



The Newsletter of the Western Museum of Flight

Director's Message

Cindy Macha, Photos: Web

We mourn the passing of a colleague whom we always admired and who has held a prominent place in our Women in Aerospace Exhibit. Olympic swimmer, WASP, USC Grad, flight instructor, participant of women's transcontinental air races, long time Ninety-Nines member, mentor and educator of future pilots, and adjunct professor in the Claremont Colleges, Iris established herself as a key figure in the aerospace world. Iris took her inspiration from her mother, a high school teacher specializing in Greek and Latin. So it is no surprise, that her mother would have named her for the goddess Iris who used her ethereal powers to pass back and forth across the rainbow bridge that souls traversed between their earthly existence and the heavens. Clearly this was commensurate if not prophetic of all of the amazing things that Iris did both on and above the earth.

RIP Iris Critchell who left us at age 104.



The Museum Re-Imagined

After many years working with the California Science Center, the Harrier T.4 and Firebee drone will be moved to their new venue at Exposition Park late Spring. This will enable us to reallocate space and reimagine the configuration of our displays. To help us accomplish this, patron member, Al Frew, generously contributed \$50,000. This is also an appropriate time to acknowledge our loyal volunteer force who have stepped forward to carry out the plans for these enhancements. Stay tuned for updates on our plans for the museum throughout 2025.

Elinor Smith - Aviatrix

Krystal Deng

“Children must be allowed to dream and have a horizon to work toward. For me there was only one path: I knew from age six that I wanted to fly. Flying was the very breath of life to me and I was successful because I loved it so much.”- Elinor Smith

Knowing what career you will pursue is one thing, but knowing your life’s purpose at just six years old is another. Meet the record-breaking, pioneering, “Flying Flapper.”

Elinor Smith was a born-and-raised New Yorker from Freeport, Long Island, an early aviation hub rich with aviation history. At six years old she was offered a ride in a Farman Pusher Biplane, becoming enthralled with aviation—the rest is history!



At 13 years old, without a driver’s license, Elinor would often drive 45 minutes early mornings to Wantagh for flight lessons and return with enough time to prepare for school. At 15, Elinor became determined to fly solo after learning about two seventeen-year-old Californian girls who had done so. After begging her mother, she was granted permission to fly from Wantagh to Roosevelt Field, becoming the youngest woman in the world to accomplish the feat.

Elinor continued making history by being the only pilot to have ever flown under all four East River suspension bridges, inspired by a male acquaintance who failed to fly under the Hell Gate Bridge; at one point, Elinor was only 10 feet above the water. She was grounded for 15 days by the Department of Commerce, but this risky stunt skyrocketed her to fame.

Elinor’s drive for success didn’t stop there - she earned her pilot’s license just a year later and became the world’s youngest licensed pilot at age 16. This was only the start of Elinor’s record-breaking journey.

At 17, Elinor broke the women’s solo endurance record at 13 hours and 16 minutes, though Evelyn “Bobbi” Trout and Louise Thaden soon topped her record; three months later, Elinor reclaimed her record with 26 hours and 21 minutes.

In 1929, Elinor broke four records alone, including the first women’s refueling record of 42.5 hours with Bobbi Trout, while spending the year touring the U.S. air show circuit.

At 18 years old, Elinor also became the first female test pilot for Fairchild Aviation and Bellanca Aircraft, two aircraft and aerospace manufacturing companies.

In 1930, Elinor set a new women’s altitude record of 27,418 feet and was thus voted the 1930 Woman’s Pilot of the Year at 19 years old, defeating the popular Amelia Earhart. Interestingly, the 1929 male Pilot of The Year was Jimmy Doolittle, Elinor’s idol since childhood.

In 1932, Elinor set a straight-course speed record of 229 mph.

Throughout the Great Depression (1929-1939), Elinor flew as a stunt pilot for air shows, movies, and fundraisers for the homeless.

Elinor Smith - Aviatrix, *continued*

Krystal Deng

In 1934, Elinor became the first woman to appear on a Wheaties cereal box, joining the likes of Lou Gehrig and later, Michael Jordan.

Over the course of her career, Elinor garnered several endorsements for flying equipment, specifically motor oil and goggles.

In 1933, Elinor married Patrick Sullivan and stopped flying after the birth of her first child, though she continued to work in aviation as a founding member of the Long Island Early Fliers, a non-profit organization committed to preserving the rich history of Long Island aviation.

At a time when female aviators were frowned upon and flying was deemed “unfeminine,” Elinor Smith was truly extraordinary. Her lifelong passion for flying inspired countless aspiring pilots for generations to come as she encouraged women in aviation to break the boundaries and defy society’s expectations— for Elinor, the sky’s the limit!

“I had been brought up to think that anyone could do anything he or she put his or her mind to, so I was shocked to learn that the world had stereotypes it didn’t want tampered with. In an age where girls were supposed to be seen and not heard, look beautiful, and occasionally faint, I didn’t seem to fit in anywhere.”-Elinor Smith

Civil Air Patrol

Photos: Museum Staff



Civil Air Patrol visits museum for a curated tour with docents Fred Peitzman and Lynn Jensen.

Katya Echazarreta - Astronaut

Sabrina Robles

Katya Echazarreta is the first Mexican-American woman who went to space! She was selected to be a Space for Humanity Ambassador and flew into space on the Blue Origin NS-21 in June of 2022.

Before she went to space, Katya graduated from UCLA with a Bachelor's degree in Electrical Engineering and worked on five NASA missions as an aerospace engineer. One of the major projects she worked on in NASA was the Europa Clipper, which recently launched and is headed to Jupiter's moons.

Katya's story of success is inspiring. She was born in Mexico and immigrated to the United States at 8 years old. Ever since she was young, she has been passionate about space, math, astronomy, and physics. While pursuing her career in engineering, she noticed the large lack of women alongside her in the field. This lack of women created more challenges for her as a woman in STEM, but now she is dedicated to supporting young citizens interested in STEM. She founded the nonprofit Fundación Espacial—based in Mexico—to provide resources and opportunities for individuals without access to space industry-related education.

Katya is someone that we can all look up to, and she shows us that achieving our goals is possible, no matter who we are or where we come from.



“I have always believed that it is not enough to achieve your goals if you do not help others to grow with you.” - Katya Echazarreta

Intern Highlight - Sabrina Robles

Photos: Museum Staff

High School intern, Sabrina Robles, kicks off the New Year with a series of Instagram posts featuring the exceptional women in our Women in Aerospace Gallery.



Walteria School 3rd Grade Visit

Photos: Museum Staff



Walteria Elementary 3rd Grade 11/18/24



Docent Kevin Morris (left photo) describes the F-5 fighter with Walteria school third graders at their annual autumn visit. Students give rapt attention as pilot Robert Beckwith (right photo) describes his Beech Sundowner.

Homeschool Students Visit

Photos: Museum Staff

Homeschooled students learn about the future of space exploration and contemplate the roles of women in aerospace while visiting our special exhibition. Docents Joe Provenzano (top photo) and Don Stouder (bottom photo) described exhibit highlights and answered student questions.



Cal State Fullerton University Career Day

Photos: Museum Staff

Cal-State University Fullerton Educational Talent Search administrators and students visit the museum to discover career opportunities in aerospace.



Docent Mark Lonner describes the characteristics of the North American F-86 Sabre.



YF-23 Exhaust Covers

Richard Peterson, Janis Yee, Photos: Museum Staff

New YF-23 protective exhaust covers were fabricated and donated by Northrop Grumman's (NG) prototype shop in Palmdale. Northrop developed and built the two YF-23 prototypes. Years of weather took their toll on the original exhaust covers. Museum volunteer Rich Peterson asked NG Palmdale manager, Scott Pickens, if he could give us a hand. The NG prototype shop team volunteered their time to come to the museum, take measurements, formulate the new design materials, fabricate, paint, and when completed, returned to the museum for fit check and final installation by the museum's aircraft restoration team. Many thanks to Bill Bagge-laar's entire museum restoration team and to Northrop Grumman's leadership for their support!

NG Palmdale team (left to right): Sean Bazzell, Michael Argueta, Andy Mariscal, Scott Pickens, Garrett Cannon, Peter Argueta (not pictured); museum volunteer: Richard Peterson (far right)



After their hard work, the NG team enjoyed flight time in the F-5 cockpit and visiting exhibits.



Rolling Hills Strollers

Photos: Museum Staff

Rolling Hills Stroll members chose the museum as their destination for their November tour and dinner.



New WMoF Corporate Council Member: Antcom Corporation

Photos: Museum Staff

Antcom Corporation is a prominent supplier and developer of RF antennae advanced technologies and is also a new member of our Corporate Council. Employees enjoyed their December Holiday Party at the museum.



Northrop Grumman Family Day

Photos: Museum Staff

Northrop Grumman families enjoyed a well-earned, relaxing day among airplanes, conversing with aerospace-experienced docents, and picnicking. Jason Marshall and his team treated families to delicious cook-to-order burgers, hotdogs, and all the fixin's.



New Museum Store and Reception Area

Photos: Museum Staff

Thanks to the planning and hard work of our volunteers, a new museum store is ready for our visitors to shop for aerospace items. The reception area has been reconfigured to better serve our many visitors. Other 2025 museum updates are underway. We'll keep you posted.



International Visitors

Fred Peitzman, Photos: Museum Staff

Museum docent, Fred Peitzman, enlightens some of our numerous international visitors about the technological and historical treasures that our institution has to offer. In 2024, the museum hosted about 1,000 foreign visitors, 18% of our total adult visitors! In a typical month 18 or more different countries, from Denmark to Singapore to Lithuania to Mexico to Iceland visit. Many are here because they want to see the YF-23. Quite a number are international airline pilots who have a day layover staying at nearby Torrance hotels.



Torrance Armed Forces Day Parade

Photos: Museum Staff



Rhon Williams and Bruce Guberman attend Cable Airport fly-in to help museum director recruit pilots and aircraft for the 2025 Torrance Armed Forces Day Parade upcoming on May 17.

Torrance Refinery Company Community Day

Photos: Museum Staff

Docent Mark Ford with our educational display at the Torrance Refining Company Community Day including some of our more popular memorabilia.



Annual Volunteer Luncheon

Photos: Museum Staff

Our Annual Volunteer Luncheon at the Red Onion is the favorite event each year!



Welcome - Briana Krank



The museum has the privilege of having acquired a talented new employee, Briana Krank, who will be serving as Administrator for External Affairs.

Volunteers Needed

The Exhibits Team is working hard to create new exhibits and update current ones to best utilize the floor-space that will become available when the Harrier returns to the California Science Center this summer. A major focus will be on expanding our Space Exhibit with emphasis on space today and tomorrow. Other areas include Robinson helicopter, aerospace suppliers, drones and unmanned vehicles, space for rotating exhibits, etc. If you have knowledge/expertise in these or any other local aerospace and would like to be involved we welcome you to join us. To find out more, contact: fred.peitzman@gmail.com or show up to one of our weekly meetings at 10:00 every Tuesday at the museum.

Celebrity Lecture Series

Photos: Museum Staff

September 2024 Celebrity Lecture: Steve Snyder, *Flames Over Europe*. The spectacular courage of thousands of American airmen over Europe is well known. But there are a few stories that carry this in a magnitude greater. Steve told the story of his father, B-17 navigator, who continued to fight after being shot down, rescued by the Belgian underground, joined the French resistance and fought alongside them for months until he was able to rejoin American forces on the ground in Europe. Cindy Macha holds Steve's book "Shot Down" with Steve Snyder (center) and Mike Ciminera.



October 2024 Celebrity Lecture: Mike Machat, *Douglas World Cruisers: Flight Around The World*. The amazing story of the first flight around the world 100 years ago.

November 2024 Celebrity Lecture: Gil Rud, former Blue Angels Demonstration Team Flight Leader, *Skyhawk To Hornet*. Blue Angels flight leader, Captain Rud, takes us for a demo flight to transition the team from the A-4 Skyhawk to the F/A-18 Hornet. Veteran Navy pilot and former Captain of the aircraft carrier USS Constellation, shares with us his career in the Tailhook Navy. Photo: Gil with wife Carol (right), and Director Cindy Macha (left)



January 2025 Celebrity Lecture: Michelle Evans, Air Force veteran and author; *X-15 Rocket Plane; America's First Adventure Into Space Experimentation*. Michelle is one of the foremost experts on the X-15 Rocket Plane. Her book is the inside story of the entire project, ordeals it entailed, and corollary ordeal of documentation of the entire saga.



Celebrity Lecture Series

Warfare at Arms Length

15 February 2025
11 AM Lecture

Saga of Flying the General Atomics MQ-9 Combat Drone



Richard L. Martindell
USAF Lt Col (Ret)



Air Force Fighter Pilot, Richard Martindell, compares flying manned aircraft and unmanned in combat. The operational environments: what life is like in the cockpit and at the control console. Please join us.

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Celebrity Lecture Series **Birth of the F-35 Lightning II**

(Born to Multiple Parents)

15 March 2025
11 AM Lecture

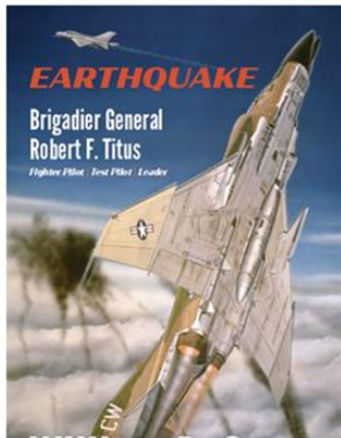


Scott Krambeck
CAPT USN (Ret)



This exceptional aircraft built to serve the combat needs of Air Force, Navy and Marine Corps forces, is the product of a joint effort, led by Lockheed Martin with major participation with Northrop Grumman and British Aerospace with contributions from several other companies and countries. Scott Krambeck, following an illustrious career in the Navy and the Industry, will share the fascinating story of the conceptualization, development, and deployment of this versatile aircraft.

Save the Date: 4/19/25



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**Paratrooper, Fighter Pilot,
Test Pilot**

19 April 2025

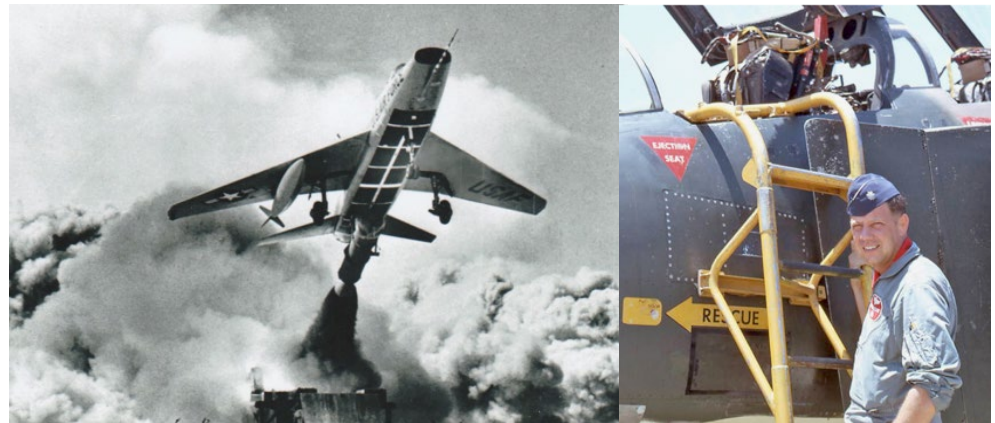
11 AM Lecture

**The Saga of Brigadier General
Robert "Earthquake" Titus**

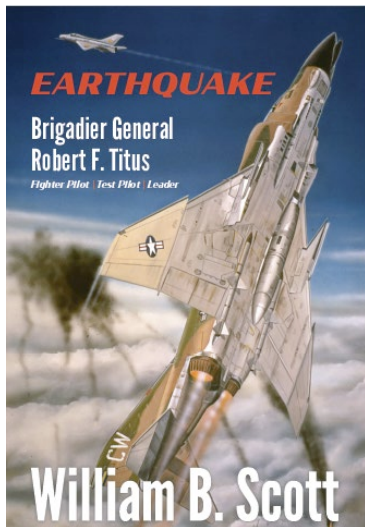


William B. Scott

Former Aviation Week and
Space Technology Rocky
Mountain Bureau Chief



American fighter pilot and test pilot Brigadier General Robert F. "Earthquake" Titus logged more than 550 combat missions in the Korean and Vietnam wars; flight tested all Century Series fighters; flew the first nonstop trans-Polar flight in an F-100 *Super Sabre*; shot down three enemy MiG-21s and brought the F-15 *Eagle* air superiority fighter to life.



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Become A Contributor

We know that many of you reading this are former members of Southern California's aerospace industry and may have some interesting stories and experiences from your careers. We ask you to consider sharing some of these stories with us, whether about a particular company's aircraft project/program or during the course of military service associated with one of the many aircraft types built in Southern California. We look to preserve these stories before they are lost to time.

Our mission is to preserve the histories of the aircraft built here in Southern California, primarily airframes in earlier times, for the defense of our nation, experimental research air vehicles, spacecraft and commercial airliners. **Lockheed** (Burbank, Palmdale); **Douglas/McDonnell Douglas** (Santa Monica, El Segundo, Long Beach), **Hughes** (Culver City, El Segundo), **North American Aviation/Rockwell/Boeing** (LAX, Downey, Palmdale), **Boeing** (El Segundo, Long Beach, Seal Beach), **Northrop Grumman** (Hawthorne, El Segundo, Palmdale), **Vultee** (Downey), **Consolidated/Convair/General Dynamics** (San Diego), **TRW/Northrop Grumman** (Redondo Beach), **SpaceX** (Hawthorne), **Robinson Helicopters** (Torrance), these amongst all the larger companies.

We look to the future as well, as history continues to be written with new initiatives and opportunities for further space exploration. We'll help to polish up the words if you are not a professional writer. Or it may simply be an interesting photo(s) with a caption added to tell the story. Please contact us directly via email: info@wmof.com, with your thoughts and comments.

The Western Museum of Flight honors and champions the Aerospace Industry Heritage of Southern California and inspires, motivates, and educates the dreamers and creators of today and tomorrow.

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