

about

THE MUSEUM OF FLIGHT MAGAZINE

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The Huntsville Times

HUNTSVILLE, ALABAMA, WEDNESDAY, APR. 12, 1961

ASSOCIATED PRESS — WIREPHOTO

Where Progress...
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45¢ PER WEEK

Man Enters Space

Soviet Officer Orbits Globe In 5-Ton Ship Maximum Height Reached Reported As 188 Miles

'So Close, Yet So Far, Sighs Cape U.S. Had Hoped For Own Launch

CAPE CANAVERAL, Fla. (AP) — The Redstone rocket which the United States had hoped would boost the first man into space stands on a launching pad here. The Soviet Union beat its firing date by at least two weeks.

Hobbs Admits 1944 Slaying

By DAN WELLS
OF THE TIMES
Hobbs D. Hobbs admitted today in the federal court at 204 N. W. Morgan Street, Fayetteville, Ark., that he had shot and killed a man named James Earl Ray in 1944.



Praise Is Heaped On Major Gagarin

First Man To Enter Space Is 27, Married, Father Of Two

'Worker' Stands By Story

LONDON (AP) — The Daily Worker, Communist party paper, today said it was proud of the Soviet announcement that the first man to enter space was a worker.

Reds Deny Spacemen Have Died

By THE ASSOCIATED PRESS
Have some Soviet spacemen been killed in space? No, the Daily Worker newspaper today said.

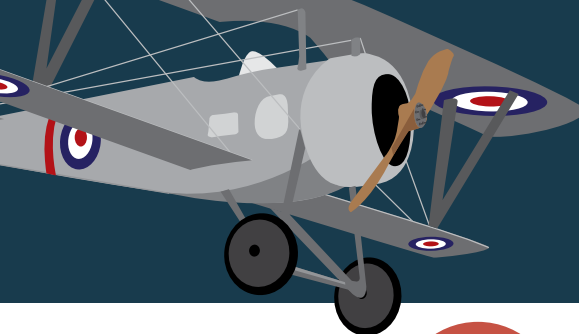
To Keep Up, U. S. A. Must Run Like Hell



WERNER VON BRAUN
He From A Rocket Achievement

No Astronaut Signal Received At Ft. Monmouth

FT. MONMOUTH, N.J. (AP) — The Army Signal Corps today said it had not received any signal from the Soviet astronaut who is reported to have orbited the globe.



MEMBER EVENTS

For all events, please RSVP to membership@museumofflight.org.

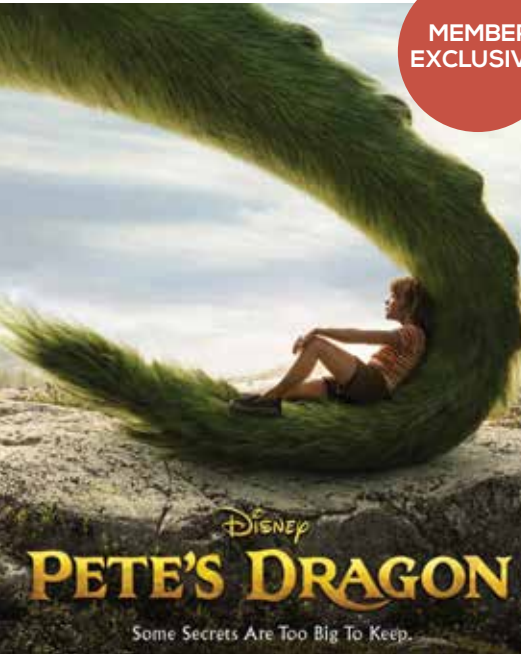
MEMBER EXCLUSIVE!

MEMBER MOVIE NIGHT PETE'S DRAGON

In this dramatic retelling of the 1977 musical comedy, Pete is an orphaned boy living in the forests of the Pacific Northwest with his best friend Elliot, who happens to be a friendly flying dragon! Following a chance encounter with local residents, repercussions of their discovery threaten to separate Pete and Elliot forever. Starring Bryce Dallas Howard and Robert Redford, join us in March for this fantastical story of friendship and family. *Rated PG for action, peril, and brief language.*

WILLIAM M. ALLEN THEATER
Friday, March 9 | Movie starts at 6 p.m.
Doors open at 5:30 p.m.

Sponsored by:



WALT DISNEY PICTURES

STEM Starters

STEM Starters is a monthly program series geared specifically for our youngest Members age 3 to 5 and their co-pilots!

FORCES AND MOTION 4 sessions available!

In March and April, we will explore forces and motion. Enjoy an interactive story about moving and rolling and then get moving yourself, building and testing ramps.

Monday, March 12 | 10:30 to 11:30 a.m.
Monday, March 26 | 3 to 4 p.m.
Monday, April 9 | 10:30 to 11:30 a.m.
Monday, April 23 | 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.

Space is limited to 12 adult/child pairs at each program. *For the safety and success of your child and the class, please note that hands-on participation and attention from caregivers is required.*



THE PILOT EXPERIENCE

Join us for this special evening Pilot Experience and see if you have what it takes to become a pilot! Inspect a real Cirrus SR20 for safety, plot your course, and take off into the sky in our professional-grade simulators. Ages 10 and up, participants under 14 must be accompanied by an adult. Space is limited, register today!

**ALASKA AIRLINES
AEROSPACE EDUCATION CENTER
T.A. Wilson Great Gallery**

Monday, April 16 | 6 to 7 p.m.

RSVP required. To attend, email us at membership@museumofflight.org.



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! **RSVP to membership@museumofflight.org to attend.**

AIRCRAFT MANUALS

The team from the Museum's Harl V. Brackin Library (Chris Stanton and Janell Schnackenberg) will discuss the library's IMLS-funded project to catalog, rehouse and preserve the library's extensive and one-of-a-kind Manuals Collection. The team will share stories, challenges and successes from working with the collection, which contains more than 14,000 aircraft, engine and accessory manuals over the course of the 3-year project.

NORTHWEST AEROCLUB ROOM
Red Barn, 1st Floor

Friday, March 16 | Noon to 1 p.m.

A FEW OF OUR FAVORITE THINGS

Please join the Museum's curatorial team for a new edition of "A Few of Our Favorite Things" where each staff member will share some of their favorite items in the Museum's vast collection. Come learn about some unique objects, interesting images, and hidden treasures in the collection that aren't currently on display in the Museum.

NORTHWEST AEROCLUB ROOM
Red Barn, 1st Floor

Friday, April 20 | Noon to 1 p.m.

YOU'RE INVITED TO THE MUSEUM'S ANNUAL MEETING!

Watch for your Membership e-newsletter for additional information coming soon.

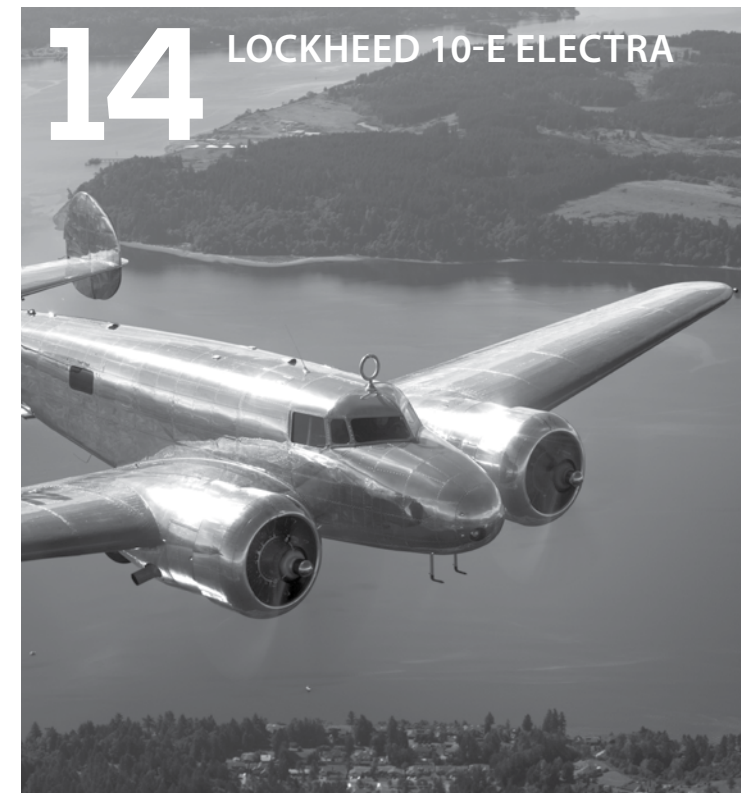
Tuesday, April 17 | 4 to 5 p.m.
WILLIAM M. ALLEN THEATER

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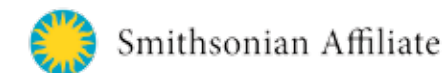
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On the cover: On April 12, 1962, Soviet cosmonaut Yuri Gagarin became the first man in space. This is the front cover of *The Huntsville Times*, Vol. 51, No. 21 dated Wednesday, April 12, 1962. (THE HUNTSVILLE TIMES/NASA)

Questions or Comments?
Email us at aloft@museumofflight.org

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THE MUSEUM OF FLIGHT

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THROUGH HIS LENS

CURIOS VISITORS OFTEN ASK how the Museum chooses what to collect and display, and they sometimes ask why we may leave a seemingly random item inside an artifact, like a stuffed version of cartoon Garfield's nemesis.

Check out the front of our Coast Guard helicopter in the T.A. Wilson Great Gallery. Amongst the daunting rotors and the lifesaving equipment, peering through the glass nose, is a stuffed Odie the dog, a stow-away in residence since the HH-52 was raised to the rafters.

Odie has sat shotgun in many aircraft long before his current roost came to our collection. As a full-fledged member of our restoration team, he too became part of the story of the HH-52. A tightly-knit group of volunteers and employees, our restoration team included Odie in everyday activities and he became a fixture of their interactions. Odie shows that we are not just a Museum of flying machines; we also share experiences and become the keeper of stories. We provide a look back at not just a thing, but at why it was important, what it was like to live through it, and what we can learn from it.

Our displays and artifacts are about more than historical accuracy—they are a narrative of the why, how, when, and what. Most importantly, Odie is there because of the who. The people who might fly a helicopter over dangerous waters to save a life. And the people who spend hours, months and years restoring that aircraft and enjoy having an inanimate companion along on their restoration journeys. A stuffed mascot can provide a bit of solace, fun, or humanism during stressful, boring, or even heroic times.

Come see Odie and the hundreds of stories that the Museum has to offer. The collection is the heart of the Museum and I hope you can find the stories, people, and objects (no matter how small) that speak to you.

Cheers,

Matt Hayes, President and CEO



Museum Flashbacks

TOP LEFT: Museum staffer Mark Pantaleo takes a well-deserved breather during the F/A-18 installation. Mark supports our aircraft maintenance and moving operations including fly-ins. The Hornet was first trucked to South Lawn from its previous corner in the Aviation Pavilion. • The spectacle of suspending an F/A-18 and balancing it on a few screws drew fans and media to the Museum when we installed our Blue Angel "Holly" on her pedestal on the South Lawn. • Docent Harvey Hawks is a retired Boeing engineer who worked on the SST program. KIRO radio's Feliks Banel recently interviewed Hawks (left) for his broadcast about the Boeing 2707 program. The two met at the Restoration Center's 2707 exhibit. Here they are inside of a full-scale mock-up the plane's forward cabin. • Chris Ballew, aka Caspar Babypants, was the featured performer at last December's Santa's Landing Party holiday celebration. Babypants' delightful children's music was immensely popular with kids at the Museum. Some parents might remember him as the former lead singer of the rock band The Presidents of the United States of America. • Irish government Minister of State, Pat Breen, visited the Museum in January. He was quick to spot the Aer Lingus shamrock on our 747!

PHOTOS: TED HUETTER



NC91008 LIVES ON

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



THE MUSEUM OF FLIGHT

Q: THE MUSEUM'S DOUGLAS DC-3 BEARS THE MARKINGS OF ALASKA AIRLINES AND THE REGISTRATION NC91008. WHEN DID IT FLY FOR ALASKA?

A: The Museum's Douglas DC-3 never actually flew for Alaska Airlines. On July 18, 1940, Douglas Aircraft delivered the Museum's DC-3-277C, constructor's number 2245, to American Airlines, who registered it as NC15591. American then sold it to TWA on May 28, 1942. After several other owners, Ozark Airlines purchased NC15591 in 1954 and reregistered it as N138D, which remains its official registration to this day. After passing through the usual litany of charter operators, N138D finally ceased operations in November of 1982 and was hung in The Museum of Flight in 1987. In early 1998, the Museum performed a major "re-hang" of its aircraft in the T.A. Wilson Great Gallery to put the aircraft into chronological order by date of first flight. Alaska Airlines underwrote the re-hang's huge cost with a generous donation. In appreciation, the Museum put its DC-3 into Alaska Airlines' markings. Unfortunately, Alaska had many variations in its DC-3 markings and relatively few photographs exist that show the markings in detail. The Museum's senior curator at the time, Dennis Parks, found an excellent photograph of NC91008, whose markings

we applied without further research. Well, it turns out that the real NC91008, a former C-47A-30-DK, constructor's number 13977, (USAAF serial number 43-48160) crashed into a mountain, some 25 miles northwest of McGrath, Alaska, on August 8, 1954. Both of the pilots were killed; fortunately, there were no passengers or flight attendants aboard. So, "NC91008" lives on, simply because that was the best photograph of an Alaska Airlines DC-3 that we could find back in 1998.

Q: OUR MUSEUM HAS ACQUIRED A DOUGLAS DC-6B, BUT THE ONLY PLACE THAT WE CAN DISPLAY IT IS OUTSIDE, IN A CLIMATE SIMILAR TO THAT OF SEATTLE. WHAT ADVICE CAN YOU GIVE FOR DISPLAYING A DC-6B OUTDOORS?

A: I would quote the sage advice of our Curator Emeritus, Dan Hagedorn: "Don't!" Displaying aircraft outdoors in a cool, damp climate with salty air is a nightmare and should be done only as an absolute last resort. First, you will need to provide heating, ventilation, and air conditioning (HVAC) inside the fuselage 24 hours a day, seven days a week. HVAC is expensive to install and operate. Second, you will need to install a dehumidification system inside the fuselage, to extract the water from the air inside the

What's new in the collection?

BY: CHRISTINE RUNTE, REGISTRAR

THE MUSEUM RECEIVED a collection of 1950's photographs relating to the Aerocycle, or Heli-Vector, designed by the De Lackner Helicopter Company of Mount Vernon, New York. In the 1950's, NACA proposed a one-man personal helicopter or flying platform. It was believed if the rotors were placed on the bottom, a pilot could steer by shifting his weight. De Lackner was one of three companies to develop a prototype, and the US Army ordered twelve for evaluation. Unfortunately, there were two accidents caused by the blades flexing and colliding, so this concept was abandoned. There is one Aerocycle still in existence at the U.S. Army Transportation Museum. This photograph collection also includes other versions of a personal helicopter developed by De Lackner. The donor's father, Bruce Maurer, worked as a mechanical engineer for Don De Lackner, who later operated an amusement ride company. Mr. De Lackner gave these photographs to Bruce Maurer who in turn gave them to his son, Kevin Maurer.



HOWARD LEVY/THE MUSEUM OF FLIGHT

airplane, which also will require a place to drain the water. Finally, perhaps the best advice for displaying aircraft outdoors (other than "Don't!") can be found in Chapter 12, "Preparing Unsheltered Exhibit Aircraft," in Robert Mikesch, *Restoring Museum Aircraft* (Shrewsbury, England: Airline Publishing Ltd., 1997), pages 166-76. Good luck!

HAVE A QUESTION?

Submit it to aloft@museumofflight.org and it could appear in the next issue of Aloft!



WORLDWIDE AND WISE

WITH SUPPORT FROM Boeing and Emirates Airlines, members of our outreach team travelled to Dubai to deliver education programs for the opening of the Emirates Flight Training Academy. This modern facility aims to train the next generation of aspiring airline pilots. From the UAE, staff flew to Nagoya, Japan to begin a nationwide tour of schools and science centers, delivering programs like the Flying Gizmo Show to audiences of all ages. The tour started in Aichi Prefecture, where the Museum has a cooperative agreement with the Aichi Museum of Flight. The Museum also shares an education partnership with the soon-to-be opened Flight of Dreams aerospace center at the 'Centrair' Airport, just south of Nagoya.

While some staff circled the globe, others hosted the Exhibition of Learning for the first cohort of Washington Informal Science Education classes. WISE, a consortium of six area informal science providers, develops and implements a multistage education program for all 5th graders in Highline Public Schools. Students participate in offsite and classroom engineering lessons, conduct their own scientific investigations and present their findings to their friends and families at the Exhibition.



THE MUSEUM OF FLIGHT

Full Circle

ONE HUNDRED YEARS AGO, Boeing engineers used state-of-the-art technology in the Red Barn Drafting Room to design airplanes that changed world travel. Today, thanks to a generous grant from the Archibald Charitable Foundation, the historical Drafting Room has been transformed into a learning laboratory that accommodates a variety of education programs, chief among them the Aeronautical Science Pathway program, which prepares students for high demand careers as a pilot, airport or airline manager, airline dispatcher, unmanned systems specialist or air traffic controller. The room has been fully equipped with computers that allow today's students to readily access information, conduct research, design airplanes and other artifacts, and create and edit videos—all part of preparing for their future careers. Wong Tsu, one of the first engineers at Boeing, would be proud!

THE MUSEUM BEYOND

THE MUSEUM CONTINUES TO PUSH BEYOND the borders of our campus and bring the Museum education experience to students. The Michael P. Anderson Memorial Aerospace Program (MPA), which helps middle school youth in underserved communities explore careers in the aerospace and aviation industry, launched its second year of in-school programming. Teachers in schools across the region work with the Museum to deliver educational programming directly to their students in the classroom, tripling the number of participants in MPA.



Register for ACE camp today!
See our ad on page 25.

SUMMER IS COMING...

And with it, a game of drones. Aerospace Camp Experience (ACE), the Museum's day camp, is building on a record-breaking 2017 by expanding its offerings. At the center is the Museum's new Learning Annex, two classrooms located just north of our Lockheed Constellation which will be ready for campers to use this summer. The additional space allows ACE to include more programs centered on drones while adding sessions of some of our more popular traditional camps. Check out our camp brochure at museumofflight.org/ace.



MUSEUM MUSINGS

PIE on π Day

HOW PI HAS BECOME A POP CULTURE PHENOMENON

BY: MELANIE KWONG,
PUBLIC PROGRAMS COORDINATOR

WHAT IS PI, AND WHY IS IT CELEBRATED on March 14? Pi is simply the circumference of a circle divided by its diameter, and it is called a constant because it is the same for any circle, of any size. And when you write Pi as a decimal, it continues forever, never ending and never repeating itself. The first digits are 3.14159.

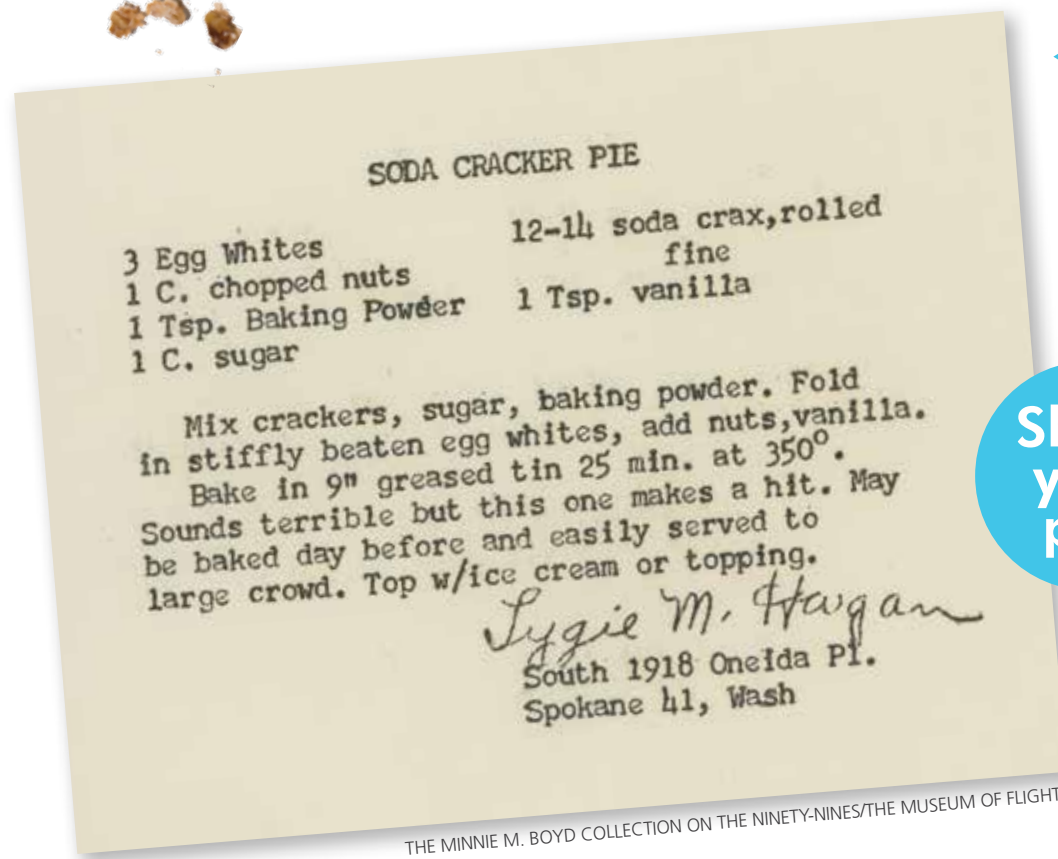
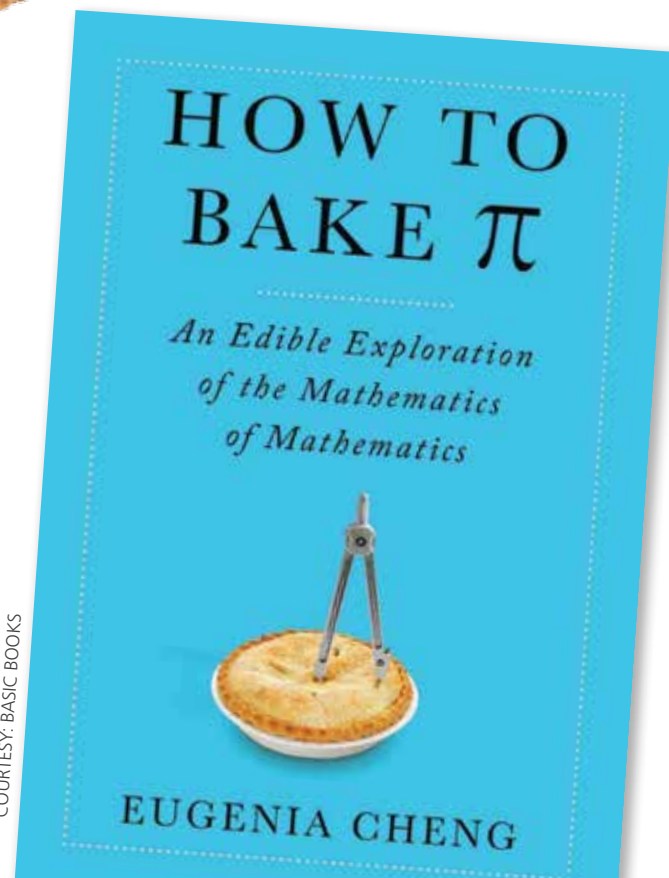
Named Pi because π is the first letter of the Greek word “perimetros” or perimeter, this constant is found in many areas of math and physics, and it appears routinely in equations describing fundamental principles of the universe.

While only a handful of digits are needed for typical calculations, Pi’s infinite nature makes it a fun challenge to memorize and to computationally calculate more and more digits. Pi has been calculated to over one trillion digits beyond its decimal point!

This year, the Museum joins in the fun as we celebrate Pi Day with author and mathematics professor Eugenia Cheng, author of *How to Bake Pi: An Edible Exploration of the Mathematics of Mathematics*. The event begins with a meet and greet reception with (what else?) pie, followed by a lecture and book signing. (Event details on page 17.) In *How to Bake Pi*, Cheng provides an accessible introduction to the logic and beauty of mathematics, powered unexpectedly by insights from the kitchen.

Asked about the popularity of Pi Day, Eugenia comments “that while detractors say it’s a bit silly, is an approximation, and only works in American date formats, the idea of having just one day in the year when unlikely people think about and even have fun with something mathematical is a good thing! The fact that people get really excited about it shows, to me, that people do have the capacity to get excited about math concepts if they’re presented in a fun way that doesn’t take itself too seriously, and in a way that everyone can get involved with using their imagination.”

COURTESY: BASIC BOOKS



◀ In honor of Pi Day, we’d like to share a recipe found in our archives. How does it hold up today? [Take a photo and tag us on Instagram and Twitter \(@museumofflight\)](#) or [share on our Facebook](#) page on March 14 to let us know how it turned out!



FILM REVIEW

FIRST AMENDMENT FIGHT

The Post Film Review

BY: IRENE JAGLA, CONTENT MARKETING MANAGER



DREAMWORKS PICTURES/PARTICIPANT MEDIA/TWENTIETH CENTURY FOX

STEVEN SPIELBERG’S THE POST recreates the events leading up to the Washington Post’s publication of the Pentagon Papers, classified documents that detail military failures and missteps prior to and during the Vietnam War. At the center of these events is newly-minted Washington Post publisher Katharine Graham, played by Meryl Streep, who vacillates between the desire to uphold the First Amendment and the need to protect the future of her paper.

With masterful storytelling by Spielberg, the film manifests the speed and urgency of a newsroom while carefully attending to the details of the era. One of its standout scenes doesn’t involve its two stars—Streep and Tom Hanks, who plays hard-nosed Editor-in-Chief Ben Bradlee—but rather the giant printing presses and the men who operate them in the Washington Post’s assembly line. In this digital age of news apps and online magazines, seeing the intricate platemaking process and hearing the noise of the printing machines churning away is a welcome pleasure.

But the key element of the film—Graham’s trajectory from uncertainty to bold leadership—is sensitively borne out by Streep. At the beginning of the film we see Graham scrambling from meeting to meeting with an armload of papers and binders, struggling to make her voice heard. Near the end, she asserts her authority when she responds to a statement from one of her male board members: “I’m asking your advice, not your permission.”

Graham’s bold decision to publish resulted in a major turning point in the Vietnam War. There was no going back after the Washington Post ran the story, and the United States ended its war efforts in 1972, due in part to the Post, the New York Times, and other papers winning their battle for the First Amendment.

To learn more about the Vietnam War, be sure to visit our new Vietnam War exhibit, opening in May 2018.

THE SIX PERCENT

Even though women were active in the early days of aviation—Frenchwoman Raymonde de la Roche got her wings in 1910, and American Harriet Quimby earned her pilot license in 1911—they have since lagged behind men, leading to a significant gender gap in the profession. As of 2016, the FAA counted 39,187 women pilots among a total of 584,362 in the U.S. The women who comprise this 6% have stories that reflect the historical and cultural reasons behind this gap. In honor of Women's History Month, and as a means of drawing attention to this imbalance in the aviation industry, *Aloft* is sharing the stories of three women pilots who are working to close this gap and inspiring young women to pursue careers in aviation.

BY: IRENE JAGLA, CONTENT MARKETING MANAGER



COURTESY OF ERIN RECKE

ERIN RECKE

ALASKA AIRLINES PILOT

Erin grew up on Air Force bases with her eyes skywards, (even though there were no aviators in her family) admiring the many planes that flew overhead. Erin began her career as a corporate pilot, but her dream job was always to be a pilot for Alaska Airlines. After 9 years based in Atlanta and Detroit as a pilot for Express Jet, Erin became a captain in 2013. The next year she finally started her dream job with Alaska Airlines.

WHEN DID YOU FIRST BECOME INTERESTED IN FLIGHT?

I came from the womb wanting to be in the sky! I always looked up at airplanes and grew up going to air shows at bases. But it didn't occur to me that I could be a pilot until I met this woman, Maureen, who once took me for a ride in her little plane. I was terrified and super excited and thought 'Oh my gosh, if this little tiny Southern Belle can do it, I can do it.' She became a mentor of mine and was so excited because her own kids never really showed any interest in flying. Her husband didn't really fly anymore, so I picked her brain and sat in the right seat for hours.

WHAT KINDS OF OBSTACLES DID YOU ENCOUNTER DURING YOUR PATH TO BECOMING A PILOT AND WHO MENTORED YOU THROUGH THOSE OBSTACLES?

The main obstacle for me was financial. I didn't know where to start and ended up taking out a massive loan out from the bank that no one

would co-sign for me. It took me twelve years and I had some help in the end paying that off. In my first jet job I made \$25,000. My student loan payments were more than my actual salary. The other thing that was a struggle for me was my own self talk: 'I'm the only girl and girls aren't good at math; maybe I should have paid attention when dad wanted to work under the hood of the car with me.' Being gay, too, has been a challenge. Earlier in my career that was a big hurdle. It's not anymore, thankfully. I work with the National Gay Pilots Association to mentor other LGBTQ people in aviation, and now there's a scholarship and the major airlines like having a more diverse pilot list. But that wasn't the case for a long time.

WHAT IS YOUR GREATEST SUCCESS THUS FAR?

One thing I'm most proud of is volunteering for Aviation Day. I took a group of girls to Aviation Day in 2014 and saw that the Girl Scouts didn't have an "Aviation" badge like the Boy Scouts did, so I called the program manager and wrote

a badge program for the Girl Scouts where they would learn about weather, basic aerodynamics and careers in aviation. I wrote seven modules and presented them officially at Aviation Day, which we've done for three years. We've had about 350 Girl Scouts go through the program and earn their Aviation Merit Badge.

WHAT ADVICE WOULD YOU GIVE TO WOMEN OR GIRLS WHO DREAM OF BECOMING PILOTS?

Find people in your life who remind you of your strengths when things get tough and who will remind you of how badly you want it. At some point, it may get to be too much, or too expensive or it's taking longer than it should. Find people who can hold up that mirror and say 'You really want to fly.'

ASHLEY MESSMER

COMMERCIAL PILOT WITH INSTRUMENT AND SEAPLANE RATINGS; CORPORATE SALES AND PROMOTIONS ASSOCIATE MANAGER AT THE MUSEUM OF FLIGHT

Ashley graduated from Central Washington University in 2012 with a degree in Flight Technology, Commercial Pilot Specialization. She was the only female to complete the program in her graduating class. More impressively, Ashley received her seaplane rating in 2017. Less than 3% of pilots are seaplane rated.



WHEN DID YOU FIRST BECOME INTERESTED IN FLIGHT?

I've been interested in it since childhood. I grew up coming to The Museum of Flight with my grandpa, who was a member. I went to Seafair each year and loved seeing the Blue Angels. I finally decided it was in my blood after taking a trip with my mom, who was a flight attendant, to Chicago, where I connected with the crew and a pilot who taught me a lot about flying.

WHAT KINDS OF OBSTACLES DID YOU ENCOUNTER DURING YOUR PATH TO BECOMING A PILOT? WHO MENTORED YOU THROUGH THOSE OBSTACLES?

I had an awesome female instructor for my private pilot license, Susan Ellers, and she was very supportive. The majority of overcoming obstacles was having supportive friends and family who kept me going when I was down. The instrument rating was not an easy thing to learn. Your eyes have to be strong, so cross-checks took a long time for me to get down.

But definitely my mom. She made sure to be there any time I was struggling.

WHAT IS YOUR GREATEST SUCCESS THUS FAR?

Depends on how you measure success . . . Probably getting my degree, sitting there next to all those guys and realizing I made it through an intense program. That was a good feeling.

WHY DO YOU THINK THIS GENDER GAP EXISTS IN AVIATION?

Historically, women have been in the position of caretakers, staying home and never really having careers. Their dreams were built upon family and that was the norm. There are organizations that are trying to help women have careers. It's important to support organizations like the Ninety-Nines so women can have scholarship opportunities. My flight career is on pause right now because I'm trying to pay off loans and continue training; but, if I'm in a pause, we can't close that gap.

WHAT ADVICE WOULD YOU GIVE WOMEN AND GIRLS WHO WANT TO BECOME PILOTS?

It's not an easy road. It takes a lot of dedication and sacrifice, and you can't let fear get in the way of pursuing your dreams. Also, you need to get used to not sleeping and studying a lot!

FEELING INSPIRED?

Visit museumofflight.org/AAC to learn more about how Amelia's Aero Club nurtures young women who wish to pursue careers in aviation.



ANNE SIMPSON

RETIRED DELTA AIRLINES PILOT

Anne started flying at 21 with the goal of working for an airline by the time she turned 25. She earned her private pilot license in one month and then continued on to a 35-year career. In 1981, she was hired by Northwest Airlines as a second officer aboard a Boeing 727 before upgrading to co-pilot. After 18 years as a Captain flying Airbus A320s and 747-400s, Anne upgraded to piloting the Airbus A330 for Delta Airlines for seven years. Anne is a mother of two and serves as Chairwoman for The Museum of Flight Board of Trustees.

WHEN DID YOU FIRST GET INTERESTED IN FLIGHT?

At a very young age. I have family history in aviation. My mom got her pilot license when she was 19 because she wanted to fly for the WASPs, but she didn't get enough flight time before program was disbanded. She did the next best thing, which was being a flight attendant. I had an uncle who was an airline pilot and a big picture understanding of profession, but I didn't start flying until I was in college.

WHAT KINDS OF OBSTACLES DID YOU ENCOUNTER DURING YOUR PATH TO BECOMING A PILOT? WHO MENTORED YOU THROUGH THOSE OBSTACLES?

The biggest obstacle was when I was trying to get my first job other than a flight instructor. They weren't really hiring women. I left the Seattle area and moved to Texas where there were more flying opportunities, they were more open minded and there were more jobs. I was lucky. It was difficult to get someone to take

me on for an independent study when I was at Mills College. Finally, I found the head of the Physical Education Department and she was the one who supported me most. In the midst of Title IX and lots of attention being paid to women getting to do what they wanted to do, that worked out well. Everyone in my career path was really supportive.

WHAT IS YOUR GREATEST SUCCESS THUS FAR?

I would say it's all of those experiences I gained from my aviation career and transferring them into my current volunteer job at the Museum. It feels great to pass along my knowledge to the next generation and get them excited about following down same path. I'm as proud of being the Chairwoman as I am of being a 747 captain.

WHY DO YOU THINK THIS GENDER GAP EXISTS IN AVIATION?

It starts in elementary school, and it's not just for aviation. We need to make sure that girls in

kindergarten know that they have the potential to become anyone and anything they want. Teachers have to make sure girls have equal opportunities to speak up in class, and if they make a mistake or something, that's OK and we can just encourage them to try harder next time. It's a wild time we're going through right now. It's been changing and will keep changing, but we have to try harder to let girls know they are just as important as boys.

WHAT ADVICE WOULD YOU GIVE WOMEN AND GIRLS WHO WANT TO BECOME PILOTS?

I would start by saying that their futures are bright with many opportunities, from flight instruction to being a pilot. Whatever area they want to pursue, my advice is just to keep plugging away. It is there for their choosing. If they work hard, stay the course, and study hard to get the grades they can go down the road full steam ahead to a rewarding career.





MUSEUM MUSINGS

CELEBRATING YURI

BY: TONY GONDOLA,
CHALLENGER LEARNING CENTER COORDINATOR

ON APRIL 12TH, 1961 Russian Air Force pilot and cosmonaut Yuri Gagarin rode his Vostok-1 spacecraft into orbit to become the first human to enter space. During the early days of the Space Race, Yuri's flight was a significant technical leap and a huge political coup against the United States. While Yuri was orbiting the Earth, the U.S. was still nearly a month away from the first Mercury sub-orbital flight and eight months away from John Glenn's first orbital flight.

Born on a collective farm under very humble circumstances, Yuri became the poster boy for the superiority of the Soviet system over the West. In fact, he became so important as a political tool for the Soviets that they deemed him too valuable to risk on another flight. Much to Yuri's frustration, he never flew in space again. John Glenn also suffered the same fate. Grounded by NASA for the very same political reasons, Glenn didn't fly again until his shuttle flight at age 77, long after the Cold War had ended.

Technically, Yuri's flight was very risky. Not only were they dealing with all the unknowns of human reactions to being in space but the Luna/Vostock booster that Yuri was riding had a success rate of only 50 percent. Unlike the American approach of careful small steps in full public view, the Soviets had the luxury of secrecy. They could go for broke with a daring orbital flight because even if it failed, the outside world would never know it even happened. The government would decide what the next space achievement would be and the engineers had to scramble and take whatever shortcuts needed to make it happen.

Lucky for Yuri, the flight was almost a total success. Launching to the northeast from Baikonur site 1, the spacecraft was injected into an orbit that ranged from a low point of 91 nm up to a high point of 177 nm. Because it wasn't known if a human could even function in the space environment, Yuri was just along for the ride as everything happened

under automatic control. That said, there was an envelope on board containing a code that could be used to activate manual control of the spacecraft if needed.

After a little over one hour in space and the completion of a single orbit, commands were sent to fire the retro rockets to slow the spacecraft for reentry. Unfortunately, the service module failed to separate from Yuri's capsule. This sent the spacecraft into wild gyrations until reentry forces broke them apart. From that point on it was a ballistic reentry with g-forces going as high as 10. While still over 20,000 ft high, Yuri ejected from his spacecraft, completing his journey by parachute. His words to a farmer and his daughter after landing? "Don't be afraid, I am a Soviet citizen, like you, who has descended from space." He was, surely, a citizen, but his humble beginnings and historic flight made Yuri a Soviet hero and an icon for future space exploration.

CALENDAR OF EVENTS

March



LECTURE

Mars MADNESS

It's baaack! **How We Fly Deep Space Missions, UW Space Ambassadors and Mars 2020 mission preview** round out 3 fast-paced presentations about our past, present and future on the red planet. Join us on:

- Saturday, March 10
- Saturday, March 17
- Saturday, March 24

Check our website for details and updates on the presentations.

CHARLES SIMONYI SPACE GALLERY
2 to 3:30 p.m.

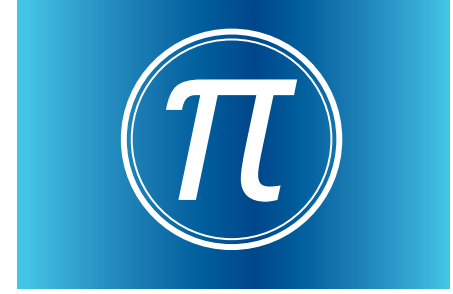


SPECIAL EVENT

Soaring Expo

The member clubs of the Seattle Glider Council once again present a glimpse into the fascinating world of silent flight at **Soaring Expo 2018**. Full-size gliders and radio-controlled gliders will be on display all weekend. Representatives of local soaring and RC glider clubs will be on hand to answer questions for anyone interested in the sport of soaring or becoming a glider pilot. Clubs include Evergreen Soaring and Puget Sound Soaring.

SIDE GALLERY
Saturday and Sunday, March 3-4
10 a.m. to 5 p.m.



TICKETED EVENT

Pi: An Edible Exploration of Math

The Museum celebrates Pi Day with an evening reception, lecture and book signing with **Eugenia Cheng, author of *How to Bake Pi: An Edible Exploration of the Mathematics of Mathematics***. After a meet and greet reception featuring (what else?) pie, Cheng describes how "math, like recipes, has both ingredients and method."

Tickets: FREE for Members | \$5 General
Advance ticket required.

CHARLES SIMONYI SPACE GALLERY
Wednesday, March 14
5:30 to 8 p.m.



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 March and April** in the Charles Simonyi Space Gallery.



WELLS FARGO

FAMILY EVENT

Wells Fargo Free First Thursday

On the first Thursday of each month, the Museum stays open late—and admission is FREE. Enjoy the Museum's Great Gallery, Personal Courage Wing, Simonyi Space Gallery, Aviation Pavilion and more from 5 to 9 p.m., courtesy of Wells Fargo. The Museum Store and Wings Café will also remain open for extended hours.

MUSEUM-WIDE
Thursday, March 1 | 5 to 9 p.m.

WEEKEND FAMILY WORKSHOPS

Mars Rovers

Spirit and *Opportunity* are two of the most famous and successful robotic rovers in the history of the United States space program. Learn about their missions to Mars and then design your own Martian explorer!

T.A. WILSON GREAT GALLERY
Saturday and Sunday,
March 3-4, 10-11 and 24-25
11 a.m. and 1 p.m.

Voyage to the Unknown: Voyager 1

Space probes slowly roam our galaxy through the vast darkness of space. Explore more about their journey into the unknown while learning more about *Voyager 1*, a space probe launched by NASA that flew by Jupiter and Saturn. *This workshop is presented in partnership with Big Picture School and student volunteer, Maria Sati.*

CHARLES SIMONYI SPACE GALLERY
Saturday and Sunday, March 17-18
11 a.m. and 1 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.

CALENDAR OF EVENTS

April

Hear about R2D2's history in Hollywood!



SPECIAL EVENT

R2-D2 Builders Club Expo

It's the Pacific NW R2 Builders Club! Come and meet these amazing replicas of the famous robots from the Star Wars Universe. R2-D2 will be joined by many friends like R2-A2, R4-M9, R3-B2 plus many more! Take your picture with your favorite droid and explore the world of R2-D2 building. And be sure to catch a presentation featuring R2-D2's vibrant history in Hollywood at 2 p.m. in the William M. Allen Theater.

T.A. WILSON GREAT GALLERY AND WILLIAM M. ALLEN THEATER
Saturday, April 14 | 10 a.m. to 4 p.m.



LECTURE

Aerospace Update: Remembering Yuri Gagarin

Hear the latest news in astronomy, aviation and spaceflight, followed by a special tribute to the life and accomplishments of Yuri Gagarin, as we remember him on the 50th anniversary of his death.

CHARLES SIMONYI SPACE GALLERY
Saturday, April 14 | 1 to 1:30 p.m.

SPECIAL EVENT

2018 KidWind Challenge Harnessing the Power of Wind



Renewable energy powers the day at the 2018 KidWind Challenge. Teams of middle and high school students explore the power wind by building and testing their own wind turbines in this STEM-centric design competition! Register to compete at kidwindchallenge.org

T.A. WILSON GREAT GALLERY
Saturday, April 28 | 10 a.m. to 3 p.m.

SPECIAL EVENT

Sensory Day - Early Opening

In recognition of World Autism Awareness Day, the Museum invites children with autism and their families to join us for a FREE early opening to visit exhibits in a sensory-friendly environment, enjoy a special hands-on family activity, receive information from local organizations, and get 10% off purchases in the Museum Store.

The J. Elroy McCaw Personal Courage Wing and T. A. Wilson Great Gallery will have adjusted lighting and sound to provide the best possible experience.

T.A. WILSON GREAT GALLERY AND PERSONAL COURAGE WING
Sunday, April 8 | 8 to 10 a.m.



FAMILY EVENT

Wells Fargo Free First Thursday Rosie the Riveter, the Musical

5th Avenue Theatre's Adventure Musical Theatre Touring Company presents "Rosie the Riveter," a fast, funny, and stirring family musical about the women who made the nation's airplanes during WWII.

SIDE GALLERY
Thursday, April 5 | 6 p.m.



With Town Hall's Inside Out lecture series!

TICKETED EVENT

The Space Barons: Elon Musk, Jeff Bezos, and the Quest to Colonize the Cosmos

In partnership with Town Hall Inside Out, this lecture and book signing event with author Christian Davenport examines how billionaire entrepreneurs are funding the quest to colonize the cosmos. Moderated by GeekWire's Alan Boyle.

Tickets: \$5 General
Available at townhall.org and at the door.

WILLIAM M. ALLEN THEATER
Wednesday, April 25 | 6:30 to 9 p.m.

WEEKEND FAMILY WORKSHOPS

Kites on the Fly!

Come hear some kite stories and then make and decorate your own kite to fly at home!

T.A. WILSON GREAT GALLERY
Weekends, April 1, 7-8, 14-15
11 a.m. and 1 p.m.

Gliderama!

Learn why gliding is called the 'Silent Sport,' then make your own high-flying paper glider.

T.A. WILSON GREAT GALLERY
Weekends, April 21-22, 28-29
11 a.m. and 1 p.m.

KIDS PAGE

Junior Aviators

NEW for 2018



BOOK RECOMMENDATION

Rosie Revere's Big Project Book for Bold Engineers

BY: Andrea Beaty
ILLUSTRATIONS: David Roberts

Go on an adventure of personal creativity and invention with Rosie Revere, the great-great niece of Rosie the Riveter! Just like her great-great aunt, Rosie Revere is smart, tough, and ready for any challenge. Join her in designing a better bicycle, building a catapult, constructing a solar oven, and creating many more fun inventions. This book has plenty of room for you to draw, design and write plans for the world's next great invention. Don't worry if your invention isn't perfect on the first try—the best inventions always take time, and Rosie will guide you through every step of the process. With hundreds of full-color activities and ideas, you will never run out of ways to have fun with Rosie Revere while solving engineering challenges.

Check out more books like this in the Museum Store or online at museumofflightstore.org

TOY FROM THE COLLECTION

Barbie "Friend Ship" Playhouse

Step inside the Barbie "Friend Ship" playhouse, where your dolls can fly the friendly skies in style! Produced by Mattel in the 1970's, this portable dollhouse was made out of vinyl plastic. Its two sides fold together and latch to make a box with a carrying handle. The outside looks like the fuselage of an aircraft, with United Airlines colors and logo. Inside, there is a "galley" for organizing food and everyday items

and a seating area next to the windows. The dollhouse includes a plastic rolling cart, coffee pot and coffee cup, as well as cooking pots, two sets of orange plastic seats, and five pieces of Barbie clothing similar to what United Airlines flight attendants and pilots wore at the time. This dollhouse was donated to the Museum in 2011 by former flight attendant Barbara Lindbom.



THE MUSEUM OF FLIGHT

Aviation Term Word Search

The 16 words below are all names of airplane parts. Can you find them all? Some words may be backwards!

1. Fuselage
2. Nose
3. Landing Gear
4. Propeller
5. Engine
6. Wing
7. Tail
8. Cockpit
9. Flaps
10. Winglet
11. Rudder
12. Aileron
13. Cabin
14. Lights
15. Altimeter
16. Tailhook

R	V	U	S	J	M	M	V	F	R	D	B	V	U	B	G	N	Z
B	A	M	N	K	R	E	T	E	M	I	T	L	A	B	O	F	F
B	B	E	W	R	T	S	P	A	L	F	O	X	B	R	K	E	G
B	M	S	G	S	K	I	S	M	H	G	K	T	E	I	Q	T	B
L	X	J	J	G	C	P	O	W	I	N	G	L	E	T	E	R	H
E	I	R	G	N	N	E	R	X	J	E	I	V	M	N	R	S	P
T	S	G	W	I	T	I	Y	O	G	A	K	Q	G	W	P	S	D
F	I	R	H	W	G	V	D	A	P	N	C	I	E	M	Y	Z	T
P	E	N	Y	T	F	N	L	N	E	E	N	I	B	A	C	S	V
N	V	W	E	T	S	E	E	F	A	E	L	X	E	K	X	B	L
W	K	Q	V	I	S	T	S	Q	S	L	P	L	P	S	N	C	F
G	M	U	Q	U	T	U	O	L	R	J	S	J	E	N	X	E	R
J	N	L	F	A	F	V	N	P	L	I	W	F	J	R	I	H	F
Z	V	N	U	A	T	A	I	L	H	O	O	K	K	I	G	E	S
H	Y	Z	U	L	G	R	U	D	D	E	R	G	P	X	K	G	C
C	Q	W	I	M	L	T	M	M	Q	X	E	Q	R	F	S	L	P
D	W	A	Z	A	G	U	L	N	Y	T	L	H	P	M	B	F	V
F	T	I	P	K	C	O	C	Z	Y	N	Q	T	W	J	H	U	G

Answer key on page 24.

MUSEUM MUSINGS



Have you checked out our glider collection lately? There are eight on display at the Museum and two on display at our Restoration Center and Reserve Collection in Everett, Wash.

FLOATING ON AIR

BY: TED HUETTER, SENIOR MANAGER, PUBLIC RELATIONS AND PROMOTIONS

THERE'S SOMETHING MAGICAL about flying in a glider—or sailplane, as it is called by enthusiasts. Sailplane is a fitting term; a sailplane is to a power plane as a sailboat is to a motor boat. A sailplane pilot navigates by reading terrain and sky; a sailor reads water and sky. Sailors cross the widest oceans; sailplane pilots soar above the highest mountains.

Slender and unassuming, the Museum's gliders hover like ghosts among the mighty motors, imposing wings and colorful coats of the power planes. Look again and you see another story of flight, one of modest budgets but bold challenges.

There's the Wright, Lilienthal and Chanute-Herring gliders that taught us how to fly, and the skeletal Cessna CG-2 primary glider that raised spirits during the Depression. The long-winged Bowlus Baby Albatross and McAllister Yakima Clipper of the 30s and 40s wrapped their pilots in vessels of varnished wood—featherweight little yachts that truly soared.

In the early 50s, the first expeditions to jet streams and stratospheric winds were in a Pratt-Read like ours, while at the same time robust Letov Lunaks were looping-the-loop. Long before power planes were made of composites, sailplanes like the Lamson Alcor made the new technology fly high. And in

2006, our off-the-shelf fiberglass Perlan glider was flown to over 50,000 feet—miles above any jetliner of the day (a record recently surpassed the custom Perlan II, with plans underway to nearly double it). Seems like magic.

During the March 2-4 weekend, the secrets of powerless prestidigitation will be revealed at the Museum's annual Soaring Expo. State-of-the-art sailplanes will be stationed in the Side Gallery, and members of the Seattle

Glider Council, Evergreen Soaring Society and Puget Sound Soaring will be there to share their tricks. Radio control model sailplane clubs will also be on hand. Glider experience is something every pilot should add to their logbook, and young aspiring pilots can solo a glider at age 14! Soaring Expo might convince you that flying without an engine doesn't take a magic touch, just a little sleight of hand.



CALL FOR ENTRIES

Open to all photographers.

Entry Deadline: April 13, 2018

For how to enter, visit museumofflight.org/spirit-of-flight



2017 First Place Winner - "Runway Nowhere"
Photographer: Jean-Christophe Dick



Are you interested in volunteering?

The Museum relies on our volunteers to give docent tours and run our many diverse programs. We have a wide variety of positions available for ages 14+.

Visit museumofflight.org/Volunteers to learn more!

VOLUNTER PROFILE

JOVIAL CHAKKALAKKAL

BY: STEVE DENNIS, VOLUNTEER

MUSEUM VOLUNTEERS ARE USUALLY mid-to late career or retired and at a point in their lives when they have more time to volunteer, but Jovial Chakkalakkal is an exception. While only 16 years old, he volunteers at the Museum when his studies allow. Jovial wants to be an aerospace engineer and is working toward this goal through volunteer and education activities.

As a high school junior, he left Kennedy Catholic High School to enter the "Running Start" program at Highline College. Running Start allows students to take college level courses that can be applied to high school requirements while earning college credits. As the name implies, it gives students an advantage in college. "When I entered Highline I was encouraged to learn that, as a high school junior, I was still able to compete with high school graduates at the college level," Jovial reports.

At the Museum, he discovered another advanced education opportunity, the Western Aerospace Scholars (WAS) program. Sponsored by Wells Fargo, Boeing, NASA and other donors, the program is an online distance learning course designed for high school students with an interest in science, technology, engineering and math. The program offers an online University of Washington course with a focus on NASA space exploration. Jovial will receive five college credits

when he completes the course.

"Juggling Highline classes, the Museum and WAS, I'm learning the importance of good time management and how to prioritize," said Jovial. At the rate he is going, Jovial may be well on his way to a University of Washington degree—his college of choice!

Along with reaching his aims of an early college entrance, Jovial's time at the Museum reinforces his career goals. Carol Thomson, Volunteer Coordinator, ensures he reaches this goal by assigning Jovial to areas of the Museum that focus on aerospace. Mike Gutzman, Docent and Gallery Ambassador, has become a mentor to Jovial and provides him insight, support and encouragement.

And simply being around people with similar interests has proven to be an enriching experience. Jovial can frequently be found greeting in the main lobby, a position that puts him in contact with Museum visitors. "I try to understand what their interests are and then direct them to the right place, particularly if they have only a limited amount of time." The future of the Museum will be in good hands with young people like Jovial making the most of the Museum's volunteer opportunities.

Bombs Falling Like Water

BY: JOHN LITTLE, ASSISTANT CURATOR AND RESEARCH TEAM LEADER
AND LOUISA GAYLORD, DEVELOPMENT COMMUNICATIONS COORDINATOR



B-52 STRATOFORTRESS DROPPING BOMBS OVER VIETNAM/U.S. AIR FORCE

ON JANUARY 21, 1968, the North Vietnamese Army (NVA) launched an attack against the U.S. Marine Corps' Khe Sanh Combat Base (KSCB), with up to 40,000 men, two regiments of artillery, and even a few PT-76 tanks. Defending KSCB were three battalions of the 26th Marines, plus the 37th Ranger Battalion of the Army of the Republic of Vietnam. Fortunately for KSCB's 6,000 defenders, America's senior commander in Vietnam, U.S. Army Gen. William C. Westmoreland, had anticipated the NVA's attack and already had launched Operation *Niagara*, the aerial attacks that would save KSCB and inflict on the NVA its heaviest losses to that date.

While managing *Niagara*, however, Westmoreland also had to keep KSCB's defending Marines and ARVN Rangers supplied by air. Operating Lockheed C-130 Hercules, Fairchild C-123K Provider, and de Havilland of Canada C-7A Caribou transports, the steel-nerved pilots of the U.S. Air Force's 834th Airlift Wing had to run the NVA's well-laid gauntlet of antiaircraft artillery fire whenever approaching or departing KSCB. Remarkably, only one fixed-wing transport was shot down during the entire 77-day siege.

Weather permitting, American fighter-bombers flew flak-suppression sorties whenever transports were arriving or departing. But even that was not adequate protection. So, the 834th AW's air- and ground crews devised several ingenious methods for expediting the delivery of cargo. The first was "speed offloading," in which the cargo pallets were put on wheels, and two metal runners were attached to the open cargo doors of C-130s, which enabled the pallets to be pushed out the back of the

C-130s. By eliminating the need for forklifts, the unloading time was reduced from ten minutes to as little as thirty seconds. When even that was not fast enough, the 834th employed the Low-altitude Parachute-extraction System, in which a C-130 would fly some 5 feet over the runway, at a speed of about 150 miles per hour before releasing a 28-foot diameter parachute, which was attached to the cargo pallets. This allowed the C-130 to fly out from under the pallets, which would skid to a halt on the western end of KSCB's 3,900-foot long runway.

An even smarter technique, the Ground-proximity Extraction System, stretched an arrestor cable across KSCB's runway. The C-130's cargo load had a large hook attached to it, and the hook protruded from the C-130's open rear cargo door, dragging on the runway. As the C-130 rolled over the cable, at just below takeoff speed, the cable popped up and was snagged by the hook, which pulled the entire load out, just as the C-130 took off.

When KSCB's runway was too dangerous to use, cargo arrived by the so-called Container Delivery System, in which each one-ton pallet of cargo would be dropped, by parachute, into KSCB's 300-yard long drop zone from an altitude of about 400 feet. Any pallets that landed "outside the wire" would be destroyed, deliberately, by American artillery fire or bombs, to prevent the NVA from capturing the cargo.

A growing challenge was supplying the 1,200 Marines stationed atop the hills that surrounded KSCB to the north and the northwest. The hilltops were far too small to serve as drop zones, so the only option was to use the Marines' reliable Boeing-Vertol CH-46 Sea Knight helicopters.

To protect the Sea Knights, the Marines devised yet another ingenious tactic, the "Super Gaggle," in which twelve Douglas A-4F Skyhawks would escort twelve to sixteen CH-46s and their Bell UH-1 gunship escorts. A two-seat McDonnell Douglas TA-4 Skyhawk led each Super Gaggle. Once the Super Gaggles began operating, in the last week of February, only two Sea Knights were lost.

With aerial supplies to KSCB's defenders ensured, Westmoreland could turn his attention to Operation *Niagara*, with a task of annihilating the NVA around KSCB. Every day, the U.S. Air Force, Navy, and Marine Corps flew approximately 300 fighter-bomber sorties in direct support of KSCB. But Westmoreland's "Big Stick" at Khe Sanh, as elsewhere in Southeast Asia, was Boeing's B-52D Stratofortress. Carrying a bomb load of up to 60,000 pounds, B-52s flew at least 48 sorties per day in support of KSCB, with two three-aircraft cells arriving over the area roughly every 3 hours.

Prior to Operation *Niagara*, B-52 strikes had been prohibited within 1.86 miles of any American or South Vietnamese installation. However, following a successful test on February 26, 1968, B-52s were allowed to practice "close-in" strikes, bringing their bombs to within 1,094 yards of KSCB. In fact, some B-52 strikes came as close as 500 yards from KSCB, and one strike came within 293 yards. Despite the earthquake-like concussions of the close-in strikes, no American or South Vietnamese personnel were killed or wounded by B-52s at Khe Sanh. In praising the B-52 crews following Operation *Niagara*, General Westmoreland remarked that he had chosen the operation's name, *Niagara*, "because I

visualized your bombs falling like water over the famous falls in northern New York State, and that's exactly what happened."

Air power had saved the Khe Sanh Combat Base. In the words of U.S. Marine Corps Gen. Keith B. McCutcheon: "During the Khe Sanh campaign, the entire spectrum of tactical air support was called into play—not only Marine, but also Air Force, Navy, and Vietnamese Air Force."

The Museum of Flight is busy expanding our exhibit pieces around Vietnam, in the hopes that it will start an important conversation within our community about the Vietnam War and the veterans from all branches of the U.S. military who served between 1964 and 1975. The month of May will feature a variety of Vietnam-related public programs at the Museum, and new exhibit pieces will open in the T.A. Wilson Great Gallery over Memorial Day weekend. The Museum is also building a new Vietnam Veterans Commemorative Park that will open later this year. For more information, visit museumofflight.org/WelcomeHome.



THE MUSEUM OF FLIGHT

MUSEUM NEWS

STEM ACTIVITIES AND NEW TECHNOLOGY

HAVE YOU BEEN TO OUR ALASKA AIRLINES AEROSPACE EDUCATION CENTER?

The center (located in the T.A. Wilson Great Gallery) is open to all Museum visitors. Here people of all ages can learn how to participate in our many STEM programs, events and even find resources for college and career planning. At the Education Center, visitors can pick up free artifact cards and exploration backpacks that structure adventures and deepen learning throughout the Museum. Stop by on your next visit!



WANT TO SUPPORT cutting-edge STEM programs at the Museum? Follow our new **Boeing Academy for STEM Learning Facebook** page to keep up with news, updates, and videos about our hands-on education programs.



VOYAGER GLOW-IN-THE-DARK SCREEN PRINT

Screen printed in three colors with a glow-in-the-dark layer representing humanity's first interstellar probe as it flies through the Milky Way. Sure to inspire the next Carl Sagan!

Be sure to check out Cassini, Saturn's Orbiter and Martian Rovers too!

\$49.95 Item #: PRNT130344

Available in the Museum Store and online at museumofflightstore.org!



THE MUSEUM OF FLIGHT

WINNING AT SPACEGIVING

DURING SPACEGIVING CAMP 2017, Sofia de Looze (shown above with ACE Camp Coordinator, Rich Lynch) was selected by lottery to win her very own Fisher Space Pen. The pen (generously donated by Fisher Space Pen) writes in zero gravity and works upside down, underwater and in extreme temperatures.

ANSWER KEY FOR JUNIOR AVIATOR ACTIVITIES:

R V U S J M M V F R D B V U B G N Z
 B A M N K R E T E M I T L A B O F F
 B B E W R T S P A L F O X B R K E G
 B M S G S K I S M H G K T E I Q T B
 L X J J G C P O W I N G L E T E R H
 E I R G N N E R X J E I V M N R S P
 T S G W I T I Y O G A K Q G W P S D
 F I R H W G V D A P N C I E M Y Z T
 P E N Y T F N L N E E N I B A C S V
 N V W E T S E E F A E L X E K X B L
 W K Q V I S T S Q S L P L P S N C F
 G M U Q U T U O L R J S J E N X E R
 J N L F A F V N P L I W F J R I H F
 Z V N U A T A I L H O O K K I G E S
 H Y Z U L G R U D D E R G P X K G C
 C Q W I M L T M M Q X E Q R F S L P
 D W A Z A G U L N Y T L H P M B F V
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POWER OF GIVING

PHILANTHROPY FROM THE INSIDE OUT

BY: LOUISA GAYLORD,
DEVELOPMENT COMMUNICATIONS COORDINATOR

THE MUSEUM IS MADE OF PEOPLE. Yes, it's a building filled with airplanes and artifacts, but it's also the people behind the admissions desk and the store cash register; the people who write Thank You letters and fix leaks in the roof; and, the people who organize the programs and events that our visitors love. The employees, docents and volunteers come to the Museum every day because they enjoy what they do and believe in the Museum's mission to become the foremost educational air and space museum in the world. But a few go even further by giving not only their time and efforts, but their philanthropic support as well.

Rick Hardin has been a project manager at the Museum for nearly five years. His innovative work on the Aviation Learning Center has led to its replication in other aerospace museums around the country. Rick's father flew bombers in World War II and worked as an engineer on the landing radar of NASA spacecraft, which has inspired Rick to go above and beyond to support the Museum. "From day one, this organization has impressed me," he says. "I want to give more than just the hours I spend here at my job—my father would have loved this place!"

And Rick isn't the only one. Christine Runte is part of the Collections department and directs the documentation of new artifacts being donated or loaned. "I've spent my entire career here as Registrar and it's been amazing to watch the Museum grow from the Red Barn in the 1980s into the incredible institution it is today," explains Christine. "I donate to GiveBIG every May in appreciation for the opportunities I've had over the 31 years that I've worked here. I know that every donation matters!"

Many others have contributed to Museum campaigns and appeals over the years as well. "I take our mission to heart, because every dream needs an educational plan to make it come true," says Mary Batterson, our Corporate Partnerships Officer. "I'm proud to do my part to ensure that we can continue to have a lasting impact on every guest who walks



CLOCKWISE FROM TOP LEFT: Rick Hardin, Christine Runte, Sarah Jane Hoppe, Mary Batterson

through our door." Some gifts are made in honor of a coworker for their hard work organizing a big event. Other employees, like Executive Assistant Sarah Jane Hoppe, sign up for Frequent Flyers and make an automatic monthly gift because they want to support a particular program. "The Museum's docent and volunteer corps is amazing," explains Sarah Jane. "They bridge the gap between the artifacts and their place in history and our lives. I am a Frequent Flyer because I want to stay connected to those stories in my own small way."

No one ends up spending time at The Museum of Flight by accident—everyone here is driven by the curiosity and exhilaration that aerospace embodies. "I'm not sure how one could work here and not be compelled to support our mission," says Mary.

Tribute Gifts

In Memory

- In memory of Eric (Doc) Anders**
Jim Compton
- In memory of Eleanor C. Anderson**
John and Ree Rickerson
Steve Rundstrom
- In memory of James R. Anderson**
Barbara Osborne
- In memory of Richard M. Arnold**
Scott Arnold
- In memory of Barbara G. Ascanio**
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- In memory of Ubaldo A. Beato, Sr.**
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Bruce R. McCaw
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Vanessa Barut-del Fierro
- In honor of Bob Bogash**
Christopher Johnson
- In honor of Patrick DeRoberts**
Ted and Donna Steudel
- In honor of Ryan C. DeRoberts**
Patrick J. DeRoberts
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Ethan Anderson
- In honor of David Feagins**
Gail Feagins
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William Smith

In Memoriam

- | | | | | |
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