

Aerospace Legacy Foundation



Downey Aviator



Volume 1, 2007

Created and published in Downey CA

March 2007 Revised

Inside this issue:

A Young Amelia Earhart	1
Bert Kinner and Amelia	2
Downey History	3
Profiles: Stan Barauskas	4
Learning Center Update	5
Cradle of the Cosmic Age	5
Our New Home	6

It Happened in 1932

Air Conditioning Invented

Amelia Earhart : First Woman to Fly Solo Across the Atlantic

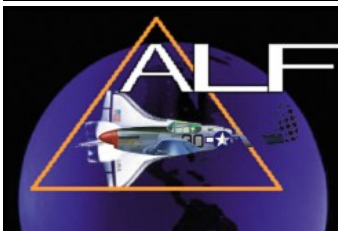
Lindbergh's Baby Kid-napped

Scientists Split the Atom

Zippo Lighters Introduced

Great Depression

Mohandas Gandhi, Empire State Building, Nazis, Monopoly," the *Hindenburg*.



Downey Aviator - By Hound Dog Press

Amelia Earhart and her Kinner "Airster"



Amelia (r) and Mary Anita 'Neta' Snook Southern (1896 -1991) at Beverly Hills Speedway on July 16, 1921. The Kinner Airster is behind them. Kinner built planes in Downey California during the early 1930's.

That evening she told her parents, "I think I'd like to fly."

The family did not take her inspiration to fly seriously. She made her own inquiries and found a woman pilot to instruct her. The female flight instructor quieted any possible objections of impropriety made by her parents. She hired Anita Snook, also known as 'Neta' or 'Snooky,' for \$500 for the first 12 hours of instruction. Neta was based out of Kinner Field, in the South Gate area of Los Angeles near Huntington Park. The field was owned by Bert Kinner, who was in the process of building a small biplane prototype called the 'Kinner Airster.' He was convinced that soon every family in America would own one, just as they owned an automobile. *More on next page...*

More on Bert Kinner and Amelia Earhart

Story and Photos By Gilles Auliard

Special To Pacific Flyer

For the general aviation population, the Kinner name is associated with a family of low power radial engines. This may be true, but its activities were far from being limited to engine production.

From 1932 to 1937, Kinner produced a line of monoplanes that became an inspiration for a whole generation of airplane designers. Some of their features could be found on other designs years after the Company ceased all activity. The Kinner Airplane and Motor Corporation was founded by Winfield Bertram "Bert" Kinner in 1919. The earliest engine design was a 60 HP three cylinder, air-cooled radial strongly inspired by the Anzani series of engines made famous by Bleriot during its 1909 English Channel crossing.

The engine was later developed into a line of five cylinders engines, starting with the K-5 of 100 HP. This family encountered great success and powered a slew of airplane types including Fleet, Kinner, Meyers, early Waco models, and some WW II military trainers, such as the Ryan PT-22.

Kinner developed his first airplane design in 1919, which looked like a scaled down version of the Curtiss Jenny. In 1920, came the Airster, a biplane powered by a 60 HP Lawrence engine.

The prototype crashed on a test flight and the airplane was rebuilt with a wider cockpit. Offered at \$2,500, 32 were sold, including one to Amelia Earhart while training with Neta Snook at Kinner Airport. Painted in bright yellow, it was dubbed "The Canary."

After the 1929 market crash, the company survived by an infusion of cash from George M. Holley, founder of the Holley Carburetor Co. of Detroit, Mich. This allowed for the development of the 125 HP B-5 engine and the low wing monoplane design Kinner finally settled on.

The Sportster concept was originally developed by Kinner but Max Harlow, an aeronautics graduate fresh out of school, hired for the job, redesigned it into the "Sportster K." Developed in 1932, the Sportster was a two place, side-by-side, low wing monoplane. Construction was conventional for its time, with welded steel tube fuselage and tail surfaces and wood frame wings, all fabric-covered.

Its most distinctive feature was the folding wings. The original Sportster K, fitted with a 100 HP Kinner K-5 engine, was produced under Approved Type Certificate (ATC) number 490. The Sportster B and B-1 models had 125 HP Kinner B-5 engines and increased gross weights.

With a \$2,490 price tag for the model K, the Sportster sold relatively well for those very lean times.

By the time the Sportster was ready for certification tests, Bert Kinner and his son had already left the original company and had formed the Security Aircraft Co. at nearby Downey, Calif. The airplane they introduced on the market, the Security S-1A, of which 12 were built, was practically a duplicate of the Kinner Sportster; only a sharp eye could detect some differences between the two...

The original Kinner firm went bankrupt in 1937 and the manufacturing rights to the Sportster and the Sportwing were acquired by Otto Timm. Kinner was reorganized in 1938 as Kinner Motor, Inc. and went on to manufacture thousands of 155 HP engines for military trainers throughout WW II.

In 1946, the engine rights were sold to Gladden Products, a scooter manufacturer.

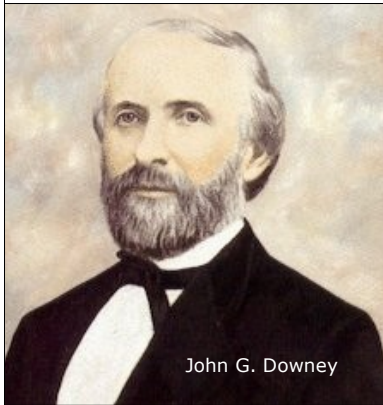
Our next meeting is on Sunday, November 18th, 2007 at the Baptist Church on 2nd St in Downtown Downey

Kinner's Security Aircraft 1932: Front of the original Emsco Building at Lakewood Blvd.



Through the looking glass into the past...

"The Founding of Downey City"



John G. Downey

"**John Downey** and his associates were officially assessed on the tax roll of October 23, 1873, for a parcel of land within the Rancho Santa Gertrudes. The property was called the "Tract of the Downey Land Association". This land, consisting of 96 acres, was valued at \$2,940 with improvements of \$330. It was located ten miles from the sea and ten miles from Los Angeles.

Much of the city's current development patterns were determined by the expansion of the railroad. It was no coincidence that one of the first buildings in the new town was the Christian Church. Prominent among the early members of the church was Matson Duke Crawford, agent for John G. Downey and attorney for the Downey Land & Improvement Association. Crawford arranged for the church to acquire the lot on the corner of Fourth and New Streets. The construction of the church marked the beginning of the present downtown.

Although development of the new town proceeded slowly, the 1873 tract map established 16 blocks, reserving 10 acres for a railroad station. The dense vegetation had been cleared and some 300 homes in the district had been established. The town continued to grow with a courthouse, post office, schools, churches, businesses and more houses located in the downtown. The typical Downey home in the 1870s was built entirely of unsurfaced knotty wood. Pieces of tin were nailed over the knotholes. Battens covered the gaps between the boards making the houses more livable. Most were white-washed inside and out and in various stages of repair. These California "box houses" had an average of two main rooms and a lean-to open-air kitchen. Windows were closed with wooden shutters to keep out the wind and rain. One example in this early tradition is the Dismukes home, which has been preserved at Apollo Park by the Downey Historical Society. Luxuries were scarce. A single private library was listed in the tax rolls of 1873 belonging to R.L. Latimer. Mrs. W.P. McDonald was the proud owner of a piano, a gift from her father. This instrument was such a curiosity that people came from miles to see and hear the melodious contraption". For more visit: http://www.downeyca.org/city_about.php



Profile: ALF Director Stan Barauskas: Projects Worked On: Apollo, Space Shuttle, Skylab, Apollo-Soyuz Test program (From the Columbia Space Science Learning Center Website)

Job titles, responsibilities, and projects: My first job out of college was as a field engineer working on the propulsion system of the Atlas Missile ICBM for General Dynamics from 1961 to 1963. I moved to Downey in 1963 and began at North American Aviation on the Apollo Program assigned to the Service Module Reaction Control System as a Propulsion Systems Engineer. After the conclusion of the Apollo Program I continued as a Propulsion Systems Engineer on the Skylab and ASTP Programs. On April 1, 1973 I transferred to the Shuttle Program working in the Propulsion and Power Systems on the Auxiliary Power Unit Subsystem (APUS) and still doing that same job today (April, 2006).

Most exciting or significant experience: After having worked on the Apollo, Skylab and ASTP Programs and never personally witnessing a launch at KSC I had the opportunity of supporting the first launch (STS-1) of the Space Shuttle. I was the Launch Support Team member from Downey monitoring APUS data on the console in the Launch Control Center in Firing Room #1 and giving the "go for launch" during the countdown and launch of Columbia on April 12, 1981.

Worst experience: After some delays, Shuttle Mission STS-1 finally got off the ground and completed its short (2-day) mission very successfully. Not so for STS-2. I was the Downey Engineering Launch Support Team APUS representative when two APU's suspect performance caused a launch scrub at T-31 seconds. It took 10 days of long hours to recover from an oil/fuel contamination problem that caused excessively high pressures in the oil lubrication system. I was under the gun night and day working to replace the APU's and prepare the system to re-cycle for the next launch opportunity. In one conference call I even found myself personally responding to heated questions from the then NASA Administrator, James Beggs, as to the cause and solution for the problem. Daily life: Of all the manned spacecraft programs I worked on, the Apollo was head and shoulders the most exciting of them all. Actually delivering people to another heavenly body and returning them safely was the achievement of the century. Being associated with people of that high caliber and expanding the envelope of scientific achievement on a daily basis was living an engineer's dream. The science fiction of planetary travel was now actual scientific fact!

Most memorable day: Watching the last few minutes of events on TV leading up to the first moon landing I had a sense of great pride knowing that the attitude control rocket engines I had helped design and test guided the Lunar Module to a safe landing on the moon's surface. All my family and neighbors got together to celebrate my wife's birthday anniversary on July 20, 1969 and were very happy to also join Astronaut Neil Armstrong's celebration of his "on e small step for man, one giant leap for mankind" that same day. **Recognition:** My first Snoopy award presented by Astronaut Dick Truly (later NASA Administrator) for my work on Skylab. My second Snoopy presented by Astronaut Mark Lee 15 years later for my work on Shuttle. Also, my nomination for Engineer of the Year in 1983 (Tom Hughes selected).

Most memorable people: Early at the beginning of my career at North American Aviation in February 1963 I was taken under the wing of Senior Design Engineer E.A. French. He was the quintessential engineer's engineer. He knew his craft very well and, more importantly, he would unhesitatingly share that knowledge with those new in the profession. Another great leader was Royce Beatty who had a great technical expertise but even more important in a leader, he knew how to motivate and encourage his staff to do their best. Others that were notable were Dick Thomas, a great leader and good friend, some astronauts who became good friends: Bill Readdy, Eileen Collins and Bonnie Dunbar; and co-workers Jose Ruiz, Tibor Farkas, Daron Ahhaity, Tom Reuland and Paul Grout. Ron McKenna stands out as the contractor (Sundstrand) representative that helped in a time of great need at KSC when an APU's caused a Shuttle launch delay during STS-2 (he later became the CEO of Hamilton-Sundstrand).

Events and accomplishments: Downey was the home of extraordinary scientific and engineering breakthroughs that helped mark the 20th century as the period that renewed mankind's heritage of exploration. This century, man explored the skies and the cosmos as he did the seas and lands of all the centuries that preceded it. Story: With visions of science fiction books and movies still fresh in my mind I entered North American Aviation in 1963 to begin a journey that made the fiction of manned space flight to heavenly bodies a fact. I thoroughly enjoyed all the years leading up to the first moon landing then followed by the first US space station, Skylab. Then continued on this journey with the highly politically motivated Apollo-Soyuz link-up program all the while narrowly escaping lay-offs surrounding me. The award of the Shuttle Project to Rockwell secured my employment from 1973 to the present day. I will hand off the manned spacecraft reins to the new generation so they can create their history with the moon-return CEV and subsequent manned Mars landings." **Add your story to the archive at :** <http://www.aviationhistoryarchive.org/clc/index.asp>

Space Science Center gets its contractor

From The Downey Patriot

DOWNEY--Tower General Contractors, Los Angeles' largest Hispanic-owned construction company and builders of the UCLA Astronomy Center, have been awarded the contract to build the Columbia Memorial Space Science & Learning Center in Downey.

The Center, expected to be completed in early 2008, will honor the memory of the seven-member Columbia Space Shuttle crew that died Feb. 1, 2003, while making an uncontrolled reentry to the earth's atmosphere. "We are pleased to have been selected to construct this distinguished building, which memorializes those who gave their lives for the exploration of space," Alex Guerrero, Executive Vice President of Tower General Contractors, said. "The Center will educate future generations about science and aerospace, making it a living tribute to their memory, while educating the next generation of astronauts."

The Center will be 18,000 square feet and feature a "Challenger Learning Center," a simulated space mission that will test the participant's decision-making skills.

Also planned for the Center:

•"Space Science Discovery Zone" where interactive exhibits will explore the principles of flight, the search for life beyond earth, the origins of the universe, and give a demonstration on living in space;

•"The Mars Robotics Lab," an exhibit especially for kids where children can design and program their own robots and launch them on a remote exploration mission to Mars;

•Historical displays honoring Downey's role in the aviation and aerospace industry.

Architecturally, the Center will be designed by Arquitectonica, which will be responsible for the architecture and interior design. They released a preliminary overview of how the Center will look, described below: →



The Building takes advantage of the visibility of its site by making a bold architectural statement, while marking the entrance to the future park. A prominent plaza in front of the building will serve as a gathering place and an outdoor room. It is designed to create a dynamic environment encouraging discover and participation.

The architecture for the Center reflected the aspiration and the ambitions of the astronauts and mankind traveling to space. It's a dynamic form propelling itself forward and upward, expressive of the confident optimism that drove a century of aviation and space exploration achievement.

The identity of the Center is first apparent as the visitor approaches from afar – the silvery skin reflecting the sunlight, the shape and profile distinctive and purposeful. Moving toward the entrance through the plaza, the building's metal-clad mass rises dramatically, opening the space underneath and inviting the visitor in.

Much like the approach to a large aircraft, one is inspired by the expressive power of form and the latent energy contained within. Everything evokes the experience of moving through space, encouraging the sense of lightness and freedom so identifiable as intrinsic to the experience of flight. Once inside the double-height lobby, the visitor is drawn into the Space Science Discovery Zone – the space is at once bold and dramatic with a large open stair connecting the two floors while also encouraging exploration and discovery deeper within. The circulation path is designed to carry visitors throughout the Discovery Zone, providing every opportunity possible to interact with the exhibits.

"In 1999, when the Downey NASA plant closed, the City of Downey began a redevelopment effort, including an education component," Mayor Rick Trejo said. "The construction of the Columbia Memorial Space Science & Learning Center is the culmination of our efforts to preserve Downey's 70-year legacy of aviation and aerospace history through space science education programs. The memorial will provide a way to extract something positive from the Columbia disaster."

Congresswoman Lucille Roybal-Allard authored a resolution approved by Congress in October of 2004 naming Downey the home of the Center. The Downey Patriot © 2005, 11525 Downey Ave., Suite A, Downey, CA 90241

Downey Aviator



North AmericanXB-70 Valkyrie

→

Aerospace Legacy Foundation

Preserving America's aviation and aerospace history

ALF has a new home

The Foundation is in the process of moving in to our new home at Downey Studios.

Our new address is now:

Aerospace Legacy Foundation 12214 Lakewood Blvd Ste. 12 Downey CA 90242.

562-922-8068

Visitors by appointment only.

Time to renew your membership?

Ask a friend to join.

The Downey Plant: Excerpt from "Cradle of the Cosmic Age" by Russ Murray

"When it comes time to memorialize the origins of space flight, there is an industrial plant in Downey, Calif., that would certainly qualify as a shrine.

This Downey plant was the birthplace, homestead and laboratory for much of America's wondrous space technology- the Space Age's equivalent of Orville and Wilbur's bicycle shop. It is here in Downey that space structure, guidance and power were prominently pioneered. And it is here that the celebrated Apollo command was created and manufactured.

An odd conglomeration of buildings set amid the urban trackdom of the southeast Los Angeles metro-mass, the Downey facility is impressive only in the size of its sprawl, and fascinates only in the contemplation of its architectural strata. It is now a National Aeronautics and Space Administration property and occupied by Rockwell International Corporation, but its legend pre-dates present labeling. The cursive brickwork of its front offices along busy Lakewood Blvd. Gives clue to the plant's beginning: streamline modern, early 1930s.

The Downey plant was begun in 1929 by the E.M. Smith Company, which built airplanes under the Emsco name until it failed in the 1932 Depression. The next resident was the National Security Aircraft Corporation, headed by Walter Kinner, a noted producer of sport planes. It was a short stay. In 1936 the Vultee Aircraft Corporation moved in.

Behind the front offices is the saw tooth roofline of the vast factory bay where Vultee assembled over 11,000 military planes during World War II. The most famous of these was the BT-13, a low-wing trainer that was inspiringly christened "Valiant," but suffered the ignominy of its service nickname, the Vultee "Vibrator." The present occupant, Rockwell International (see North American Aviation, Inc.), entered in 1947. Not so really long ago, in 1969, U.S. astronauts Neil Armstrong and Mike Collins, shortly out of quarantine after their world-stirring Apollo 11 lunar landing mission, spoke to an assembly of Downey plant workers. Said Collins: ",the trip to the moon started right here."

In a material sense, that was so. They laid the keel and constructed the crew ship (command and service modules) of the Apollo space vehicle at Downey, whereupon it was transported to Cape Kennedy and rocketed to lunar orbit. It took the Apollo astronauts less than two and one-half days to go from earth to moon, but it was a tedious quarter-century of travel along the advanced technology trail before the U.S. could arrive flight-ready for the venture. American space capability traces to the German missile projects of World War II, but nowhere was this elementary missile science more significant than at Downey".

Board of Directors

President
Gerald Blackburn

Vice President
Larry Latimer

Director- Treasurer
Kathy Blackburn

Director- Events
Jaycee Cruz

Director- Events
Andy Monsen

Director Emeritus
Dr. Mary Stauffer

Director- History
Dr. James Busby

Director- Education
George Redfox

Director- Education
Cleo Latimer

Director- Scientific
Gene Meyers
Space Island Group

Director Emeritus
Ed Dowd

Director- Resource
Robert Sechrist

Director- Research
Stan Barauskas

Advisory Board
Financial Partners
Space Island Group
Ed Dowd
Dr. Mary Stauffer

A Building 11 Publication

Our next meeting is on Sunday, Nov. 18th, 2007 at the Baptist Church on 2nd St in Downtown Downey

Thank you ALF members! For your constant support and believing in our noble cause. We all should be proud of preserving the legacy and teaching others of its message. Larry Latimer- President

"Home Sweet Home" by Jerry Blackburn

The Aerospace Legacy Foundation has moved into a new office at the old Downey NASA Site, now the home of Downey Studios and Industrial Realty Group (IRG).

We began moving furniture and files in this month. We expect to be fully operational by the 1st of April.

The new office is located in Building 11 the original site of the Engineering Development Labs Chemical Processing facility. It was later configured for data storage and information management systems. We will have a large storage and processing area for graphics, documents and artifacts. A separate area will be maintained as an office, conference center and data processing. We have established a one year lease agreement with IRG and will also be collaborating with them on their new development plans to assure significant historical elements are integrated into the future site developments. This also gives us an opportunity to collaborate with the City and the new construction of the Columbia Memorial Space Sciences Learning Center.

We anticipate the office will be open for the next few months to Board Members and selective volunteers only, usually during the week and on Saturdays. (We will talk more about this at the General Meeting).

Our new mailing address is : 12214 Lakewood Blvd. Bldg. 11 Suite #12 Downey, Ca. 90242

Our new office phone number : **562-922-8068**

This is a significant milestone for the ALF. The ability to consolidate our collection of artifacts and documents will bring us closer to realizing the vision of the Aerospace Research Library/Cybrary. We will keep you informed as work progresses.

Jerry Blackburn, Director Foundation Projects

Web Shot: collectspace.com

It came from Downey.

today in space HISTORY

1996: NASA releases the first image based surface map of Pluto, derived from data taken by Hubble.

March 7, 2007 / 8:04 p.m. CT (0204 GMT Mar 8)



Homecoming: The first Apollo command module built at North American Aviation's Downey plant, a "boilerplate" designed to test the Moon-bound craft's abort system, returned home to the California facility for display within a new educational center soon to reside at the site. The Aerospace Legacy Foundation, tasked with preserving the artifacts from the 'birthplace' of the Apollo crew capsule and space shuttle orbiter, received BP-6 for the Columbia Memorial Space Science Learning Center, opening early next year. The early command module was launched from White Sands, New Mexico on a Pad Abort Test of the launch escape system on November 7, 1963.



Our first month in Bldg. 11



Membership Drive 2008– Time To Renew!

Aerospace Legacy Foundation

A California Non-Profit Corp.

We accept contributions in any amount.

Our levels of support:

Students with valid ID – Free

_____ **\$10.00** **Regular General Membership**

_____ \$50.00 Organization

_____ \$50.00 Individual Sponsor Membership

_____ \$100.00 Corporate-Business

_____ \$200.00 Gold Lifetime Member

_____ \$1000.00 Founders Club- Lifetime Member

All memberships are for the calendar year except where noted.

Name (Organization) _____

Address _____

City _____ State _____ Zip _____

E-mail _____

Phone _____ Fax _____

altdowney@aol.com

ALF 12214 Lakewood Blvd Suite #12, Downey CA 90242

562-922-8068



Thanks for your support!
People make the difference.

Dear Members and Friends:

Send in an article for our newsletter about your experiences at the Downey Site.

altdowney@aol.com