The City of Downey is Lacking “INSPIRATION”  
By Stan Barauskas

It was with much fanfare, ballyhoo, grandiose speechmaking and accompaniment by the Warren High School marching band on July 12, 2012 that ushered in the roll-over of the Space Shuttle Orbiter mock-up from its storage area in Bldg. 1 to its new temporary shelter a few hundred yards away.

The full-size mock-up, made of steel, wood and plastic in 1972, was instrumental in winning the Space Shuttle contract award for North American Rockwell from NASA. It is approximately the same size and shape of the production Orbiters and, after the contract award, was used to support design of cable harnesses and to fit-check flight hardware.

The orbiter was located in a large room called the DEI (design engineering integration) Room where it also served as a back-drop for the visiting public on the last Friday of each month for a presentation about space topics by the Speakers Bureau. The mock-up was so huge that the left wing and a portion of its vertical tail were removed to allow installation in the DEI Room.

"When it comes time to memorialize the origins of space flight, there is an industrial plant in Downey, CA 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 and service modules were created, designed and manufactured."

Russ Murray
Historian
Rockwell International

Councilman Mario Guerra welcoming the Mock-up to its temporary home

It was used to support the early design of the Orbiters and often served as a tool for installation verification of flight hardware and future payloads in the Payload Bay. Over time this mock-up was supplanted by the “Iron Bird”, a structural mock-up that was a very accurate reproduction of the Orbiter primary and secondary structure. This allowed more detailed installation checks of the subassemblies that were incorporated in various sections of the Orbiters. Continued on page 2
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When the Boeing Co. left the Downey facility in December 1999, the mock-up was disassembled and stored behind plastic sheets in Bldg. 1 of the former Rockwell/Boeing facility. It remained in storage for ~12 years until the City of Downey decided to re-develop the property into an industrial center called The Downey Promenade. All of the buildings, except for the Kaufman Wing (the Bldg. 1 Annex), were to be demolished and new construction of the ~$170 million project would begin.

The five-member Downey City Council voted unanimously to preserve this valuable artifact and move it out of its storage building into a temporary shelter until the city could raise funding for a permanent home. There was some concern expressed when the city hired an artifact conservation company, Griswold Conservation Associates, to evaluate the condition of the mock-up. The organization concluded that considerable deterioration had already taken place and would require ~$2 million to properly put it on permanent exhibit. Scott Pomrehn, the Columbia Memorial Space Center Executive Director at the time, was quoted as saying that “the Downey shuttle is a historic gem” and must be preserved. (Ref. LA Times, “Meet ‘the original shuttle’, W.J. Hennigan, 6-15-2012).

The Columbia Memorial Space Center (CMSC), opened in 2009 on the former site of the Rockwell/Boeing facility, was given the responsibility for the mock-up oversight. The City funded the move to the new shelter near the vicinity of the CMSC at a cost of $157,000 and was to remain there for 1.5 years.

Shortly afterwards, Downey officials invited the city residents to participate in a naming contest for the life-sized mock-up and the name selected was INSPIRATION on September 24, 2012. The CMSC conducted tours of INSPIRATION which was greeted by expressions of awe and incredulity at the magnitude of the achievements this artifact inspired.

The Shuttle model is a symbol of the city’s thriving past as an aerospace center. Aircraft manufacturing began with E. M. Smith who established EMSCO Aircraft Co.in 1929. The site later became Consolidated Vultee, then North American Aviation, Inc., followed by Rockwell and ultimately the Boeing Co.—Continued on page 3
The Downey plant’s story would take up the majority of a book on aerospace history covering projects such as the BT-13, V1-A, XP-54, Navaho cruise missile, Hound Dog (GAM 77), Apollo spacecraft and, finally, the Space Shuttle. The CMSC was constructed on a portion of this site in 2009 to honor the Columbia astronaut crew which perished during re-entry on February 2003 and to highlight the amazing aerospace saga created here in Downey. The Downey NASA Site was granted the status of an AIAA Historical Aerospace Site in May 21, 2010 by the American Institute of Aeronautics and Astronautics (AIAA). The facility was recognized for its long 70-year history of aerospace projects that originated there dating back to 1929 until Boeing left the facility and moved to Huntington Beach in 1999.

The Aerospace Legacy Foundation (ALF) made a proposal to the city for a fundraising campaign that could provide money for a permanent showcase (annex) to house this incredible artifact. ALF suggested a campaign to solicit donations from the public that would forever inscribe the donor’s name on a simulated piece of thermal protection tile to be installed on the Orbiter’s outer skin. The actual flight article uses ~24,300 of these tiles, and thus, creates the potential for raising a significant amount of donations based on the offering of ~$100 to >$1000 for each tile. Suggestions were also made that corporate sponsors may be solicited for even higher value donations.

But the City did not support this plan and no seed money was provided to initiate the fund raising. The city was unsuccessful in its own attempts at acquiring funding for a permanent facility and, ultimately, INSPIRATION was moved out of the temporary shelter to a fenced “maintenance facility” where it is protected from potential vandals but is provided with only token protection from the elements.

City Councilman Mario Guerra was quoted as saying “We’ve dreamed big about displaying it, but we just haven’t had the funds…we plan on restoring it for kids to have the ability to actually get in it and sit at the control room onboard”. Of course this is one feature (you actually can get in it) that will never be available to visitors of the Endeavour Shuttle at the California Science Center where the space-faring Orbiter is currently on display.

It is truly remarkable that an artifact like this Shuttle mock-up would be allowed to disintegrate due to the lack of will on the part of the city to preserve this harbinger of the most complex project ever conceived by mankind. Instead of being hailed as a symbol of the greatest engineering feat in history, it appears to be doomed to an ignominious end.

The photo above shows the mockup INSPIRATION stored in the City of Downey maintenance yard mostly covered with a tarp affording some minimal protection against the elements (though the EDO pallet to the right apparently is overlooked). It is truly regrettable that the city’s apparent “lack of INSPIRATION” will ultimately lead to the demise of its incredible namesake. All of us at ALF are hoping the Inspiration finds a home.

Stan Barauskas
ALF Director
Boeing Project Engineer 48+ years (retired)
It was a warm summer morning in the early 1940s in Downey, California. The kids we played with every day: Johnny Rodriguez, Kenny and Donna Ganser, Buddy Hayman, Ray Cabrera, Mory Guerrero, Ward Dawson, my brother Mike and I were busy with a game of “work-up” softball in the middle of Davis street when a 1939 Grey Plymouth business coupe turned on to Davis from Downey Avenue. The driver saw us and promptly pulled over to the right and parked off the road next to our 9-foot tall solid fir tree fence. As he got out we all recognized him as “Uncle Ed”. He waved with a big smile on his face and dug into his right pants pocket for a handful of bright shiny $1.00 coins as we all ran over to greet him. He had a treasure coin for each of us. After a handshake, small talk and a hand tousled hair touch he was off to our house to visit with my Mom, his favorite, niece. After a visit with her he would walk across Downey Avenue to visit with Mrs. Edna Fether, she was Don’s wife and Aunt Mimmie’s daughter-in-law. A little while later he would come back to the car and wave goodbye. He was just a great guy!

Uncle Ed, E.M. Smith, worked his way from Charleroi, PA., near Pittsburgh across the USA to San Francisco, arriving in the city near the end of the 19th century. He was 18-years old and found work in the various manufacturing businesses in this fastest growing city in the west. He was very skilled mechanically but found his real niche in sales. By the time of the big San Francisco Earthquake he was a top salesman for Diamond Rubber Company selling drive belts for mechanical equipment. After the quake in April 1906, he was sent by the company to Los Angeles to supply the very fast growing business community of the “southland”. He was a very personable and, with his mechanical ability, a very helpful supplier of mechanical drive belts and equipment. He really got to know, not only the movers and shakers, but also what their future needs would be. By 1911, with the help of his father, my great grandfather, Henry John Smith, and his brothers, Walter and Joseph, (He had sent for all of them from the Pittsburg area as he became more and more established and successful.) he established the E. M. Smith Co.

His first major line of products revolved around reinforced rubber belts and belt drive mechanical equipment. He was not afraid to partner with others and expand his product line to meet the needs of a growing Los Angeles. The oil industry was in its infancy as were the auto and truck industries, engines, transmissions, brakes, oil towers, modern concrete construction, and even the banking industry, each needed aggressive and competent leadership and Uncle Ed knew and was a part of that leadership. By 1924, his ownership included: The E.M. Smith Co., West Coast Asbestos and Brake Lining Co., Emsco Derrick and Equipment Co., Western Forge Co., Peerless Pump Co., Los Angeles Pump Supply Co., Emsco Piston and Brake Co. and Pacific National Bank of Los Angeles. In 1928, with the massive construction going on in downtown LA, Emsco Concrete Cutting Co. was formed to provide services to demolish and dispose of old buildings and roadway surfaces and to prepare sites for new construction. Continued on Page 5
Uncle Ed never let a dream slip by. In 1928, he put together a team to design and construct private aircraft. They were to be used for sport, business and commercial aircraft travel. In 1929, he had established and built EMSCO Aircraft in Downey which one day would become the “Home of Apollo” and the Space Shuttle. During WWII, Uncle Ed’s companies were devoted to the war effort and after the war he established Globe Oil Tool Co. and designed and built the first mobile starting gate for harness races. (photo right)

As we grew up we knew Uncle Ed was rich, but he was a friendly uncle that shared time with us and had encouraging words and smiled as he told us stories. We visited his office at work and his homes. We even went to his Arizona ranch to watch the cowboys roundup his cattle and brand the new little calves with his Bar-Heart brand. I remember a number of trips to his Lido Isle home in Newport Beach and swimming in the bay at the beach club, and him taking us for a ride in his rowboat that he rowed.

He and Aunt Mimmie (Marian Fether Smith) were married in 1919, they built a big house in Berkeley Square west of downtown Los Angeles in 1923. They were out of that house in the early 1940s selling it to a doctor. I was never in that house, and Caltrans condemned it under eminent domain proceedings in the 1960s for the Santa Monica freeway. I would visit their Downey hide-away home that was next door to us on Downey Avenue. When Uncle Ed and Aunt Mimmie wanted to get away for some quiet time they would come with their maid, Maddy, for a few days. Maddy made cookies for us and would call us over to get them. Aunt Mimmie had two matching big Dalmatians who were very quiet and not too scary even for 5 and 7 year-olds.

Aunt Mimmie just left the scene in 1940, the next thing we kids knew Uncle was married to a very nice Aunt Catherine. They had a beautiful home in the hills just above downtown Whittier. We would visit that home and the new home they built on Lido Isle. Uncle Ed moved his office from South Alameda St. in Los Angeles to Globe Oil Tools off Los Nietos Rd. in Santa Fe Springs, CA. to be closer to home. Aunt Catherine died in a terrible auto accident in Whittier in 1948. Uncle Ed was heartbroken and never really recovered. He did build a church hall in her honor at St Mary’s Catholic Church in Whittier. It was dedicated on the day of his death, March 17, 1950. He died of natural causes, a broken heart, at the age of 69.

Looking back...“Aviation Years Here That Led To Rockwell” By John Adams

"The world famous home of the Space Shuttle and other exotic aerospace explorers, Rockwell International in Downey sits on a historic plot where aviation history has often left its mark.

The saga began in 1929 when an oil field equipment firm, EMSCO, decided to build an airplane. The result was the EMSCO “Cirrus,” and lest cynics scoff too hard at a link between oil equipment firms and aviation, let’s note that oil rigging and equipment were where Howard Hughes started. EMSCO followed the “Cirrus” with a second design that was flown from a small airfield adjacent to the plant in 1930. EMSCO built a third model, the B-3, that made quite a name for itself in long distance flights of the time. A number of B-3s were sold to the Mexican Air Force. And the B-3 was eventually refitted into an airplane known as the "Challenger."

The Great Depression affected the air and oil industry as well as everything else, and EMSCO shut down in 1932, but its hangars, plant and small airfield remained. Then came Jerry Vultee, a young engineer from Lockheed who wanted to build airplanes of his own independent design. Vultee started in Glendale, but he sought a facility with more space and an airfield. He moved to Downey in 1936. The first plane he built in Downey was the V-11, an attack bomber which later flew in China. The V1-A which was conceived in Glendale, was later built in Downey as well.” Vultee was killed in an air crash in Arizona in 1938, but his legacy was the Vultee plant in Downey.”

The first quarter of 2014 has been somewhat quiet for the Aerospace Legacy Foundation (ALF). We have been refocusing on our vision and mission for the future. The impending loss of the Shuttle Inspiration (see Stan’s great article in this edition) has been a sad commentary on the commitment and resolve of the City of Downey toward its unique aerospace history. Many opportunities still exist for us to tell and share those stories with the community at large. This summer ALF, along with the California State University at Long Beach, will offer a Workshop funded by the National Endowment for the Humanities on “The Cold War in Southern California”. Historians and educators from around the country will participate in a week long workshop within the Southern California area. ALF will host a portion of this program at the Columbia Memorial Space Center by providing panel discussions with retirees from here at Downey.

There are many wonderful stories to share (checkout our E.M. Smith article) about the legacy of the aerospace industry here in Downey. I am also going to reactivate our oral history project. If you would like to participate in it please contact us.

By the way, our organization has a Facebook page now. If you are a Facebook member check us out.

Have a great Summer!

Jerry Blackburn
ALF President