integrate that information into their mobile phone, e-mail, and messaging applications.

Mr Machiraju likened Singapore to the Silicon Valley, which he also sees as a very small

enclosed area that thrives because of the universities, research institutions, dynamic infrastructure and people.

"That is the reason why we said this is where we want to build our R&D," he said. "Because there are groups like A-Star, with the research capabilities, and the universities; it's compact and easy for me to go to a coffee shop and sit down and chat with somebody and not miss reading an e-mail at the same time."

Mr Machiraju also praised the Singapore government for its proactive efforts. "The support you get from the Singapore Government really stands out. For us, we worked with Infocomm Investments and they really interacted with us on a regular basis, to make sure we get referred to the recruiters that we needed, offering simple suggestions, and providing some hand-holding, if you will," he said. From Infocomm Investments Pte Ltd, the investment arm of the Infocomm Development Authority (IDA) of Singapore, reQall also learnt about IDA's iCentre grant, which provides developmental support for foreign start-ups looking to set up their engineering centres in Singapore. The company subsequently applied for, and received the grant to help it set up its regional HQ in Singapore.

Incorporated as reQall Singapore, the office will serve as the regional headquarters for Asia, and the company expects to have a six-person team by the end of the year.

"We see the next six months as time for us to fully settle into Singapore. The partnerships we strike with various companies and carriers in the region will be the driver for us to expand in 2011 and beyond."



photo courtesy of macmn.com

A Hub of Innovation NASA Research Park blends government, venture capital, education and startups

by Chris Kenrick
Palo Alto Weekly
July 9, 2010

Research Park

By something of a federal real-estate accident, a host of cutting-edge cleantech development is taking place on the grounds of the old Moffett Field Naval Air Station — repurposed in the last decade as the NASA Research Park after the U.S. Navy closed its operation and handed the property over to the space agency.

Unknown to most local residents, the 2,000 acres surrounding the iconic Hangar One host 50 companies, 14 universities, a future Google campus, the California Air National Guard and 2 million square feet of planned rental housing.

It is a curious blend of government resources, venture capital, educational institutions and private startups.

The vision — so far only partly realized — is “a world-class research park with graduate students, faculty and young Google workers who rent the housing and walk to work,” said NASA Research Park Director Michael Marlaire.

To date, the 42-acre future Google site is under long-term lease but not yet built.

But the personal aircraft of Brin and Page and Google CEO Eric Schmidt — as well as a Google-affiliated research aircraft — are based at the airfield, Marlaire said.

Also based there is Airship Ventures, home to the familiar white Zeppelin often seen floating over the Bay Area.

By paying anywhere from \$199 to \$950 per person, members of the public can float above it all as well, on tours ranging from 30 minutes to 2 hours.

Another airship company is due to move in soon with the intention of manufacturing airships in one of the hangars.

“We’re in it for the long term,” Marlaire said of NASA’s commitment to developing the research park.



Bloom Energy’s testing facility located at the NASA Research Park at NASA Ames

“Our goal is to select partners in R&D and STEM (science, technology, engineering and mathematics) education pursuits,” he said, adding that tenants pay market rents and that the planned housing development is on hold because of the economy.

Graduate students from many institutions flow in and out of the research park. Pittsburgh-based Carnegie Mellon University already has awarded 400 masters’ degrees at its West Coast site, he said.

Many corporate startup tenants enjoy a mix of venture backing and government incentives.

Tesla tests its vehicles on the tarmac, Marlaire said.

Another tenant company, Unimodal, is trying to develop “personal rapid transit” that would run on magnetic levitation tracks. Users would sit in small “pods” resembling something out of *The Jetsons*, and enter their destination into a computer.

photo courtesy of Palo Alto Weekly

“There would be hundreds of pods going all over the place. It would be like the Internet, for people,” he said.

Another tenant, Magenn Power, is developing high-altitude wind power, in which a tethered wind turbine sends power back to the ground.

An early tenant, K.R. Sridhar of Bloom Energy, began developing his high-efficiency fuel-cell “Bloom Boxes” while working as a scientist in NASA’s Mars Program.

When the program was cancelled, Sridhar obtained venture funding (the high-profile firm Kleiner Perkins Caufield & Byers describes Bloom as “KPCB’s first greentech investment”) and landed at NASA Research Park.

He has since expanded to Sunnyvale, where he employs several hundred people producing Bloom Boxes.

“We have the ability to use these old facilities and hangars as the best cutting-edge location for people who are going to change the world,” Marlaire said. “People in the business of startups and new companies fully understand what’s over here.”

What It Means to Be “The Only Game in Town”

by Gus Halweger

Airship Ventures airship “Eureka” is the only airship in the United States certified to carry fare paying passengers and one of two airworthy airships of a total of four in the world. It is into its third year of operation out of its base at Moffett Field and has become a familiar sight to its neighbors and to Californians along the coast and – as of late – in Sacramento.

The reputation and versatility of the semi-rigid dirigible Zeppelin has gotten much publicity in the Media. As a result, the demand for its services include:

- Passengers touring in its twelve-passenger gondola
- Corporations chartering dirigibles for customers or deserving employees, to advertise products or services
- Scientists mounting instruments on the Zeppelin’s nearly vibration and noise free gondola for aerial surveys
- Federal and local government agencies using the dirigible as a “command post” and observation platform for disaster management

These expanding opportunities are indicative of the Zeppelin’s market potential.

Following are the latest developments since the last issue of the NRP Post:

The Farmers Insurance Airship

For a second time this year, the Farmers Insurance Group selected Airship Ventures as a partner, rebranding the hull of the Zeppelin Eureka with the Farmers logo. The two companies previously partnered in January 2010, when the Farmers Insurance Airship took to the skies above San Diego, providing aerial footage and acting as the ultimate skybox for passengers above the Farmers Insurance Open PGA Golf Tournament at Torrey Pines. The success of this partnership, which exposed Farmers to millions via TV coverage of the tournament on CBS and other networks around the globe, and the ability for Farmers to leverage the airship as a beacon of hospitality and community commitment to thousands of employees and customers on-site and in the region, prompted the second airship branding.



photo courtesy of Airship Ventures

Broken Records! World Distance Record!

The Farmers Airship, the Zeppelin Eureka, owned and operated by Airship Ventures, broke the world distance record for modern airships on May 25, with a flight of 459.3 miles from Moffett Field to San Diego’s Brown Field. This record broke the standing Federation Aeronautique Internationale (FAI) record, previously held by a Russian team, by 70.2 miles.

The flight was not only record-breaking but also took in breathtaking scenery over California’s Central Valley and Coastline. Its route passed over, among others, the cities of: Salinas, San Luis Obispo, Santa Maria, Santa Barbara, Oxnard, Ventura, Malibu, Santa Monica, Downtown Los Angeles, Long Beach, Seal Beach, Huntington Beach, and Dana Point. Jenna Wolfe of NBC’s TODAY SHOW was aboard the Eureka for the record-setting flight and covered it from the Moffett Field take-off to the champagne celebration in San Diego. Her report was aired nationwide. It was a great flight and we at Airship Ventures now await official FAA confirmation of the new record.

Disaster Management : yet another capability of the Eureka

In a cooperative venture between Airship Ventures, Inc. and NRP's Western Disaster Center, under the auspices of the California Post Earthquake Information Clearinghouse and the California Emergency Management Agency (Cal EMA), Airship Ventures' airship "Eureka", sponsored by Farmers Insurance, was deployed on May 18, 2010, to provide a demonstration observation and communication platform over simulated incidents during the 2010 Golden Guardian Exercise.

The airship flew from its Moffett Field base to the first exercise at the Port of Redwood City, and then transited to the second Bay Area exercise at the Port of Oakland. A group of eight observers were on the airship representing Cal EMA, the US Geological Survey, the California Chief Information Office, the Department of Homeland Security, and Farmers Insurance. Imagery was sent directly from the airship to Cal EMA headquarters in Sacramento, where a large number of agencies were able to see events in real time. When combined with data relayed after the airship landed, these images were used to produce the Common Operating Picture to brief senior state officials.

The participants aboard the Zeppelin were impressed with the demonstrations and consider the airship an under utilized resource of immense potential. All commented on the quiet and roomy gondola, the stability of the airship, and its accuracy to hover (thanks to its vectored engines) coupled with the transition speed between incidents.

Alex Travell, Airship Ventures' Special Mission Manager, pointed out the potential for further expansion and refinement of applications. Using the airship as an airborne command center with high definition full spectrum optics down linked to first responders and control centers should be a pre-requisite for future incidents, she noted.

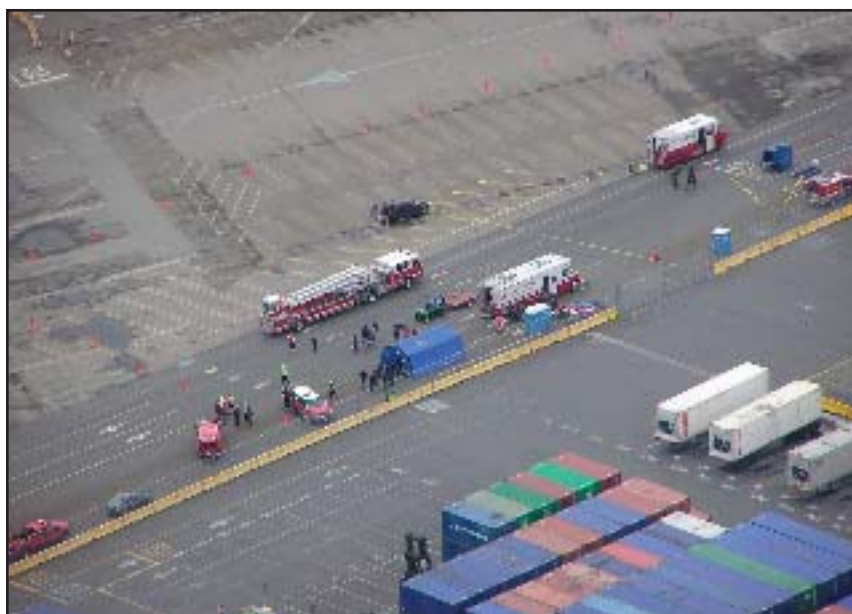


photo courtesy of Airship Ventures

May 18, 2010 Disaster Management Simulation – aerial view of one Golden Guardian Exercise 2010 site from the Farmers Airship Eureka at the Port of Oakland

Neighborhood Last Minute Zeppelin Flights

This program is offered to all federal employees, AMES interns and contractors, NASA Research Park (NRP) partners and military personnel. It applies to all 90 and 120 minute flights departing from Moffett Field, is available for the bargain price of \$199 plus taxes, but can only be booked less than 24 hours prior to flight time, provided a seat is available. Flyers with qualifying details have been distributed to key locations at Moffett Field. Flight schedules can be accessed on AV's website: www.airshipventures.com. Airship Ventures' Guest Services staff (650) 969-8100 ext. 111 will also be glad to answer any questions related to the program.

You can see what it means to be the only game in town. Airship Ventures is in the enviable position of owning and operating the only semi-rigid Zeppelin in the country. However, while it is our goal to remain the only game in town, we want to provide the "Eureka" with a companion.

NASA HQ Real Property Division at NRP

photo by Meighan Haider



Frank Bellinger, Director of Facility, Engineering and Real Property Division, NASA HQ, visits NRP's Unimodal Systems on May 27, 2010.



NRP Staff with Paul Walden, Planning and Real Estate Management Branch, Facilities Engineering and Real Property Division, NASA HQ.

White House Fellow Tours NRP and Ames



photo courtesy of SU

White House Fellow, Nicole Campbell (fourth from left with Singularity University VP Susan Fonseca-Klein and GSP-10 students), visited the NRP on August 17-19, 2010. Nicole toured CMU Silicon Valley, Space Portal, and UNCF-SP Minority Academy, in addition to Bloom Energy's Sunnyvale facility, Google, and the Silicon Valley Leadership Group off-site. At Ames, Ms. Campbell met with Director Pete Worden, flew the VMS simulator and visited the Arc Jet Facility, the Supercomputer, and the Ames Exploration Encounter. Ms. Campbell has been at NASA Headquarters for most of her Fellowship.

NRP Summer Picnic August 5, 2010



photo by Miki Huynh



photo courtesy of Photozig



photo courtesy of Photozig

Sustainability Base at NASA Ames Research Center

from A Look At NASA
August 6, 2010



Sustainability Base at NASA Ames Research Center is designed to achieve a platinum rating under the Leadership in Energy and Environmental Design (LEED) new construction standards for environmentally sustainable construction developed by the U.S. Green Building Council.

Construction of the new Sustainability Base collaborative support facility, expected to become the highest-performing building in the federal government, continues at NASA's Ames Research Center, Moffett Field, Calif. The new building is designed to achieve a platinum rating under the Leadership in Energy and Environmental Design (LEED) new construction standards for environmentally sustainable construction developed by the U.S. Green Building Council, Washington. D.C. When completed by the end of 2010, the \$20.6 million building will feature near zero net energy consumption, use 90 percent less potable water than conventionally built buildings of equivalent size, and will result in reduced building maintenance costs. Find out more about the Sustainability project at: <http://www.nasa.gov/centers/ames/greenspace/sustainability-base.html>

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