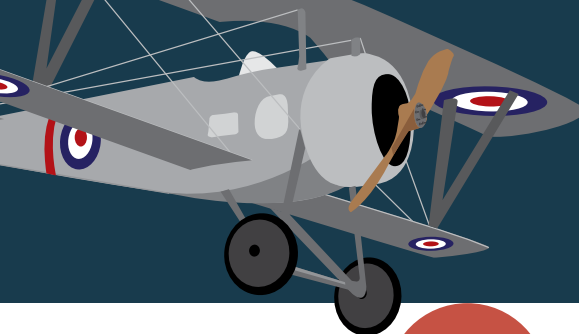


# aloft

THE MUSEUM OF FLIGHT MAGAZINE

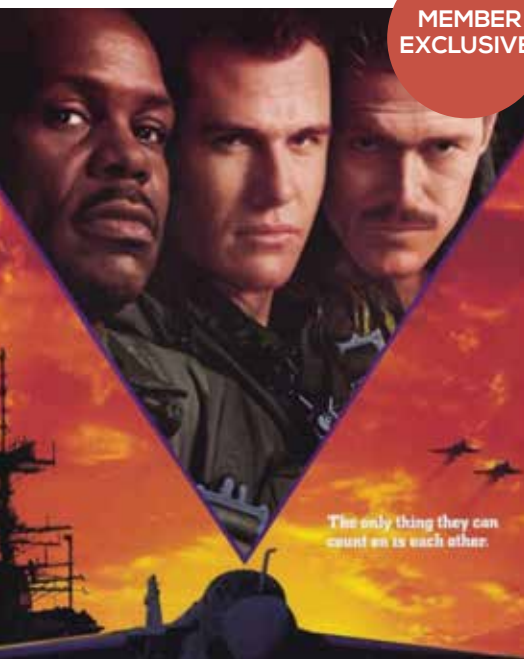


VOL. 40, ISSUE 3  
MAY/JUNE 2018



# MEMBER EVENTS

For all events, please RSVP to [membership@museumofflight.org](mailto:membership@museumofflight.org).



MEMBER EXCLUSIVE!

## MEMBER MOVIE NIGHT FLIGHT OF THE INTRUDER

During the air war over Vietnam, tensions run high aboard the USS *Independence* aircraft carrier when two frustrated US Navy A-6 Intruder pilots make an unauthorized air strike on Hanoi. Based on the novel by Vietnam pilot and flight instructor Stephen Coonts. Starring Danny Glover, Willem Defoe, and Brad Johnson.

Rated PG-13 for violence, language, and adult situations. *Parents strongly cautioned.*

**WILLIAM M. ALLEN THEATER**  
**Friday, May 11 | Movie starts at 6 p.m.**  
Doors open at 5:30 p.m.

Sponsored by:



## Want to see artifacts in the Museum collection not normally on view?

Join us for *Coffee with the Curator*. You're welcome to bring your lunch—coffee and dessert is on us! Featuring Red Barn blend coffee, available exclusively in our Museum Store. **RSVP to [membership@museumofflight.org](mailto:membership@museumofflight.org) to attend.**

## PROPULSION

Aircraft engines often get short shrift in aviation museums. Coming in October, the Museum will address that oversight with a year-long, temporary exhibit on aircraft engines. Join Assistant Curator John Little and the Collections Team as they discuss the research that went into the upcoming exhibit and show off some of the Museum's most-interesting propulsion-related artifacts and documents.

**NORTHWEST AERoclub ROOM**  
*Red Barn, 1st Floor*

**Friday, May 18 | Noon to 1 p.m.**

## NEW TO THE COLLECTION

Museum Registrar Christine Runte will highlight a selection of donations made during the first half of 2018. She will also share how the Collections team decides whether or not to accept a donation and discuss some of those donations that were redirected elsewhere.

**NORTHWEST AERoclub ROOM**  
*Red Barn, 1st Floor*

**Friday, June 15 | Noon to 1 p.m.**

## SPECIAL MEMBER PREVIEW! VIETNAM DIVIDED: WAR ABOVE SOUTHEAST ASIA

Our Exhibits Team is hard at work planning a new exhibition focusing on a variety of iconic aircraft used in the Vietnam War, including the McDonnell Douglas F-4 Phantom, the Bell UH-1 Iroquois "Huey" helicopter and the Lockheed YO-3A Quiet Star. The exhibit opens Memorial Day weekend, but Members get to see it first during this special opening reception. A cash bar will be available and light refreshments will be served.

**RSVP required. To attend, email us at [membership@museumofflight.org](mailto:membership@museumofflight.org).**

**T.A. WILSON GREAT GALLERY**  
**Thursday, May 24 | 6 to 8 p.m.**

## SPECIAL MEMBER PREVIEW! SPIRIT OF FLIGHT PHOTOGRAPHY EXHIBITION

Members are invited to celebrate the opening of the *Spirit of Flight* exhibit before the exhibition opens to the general public! Join us for a morning reception and preview of this very special juried photography exhibition, as well as a chance to meet some of the participating photographers! Light refreshments will be served.

**T.A. WILSON GREAT GALLERY**  
**Saturday, June 16 | 9 to 10 a.m.**

**RSVP required. To attend, email us at [membership@museumofflight.org](mailto:membership@museumofflight.org).**

## STEM Starters

STEM Starters is a monthly program series geared toward our youngest Members ages 3 to 5 and their co-pilots! Explore the wonders of aerospace during this fun, educational program. *One adult helper per child is required to be present and participate.*

### ROBOTS

3 sessions available!

Join us in May and June for a robotics workshop and learn how to program robots!

**Monday, May 14 | 10:30 to 11:30 a.m.**  
**Monday, June 11 | 10:30 to 11:30 a.m.**  
**AND 3 to 4 p.m.**

All sessions are in the **NORTHWEST AERoclub ROOM**  
*Red Barn, 1st Floor*

**RSVP required. To attend, email us at [membership@museumofflight.org](mailto:membership@museumofflight.org).**

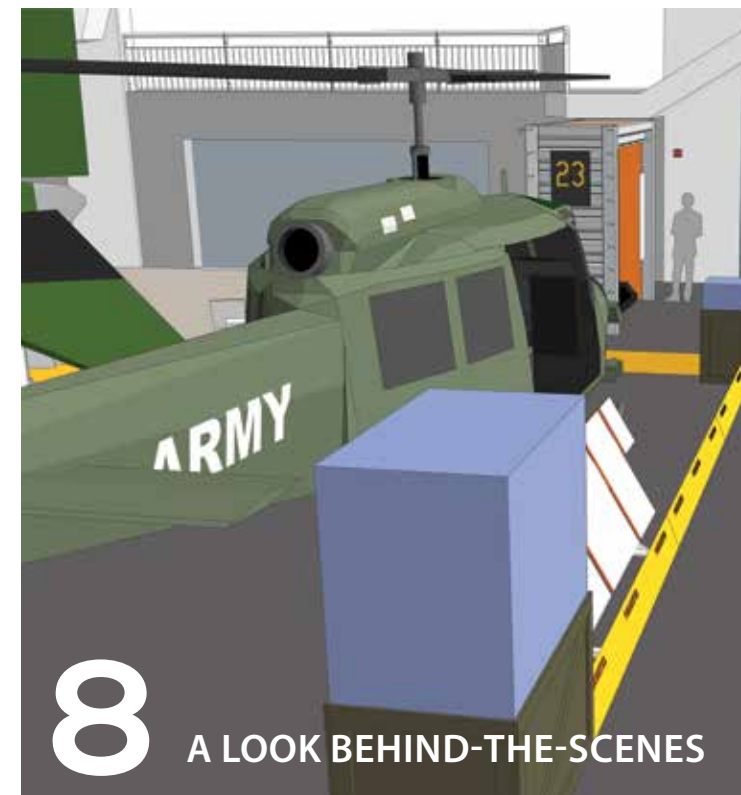
**Space is limited to 12 adult/child pairs at each program.** Due to limited space, supplies and age-appropriate curriculum, we are unable to accommodate additional children. *For the safety and success of your child and the class, please note that hands-on participation and attention from caregivers is required.*

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[www.museumofflight.org](http://www.museumofflight.org)  
**24-Hour Info Line:** 206.764.5720



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### ALOFT STAFF:

**Editor-in-Chief:** Irene Jagla

**Contributing Editors:** Erika Callahan, Louisa Gaylord, Stacy Harbour-Van Hoy, Amy Heidrick, Ted Huetter, Robin Webster

**Art Direction & Design:** Julie Wilbert

**Columnists:** Steve Dennis, Ted Huetter, Rich Lienisch, John Little, Stephanie Jones-Gunn, Sean Mobley, Geoff Nunn, Christine Runte, Emily Simmons, Dave Wellman

**Web Producer:** Layne Benofsky

**On the cover:** A rendering of our new Vietnam exhibit set to open May 2018. See article on page 8. (THE MUSEUM OF FLIGHT)

**Questions or Comments?**  
Email us at [aloft@museumofflight.org](mailto:aloft@museumofflight.org)



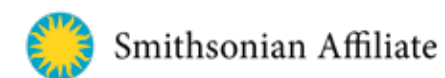
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**NOTE:** In our March-April 2018 issue, there is a typo in the Contents section, page 3. 1961 was the year that Yuri Gagarin became the first person in space, not 1962. The date is listed correctly in the "Celebrating Yuri" article on page 16.



# THE MUSEUM OF FLIGHT

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**THROUGH HIS LENS**

MATT HAYES

**HISTORY, STORYTELLING, PHOTOGRAPHY**—in fact, most things in life—come down to perspective. The history of the 747, for example, boils down to how it transformed the airline industry, travel, and human mobility. The stories told about the Jumbo are often about its power, its size, and its impact on Boeing and Seattle. A photo of the 747 almost always displays its trademark hump in the front (except when the image is of the swanky lounge housed within the hump).

But like almost every artifact within the Museum, the history and imagery change as the storyteller changes. The image (above) is of the Museum's #1 747 taken from a perspective not normally seen, yet it is no less compelling. Likewise, the other image (below) is of the team that put together an endeavor called Friendship One. Much different from the stories of Boeing's Joe Sutter and Brien Wygle and unrelated to Pan Am's and Juan Trippe's initial 747 order, the story of Friendship One is equally fascinating.

Thirty years ago, a team of Museum Trustees—Bruce McCaw (left), Joe Clark (center), and Clay Lacy (right)—embarked on a quest that would set a world record, raise \$500,000 for children's charities and put The Museum of Flight on the national stage. At 7:14 p.m. on January 30 1988, 140 crew and passengers, including Neil Armstrong, and a 1988 Jetta took off from Seattle in a 747-SP and flew around the world in record time. Equally important, the Museum started to learn how to engage students and the community in a wonderful aerospace event. With the help of the US Air Force, we tracked the flight from the T.A. Wilson Great Gallery in a temporary Mission Control area.

So, whether you are seeing something at the Museum for the first or the hundredth time, try to look at it a little differently. Gain a new appreciation of your favorite artifact by hearing a non-traditional story. And learn something new about inspiration, courage, compassion, and community by listening to a previously unknown history. Perspective not only matters, but it can also open up a whole new world.

Cheers,

Matt Hayes, President and CEO



COURTESY: FRIENDSHIP FOUNDATION



# Museum Flashbacks

**TOP LEFT:** Honorary mentor and keynote speaker at this year's Michael P. Anderson Memorial Aerospace Program was USAF U-2 pilot Maj. Kristofer W. Duckett, who brought a U-2 pressure suit to his student presentation for the participants to experience first-hand. • Great engineering sometimes requires great welding. By donning this special helmet with a video screen inside, young visitors were able to enter a virtual world of welding and practice the art without sparks flying into the gallery at the 2018 Puget Sound Engineering Council's annual Engineering Fair. • This boy contemplates the design of his airplane at the 2018 Engineering Fair. • Women Fly is the Museum's annual event for young girls interested in aviation, aerospace, and STEM futures. This year 400 middle school and high school girls participated in motivational and career-oriented activities from professional women working in a variety of STEM careers. 2018 enrollment was the biggest yet! • Women Fly students enthralled by the power of plasma! • Boys in this year's Michael P. Anderson Memorial Aerospace Program get their robot in gear.

PHOTOS: TED HUETTER

# WHERE DID THE HILLER GO?

QUESTIONS ANSWERED BY: JOHN LITTLE, ASSISTANT CURATOR AND RESEARCH TEAM LEADER



THE HILLER YH-32 HORNET WHEN IT WAS HANGING IN OUR T.A. WILSON GREAT GALLERY/THE MUSEUM OF FLIGHT COLLECTION

**Q: DID ANY OF THE BOEING AIRCRAFT (B-17, B-29, B-50, 377) BUILT DURING THE PROPELLER ERA HAVE THE CAPABILITY TO REVERSE THRUST WITH THEIR VARIABLE-PITCH PROPELLERS?**

**A:** “Reverse thrust” does not mean that the propellers reverse their direction of rotation. Instead, the pitch of the propellers’ blades can be reversed so that, instead of pulling the airplane through the air, the propellers “push” against the air, thereby helping to slow the airplane on landing and reducing wear on the brakes. Only one B-17 Flying Fortress, an E model, was equipped with reversible-pitch props (as an experiment). The only B-29 Superfortresses that had reversible-pitch props were the 65 Silverplate (later, Saddletree) B-29s that were equipped to carry atomic bombs, and the 116 postwar KB-29P aerial-tanker conversions. All 370 B-50 Superfortresses had reversible-pitch props, as did most (but not all) of the 56 Model 377 Stratocruisers.

**Q: WHAT IS THE PURPOSE OF THE TWO SCREEN-COVERED VENTS ON THE AFT FUSELAGE OF THE MUSEUM’S LOCKHEED MODEL 10-E ELECTRA?**

**A:** Airframe and powerplant mechanic Evan Elliott reports that the two screen-covered

vents are emergency fuel-dump pipes for the auxiliary fuel tanks in the Electra’s fuselage. In preparation for her around-the-world flight of 1937, Amelia Earhart installed additional fuel tanks in her Electra. The extra tanks increased her Electra’s fuel capacity from 250 gallons to 1,150 gallons, thereby increasing her Electra’s range to 4,000 miles. In 1997, Linda Finch, flying the Museum’s Electra, replicated Amelia’s 1937 flight and installed extra fuel tanks. In 1937, flying was largely unregulated, so Amelia did not have to install emergency fuel-dump pipes for her extra fuel tanks. By 1997, however, the Federal Aviation Administration required Linda Finch to add the fuel-dump pipes, so she could dump fuel quickly in the case of an emergency and get down to the Electra’s maximum landing weight. The screens merely keep wildlife (birds, snakes, etc.) out of the pipes.

**Q: WHATEVER BECAME OF THE RAMJET-POWERED HILLER YH-32 HORNET HELICOPTER THAT USED TO BE ON DISPLAY IN THE GREAT GALLERY?**

**A:** The Museum traded the Hiller YH-32 Hornet to Northwest Helicopters, LLC in Olympia, Washington in return for their restoring our Bell UH-1H Iroquois (“Huey”) to its 1970 appearance. We got the Huey from the King County Sheriff’s Office, where

## What's new in the collection?

BY: CHRISTINE RUNTE, REGISTRAR

Michael Sohnly donated a Boeing B-52F ejection seat. This seat was the Radar Navigator/Bombardier downward firing ejection seat from 57-032 Boeing B-52F-100-BO Stratofortress c/n 17426, built in Seattle. The aircraft was retired and sent to the Military Aircraft Storage and Disposition Center (MASDC) on November 17, 1978. The donor purchased the seat about 20 years ago from someone in Oregon. He then spent about a year and a half restoring it. He compiled restoration information from several ejection seat and parts websites and additional government websites. He was able to purchase his restoration parts from eBay and other parts websites. The donor restored the ejection seat for his son. How many other kids had a B-52 downward firing ejection seat to play with! The seat will be removed from its current mount for display in the upcoming exhibit on the Vietnam War.



THE MUSEUM OF FLIGHT

it had flown for many years as Guardian One. Returning the Huey to its original 1970 appearance turned out to be more difficult than we had anticipated. We also needed the work done quickly. So, in 2011, the Museum negotiated a deal with Northwest Helicopters, whereby they would completely restore our Huey in return for the Hiller Hornet. Though a fascinating concept, the Hornet never went into production. One of the Museum’s former docents, the late Fred Bell, flew the Hornet at Fort Sill, Oklahoma in the 1950s. According to Fred, the Hornet had just enough range to guarantee that every flight ended in a long walk back to the airfield!



**EDUCATION UPDATE**

## Karaoke, Coding and Rocketry!

BY: IRENE JAGLA, CONTENT MARKETING MANAGER

**MORNINGS AT THE MUSEUM** don’t usually start with karaoke in the William M. Allen Theater, but at around 8:30 a.m. on Thursday, March 22, middle school girls broke out into song as they kicked off their day at Women Fly (see the Boeing Academy Facebook page for their impromptu performance)! The girls later enjoyed hands-on workshops on topics ranging from electricity and coding, to aerospace safety and space exploration. The next day, high school girls started their day with an empowering lecture from Col. Rebecca J. Sonkiss, Commander of Joint Base Lewis McChord, who discussed the challenges of being a woman in a male-dominated field and reminded the audience of young women to never let anyone get in the way of reaching their dreams. After the talk, some participants got to build their very own water rockets (and test them outside the Museum), and others played a “gravity-assist” game that demonstrated how spacecraft explore the solar system. Both days concluded with a resource fair where representatives from universities, and aerospace and aviation companies like Boeing and Alaska Airlines, shared information with participants about how they can pursue their STEM interests.



**STAY UP-TO-DATE** by liking and following our new **Boeing Academy for STEM Learning Facebook and Twitter** pages to keep up with news, updates, and videos about our hands-on education programs.

## Mid-Winter Warmup Camp

BY: EMILY SIMMONS, ACE SERVICES SPECIALIST

**THIS YEAR, FOR THE FIRST TIME EVER,** we added a new camp: Mid-Winter Warmup! Families signed up their children for individual days to fit their schedules. This camp was completely different from all other camps because it was all about the Museum. Each day focused on exploring our different galleries. Campers received an in depth understanding about our Collection and the history and science behind the items in it. Every day, campers met with a different Living History character or docent to learn new stories about our galleries. We partnered with Collections to learn how to take care of and view some of the “secret” items not on display. Throughout the week, campers used everyday materials to build their own Museums. They created some wonderful aviation museums, space museums, natural history museums, and more. On Friday, the Collections team came to “tour” the museums and were very impressed with the campers’ creations!

## From Home to the Museum

BY: RICH LIENISCH, ASSOCIATE DIRECTOR OF WILLIAM A. HELSELL EDUCATION DEPARTMENT

**ON FEB. 14TH THE BOEING ACADEMY** for STEM Learning held its second annual Homeschool STEM Sampler Day. This exclusive event was an opportunity for homeschool families to experience some of the Museum’s unique education activities. More than 300 students and adults attended. Besides having the opportunity to explore the Museum and its wonderful galleries and exhibits, participants also engaged in a wide range of activities including flying simulators and drones, building and programming robots, making paper airplanes and LED whirligigs, watching planetarium shows, virtual reality experiences and more! Students were able to get their “passports” stamped when completing activities and answering questions, and they were then given a gift bag with information about how to continue their learning through various Museum programs. Attendance also qualified the students to become members of Connections, our free student membership program.

# Educator Evening

BY: STEPHANIE JONES-GUNN, ON-SITE EDUCATION COORDINATOR

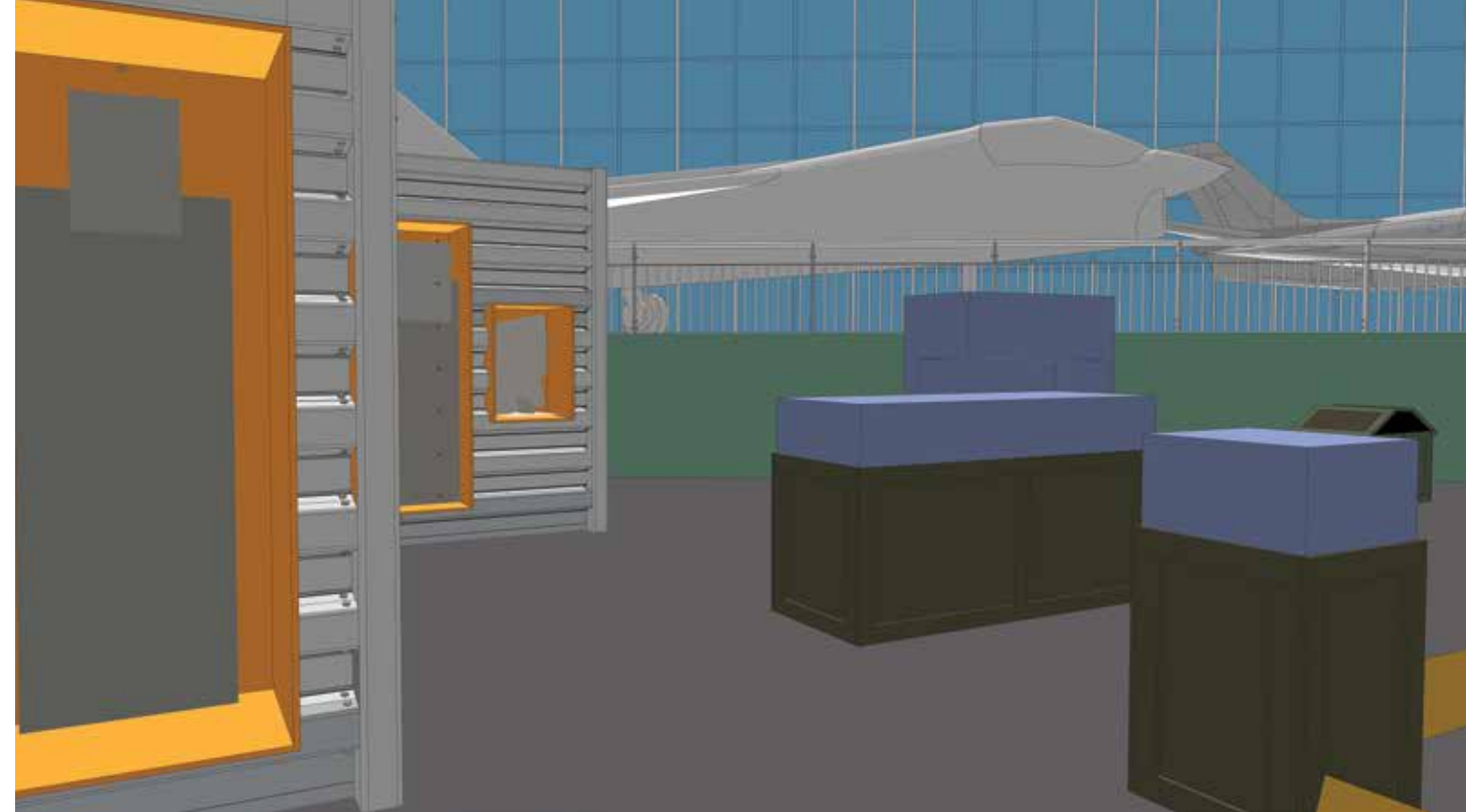
**ON FEBRUARY 8TH, 2018,** the Museum’s Boeing Academy for STEM Learning hosted 80+ educators from around the Puget Sound for its **8th annual Educator Evening event, “STEM Kind of Wonderful.”** During the event, Museum staff showcased new, engaging, educational activities that are also fun for adults! Some highlights included constructing and flying contraptions in wind tunnels, paper circuit designing, programming robots and exploring the virtual reality environments of the International Space Station. As always, the event was a great opportunity to connect with the community, and through conversation, learn more about how the Academy can support educators, whether it’s in the classroom, a community center or another unique learning environment. Through the event, the Museum staff reached new audiences, reconnected with long-standing partners and shared information about programs and grant assistance opportunities for students from pre-K through high school.



# A Look Behind-the-Scenes

A new exhibit set to open on Memorial Day weekend, **“Vietnam Divided: War Above Southeast Asia,”** reinterprets four currently displayed aircraft to highlight the strategy and technology behind their involvement in the war. This new exhibit will also create spaces for featuring the oral histories and personal effects of Vietnam air combat veterans. With its focus on the people, places and planes that influenced the Vietnam War, this new exhibit also aligns with our current initiative, *Project Welcome Home*, which is raising money for the construction of a commemorative park, scheduled to open in November, that centers around a restored B-52.

BY: IRENE JAGLA, CONTENT MARKETING MANAGER



**PEDER NELSON, EXHIBIT DEVELOPER** and Digital Engagement Manager, believes that this new exhibit contributes to the mission of *Project Welcome Home* and accomplishes a larger goal of the Exhibits department: updating the T.A. Wilson Great Gallery. “These artifacts have been in the Great Gallery for a while; it’s always been a goal to refresh one of our oldest galleries,” Nelson says.

### THE EXHIBIT

The Vietnam air combat exhibit consists of four planes—the Lockheed YO-3A QuietStar, the McDonnell Douglas F-4 Phantom, the Bell UH-1 “Huey” and the Mikoyan-Gurevich MiG-21—and reinterprets them in light of how their technology and strategy was used during the Vietnam War. Telling the story behind air combat in Vietnam required some critical adjustments to the current aircraft arrangement: suspending the YO-3A from the ceiling and moving the Huey forward. Exhibit design manager Sune Sandling explains that these adjustments rearrange the Great Gallery space to provide a better presentation for the Vietnam exhibit. “There will be multiple viewpoints of the YO-3A from different levels throughout the gallery. You’ll be able to see details and notice some of its more prominent features, like the periscope underneath. The Huey currently sits behind the F-4 and the YO-3A and is largely hidden there. It’s one of the most iconic, major players in the conflict, so we’re bringing it forward to give it the prominence

it deserves.” Each aircraft will still have its own identification panel in the familiar Great Gallery style, which will include content around the history of the plane and the important events and campaigns in which it participated.

Also included in the exhibit are auxiliary planes that can be found in other areas of the Museum, like the Grumman A-6E Intruder, Douglas A-4 Skyhawk II and the Mikoyan-Gurevich MiG-17. Nelson notes that part of the challenge of this exhibit is making it as comprehensive as possible and integrating it into the entire Museum by acknowledging aircraft not commonly considered as players in the Vietnam War. “There are aircraft across our campus, including the restoration center, with stories that align with this exhibit. The military version of the DC-3 that’s hanging in the Great Gallery was the C-47, which was used for transport and turned into a gunship. The Super Constellation was used in early warning communications at the time.”

### PERSONAL STORIES

Aside from the aircraft, the exhibit will also have features that make room for telling a more personal side of the war. Sandling describes how two of the challenges they are facing were addressed with one solution: “One, we don’t have much usable wall space in the exhibit area, and two, the Great Gallery is like a great big greenhouse, full of beautiful sunlight on a nice day, but that sunlight can damage many of the artifacts we want to show. Taking inspiration from period photographs,

we’re building elements that resemble airbase revetments to give us more wall space for content. They will house artifact displays with a northward orientation and have UV filtering acrylic for protection.”

Kiosks dedicated to sharing the oral histories of Vietnam veterans will feature our own docents giving talks to audiences throughout the day. The revetments will also be an outstanding element of the exhibit and they will contain a McDonnell Douglas F-4 Phantom flight suit and gear, medals and pilots’ personal effects.

### MAPPING IT OUT

The Vietnam War is a broad topic and creating an exhibit around it poses many

challenges. According to Sandling, “We had to limit ourselves because we’re tight on space in the exhibit area and, as with WWI or WWII, the subject is huge. Since we are an air and space museum, we chose to focus on technology and strategy pertaining to the aircraft in our collection.” His team, working under Chris Mailander, director of exhibits, has found a way to navigate through the nuance with the inclusion of maps, which will connect both the currently displayed and the soon-to-be-shown artifacts.

Nelson comments that the maps are an effective way to anchor the complex topic of Vietnam into something that visitors can see and learn from: “A theme that will continue through the exhibit is the use of maps because

one of the first questions that many people ask is ‘Where is Vietnam?’ But it’s also because it wasn’t just Vietnam that played a role in the war, it was this large region of Southeast Asia. The maps throughout the exhibit help ground where this technology was used and where events happened.”

One of the anchor points of the exhibit is a 9x9 foot bronze sculpture depicting the landscapes of Burma, Thailand, Laos, China, Cambodia and Vietnam and the locations of air force bases. While docents deliver talks about the air war, they can use this map—and the planes in front of it—as reference points. Other maps will be featured as well, like the aeronautical charts that pilots used during the war.

Because the exhibit is non-linear and is integrated into the Great Gallery, visitors can enter from five different areas. Sandling suggests walking under the right wing of the Blackbird to begin your exploration at the revetments or with a docent talk at the bronze map sculpture. Nelson says this is the best way to enjoy the new exhibit: “There’s about 30 docents with expertise in the Vietnam War, and we’re hoping that their personal stories will enhance the experience of this new exhibit.”

TOP LEFT: A 9X9 FOOT BRONZE SCULPTURE OF VIETNAM WILL BE A REFERENCE ITEM DURING DOCENT TALKS. ABOVE: A VIEW OF HOW THE REVETMENTS WILL BE PLACED AND INSERTED WITH ARTIFACTS. BELOW: A WEST VIEW OF THE EXHIBIT.

IMAGES: THE MUSEUM OF FLIGHT

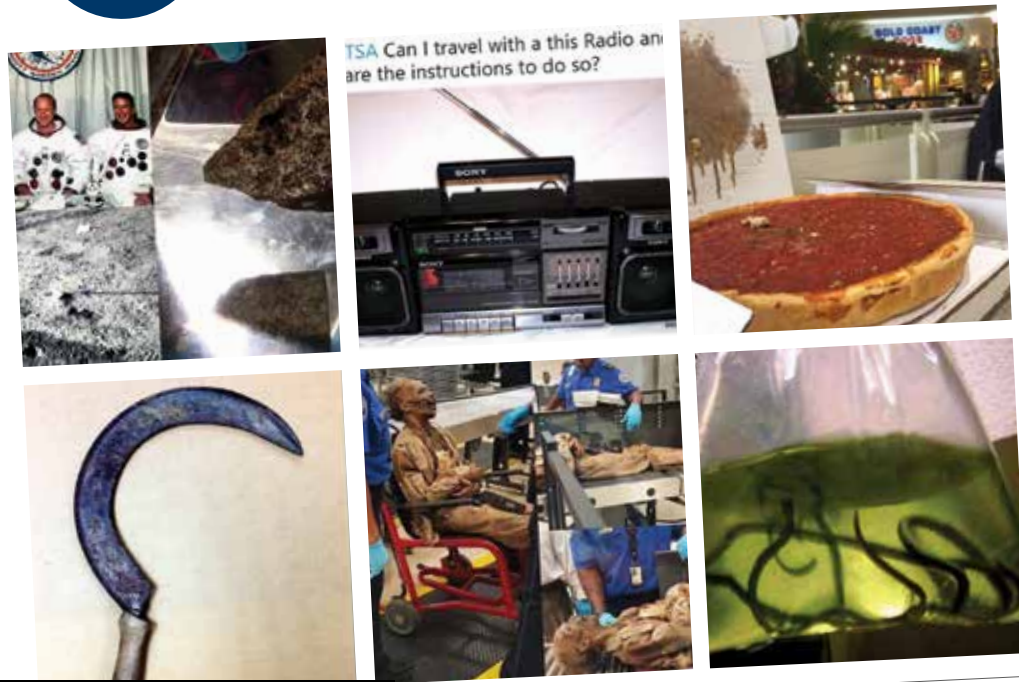




BUILT BY LOCKHEED'S MISSILE AND SPACE DIVISION, OUR YO-3A 69-18005 IS THE SIXTH OF 11 AIRCRAFT BUILT, AND IT SERVED IN VIETNAM FROM 1970-1972. AS A FEATURED PLANE IN OUR NEW EXHIBIT, VIETNAM DIVIDED: WAR OVER SOUTHEAST ASIA, IT WILL HANG FROM THE GREAT GALLERY STARTING IN MAY 2018. CREDIT: THE PETER M. BOWERS COLLECTION/THE MUSEUM OF FLIGHT



1,425 posts 854k followers 40 following  
 TSA This is the official TSA account. Stay tuned for pictures of TSA & travel-related images. [www.tsa.gov/privacy-policy](http://www.tsa.gov/privacy-policy)



**AIRPORT ENCOUNTERS**

# Why You Need To Follow TSA's Instagram

BY: IRENE JAGLA, CONTENT MARKETING MANAGER

**NO ONE LOOKS FORWARD** to the TSA check-in line, but Bob Burns—the brilliant mind behind the TSA Instagram account—transforms drudgery into delight with posts that feature the bizarre items that travelers pack into their carry-on luggage, which include medieval flails, axes, knives and even gun powder. TSA's bomb-sniffing dogs also make an appearance, providing a respite from all those hazardous items. Some of the more harmful items make you wonder why anyone would think to bring these items on board a plane, let alone carry-on baggage. A medieval flail—a chain attached to a stick with a spiked metal ball at the end—was found at Chicago-O'Hare in September 2013.

A sickle was found in Newark Airport in January 2015. And in February of this year, TSA posted a collage of the record-breaking 104 firearms that were discovered in luggage from February 5-11. Of these, 87 were loaded and 38 had a round chambered. Some of the posts feature items you're likely to find on the set of a ninja movie, like knives and throwing stars.

You'll be amazed at where passengers attempt to hide weapons. Knives concealed in stuffed animals; blades inserted into

the handles of umbrellas; and my personal favorite, guns and ammo sewn into seemingly innocuous wheelchair seat cushions. But some of the weapons have yet to be assembled. In October 2017, TSA at the Anchorage airport found a 1lb. container of gun powder and a fuse. "Some people worry about packing nail clippers (they're allowed). Others pack a pound of gunpowder and a fuse," quipped Burns in a post featuring the dangerous materials.

And then there's the just plain odd, like the bag of live eels that was found going from Miami to Maracaibo in 2012. The squirming underwater creatures were surrendered to the U.S. Fish and Wildlife Service. Aerospace history doesn't get special treatment, either. In June 2017, a lunar sample collected on the Apollo 15 mission in 1971 still had to go through TSA security and pizza enthusiasts everywhere can rest easy knowing that their deep-dish can also be a carry-on.

Beyond the bizarre is a heavy dose of cuteness from the TSA's "explosives detection canines," who are shown at work and at play. Some of this internet gold is crowdsourced from material submitted to TSA's Twitter. Travelers send photos of random items asking @TSA if they're appropriate as a carry-on.

◀ "Through security and ready to munch! Thanks! 🍕🙏🍕"

Yet more proof from travelers that your pie can fly. #PieCanFly- This is a screenshot of a tweet sent to the @AskTSA account on Twitter. Have you ever wondered whether or not you can pack a certain item? Fret no more! Now you can simply snap a picture and tweet it to @AskTSA or send it via Facebook Messenger and our team will get back to you promptly with an answer. If you're a regular follower of this account, I'm sure you can think of many situations where it would have behooved somebody to send us a picture first."

-TSA Instagram Post

IMAGES: TSA

What makes the posts so funny, shocking and ultimately educational is Bob Burns' humor, which comes in the form of plays on words and references to pop culture. In response to a tweet asking about traveling with an old-school boombox, Burns writes, "Yes, you can bring it along with your carry-on, but you have to raise it over your head and play Peter Gabriel's 'In Your Eyes' like John Cusack did in 'Say Anything.'"

Burns' burns (excuse the pun) make for a smart PR move. Since 2011, his Instagram posts have been humanizing the monolithic agency that's commonly perceived as a nuisance at best and an invasion of privacy at worst. In an interview with Travel + Leisure, Burns explains that keeping the Instagram account informative and entertaining requires scrolling through TSA incident reports to find the most bizarre and entertaining confiscated items.

More than anything, though, TSA's Instagram is an example of the weird and wonderful things that can happen when a government-run social media account engages with its followers in informative and honest ways.



ABOVE: SPACEX LAUNCHED ITS FIRST FALCON HEAVY ROCKET ON FEBRUARY 6, 2018. (COURTESY SPACEX)

**MUSEUM MUSINGS**

# FALCON HEAVY AND BARN-STORMING SPACE

BY: GEOFF NUNN, ADJUNCT CURATOR FOR SPACE HISTORY

**ON FEBRUARY 6, SPACEX DEBUTED** the new Falcon Heavy rocket with its first orbital test launch, which put a decidedly unique test payload into orbit around the Sun—Elon Musk's midnight red Tesla Roadster. The launch was a spectacular technical achievement. The Falcon Heavy consists of three Falcon 9 rocket cores strapped together and produces 5 million pounds of thrust at launch. According to SpaceX, the rocket can deliver up to 140,000 pounds of payload to low Earth orbit, more than twice the lift capacity of the Space Shuttle, and second only to the Saturn V which took astronauts to the Moon. In addition to the successful launch, SpaceX managed to recover two of the three rocket cores by landing them in near-perfect synchronicity back at Cape Canaveral Air Force Station in Florida.

The event also sparked a great deal of conversation about the sociocultural implications of the launch and the recent expansion of space access beyond government agencies to now include entrepreneurial or even individual interests. What does it mean when a billionaire can just choose to send his own car into orbit around the Sun? One Twitter user summed up much of the sentiment: "Regardless of your opinion on any given payload, it's pretty clear that one of the major things NewSpace [sic] enables is 'anyone can do whatever they want in space for any reason.'" The user went on to draw parallels between the event and the wing-walkers which were a common sight among the flying circuses of the 1920s. Space is no longer just a place for serious science and exploration. This conversation got me thinking: Have we entered spaceflight's equivalent of the barnstorming age?

The expansion of private launch capabilities in the wake of the Space Shuttle's retirement bears some striking similarities to the chaotic and experimental growth of aviation in the 1920s. Aerial daredevil acts and acrobatics,





COURTESY: SPACEX

often referred to as “barnstorming,” became popular after the end of World War I when the U.S. government released surplus aircraft like the Curtiss JN-4 “Jenny” into the private sector. Aviation expanded beyond the realm of technological development and government operations into the world of entertainment. Flying was not yet a practical form of mass transport, but access to the skies was beginning to expand. Similarly, the space sector is rapidly privatizing today. The number of privately funded space companies has ballooned from about 50 in 2009 to over 300 today, and the reasons and methods for getting to space can seem markedly different from NASA’s very serious and studious approach.

The Falcon Heavy launch is not the only recent example of this parallel. Just two weeks prior, space startup Rocket Lab launched a reflective satellite called Humanity Star aboard their Electron rocket. Humanity Star, which is visible to the naked eye from the ground, was launched purely for inspirational, rather than scientific or technical purposes. Rocket Lab founder Peter Beck expressed his hope that “everyone looking up at the Humanity Star will

look past it to the expanse of the universe, feel a connection to our place in it and think a little differently about their lives, actions and what is important.”

On a decidedly more troubling note, a third event happened around the same time, representing the darker side of this expanded access to space. A space startup called Swarm Technologies launched four of their diminutive SpaceBee satellites despite having their launch application rejected by the FCC, which regulates commercial satellites. The FCC expressed concern that the satellites were too small to be reliably tracked by radar systems used to monitor orbital traffic, raising the risk of an unforeseeable collision. Swarm’s decision to proceed may very well constitute history’s first “rogue” spacecraft launch.

There are many similarities between the early growth of aviation and the current trend toward commercializing space access. Though not a perfect match, understanding past periods of rapid technological change may help us better interpret the significant shifts taking place in how we explore beyond Earth today.



COURTESY: SPACEX



SpaceX decided it would be more worthwhile to launch something fun and without irreplaceable sentimental value: a red Roadster for the red planet. This midnight-cherry red Roadster belongs to SpaceX CEO and Lead Designer Elon Musk. Following launch, Falcon Heavy’s second stage will attempt to place the Roadster into a precessing Earth-Mars elliptical orbit around the Sun.

## CALENDAR OF EVENTS

# May

WELLS FARGO



### FAMILY EVENT

## Wells Fargo Free First Thursday Space Night

On the first Thursday of each month, the Museum stays open late—and admission is FREE. This month, join us as we celebrate **Space Day**—an internationally recognized educational event. Local science and astronomy clubs will share their telescopes with the public, who will have opportunities to view solar activity and the night sky. Families can attend planetarium shows and other educational activities.

MUSEUM-WIDE  
Thursday, May 3 | 5 to 9 p.m.

With Town Hall's Inside Out lecture series!

### TICKETED EVENT

Town Hall Seattle and The Museum of Flight present:

## Alan Stern and David Grinspoon Inside the First Mission to Pluto

Imagine a minivan-sized space probe screaming through space at more than 32,000 miles per hour more than 3 billion miles from Earth, focusing its instruments on the long mysterious icy worlds of the Pluto system. This is the life of the NASA spacecraft New Horizons. **Space experts Grinspoon and Stern** outline the triumphs and challenges of this raw exploration of new worlds, unparalleled since NASA’s Voyager missions to Uranus and Neptune.

**Tickets: \$5 General**  
Available at [townhallseattle.org](http://townhallseattle.org) and at the door.

WILLIAM M. ALLEN THEATER  
Thursday, May 17 | 7:30 p.m.  
(Doors at 6:30 p.m.)

### WEEKEND FAMILY WORKSHOPS

## One Giant Leap: Apollo 11

Celebrate the anniversary of the first Moon landing. Make your own space capsule then reenact a re-entry and splashdown!

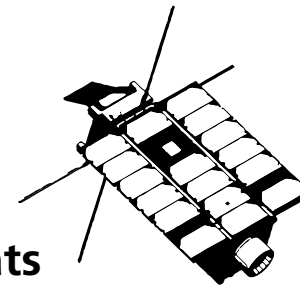
T.A. WILSON GREAT GALLERY  
Saturday and Sunday,  
May 5-6, 12, 19-20 and 26-27  
11 to 11:45 a.m. and 1 to 1:45 p.m.

## Mother of Invention: Maker Moms!

Everyone can be a maker! Join us as we celebrate our marvelous moms and make an illuminated project at this special Mother’s Day event!

T.A. WILSON GREAT GALLERY  
Saturday and Sunday,  
May 13 | 11 a.m. to 2 p.m.

### LECTURE CubeSats



Members of the UW HuskySat team present their very own satellite! HuskySat is a CubeSatellite, a type of satellite invented to give students hands on experience developing space technology. The HuskySat team operates out of the **Husky Satellite lab at University of Washington Department of Earth and Space Sciences**. In development now, HuskySat is about the size of a loaf of bread and will be delivered to NASA this year as a way to test new space technologies.

CHARLES SIMONYI SPACE GALLERY  
Thursday, May 3 | 6 p.m.

### LECTURE

## InFlight InSight The F-14 Tomcat

Four former F-14 pilots discuss their experiences flying and fighting in the iconic swing-wing jet fighter. US Naval Aviators and MiG-killers, Larry “Music” Muczynski, and Hermon “Munster” Cook are joined by former Iranian Air Force F-14 pilot Asad Adeli for this remarkable panel discussion.

WILLIAM M. ALLEN THEATER  
Saturday, May 5 | 2 to 3:30 p.m.

Presented by the American Fighter Aces Association



## Mars Insight

BY: GEOFF NUNN,  
ADJUNCT CURATOR  
FOR SPACE HISTORY



**NASA HAS SCHEDULED** its next Mars mission: InSight (Interior Exploration using Seismic Investigations, Geodesy and Heat Transport). As of this writing, it will launch aboard an Atlas 5 rocket from Vandenberg Air Force Base in California on May 5 of this year. The mission will carry NASA’s newest robotic lander to Mars to study the planet’s interior.

If all goes as planned, InSight will land on Mars’ Elysium Planitia in November. The lander will drill 16 feet into the surface of the planet using a heat probe to measure how heat from Mars’ core flows through the planet. The lander will also deploy a seismometer to detect Mars quakes and seismic impacts from meteors. By taking the temperature and pulse of the Red Planet, scientists hope to better understand the makeup of the planet’s interior, providing clues into its formation.

### SPECIAL EVENT

## Memorial Day

The Museum recognizes Memorial Day with a musical performance by the **Boeing Employee Concert band**, followed by a special ceremony commemorating fallen U.S. Service Members. Veterans and active U.S. Military personnel receive free admission to the Museum with identification.

SIDE GALLERY  
Monday, May 28 | 2 to 3:30 p.m.



# June

For more details, please visit our website!

**Asteroid Awareness Day**  
**June 30**  
Join us for fun activities and livestream lectures.

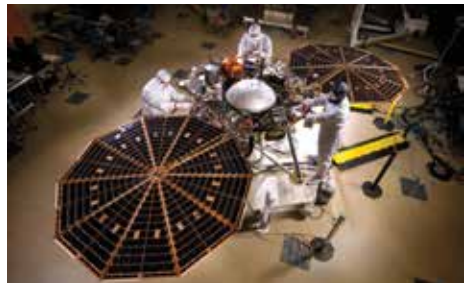


**LECTURE**

## Society of Flight Test Engineers Panel and Boeing 7-Series Tours

Members of the Seattle chapter of the SFTE—experts in test operations, analysis, and instrumentation—present a panel discussion about how they contribute to flying technology. Following the talk, members of the SFTE will provide guided tours of the Museum's 7-series Boeing jets, which were all test flight articles worked on by the SFTE.

WILLIAM M. ALLEN THEATER  
Saturday, June 2 | 1 to 2:30 p.m.



**LECTURE**

## InFlight InSight New Space Update with Solar System Ambassador Geoff Nunn

Geoff covers the latest launch of NASA's Mars InSight mission and shares the fast-moving developments of the New Space industry, explains how to curate 21st century space artifacts, and much more!

CHARLES SIMONYI SPACE GALLERY  
Saturday, June 9 | 2 to 3:30 p.m.



**FILM SCREENING**

## Vietnam Film Series: *Rescue Dawn*

To support the Museum's new Vietnam exhibit and *Project Welcome Home*, the Museum will screen four films that explore the Vietnam War. Other films in the series include *Platoon*, *We Were Soldiers*, and *Full Metal Jacket*. An introduction to each film will be provided by a Vietnam veteran from the Distinguished Flying Cross Society. *All films rated R.*

WILLIAM M. ALLEN THEATER  
Saturday, June 23 | 2 to 4:30 p.m.



**SPECIAL EVENT**

## Picture Perfect: Getting a Prize Winning Shot

Enjoy mini-talks from featured flight photographers included in our opening day festivities for the Museum's annual Spirit of Flight Photography Exhibition.

T.A. WILSON GREAT GALLERY  
Saturday, June 16 | 2 to 3:30 p.m.



**FAMILY EVENT**

## Wells Fargo Free First Thursday Seattle Middle School Science and Engineering Fair

Students in grades 6-8 complete projects that either answer a scientific question or solve an engineering problem. Finalists will be displayed and judged on June 7. Projects will be available for public viewing once judging is complete and all are invited to attend the awards ceremony.

T.A. WILSON GREAT GALLERY  
Thursday, June 7 | 5 to 9 p.m.

**WEEKEND FAMILY WORKSHOPS**

## The Incredible, Edible, High-Flying Father's Day Fun Flyer Fest!

No, your eyes are not playing tricks on you. It actually says EDIBLE! Give your dad the 'sweetest' flyer! This is a plane that you have to see and taste to believe.

T.A. WILSON GREAT GALLERY  
Sunday, June 17 | 11 a.m. to 2 p.m.

## Hovering Helicopters

Did you know Leonardo da Vinci had an idea for a machine like a helicopter? Join us as we learn about these amazing flying machines, including the Museum's very own Sikorsky (USA) HH-52 Seaguard. Then, construct a helicopter model of your own.

T.A. WILSON GREAT GALLERY  
Saturday and Sunday, June 2-3, 9-10  
11 to 11:45 a.m. and 1 to 1:45 p.m.

## Amazing Asteroids

How does the earth hold up its pants? With the asteroid belt! Come learn about the Tunguska event in Siberia and make an impact with your own asteroid model!

T.A. WILSON GREAT GALLERY  
Saturday and Sunday, June 23-24 and 30  
11 to 11:45 a.m. and 1 to 1:45 p.m.

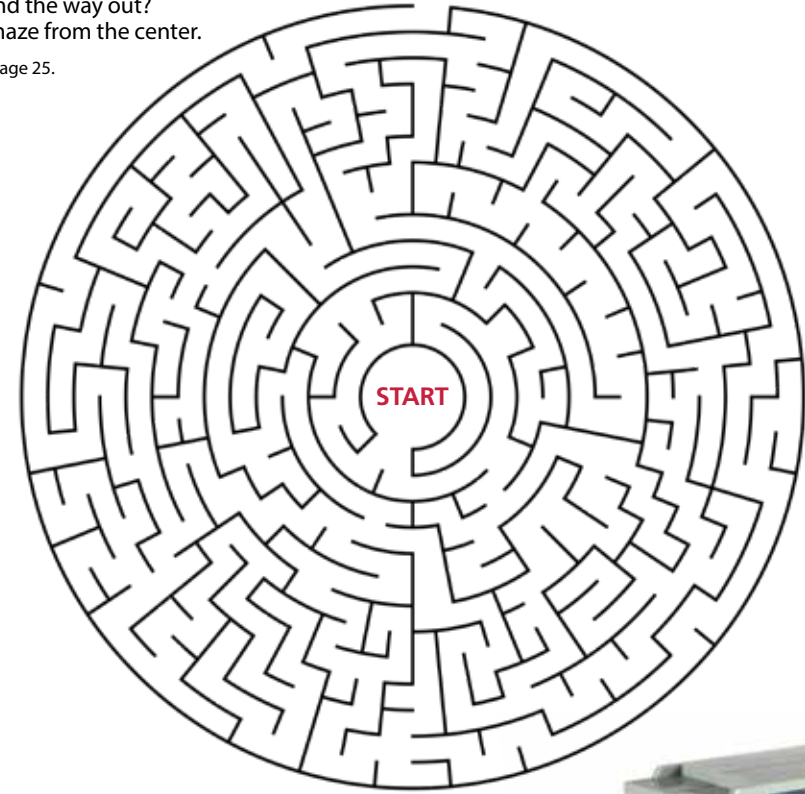
Explore the exciting world of flight in fun hands-on workshops. Open to all ages and free with admission. Groups with 10 or more children, please call ahead to make sure we can accommodate your group. Contact: Interpretive Programs Coordinator at 206.768.7187.

# Junior Aviators

## Maze

Can you find the way out?  
Start the maze from the center.

Solution on page 25.



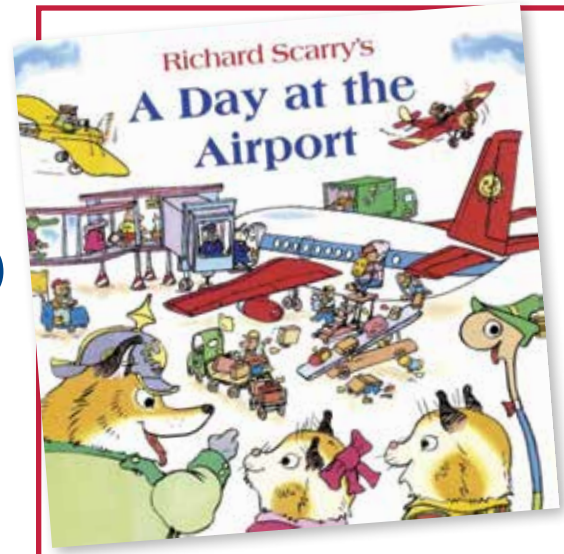
**TOY FROM THE COLLECTION**

## United Airlines in McDonaldland

**NEARLY 40 YEARS AGO**, McDonald's debuted the Happy Meal: a box or bag printed with puzzles and games, with kid-sized portions of food, a small drink, and the most important part—a toy! Over the years, McDonald's offered toys from favorite kid's TV shows, books, and movies, as well as smaller versions of popular toys like Play-Doh, Beanie Babies, and Furbies. In the 1990s, McDonald's partnered with United Airlines on a line of airport toys featuring popular McDonaldland characters.

We have Birdie the Early Bird driving an airport luggage cart, Ronald McDonald driving a catering truck that lifts the food carts up into the planes, and a few tiny United jets in a McDonald's hangar and parked in an airport terminal. There's even a plush United jet where you can see all the McDonaldland characters through the windows! These toys were donated in 2008 by Peggy Verger, a former United flight attendant.

PHOTOS: THE PEGGY ECKERT VERGER COLLECTION/THE MUSEUM OF FLIGHT



**BOOK RECOMMENDATION**

## A Day at the Airport

BY: RICHARD SCARRY

Join Richard Scarry's beloved characters Huckle Cat, Sally, and Lowly Worm for a day of adventure and discovery at the airport. Airplane fans will get an up-close look at the terminal, the control tower, the runway, and more. *A Day at the Airport* features over 70 labeled words and a sticker sheet. Have hours of fun with this busy adventure from the one and only Richard Scarry! This softcover children's book is perfect for children age 5-7.

# WE'VE GOT A BLOG!

BY: IRENE JAGLA, CONTENT MARKETING MANAGER



**OVER THE YEARS WE'VE REALIZED** that the Museum has a lot of stories to tell, but not many venues in which to tell them. To address this, we launched a blog to make room for all the aviation and aerospace tales that can enhance a visit to the Museum (for those close enough to stop by), while being informative and entertaining enough for national and global audiences who want to learn more about these topics.

In writing the blog, I listened in on docent presentations, interviewed space lawyers, witnessed a U-2 pilot don his space-age uniform, and researched the life of the first human in space. Every article aims to reveal an in-depth perspective or an uncommon history and to introduce exciting aspects of aviation and aerospace history to audiences who may have never thought twice about the difference between a B-29 and a B-50.

Whether you're an aviation geek, a space nerd or if you're just curious about the world of flight, visit [blog.museumofflight.org](http://blog.museumofflight.org).



## MEET KATRINA SLETTEN, OUR 2018 BROOKE OWENS FELLOW

**THE BROOKE OWENS FELLOWSHIP** is a paid internship program that nurtures the next generation of women in aerospace. Each year, undergraduate women from across the United States join teams at innovative space companies and organizations to work with expert mentors who will help them grow into their dream careers. This year we welcome Katrina Sletten, a senior at Drake University, who is majoring in Astronomy, Physics and Public Relations. Sletten's interest in space began when she was a child spending time with her uncle, an engineer and amateur astronomer. Her college career reflects her passions for aerospace. Sletten is a member of the Public Relations Student Society of America and serves as President of the Drake Society of Physics Students. During her internship, Sletten will work with the Boeing Academy for STEM Learning to promote Museum education programs that inspire students from underserved backgrounds to explore aviation and aerospace.

PHOTO COURTESY: BROOKE OWENS FELLOWSHIP PROGRAM

## PLAYING THE PAST IS THERE AN ADVENTUROUS GIRL SCOUT JUNIOR IN YOUR LIFE?

Is she ready to spread her wings and do what it takes to become a Women's Air Service Pilot (WASP) in WWII? During this hands-on exploration of aviation history, your recruit will take on the character of a real WASP, learn about her life, and create a costume piece to take home. To top it all off, she will plan a flight for an airplane that WASPs flew, then pilot that flight in one of our flight simulators. At the end of the program, all new recruits will earn their **Playing the Past Badge**.

MAY 19 & 20 | 9 a.m. to 1 p.m. OR 2 to 6 p.m.  
JUNE 2, 3 & 16 | 9 a.m. to 1 p.m. OR 2 to 6 p.m.

\$18/Participant | Chaperones are free.

### Registration required.

To register, email [educationreservations@museumofflight.org](mailto:educationreservations@museumofflight.org)

- For Girl Scout Juniors (4th/5th grade)
- Max. 32 participants/Min. 14
- 1:5 chaperone-to-participant ratio is required for each session.
- Additional chaperones may register for \$10/each.

For more information, visit [museumofflight.org/Education](http://museumofflight.org/Education)



## VOLUNTEER PROFILE

# Tommy Gantz

BY: STEVE DENNIS, VOLUNTEER

SEAN MOBLEY



## Dads get in FREE

Celebrate all the dads out there with a visit to the Museum! Dads accompanied by their kids (of any age) receive FREE general admission on Sunday, June 17.

**TOMMY GANTZ LIKES AIRPLANES.** Ten years ago, her uncle took her to the Reno Air Races and she was hooked on "fast and loud." The problem was she was more artistic than technical, and without an engineering background, she didn't see how she could gain a foothold in the aerospace industry.

The Museum of Flight changed all that. Six years ago, Tommy started her training as a docent. In a class of experienced men, most with an aerospace background, she was a bit intimidated. But she found herself surrounded by a supportive group of people who welcomed her, shared their knowledge and helped her realize that she could do it. Tommy began her volunteer stint in the T.A. Wilson Great Gallery before spreading her wings by giving tours of the Full Fuselage Trainer, where she finds the work most rewarding.

But she doesn't stop there. When Museum Trustee Erika Wagner founded the Future Leaders Team (FLT), Tommy quickly joined. The FLT is a group of Museum supporters from a younger demographic tasked with attracting young professionals to the Museum and to the aerospace field. Last Halloween the FLT hosted Embark after Dark, a costume

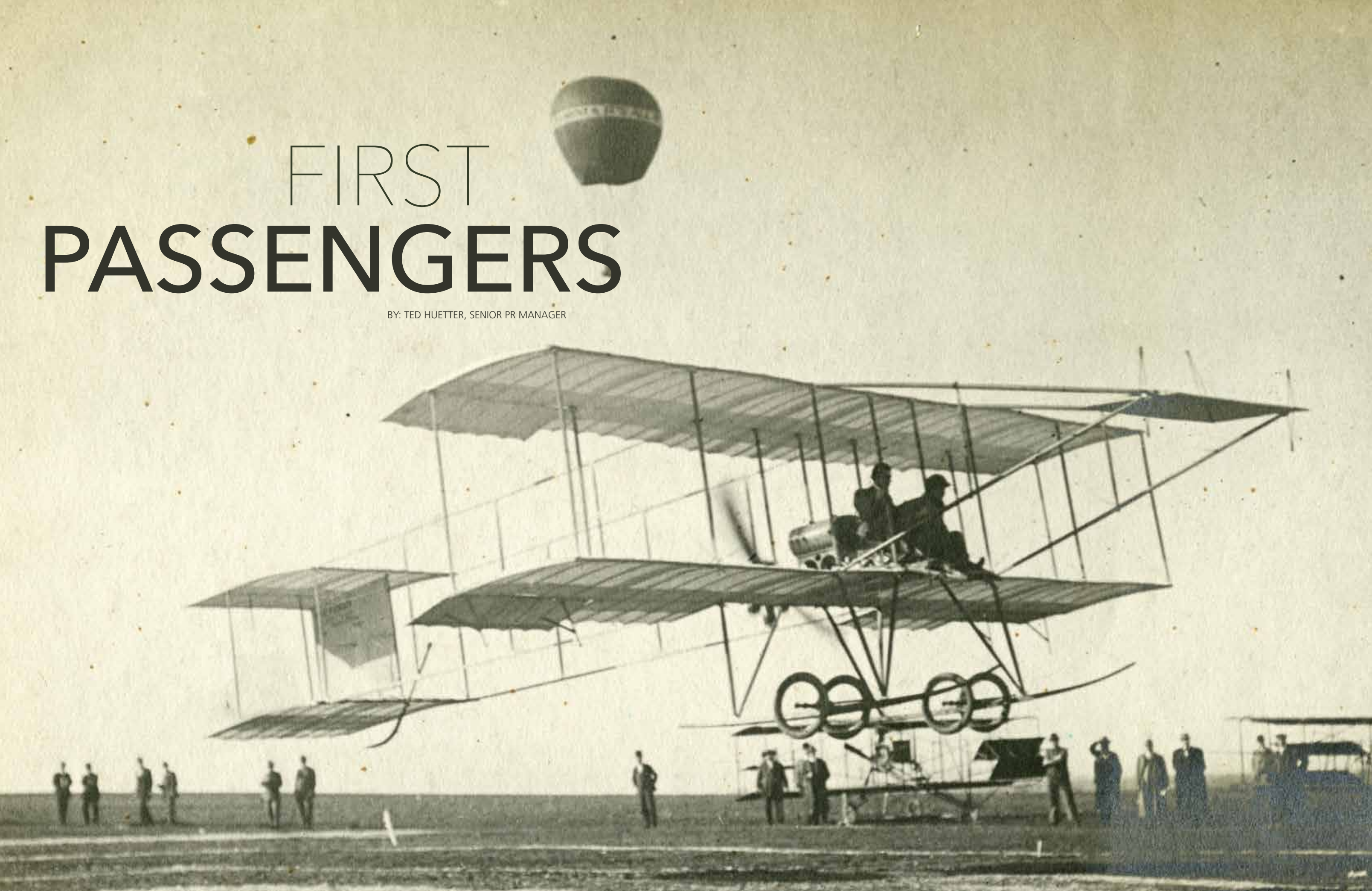
party in the World War I gallery of the J. Elroy McCaw Personal Courage Wing. Tommy also keeps busy by participating in the Museum's Collections and Exhibits Committees and the Boeing Academy for STEM Learning Education Committee.

Along the way, Tommy reached a long-time goal of starting a career in the aviation industry, and she currently works as a Supply Chain Planner at Boeing. Tommy enjoys sharing her story with young people who aren't sure how to engage with the aerospace industry. Now that she's made a home for herself in the industry, as a volunteer and an employee, she offers great advice to others who dream of a career in flight.

Working full time, attending evening committee meetings and serving as a Saturday docent fill up Tommy's schedule, so what does she do for fun? "On weekends I like to go for drives with my husband, who is a Boeing engineer. We often end up near the Auburn Airport where we can sit, eat ice cream and watch the planes come and go."

# FIRST PASSENGERS

BY: TED HUETTER, SENIOR PR MANAGER



The first four and half years of airplane flight was done exclusively by pilots, but on May 14, 1908 Wilber and Orville Wright each gave their trusty helper Charles Furnas a ride, making him by some accounts the world's first airplane passenger. In Italy about six weeks later, sculptor Therese Peltier became the first woman passenger (she later became the first woman airplane pilot).

For the next few years flying remained mostly a spectator sport—the X-Games of their day—with exhibitions and races bringing aviation's latest and greatest to local fairgrounds, open spaces and a few new airfields. Some spectators were inspired to become pilots, while others took their first flights.

The pilots were praised for their derring-do, but what about those pioneering passengers? They assumed the same risks as the pilots, without the cold comfort of being in control. It must have been thrilling! These days we bemoan the lack of legroom on our flights, but there was a time when our legs would have been dangling in the breeze!

It was the winter of 1911, and Gladys Hinckley was a beautiful young socialite in Washington, D.C. She saw a future for women in aviation, and even pondered opening a flying school in the spring. "I believe aeronautics will become a sport for women, just as horse riding has," she told the Washington Post. On March 25 she took a ride with Tony Jannus and his Curtiss-type biplane, becoming the capital city's first lady of flight.

The passenger seat on Jannus's plane was little more than a wooden ledge fastened to the leading edge of the lower wing, next to the pilot. Jannus sported a coat and tie to instill confidence in his passenger. Hinckley wore a long dress for the occasion, and when she took her seat Jannus securely wrapped a cloth around the hem to prevent the skirt from billowing up in flight. Modesty aside, it was a safety precaution, as the fluttering folds could become entangled in the controls with dire consequences.

She and Jannus made a couple circuits around the field at an altitude of about 50 feet. Upon landing she said, "I am going to plead for another ride, and just as soon as machines are so perfected I shall be one of the first to adopt the sport of aviation. Really, there is nothing that I know of that can compare to such a ride." The Post gushed with a story of the "Debutante in Airship Flight." I have not been able to discover if she continued flying or if she started a flight school, but Jannus became a famous aviator and moved to Florida as the chief pilot for the world's first regularly scheduled commercial airline—the St. Petersburg-Tampa Airboat Line.

The airline's only plane when it began service on New Year's Day 1914 was a Benoist flying boat, a pusher-type biplane. News of air crashes were still a regular feature in the papers, so the Airboat Line soothed the fears of future passengers by promoting the plane's safe design, saying "...the engine is placed down in the hull of the boat, behind and below the operator. This lowers the center of gravity and, in case of a tumble, is much less dangerous." Who wouldn't want to fly after reading that? But during the next three months more than a thousand passengers rode in the Benoist's tiny open cockpit before the Line shut down when the company's contract with St. Petersburg ended.

In 1915 Jannus and passenger Ruth Crawford suffered an airboat crash into Tampa Bay during a sightseeing flight. The plane flipped and partially sunk, but Crawford and Jannus climbed through the wreckage, sat on top of the floating fuselage and waved to the crowds that quickly gathered at a nearby pier. Those were the days!

For a few years after World War I, mail instead of passenger travel was driving commercial aviation. Some airlines offered little more than a wing and a prayer to the air traveler.

Joseph Doerflinger was a pilot for the French airline, Lignes Aeriennes Latecoere, during the early 1920s. In his memoir he describes how "passengers played second fiddle" in Latecoere War surplus biplanes on the routes from Spain to North Africa.

"The carrying of mail was of first importance and passenger space

was sold only when mail was light. Passengers rode in the open rear cockpit of the Breguet 14. The passengers were given no protective covering, no parachute and no safety belts. If it rained, they got wet; if the mistral blew, they froze; and if rough weather threw them out, they were killed for want of a safety belt." He describes how a pilot named Pivot "took off from Alicante with his passenger, and fought violent southwest winds blowing over the mountains. He struck a powerful down current. It dropped so violently that the passenger was lifted out of his seat, hit the tail of the plane damaging the steering gear, and fell to his death. Pivot managed to get back to Alicante."

Some frequent flyers managed to defy the odds, for a while. Doeflinger's brother-in-law Denis was a relatively inexperienced pilot and new to Latecoere. When he was scheduled to make his first mail flight to Barcelona, Doeflinger pleaded with the dispatcher, "that's murder, the weather is terrible." The dispatcher argued that roughing it out would make Denis a "more valuable pilot." Doeflinger coached Denis for the flight, emphasizing that he should definitely not fly the usual route over the mountains. They had a plan.

Unfortunately, Denis's passenger for the flight had just been awarded a medal from the Aero Club of Paris for having flown this route more than anyone else. Before takeoff Doeflinger told Denis to stick to the plan and don't listen to the passenger. Poor Denis, he ended up flying the "usual route" and they smashed into a cliff with fatal results. I think pilots have distrusted passengers ever since.

Despite the dangers, adventurous "air minded" passengers continued to put their faith in aviation, and today we complain about over-booked flights. Now passenger spaceflight is like aviation a century ago. What will be said about the first "space-minded" passengers one hundred years from now?

**PREVIOUS PAGE:** THE PASSENGER GOT THE SAME WINDY RIDE AS THE PILOT IN THIS FARMAN BIPLANE DURING THE 1910 LOS ANGELES INTERNATIONAL AIR MEET. CREDIT: THE GOODMAN L. GOODMANSON LOS ANGELES INTERNATIONAL AIR MEET PHOTOGRAPH ALBUM/THE MUSEUM OF FLIGHT

## MEMBERSHIP at THE MUSEUM OF FLIGHT



Share your LOVE of flight!

Purchase a gift membership in May and June and receive two additional months FREE!

For details, visit: [museumofflight.org/Membership](http://museumofflight.org/Membership)

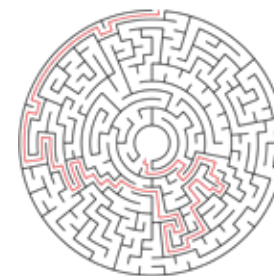
## MUSEUM NEWS

# FLIGHT DECK PODCAST

BY: SEAN MOBLEY, DOCENT SERVICES SPECIALIST

WITH THE MUSEUM'S NEW Flight Deck Podcast, you can fit the Museum experience in your pocket. Podcasts, on-demand internet audio programs, have seen massive popularity in the past few years and the Museum is excited to use this new avenue to inspire our audience with stories from aviation and space. The show launched on March 20 with four episodes on release day, and a new episode drops every other Tuesday. The initial four ranged from a conversation with astronaut Scott Parazynski to an exploration of the history of legroom in commercial aircraft. Do you want to hear first-hand accounts of aerial combat in World War II straight from the mouths of the Fighter Aces themselves? Do you know the story of multi-million dollar space sandwich? Who was Mary Klinker and why should you care? What is the psychological drive behind people who believe conspiracy theories surrounding the moon landing? These are a fraction of the topics listeners can explore in the coming months. The launch of the podcast marked the culmination of two years of work. After years of listening to and producing podcasts, my role as host of the Flight Deck Podcast is incredibly gratifying. I work with docents, who have so many stories to tell, and in each episode I learn so much. The Flight Deck Podcast has true worldwide potential: all someone needs is an internet connection to tune into stories that make aviation and aerospace history personal. My dream is that someone on another continent, who may never set foot in the Museum, finds the podcast fascinating and uses it to get inspired about the world around them. Access the podcast at [museumofflight.org/podcast](http://museumofflight.org/podcast). You can also subscribe to it via Apple Podcasts or using your favorite podcatcher.

MAZE SOLUTION FOR JUNIOR AVIATORS



## THE MUSEUM OF WHAT'S FLYING

THE VISITOR EXPERIENCE AT THE MUSEUM changes everyday thanks to its location adjacent King County International Airport, or Boeing Field. We are not only a museum of what used to fly, but a museum of what's flying now. We see prototype airliners make their first landings, Navy fighters blast us with afterburners blazing, World War II bombers and fighters roar around us with their round engines, civil aircraft of all kinds slip past us on approach, and even Air Force One sometimes commands our attention here. Thanks to Boeing Field, the Museum is a lot more than what we offer within our walls. This Boeing KC-46 (above) was spotted from the Museum as it made a few test flights one day in March. Check out our Facebook page for photos and videos of the latest sightings!



**WEEKLY AEROSPACE UPDATE** Get the latest news in astronomy, aviation and spaceflight from our own experts. Q&A follows. **Every Saturday at 1 p.m. in May and June** in the Charles Simonyi Space Gallery.



Mother's Day is Sunday, May 13!

# Moms get in FREE!

Join us in celebration of all the moms out there! Moms accompanied by their kids (of any age) receive FREE general admission on Sunday, May 13!



POWER OF GIVING

COURTESY DAVE WELLMAN

**WHEN MY BOMB WING DEPLOYED FOR VIETNAM** on that high overcast day in February, you and the children and the other wives and families went to the picnic area overlooking the runway and tearfully waved goodbye as the B-52's and KC-135's took off. When they circled overhead you saw them stream westward not knowing where they were headed or when they would return. Days, weeks, months? Some would never be seen again.

What's a young wife and mom to do? Home was too far away. You felt abandoned. But you drew on inner faith and hope and surprised yourself with your strength and resolve. Sleeping less, you became both dad and mom. You and the other wives gathered compassionate forces to comfort each other and assist with sick children. You were called upon to achieve near mid-wife assistance for our dear squadron friend. You were a friend and help to anyone in need and gave encouragement to those with less resolve. Your love overflowed. Loneliness had been replaced with responsibility. Besides being a great mom to wondering children, you managed their home. You prayed and wrote a letter everyday. You told of being awakened by the smell of JP-4 jet fuel, but there were no jet planes on the base! Your letters came in two's and three's and I responded in kind when I could. We vowed then that Jack Jones' "Dear Heart" would be our song. Then that fuel smell again. Danger, or even tragedy? Worry and rumors broiled. There had been a mid-air collision between two aircraft. Our close friend was one of the eight who had not survived. His wife was now left with two small girls who were playmates of our two. You and an overflowing service at the Base Chapel tearfully memorialized our fallen friends. At that very moment you knew that my crew was dropping a flower wreath over that same tragic place over the China Sea. A gracious civilian HAM radio operator near our home base was our phone patch voice lifeline. The best signal bounce meant mid-day at my end and midnight for yours—so much for your sleep. The radio protocol was to end each phrase with "Over," but we got used to it.

You thought when I came home, life would return to normal. You patiently bore up the readjustment. The feeling of confinement passed. Life started to return to normal when a trip to Disneyland was shortened by rain! Will I ever forget those months of separation? Did I ever thank you enough for your unfailing love? Now that you are gone your family is left with the sweetness of your lasting impression on our lives. I can now say "Goodbye, Dear Heart. Over."

# "Goodbye, Dear Heart. Over."

A Letter from Museum Docent  
Dave Wellman to His Late Wife Juliana

## PROJECT WELCOME HOME

Just as Dave paid tribute to his wife and other veteran wives, you too can honor a loved one. Reserve a Tribute Plaque in the new **Vietnam Veterans Commemorative Park**, due to open Fall 2018. Personalized plaques will appear on a low wall along the footpath to the park's flag pavilion.

Reserve your Tribute Plaque today at [museumofflight.org/Keepsakes](http://museumofflight.org/Keepsakes)



## In Memoriam

- |                        |                   |                      |                     |                       |
|------------------------|-------------------|----------------------|---------------------|-----------------------|
| William C. Abt, Jr.    | Fenwick J. Crane  | Peggy V. Fossett     | Lester G. Lautman   | Dorothy L. Simpson    |
| Alison S. Andrews      | Robert J. Cronin  | C. William Frankland | Kenneth T. Martin   | James A. Slatery      |
| Ellen S. Bakke         | Richard H. Daly   | Steven J. Guerdet    | Vivian B. McDowell  | Frederick J. Stabbert |
| Jan W. Barmore         | John R. Dressler  | Gary H. Harder       | Alice G. Messier    | Richard K. Stearns    |
| Frederick C. Bereswill | Mike Dunkle       | Peter J. Harradine   | J. Shan Mullin      | Horace K. Suinn       |
| Charles H. Bicknell    | Frank A. Dupar    | Cecil G. Hendricks   | James M. Nold       | Lars H. Sundt         |
| Laurie Boguch          | Thomas E. Edmonds | Helen H. Jackson     | David M. Parker     | Joanne R. Tucker      |
| Ronald A. Bohn         | Harold O. Ekern   | Larry E. Kain        | Marvin S. Schuerman | Charles E. Watts      |
| Georgia M. Breindl     | John J. Elsaas    | Stephen J. Koper     | Beverly J. Schwenk  | Edward L. Wentz       |
| Rinaldo M. Carosino    | Harry Y. Eng      | Victor K. Lamin      | Robert A. Sestak    | Brooks K. Whittle     |

## Tribute Gifts

### In Memory

- |  |  |   |
|--|--|---|
| <b>In memory of Ernest Anderson</b><br>Barbara Beach   | <b>In memory of Clyde L. Lackey</b><br>Anonymous   | <b>In memory of Dorothy (Dottie) L. Simpson</b><br>Paula Clark<br>M. Monica Fix<br>Mary Knell<br>William and Joanne McCreery<br>Kit and Sally Narodick<br>David Williams<br>John Purvis and Nancy Wright<br>Ann P. Wyckoff  |
| <b>In memory of John S. Anderson</b><br>Don and Kathy Scott  | <b>In memory of Kenneth B. Lake</b><br>Paula Clark   | <b>In memory of Paul B. Smith</b><br>Patricia L. Ballard<br>Carol Brady<br>Thomas and Sarmite Davidson<br>Peter Davis and Kristiann Schoening<br>G. William and Marjorie McCutcheon<br>Leana Norris<br>Marianne Patterson<br>Carl and Madelaine Smith<br>George and Kay Smith<br>Lorraine Wright<br>Dale and Margaret Zimmerman |
| <b>In memory of Richard (Dick) A. Anderson</b><br>Lauretta Anderson  | <b>In memory of Lester (Les) G. Lautman</b><br>Margaret H. Diggs<br>Morris C. Finkelstein<br>Dennis and Patricia Foster<br>Doug and Dinah Helgeson<br>Raymond and Jean Johnson<br>Lane Kemper<br>Candace Morgan<br>John Purvis and Nancy Wright<br>Avril Steele<br>David Tiemessen<br>Michael and Sharon Vanderslice | <b>In memory of James F. Stack</b><br>Bonnie Christianson   |
| <b>In memory of Clark J. Beck, Jr.</b><br>Dave and Linda Jones<br>Theresa and Greg Simpson<br>Esther Sunde | <b>In memory of Frederick C. Bereswill</b><br>John Purvis and Nancy Wright   | <b>In memory of August (Gus) R. Tiburzi</b><br>Allan and Karen Tiburzi  |
| <b>In memory of Jack Bjerk</b><br>Marilyn Gillespie  | <b>In memory of Charles F. Burtch</b><br>Charles R. and Candace C. Burtch  | <b>In memory of James H. Tullis</b><br>Michael S. and Sheri B. Tullis   |
| <b>In memory of Edwin C. Cifra</b><br>Max Foster   | <b>In memory of Roy L. Long, Sr.</b><br>Joyce Long   | <b>In memory of Everett A. Tustin</b><br>Shirley Tustin   |
| <b>In memory of Ellsworth B. Curran</b><br>Barbara Hanify  | <b>In memory of G. H. (Mal) Malinoski</b><br>Rosaly G. Malinoski   | <b>In memory of Barry D. Wajda</b><br>Susan Wajda   |
| <b>In memory of Jack D'Amico</b><br>Ralph K. Williamson, Jr.   | <b>In memory of Michael R. Manning</b><br>James and Susan Brown<br>Katherine Manning   | <b>In memory of Charles (Billy) E. Watts</b><br>Paula Clark<br>Cliff and Betty Neve   |
| <b>In memory of Thomas C. Dawson</b><br>Catherine E. Gleason   | <b>In memory of Kenneth T. Martin</b><br>Ned and Dana Laird  | <b>In memory of John F. Watts</b><br>Louise Watts   |
| <b>In memory of Leon (Boots) C. Deignan</b><br>Air Line Pilots Association, International                  | <b>In memory of Herbert F. Mellor</b><br>John and Sharen LaVillette  | <b>In memory of Darrell G. Welch</b><br>Welch Reunion   |
| <b>In memory of James E. Duffy</b><br>Paula Clark<br>Duane M. Hinds  | <b>In memory of Eugene J. Monahan</b><br>Virginia Monahan  | <b>In memory of Robert H. Weston</b><br>Adam and Rebekah Weston   |
| <b>In memory of Fred (Buck) L. Dugan</b><br>Paula Clark<br>Bob Clinton<br>Gloria Clinton                   | <b>In memory of Lee Neifert</b><br>Marie Neifert   | <b>In memory of Frank W. Wiley</b><br>George D. Mowat and Bernice Wiley Mowat   |
| <b>In memory of Billy G. Edens</b><br>Paula Clark  | <b>In memory of George P. Novotny</b><br>Ruth Adams<br>Ben Harwood<br>Timothy and Rita Koralewski<br>Ronald and Sharon Mays<br>Judy L. McKelvey<br>Henry and Lana Mielen<br>Lawrence and Sandra Novotny<br>Richard and Desiree Palermo<br>Eileen and Gerald Strider<br>Christopher D. and Sally Yokley               | <b>In memory of Gordon S. (Scotty) Wilson</b><br>Dorinne Richardson   |
| <b>In memory of James D. Fish</b><br>Catherine Hall  | <b>In memory of Howard (Rusty) Hamer</b><br>Howard Hamer   | <b>In memory of Wilmer C. Woodward</b><br>George and Teresa Woodward  |
| <b>In memory of Thomas S. Giefer</b><br>Sherry L. Giefer   | <b>In memory of Cecil G. Hendricks</b><br>Alison and Edwin K. Inkley   |   |
| <b>In memory of Richard (Dick) F. Gordon</b><br>Lawrence Gordon  | <b>In memory of James E. Hill</b><br>Mary Sue Hill   |   |
| <b>In memory of Howard (Rusty) Hamer</b><br>Howard Hamer   | <b>In memory of Dale Hoskins</b><br>Patrice Ackerman   |   |
| <b>In memory of Cecil G. Hendricks</b><br>Alison and Edwin K. Inkley                                       | <b>In memory of Elrey B. Jeppesen</b><br>M. Joyce Jeppesen   |   |
| <b>In memory of James E. Hill</b><br>Mary Sue Hill   | <b>In memory of James E. Jeppesen</b><br>M. Joyce Jeppesen   |   |
| <b>In memory of Dale Hoskins</b><br>Patrice Ackerman   | <b>In memory of Jolene Johnson</b><br>Jody Byrne   |   |
| <b>In memory of Elrey B. Jeppesen</b><br>M. Joyce Jeppesen   | <b>In memory of Josephine (Jay) Johnson</b><br>William W. Johnson  |   |
| <b>In memory of James E. Jeppesen</b><br>M. Joyce Jeppesen   | <b>In memory of Ray O. Keehner</b><br>Brett Fidler<br>Thomas Joy   |   |
| <b>In memory of Jolene Johnson</b><br>Jody Byrne   | <b>In memory of Lloyd W. Keiley</b><br>Diane and James Ward  |   |
| <b>In memory of Josephine (Jay) Johnson</b><br>William W. Johnson  | <b>In memory of Mary-Jane Krie</b><br>Harold Krie  |   |
| <b>In memory of Ray O. Keehner</b><br>Brett Fidler<br>Thomas Joy   |  |   |
| <b>In memory of Lloyd W. Keiley</b><br>Diane and James Ward  |  |   |
| <b>In memory of Mary-Jane Krie</b><br>Harold Krie  |  |   |

### In Honor

- In honor of Clara and Emery**  
Larry and Kathleen Sunderland
- In honor of Wayne C. Erickson**  
Dianne and Patrick Schultheis
- In honor of John Ghiglione**  
Philip M. Rudolph, Jr.
- In honor of Peter N. Jansen, Jr.**  
Brian Smith and Peggy McShane
- In honor of Erin Kolman**  
John Kolman
- In honor of Carol Thomson**  
Dennis and Diane Hatfield

THE MUSEUM OF FLIGHT FOUNDATION  
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Seattle, WA 98108  
206.764.5720 | museumofflight.org

# ★ WAR MACHINE ★

## ★★★★★ VIETNAM AIR WAR

WHAT WAS IT LIKE TO FLY HELICOPTERS, BOMBERS  
AND FIGHTER AIRCRAFT IN VIETNAM? FIND OUT FROM THE  
PILOTS THEMSELVES IN THESE PANEL DISCUSSIONS.

**MAY 12**

**U.S. HELICOPTERS**

**MAY 19**

**U.S. FIGHTER AND STRIKE AIRCRAFT**

**MAY 26**

**B-52 STRATOFORTRESS**

**CHECK OUR ONLINE CALENDAR FOR DETAILS!**

