



Reflections

The Quarterly Journal of the Northwest Airlines History Center



March 2023

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Our mission:

To preserve and display the memory of Northwest Airlines’ colorful history.

To tell the stories of carriers merged and allied with NWA, and the stations and regions they served.

To show how the legacy of NWA carries on into the future.

To inspire youth to pursue aviation careers and interests.



N863GT parked at Everett before the January 31 handover ceremonies. The port side of this aircraft features the Apex Logistics freight forwarder insignia, for whom Atlas will be flying this aircraft. Photo Boeing.

End of the line for the iconic 747

55 years of production complete; decades still to fly —by Scott Norris

Many commercial aircraft can be considered ground-breaking and some revolutionary, but of the select few that completely changed the economics of transport and captured the public imagination, we would have to say only the Douglas DC-3 surpassed what the Boeing 747 accomplished. And while the DC-3 was a thoroughly civilian passenger design pressed into all-purpose military service at its birth, the genesis of the 747 was a passed-over military airlift proposal, adapted to cargo and passenger use. NWA’s most consequential successes are not coincidentally tied to this pair of aircraft types - the World War II Northern Division route to Asia, and wide-body passenger and cargo service across the Pacific.



September 30, 1968’s first delivery ceremony featured Northwest’s logo on the fuselage and Suzanne Quarles (Thompson) in uniform on the stand among the other initial operators’ flight attendants. Photo Boeing.

RESPECTS TO THE QUEEN
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Preflight Checklist

The Northwest Airlines History Center, Inc.

We are an independent, not-for-profit 501(c)(3) corporation registered in the State of Minnesota. Volunteer-staffed and volunteer-managed. We have no organizational or financial tie to Delta Air Lines.

Founder: Henry V. "Pete" Patzke (1925-2012)

Directors:

- Executive Director and Collections Manager: Bruce Kitt
- Museum Director: open position
- Directors: Bruce Kitt, Fay Kulenkamp, Bill Marchessault, Vince Rodriguez, Jeff Schwalen, Mike Vetter, Scott Norris, Bill Flatley
- Director Emeritus: Jerry Nielsen

Museum Address:

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Twitter: @NW_Airlines

Post.news: @NW_Airlines

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Advertising in REFLECTIONS is accepted to help us defray expenses and tell more stories to more people! Ad placement does not imply endorsement by the NWAHC, and ads need to be respectful and relevant to readers.

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Visiting the Museum

The NWAHC Museum is located inside the Crowne Plaza AIRE Hotel in Bloomington, MN, just south of MSP International Airport.

Current schedule: Thursday - Saturday, 11 am - 5 pm
Closed for major holidays.

Admission and parking are FREE. (Special events may incur a charge.)

Directions:

From the airport: Use METRO Blue Line light rail from either Terminal 1 or Terminal 2 southbound and exit at the American Boulevard station. The Crowne Plaza AIRE is immediately east, across the street from the station. Or, call for the free hotel shuttle from either terminal.

From the Mall of America: Take the METRO Blue Line light rail outbound; American Boulevard is the third stop.

In the Twin Cities Metro area: Head toward MSP International Airport. From Interstate 494, exit on 34th Ave. S. and go south one block to American Blvd. Turn left (east) on American and then immediately right into (and under) the hotel. The parking ramp is on the left - follow the signs for free hotel parking on the uppermost level (do not use spaces not reserved for the hotel) and cross into the hotel's second floor. You may need to buzz the door for entrance, as a safety protocol.

The museum is located on the third floor, above the pool area, and across from the Fitness Center.

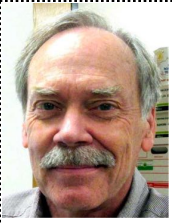
Annual Membership

Membership is the main source of funding for the NWAHC; please join!

\$30 level - receives REFLECTIONS digital edition early access via email

\$35 level - receives REFLECTIONS print edition by U.S. Postal Service (U.S. mailing addresses only)

Boarding Announcements



From Director Bruce Kitt

The Northwest Airlines History Center (NWAHC) initiated three major improvements in 2022. The first was the upgrade to the Shopify sales system, now in operation at the museum and on our website. The second is to increase the museum's board to include more community members. I am pleased to announce that Bill Flatley joined the board in January. Others will join as we refine our future plans and see what important skill sets we need to accomplish the future museum build.

The third improvement is the decision to build our own commercial aviation-focused museum, which we are working on in consultation with Access Philanthropy. As that important project evolves, I am struck by the similarity between it and

the earlier Shopify implementation. In both instances, launching the final step was the culmination of many months of behind-the-scenes work. The rollout looked easy - the backroom work was involved requiring much discussion, starts and stops, and effort than was imagined.

When we approach the community, individuals, and companies who may become partners and supporters, we intend to be professional and to have quality material to bolster our mission and leave a positive image of the NWAHC. To that end, we are working on a business plan and case statement, and remembering that this is the backroom preparation critical to creating a favorable first impression. It takes one rivet at a time to build an airplane. It takes prior planning to produce a successful outcome.

I want to call attention to the upcoming 33rd Annual Minnesota Aviation Hall of Fame Inductee Banquet on April 1, 2023. I'm happy to announce that Randy Sohn, one of North Central/Republic Airlines' well-respected pilots, is a 2023 Inductee. More info at their website: www.mahof.org. CAVU



From Editor Scott Norris

Sometimes the theme of an issue doesn't reveal itself until its component stories have been fit into position. And I always wait until Bruce gets me his Director's Note before typing away at some kind of "summing up" statement. For this edition, the word that jumps out is "transition."

Sometime transitions are thoughtfully considered and planned carefully, and sometimes they are a shock. In these pages we'll see examples of both cases, at company and personal levels.

We hope most of these changes result in broader participation and sharing among the communities we serve - from new and different vendors at our October enthusiasts' show, more perspectives and connections on our Board of Directors, and better awareness of the NWAHC and desire to contribute stories and materials among the cohort of former Hughes Airwest employees, for instance.

A pleasant transition is the opening-up of the world to travel, and as this issue goes to press I'll be taking my family back to Tokyo for Spring Break - the last time we were there was 2009. The 747-400s that flew us there are long gone, but I'm looking forward to my first A350-900 flight. And our arrival will not be at beloved Narita, but at the new International Terminal at Haneda. The changes give us fresh eyes to experience the city and build new memories - much like our museum's changes.

Buy wise to support the NWAHC!

- Treasure hunt! We offer surplus materials and new apparel and pins for sale on **eBay** under the handle "cyberglitz" - the assortment changes every week!
- And our online store, with world-exclusive designs of a wide variety of merchandise, from shirts to mugs, travel gear to puzzles, and more, at **shop.northwestairlineshistory.org**

Check your basements and storage boxes!

Do you have materials to contribute to our museum? Please contact our collections manager at bruce.kitt@northwestairlineshistory.org with details of your items, photos if possible, and how we can reach you.

We are especially interested in items that help us tell stories or demonstrate concepts and procedures; records and correspondence; video, audio, and photos; training materials and reference items; and union communications. Items from Hughes Airwest & its predecessors, Southern, and the Airlinck partners are especially appreciated - few items found their way to Minnesota to survive corporate purges & transfers.



In memoriam - Bill Rosenbloom

Stalwart organizer of and participant in the NWAHC's annual collectibles show, Bill Rosenbloom, passed away on January 14, 2023. Bill was also a well-known antiques trader, working out of the Hopkins, MN mall as well as the quarterly State Fair events. He also organized the reproduction and printing in 1991 of the NWA book "A Million Miles Without an Accident" which is still being sold today. Bill also was appreciated as a community organizer for decades in St. Paul.

In this issue we would usually announce the table reservation contact information for our 2023 event. The space at the Best Western Plus has been reserved for Saturday, October 14 - as we work through Bill's show management notes, we will reach out to returning vendors and publish new contact info on our social media and website.

New social media accounts for the NWAHC

Social media helps us communicate quickly to a broader audience and share our collections and stories beyond the walls of our museum and website, attract new visitors and members, and sell more merchandise. Like all museums and businesses, it has become essential to maintain a social presence, but each platform has different audiences and conversations.



Our Facebook account (NorthwestAirlinesHistoryCenter, currently 4,653 followers) has been running for many years, and we opened an account on Twitter two years ago (@NW_Airlines, with 829 followers). We are also slowly beginning to add content to YouTube.

The recent ownership changes and staffing layoffs at Twitter, with growing technical issues and harassment on the platform, has led many aviation accounts to set up shop on other platforms. Facebook too has its share of challenges, although we may test paid advertising there to build audiences. The NWAHC is also setting up accounts on alternate platforms as both a hedge against Twitter failing, as well as in search of more readers.



As of March, we have set up accounts at Post.News (@NW_Airlines), which has a similar format to Twitter, and on LinkedIn (search for Northwest Airlines History Center), which is well suited for board recruitment and museum-industry discussions. We may also set up Mastodon and Spoutible accounts this spring. Whatever your preferred platforms, please be sure to like and follow the NWAHC!

Pacific Airlines Portfolio content being folded into NWAHC website and print

As former Pacific and Air West station agent Dan Veenstra prepares to wind down his long-running tribute website Pacific Airlines Portfolio, we reached out to him, and over email and phone conversations last year we talked about the carrier's tight-knit family, its challenges and triumphs, and his goals for how the stories and contributions to the site could live on and inspire new generations to careers in commercial aviation.

Dan has given us all the files from his site and we have begun incorporating them across our site and here in REFLECTIONS. For starters, check out our new Martin 404 and Boeing 727-100 aircraft photo galleries online, as well as much larger Southwest Airways and Pacific timetable listings! This expanded coverage further demonstrates the NWAHC's goal of representing all branches of the NWA family tree.



Boeing 727-100 N2969G at Lake Tahoe, September 1966, shot by Don Hargreaves.



Martin 404 N40342 in the late 1950s scheme at Los Angeles, shot by Jim Johnson.



Meet our newest Board member, Bill Flatley

As noted in previous issues of REFLECTIONS, especially the September 2022 issue, and as Bruce Kitt mentions in his note on Page 3, expanding our Board of Directors is a critical early step in the transformation of the NWAHC

from a small and hidden jewel box into an internationally-recognized institution that educates and inspires new generations to pursue their dreams in commercial aviation.

Bill Flatley attended our October 2022 airliner show, getting to meet several of our directors and talking about the thoughts and goals embodied in our “Vision 2026” museum model on display there. Soon afterward, Bill contacted the NWAHC and our consulting partner, Access Philanthropy, asking to come on board.

“My dad worked for NWA as a Pilot for 41 years. MSP was a second home. I was privileged to fly a lot as a kid, and I still fly a lot today for work (close to hitting Platinum this year with Delta). I love commercial aviation and planespotting. I follow various websites and podcasts on the topic of commercial aviation and believe strongly that we cannot lose the storied history of NWA, especially here in Minnesota.

Amazon no longer supporting small nonprofit charities

After ten years of running the “Amazon Smile” program, the company announced it would wind the operation down in February, instead putting its donations toward fewer but larger projects (“more focused giving” in their press release) such as worker housing and growing the pool of computer engineers.

AmazonSmile was an opt-in, shopper-directed program that directed 1/2 of 1% of the shopper’s purchases toward their designated charity, whether one they nominated themselves or one they picked from an established list.

The NWAHC earned several hundred dollars from AmazonSmile over the past four years - not enough to buy a used A320, but every cent makes a difference toward unglamorous expenses such as postage and web hosting.

“I am currently the Field CTO for Healthcare at my current company. I have a deep background in Healthcare IT Leadership here in the Twin Cities. I am a lifelong resident of South Saint Paul, where I have served two terms on City Council and actively participated in strategic planning and operations of Fleming Field Airport. As an elected official, I served on a multitude of State, County, and City boards and commissions. Connections I’ve made in these terms, and knowing how to interact with government will be great help as the NWAHC seeks space and assistance in putting its plan into action.

“I also bring nonprofit board experience: six years now completed with Angelica Cantanti Youth Choirs, and I am also in my third year on the board of directors for Neighbor's Inc, a regional food shelf, where I am in my second year as Treasurer. I look forward to meeting our Members and contributing to the growth and re-imagining of this museum.”



MSP again wins “Best North American Airport” award

With major construction projects winding up, including a rebuild of Northwest’s G concourse (see REFLECTIONS June 2020), new parking ramps, and central food court, air traffic is returning to the Twin Cities and a beautiful facility is waiting for them. And for the sixth time in the past seven years, Minneapolis-St. Paul International Airport has been named the “Best Airport in North America” for the second straight year through the Airports Council International global Airport Service Quality (program).

MSP earned the ASQ Award for Best Airport in North America for the 25-40 million passenger category for 2022, after receiving the same honor in 2021. MSP was also named Best in North America for four straight years between 2016-2019, earning placement on the ACI Director General’s Roll of Excellence in Airport Service Quality in 2020.

The ASQ awards were based on 465,000 traveler surveys at airports in more than 90 countries during 2022. The surveys cover 30 key indicators that define a passenger’s overall experience, including the ease of finding their way through the airport, check-in, security, cleanliness, shopping and dining.

Feature Article

With a grand total of 1,574 aircraft delivered, and 46 airlines operating the type, the 747's enduring popularity was not guaranteed: engine teething problems caused slow initial deliveries, and the early 1970s economic crisis showed carriers like Eastern and Delta that the aircraft was just too big for their networks. Piano bars and lounge areas filled space on carriers like American and Continental as passenger loads did not automatically grow to match the new capacity, as carriers did not have the flexibility on fares or routings to maximize productivity.

European carriers likewise in the 1970s flew 747s on routings and in pool agreements with competitors that were laid down by DC-8s and 707s, constrained by treaties that kept fares high and frequencies low.

It took the "new" Asian carriers and their booming demand, and unconventional users like Braniff and their "Great Pumpkin" service between Dallas and Honolulu, to unlock the unique lift and range potential of the 747. Northwest - while initially swapping out 747s for 707s across the Pacific, and performing short hops to places like Milwaukee - was also early to learn how to use the Queen's capabilities and obtain new route authorities to fly it most effectively.



NWA publicity shot of N616US.
Borden Collection, NWAHC.

Cargo was always the plan

A high fuselage and long body was the heart of Boeing's heavy-lift proposal to the U.S. Air Force in the 1960s - but Lockheed would win the competition with their C-5 Galaxy. Joe Sutter's design team at Boeing was tasked to review their design and optimize it for commercial use. The prevailing view in the aviation industry was that supersonic airliners would dominate long-haul service in the 1970s, so this slower model should be able to be easily converted to haul freight. The rear ramp and high wing were traded for a conventional layout, but the option for nose loading was retained - pushing the cockpit above the main deck and creating the distinctive "hump" and upper-deck cabin.

Freight pays the way; capacity provides the volume

The predictions about SST demand were baseless, but the operational flexibility baked into the 747 design was its genius, validated as the world recovered from the first Oil Shock. Northwest had pioneered the North Pacific routing between Alaska and Japan, which in the 1970s would become one of the world's key trade corridors as the emerging "Asian Tiger" economies exploded with export business to the United States. The 747's belly holds replaced dedicated 707 freighter capacity; when combined with NWA's 747F fleet, and the perfect positioning of Tokyo and Anchorage as hubs, an ideal trade pipeline was secured. With Cargo revenues creating a stable foundation, the 747's low cost per passenger-mile and favorable traffic rights from Tokyo gave Northwest the low-price advantage for intra-Asia flights, and from that, two-way traffic feed that Pan Am and JAL could not touch.



Photo by author.

The 747-400 planted the seeds for its own retirement

NWA's launch of the -400 further opened long-range routes and made the Detroit WorldHub possible - but it also demonstrated that the Narita hub could be bypassed profitably from US bases. The -400 also gave JAL and ANA (and Korean Air, Asiana, Cathay Pacific, and others) the range and economics to nullify the feed NWA had from Asia into Tokyo. From there, it was only a matter of time before the intra-Asia network was torn down, leaving a need for only a handful of 747-class aircraft in the network.

For more 747 coverage, see our June 2020 (50th Anniversary) and March 2018 (Retirement) issues.



By the mid-1970s the fleet (marked with dashed lines) was the most important airfreight



The Detroit hub gained operations and a well-KLM alliance work allo

Where did Northwest's 747s fly?

See more years' service maps on our blog!



747s had replaced long-range 707 sectors and the cargo (dashed lines) gave NWA high volume at solid profit on the flight corridor of its time.



Northwest's European services were opened with the 747 before transitioning to DC-10s. The better performance of the -200 series allowed for more nonstops across the Pacific, and many prestige routes were opened.



With its long-range wings with the 747-400, while Cargo (dashed lines) kept the fleet full and busy. The Cargo -200Fs would be retired after bankruptcy.



As Airbus A330s came on stream, not only were the DC-10s replaced but many 747 segments as well, with NRT/DTW the remaining core stations. The Cargo -200Fs would be retired after bankruptcy.

Logos Don't Speak for Themselves, Part 7

by Bruce Kitt

I chose 1934 as my point of departure to review the history of Northwest's logos for two reasons. Firstly, the cancellation and subsequent re-bidding of all US airmail routes was a defining moment in commercial aviation, directly responsible for the second reason. That second reason is that the 1934 logo is constantly cited as Northwest Airlines' first logo, becoming the familiar historic logo for Northwest employees and the general public (**Illus.#1**).

There is a compelling third reason for using 1934 as my starting point: the lack of information regarding Northwest's pre-1934 logos. Knowledge about these two early logos is best documented photographically: "proof" being dependent upon photographic inspection and thoughtful presumptions.

Briefly, Charles Dickinson inaugurated service on Contract Air Mail Route 9 (CAM-9) on June 7, 1926 and terminated his service on September 30, 1926. The next day, October 1, 1926, Northwest Airways' 84-year history took off. Col. Brittin's previous work on behalf of the Detroit Ford Motor Company's selection of St. Paul as Ford's second automobile plant, coupled with Brittin's semi-official position as the St. Paul manager (along with William Kidder) of Dickinson's effort, enabled him to quickly secure the financial backing of Detroit businessmen to get Northwest Airways into the air so quickly.

Through these Detroit connections, Brittin was introduced to Eddie Stinson, a successful aviation businessman (barnstorming, racing, and airplane design and construction), who was recently enticed to relocate from Wichita, Kansas, to Northville, Michigan, a suburb of Detroit. At Northville, Stinson began the design and construction of an enclosed cabin airliner, subsequently designated the Stinson SB-1 *Detroit*. This connection resulted in Northwest Airways purchasing three *Detroiters*, one month after Northwest inaugurated its Twin Cities-Chicago route with William Kidder's rented biplanes.

I was told by two early Northwest mechanics that the three *Detroiters* were referred to as "Blackbirds", in reference to their all black fuselages (no mention of any color on their wings). The Blackbirds flew mail, packages, and an occasional un-official passenger, from their November 1, 1926 introduction until July 5, 1927, when Northwest Airways inaugurated revenue passenger service.

Photos show a striking change between the Stinson's liveries before (**Illus.#2**), and after, July 5, 1927 (**Illus.#3**). In aircraft photos from November 1926 to the spring 1927, the Blackbirds' carried what is Northwest Airways' unacknowledged first logo (**Illus. #4**) - colors unknown but likely gold or white, with white text. The logo was positioned aft of passenger doors 1 Left and 1 Right (**Illus.#5**). By July 5, 1927, the *Detroiters* sported both a new, colorful livery, and Northwest Airways' officially acknowledged "first" logo (**Illus.#6**).

To date, any written explanation why the 1926 logo was replaced has not been located. My research at the archives of the Northwest Airlines History Center, the Minnesota Historical Society, the Michigan State archives (with fellow director Mike Vetter), and the National Archive and Record Administration in Washington, D.C., have not answered this question. Hoping the logo may have been registered as a trademark or service mark at the national level, I've searched the U.S. Patent and Trademark Office in Alexandria, Virginia...nothing.

On the off chance this first logo was registered as a trademark or service mark at the state level, the filing records for the Secretary of State for both Minnesota and Michigan were also searched, again with no success. While this entry represents the end of our logo history review, the research continues, as photographic proof clearly documents the existence of an insignia prior to the July 1927 logo.



ILLUSTRATION 1: The 1934 logo.



ILLUSTRATION 2: Detroit before July 1927.
Photo from the James Borden Collection at the NWAHC.



ILLUSTRATION 3: Detroit after July 1927.
Borden Collection at the NWAHC.



ILLUSTRATION 4: Author's illustration of the pre-passenger 1926 logo. Each aircraft had its own fleet number at the center of the insignia.



ILLUSTRATION 5: Detroit with the passenger-era logo. Borden Collection at the NWAHC.



ILLUSTRATION 6: The "first" logo from passenger service in 1927.



Buck Hilton photo of a Martin 202 at San Francisco via Pacific Airlines Portfolio. Southwest brought on its first 202s in 1952 and the last left the Pacific system in 1964.



Douglass family photo, via Pacific Airlines Portfolio.

Another Martin 202 issue: Induction Icing

A story about Capt. Jimmy Douglass, told by his son Jim Douglass - via Pacific Airlines Portfolio

One stormy night in '54 (or '55?), my dad and Mel Silvera left Arcata, California in a Southwest Martin 202 heading southward. A couple of minutes after takeoff, they lost an engine, but unfortunately at about the same time, the Arcata airport lost electrical power, so returning was not an option. Dad said they turned southward and headed for the next stop, but as they approached it, that field also lost electrical service and went dark. This continued for an hour and forty minutes until they were finally able to land at Santa Rosa. As they pulled up to the terminal, it, too went dark.

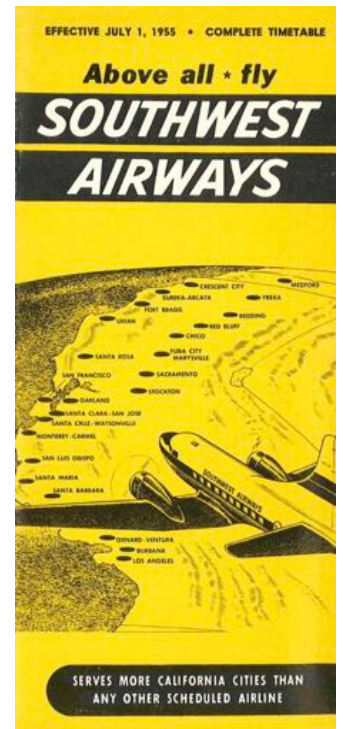
What made the flight memorable for my father wasn't grinding along on one engine for 1:40 as much as the fact that he said he couldn't get the performance data he wanted out of the book in a usable format. He said they were struggling to maintain 5400 feet over terrain that reached up to 4700 feet, and he wanted to pull as much power from the good engine as possible, so while Mel flew, Dad went through the performance charts converting pressure altitude to density altitude to make the necessary corrections to the maximum allowable manifold pressure they could pull. Anyway, this is how he told the story; I was just learning to fly at the time and generally understood what he was talking about, but he didn't show me the specific problem in the book.



When they finally did get on the ground and Dad called flight control, someone in maintenance got on the line and told him he had probably just let the engine ice up. "Let it sit for a bit", he told dad, "then go start it up and see how it runs". My father's answer was, "No" (in an unrepeatable format), so the next morning a maintenance crew came up and started the engine. It ran for about a minute, then blew. When they tore down the engine, they determined that the master rod in the back row of cylinders had failed (maintenance related as I recall; dad said the engine had just been majored by an outside source) and the engine was a washout.

My mother had her own take on the story. Having put my brothers and me to bed, she was listening to the radio when the announcer broke in to say that Southwest Airways had an airplane, commanded by Captain James Douglass, in trouble over northern California. She immediately called flight control to find out what was going on and apparently read them the riot act for letting the news media know what was happening before notifying the families of the crew. Years later, she could laugh at the incident, but it took her several years to see any humor in it. And sadly, it was not the last time the families of our crewmembers heard bad news from the media before they heard it from the company.

I didn't become aware of the induction icing issue until 1973. I got married that year in Valdosta, GA, and my father rode down for the wedding in a Southern Airways Martin 404. The flight made a few stops between Atlanta and Valdosta, and when they landed at Moultrie, GA, both engines quit on landing rollout. My father told me he knew exactly what had happened, the engines had iced up. This was at the end of August when the weather in Georgia was typically quite warm, though humid, and I was surprised to hear my dad say the engines had died of carburetor ice. That was when Dad mentioned that the Martins would make induction ice in three different modes. He then went on to tell me stories of two of his friends who had experienced double engine failures in the Martin caused by carburetor ice in conditions which wouldn't have phased a DC-3 in the least. Never having flown either airplane or any large round engine, I still don't know exactly what he meant, but I'm guessing some of your readers probably do.



Dad's take on the competition between Convair and Martin to produce the "DC-3 replacement" was that Martin lost the race by introducing their product first. The Martin had many unproven innovations, and one was extensive use of 7075 grade aluminum in place of 2024 grade. It turned out (or so Dad said) that while 7075 was "stronger," it was also more brittle and thus more prone to cracking, and it didn't have the same level of resistance to corrosion. He claimed a mechanic at SFO put his foot through the corroded wing skin of a Martin (though he didn't say when, or how long the plane had been in service).



Leased N93047 at Pacific's SFO base. The Fairchild F-27 in the background puts this shot likely in late 1959 or 1960. Photographer unattributed.



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The sky is no limit!

Our team makes the connections to history - join us as a volunteer!

Whether you're a retiree, worker, or student, we have projects and flexibility to fit your schedule, expertise, and enthusiasm. You don't even need to have worked for an airline - if you love history, adventure, and storytelling, you're already one of us! We're looking for folks to help us with:

- *Greeting and guiding our museum guests*
- *Designing and building museum exhibits*
- *Grant application and fundraising*
- *Community outreach & event planning*
- *Photography and video production*
- *Scanning and indexing historic documents and photos*
- *Online advertising and social media*

Email us: info@northwestairlineshistory.org - or click the "Join Us" tab on our website - or give us a call at (952) 698-4478

