STRAIGHT SCOOP

PACIFIC COAST AIR MUSEUM

Volume XX, Number 11

November 2015

Performers Reception Raises $10,000 for PCAM

Canadian Forces Snowbirds and Other Performers Meet & Greet PCAM Fans & Supporters

By Julia Hochberg

The Performers Reception, held on Friday, September 25, kicked off the Wings Over Wine Country Air Show in style. The theme for this year's reception was a 1940's Swing Dance inspired by the celebration of this year's 70th Anniversary of the Allied Victory. The Performers' Reception was held to recognize the 2015 Wings Over Wine Country Air Show performers, welcome them to beautiful Sonoma County and our wonderful Pacific Coast Air Museum community, and raise funds for the museum.

At the Performers Reception, the Snowbirds made a special presentation to Air Show Director Nancy Heath (right) and PCAM President Jim Sartain (Center).

More than 200 attendees were welcomed into the 1940's Redwood Hangar at Sonoma Jet Center with a 4-piece swing band and they dined on a traditional 1940's meal of meatloaf, mashed potatoes, and vegetables from Vintage Valley Catering. Dessert was locally made cookies by Cookie Take a Bite. White and red wine was provided by Rodney Strong. Betty Bomber IPA and Stella Artois beer was poured courtesy of Eagle Distributing. Two specialty vintage cocktails were served using Sebastopol produced SpiritWorks products - a Barrel Gin Manhattan and a Gin Martini.

The hangar was well appointed with beautifully restored WWII jeeps, aircraft, and military memorabilia borrowed from the extensive collection of Matt Parry, Darryl Shumart, Paul Heck, Ted Van Dorne, Craig Schulz, and local business owner Ernie Ongaro of Ongaro and Sons Inc. Plumbing, Heating, and Cooling. Creating the perfect patriotic statement was the magnificently large American flag lent by Precision Crane.

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The PCAM Mission

"To Educate and Inspire both young and old about our aviation heritage and space technology, to Preserve historic aircraft and artifacts, and to Honor veterans."

President's Message:

Thanks to Dana Hunt for the wonderful tribute to Christina Olds at last month's Membership meeting. His presentation touched on a lot of fond memories of the three years Christina spent here with us.

On Saturday October 24, PCAM participated in the annual North Bay Science Festival at the Sonoma County Fairgrounds. It was our fifth time there. Thanks to Precision Crane we were able to haul our Huey there for the second time. Crew Chief Paul Ricci, his son Gabe, and I were at the museum at 6:30 to load the Huey. We returned it at 6:30 that night. About 15,000 attended the Festival and it seemed like every one of them went through the Huey, attended by us, Josh Hochberg, Tom Chauncy, Kelsey Olson, Alan Olson, Dave Sandine, and Bruce Tinkham. Roger Olson brought banners to help attract visitors. There will be pictures in next month's newsletter.

On Friday night, October 30, PCAM hosted a company party for Duckhorn Winery. About 300 people attended. Thanks to all who helped out with that. A special thanks to Connie Reyerse for coordinating the event. We will try to provide event photos next month.

On Wednesday November 4, PCAM attended an event at the Schulz Museum. Lynn Hunt, Dana Hunt, and Brian Benner represented PCAM. See the article on page 3 of this newsletter. Thanks guys!

On Thursday November 5, the Rotary and Kiwanis clubs hosted the 15th annual Veterans Luncheon at the Veterans Memorial Building in Santa Rosa. PCAM was well represented as usual.

As I mentioned last month, PCAM Board elections are coming up. Please read the article on page 12.

And mark your calendars for these events: November 18 Membership Meeting; December 16 Membership Meeting/Holiday Party/Board Elections; December 19 Santa Fly-In.

On a closing note, we are getting a lot of requests to use our facility these days. The word about us and our great collection of aircraft is getting out and that is nothing but great news. A lot will be happening in 2016! Thanks everyone!

— Jim Sartain

November in Aviation History…

On November 18, 1965, Lt. Willie Sharp's F-8 Crusader was badly damaged during a flak suppression mission over North Vietnam. He headed for the Gulf of Tonkin but upon ejecting was captured by the North Vietnamese. He escaped, and was rescued by American forces. Remarkably, much of this chain of events was captured on film and audio, forming an incredibly rare and valuable piece of the historical record of the air war over Vietnam. **Willie Sharp will be our guest speaker on November 18!** See page 11 for details! The Pacific Coast Air Museum has an F-8 nearly identical to the one flown by Lt. Sharp. This aircraft is on loan from the National Naval Aviation Museum at Pensacola, Florida. ✪

PCAM Flight Wing News

By Lynn Hunt

Charles M. Schulz Museum Home School Day

Members of the PCAM Flight Wing were on hand on November 4 for the Charles M. Schulz Museum Home School Day. The Schulz Museum's Home School and Scout Days are an opportunity for kids who are schooled at home to participate in hands-on, interactive events designed specifically for Scout troops and Home School students and families. Their Home School Days complement curricula in science, social studies, language arts, and art. These special days accommodate children ages 4-14 with a range of ability levels and learning styles, while encouraging free-choice learning.

PCAM is proud to participate, to bring some of the science and art of aviation to children who might not otherwise get exposure to it. The young audience enjoyed presentations from Lynn Hunt and Brian Benner on several aspects of aviation. Dana Hunt presented videos for their enjoyment. PCAM looks forward to working more with Schulz Museum in creating mutual awareness of this and other programs with our visitors.

Dave Sandine & Jack Caldwell rivet wing skins.

Cessna 170 Progress

Even though the days are growing shorter and the evenings a little colder, the Thursday night Cessna 170 work party continues. Progress is proceeding at a steady pace. We have some more new Windsor High students joining us this semester and they are already diving in. ✪

Windsor High students Jason Allen and Samual Drew remove a lead counterweight from one of the 170's ailerons.

PCAM Recognizes and Bids Farewell to Christina Olds

At the October 21 Member Meeting, PCAM's recently departed Director of Museum Operations Christina Olds was formally thanked for her three years of service to the Museum, lauded for her many valuable contributions, and presented with a plaque expressing the Museum's gratitude and admiration. At right, Christina is shown with PCAM President Jim Sartain, holding her plaque which features a photo of her in her flight suit, with her father Robin Olds' dog tags, in front of the PCAM F-4C #823. She spoke briefly, expressing her gratitude to everyone at PCAM for all the support they showed her, and saying that she looks forward to watching as PCAM grows to meet its very promising future. Her plans include writing a book about her grandfather Major General Robert Olds, and touring to meet the increasing demand for speeches and presentations about her father Robin Olds. Thank you Christina, please visit us as often as you can, and best of luck in everything! ✪

Crusaders and the Cuban Missile Crisis

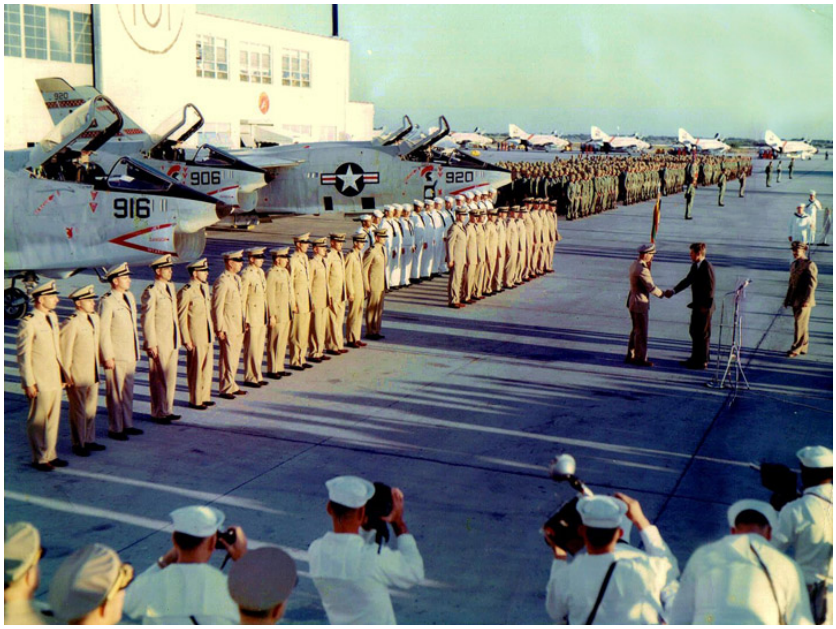
By Mark Fajardin, Director of Acquisitions

On October 23, 1962, just fifty three years ago, Operation Blue Moon began. What is Blue Moon you ask? Let's take a little trip back in time.

After the failed Bay of Pigs invasion, Soviet Premier Nikita S. Khrushchev saw the opportunity to expand communism to the Western Hemisphere by forming a relationship with Cuban President Fidel Castro. Khrushchev offered Castro oil shipments (which the Americans had cut off), and to buy Cuban sugar. He also offered to supply Il-28 "Beagle" jet bombers (capable of delivering nuclear weapons), SAM installations, MIG-21 "Fishbed" fighters, tanks, and antiaircraft guns.

After the Bay of Pigs invasion, US Navy reconnaissance squadron VFP-62 was assigned to keep an eye on Castro's Cuba and in April of 1962 started flying missions to look for any kind of military buildup on the island. In August of 1962 the US Air Force began monthly high altitude U-2 missions and by September reports were coming in of large containers and trucks coming into Cuban ports.

On September 5th a U-2 flight detected an anti-ship missile site east of Havana but bad weather prevented any usable images until the 26th and 29th overflights which revealed additional SAM sites. The weather delays frustrated military planners who had been advocating for low level recon flights which Secretary of Defense Robert S. McNamara kept denying. On October 16, 1962 National Security Advisor McGeorge Bundy briefed President John F. Kennedy in his bedroom at 0845 hrs. "Mr. President, there is now hard photographic evidence that the Russians have offensive missiles in Cuba." The Cuban Missile Crisis had begun.



President Kennedy (dark suit, at right) greets the pilots of VFP 62.

That same day at 1300 hrs a meeting was held in McNamara's office to decide which service would perform "new" low level missions that could provide im-

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"Eyes of the Fleet": At left, PCAM's RF-8 Crusader gets a preflight while serving with VFP-63. Below: Artwork showing coloration and markings. The caption reads "This VFP-63 RF-8G (NF-604/BuNo 145608) was embarked on USS MIDWAY (CV-41) in 1976. The menacing 'Eyes of the Fleet' emblem was always painted on the center wing front bulkhead of VFP-63's Crusaders."

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ages with greater detail. Since 1953 the US Navy had invested considerable time and money into low-altitude jet reconnaissance capability and their efforts paid off with the Chicago Aerial Industries Inc.'s KA-45 and the KA-46 6-inch focal length framing cameras with a film width of 5in and a capacity of 250ft of film. Integrated into the new supersonic RF-8A Crusader they could provide 100 miles of photographic coverage, traveling at 100ft to 500ft above the ground within a 250 nautical mile radius from the operating base. In 1962, VFP-62 was known as the best recon squadron in the Navy and was selected for Operation Blue Moon.

The PCAM RF-8G Crusader in flight. US Navy Photo.

VFP-62 was led by Captain William B. Ecker with 29 aircraft, seven detachments using 20 of them, and two non-flyers that were parts birds. He only had five days to plan and perform the first Blue Moon missions and was instructed to take one of his jets supersonic to the Pentagon for a meeting with the joint chiefs. To meet the demands of upcoming missions VFP-62 would need more RF-8A's and it requisitioned the transcontinental record-setting RF-8A (BuNo 144608) flown by Marine Maj. John A. Glenn during "Project Bullet" along with four Marine RF-8A's and their pilots from VMCJ-2. On October 22, 1962 President Kennedy addressed both the nation and the world about the crisis and his intention of implementing a naval blockade. The world was now at the brink.

On October 23rd eight Crusader J57 engines roared to life, with each plane carrying six cameras that in 12 minutes would start taking the first of over 160,000 detailed images to provide the world with proof of Soviet nuclear missiles, SAM sites, bombers, fighters, anti-aircraft guns, and even images of people jumping out of boats or into buildings for cover as the Crusaders screamed in at tree top level traveling at nearly 1,000 mph. For these missions VFP-62 would earn the Navy Unit Commendation, presented by President Kennedy along with numerous Distinguished Flying Cross awards to its pilots.

At the United Nations on October 25th Soviet Ambassador Valerian Zoran made the mistake of challenging UN Ambassador Adlai E. Stevenson to produce hard evidence to support his allegation. Ambassador Stevenson proceeded to show VFP-62's shockingly detailed photos of launch pads, missiles, fuel trucks, and control rooms. To the UN no other proof could have been more irrefutable, and the UN could not debate away the iron reality of the photos, nor could the world.

On October 28th Khrushchev and Kennedy agreed on terms for the removal of all offensive weapons from Cuba, drawing to a close a crisis that brought the world right up to the line of nuclear destruction.

The Pacific Coast Air Museum has its own piece of Cuban Missile Crisis history in the form of the nose section of RF-8G Crusader BuNo 145608 (not to be confused with John Glenn's record breaker BuNo 144608) which was delivered to VFP-62 in 1961 as an RF-8A. It transferred in 1967 to VFP-63 and served all through the Vietnam War on numerous carriers before retiring on April 13, 1982. I have started researching the history of 145608 and the early research is already impressive. I will also be restoring our RF-8G nose this coming year, returning her back to her state in October 1962, when the world stood still.

For more information read the new book Blue Moon Over Cuba, by Michael Dobbs. This book sets you at the table with Kennedy and puts you in the cockpit of the mighty Crusader for a great thrill ride. ✪

In Case You Missed It: October 21 Member Meeting Guest Speaker... Bob Hoey: Expanding the X-15 Flight Envelope from Mach 2 to Mach 6

By Peter Loughlin, with Bob Hoey

Like the Wright Flyer, the Spirit of St. Louis, the P-51 Mustang, and the SR-71, the X-15 looms large in aviation lore. Everyone seems to know about it as the ground-breaking rocket plane that heralded our first bold steps into space. Yet many fascinating details of the program remain unknown to the general public and even to aviation aficionados.

On October 21, 2015, the Pacific Coast Air Museum was privileged to get an insider's view of the X-15 project, from one who truly knew the program, the plane, and the people. Bob Hoey was our guest speaker at our monthly Members Meeting, and told us how they took the X-15 from Mach 2 to Mach 6.

Bob Hoey joined the Edwards Flight Test Center as an Air Force officer in 1955. For those who are unfamiliar with it, the Edwards Flight Test Center is the famous proving ground at Edwards Air Force Base in the California desert, where history making flights from the Bell X-1 to the Space Shuttle and beyond have taken place, and are still taking place. Bob was assigned to the X-15 project just three years out of college and worked on it from its early days to the very end of the program, eventually becoming the program's primary Air Force Flight Test Engineer.

Guest speaker Bob Hoey, Former X-15 Flight Planner

An X-15 with the later, larger engine (note single rocket nozzle) is launched from the B-52 mother ship. .

About the X-15

The X-15 was an ultra-fast rocket plane conceived and built in the 1950s. It was a joint project between the U.S. Air Force and NACA (National Advisory Committee for Aeronautics, later renamed NASA) to explore aerodynamics and the effects of heating from atmospheric friction during flights up to and beyond Mach 6. The Air Force and NASA needed a real plane for this research, because the available ground testing methods (calculations and wind tunnel testing) could not accurately duplicate, or define, the flight environment above Mach 2 and they wanted to build faster fighters, bombers, and transports. The scope of the project was later expanded to include high-altitude flights to the fringes of space to explore the many issues surrounding entry or re-entry of space vehicles. It was the first "space plane."

There were 199 X-15 flights, the first in June 1959, and the last in October, 1968. Three X-15s were built:

- X-15A – 56-6670 (Ship 1)
- X-15A - 56-6671 (later rebuilt after a landing accident as X-15A-2) (Ship 2)
- X-15A – 56-6672 (Ship 3)

The X-15s were largely made of inconel, a stainless steel alloy designed for jet engine exhaust pipes. In-

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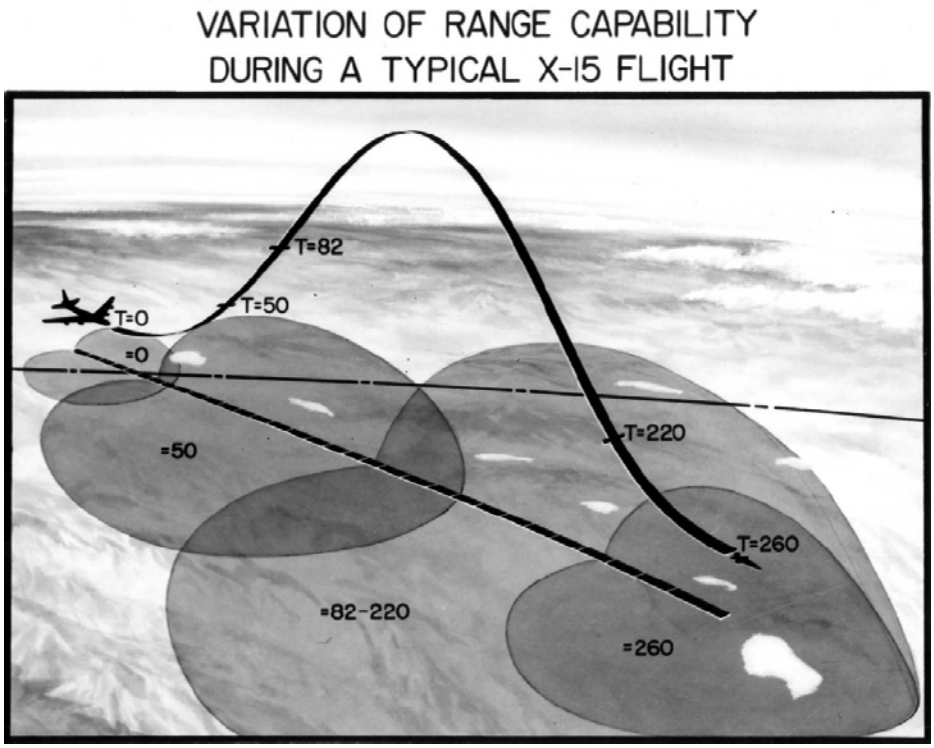
conel retains its strength up to 1,200 degrees Fahrenheit, which was the hottest they calculated parts of the plane would get because of frictional heating. Originally, the X-15s were all supposed to have one large XLR-99 rocket engine of 57,000 pounds thrust, but development of that engine was delayed by about a year. So the first two "ships" were given two smaller XLR-11s with a total of 16,000 pounds of thrust. This proved fortuitous, as the lower-performance planes still went crazy fast but the reduced power allowed pilots, engineers, ground crews, and everyone else to ease into the program, learn how the plane flew, learn what not to do with it, and figure out many key performance factors before stepping up to the big-time XLR-99.



A representation of a typical X-15 flight. Released from the B-52, the rocket plane powers upward. If using the XLR-99 engine, fuel was expended after 82 seconds, after which it continued upward ballistically. The heart-shaped areas represent the various ranges within which the X-15 could land if the engine quit, based upon glide slope and time into the flight. White oblongs are the dry lakebeds within the test range that offered suitable runways. The "T" numbers are the time of flight in seconds.

The X-15 was carried aloft by a modified B-52, which had a special attachment point built under the right wing and a V-shaped cutout in the landing flap to accommodate the X-15's vertical fin. Interestingly, the B-52 mother ship could not use its flaps for takeoff because of this, and had to make very long takeoff runs of over 10,000 feet.

Flying an X-15 Mission

Bob said that an X-15 flight was more like firing a cannon than flying a plane. The B-52 would fly out, line up along a very carefully planned flight path at about 45,000 feet, pointing back towards Edwards. At about 200 miles range they would release the X-15 and the pilot would ignite its engine(s), pitch up and climb to the specified speed and altitude. When the fuel was expended or the pilot shut off the engine, the plane would continue to climb in a ballistic trajectory. While in the upper atmosphere, the pilot would use reaction control thrusters (small rocket motors pointing out the top, bottom, and sides of the plane) to establish the right attitude for reentry because the flight control surfaces were ineffective in the thin air. Drag and a speed brake would slow the plane as it dropped in altitude on its way home.

Landing was very different from a conventional aircraft. A lot of planes have a fairly sedate glide ratio of 10:1, which means they drop one foot for every ten feet they fly forward. The X-15 had a glide ratio of 4:1, which precluded a normal approach. Rather than slowing down, dropping the flaps, and then lining up for landing, the plane would come in at a screaming dive of about 300 knots, line up for landing, dro the lower part of its ventral fin (which had a parachute recovery system), flare (pitch the nose up to bleed off speed and increase lift), and *then* drop its flaps and landing gear only seconds from the ground. It had skids on the rear and a more-or-less conventional nosewheel. The nose always came down with a huge impact, compressing the nosewheel strut a long way. The X-15 could not be steered on the ground. Landings were on flat dry lakebeds in the desert because they provided long, wide runways. Each X-15 flight lasted only about nine to eleven minutes from release to landing.

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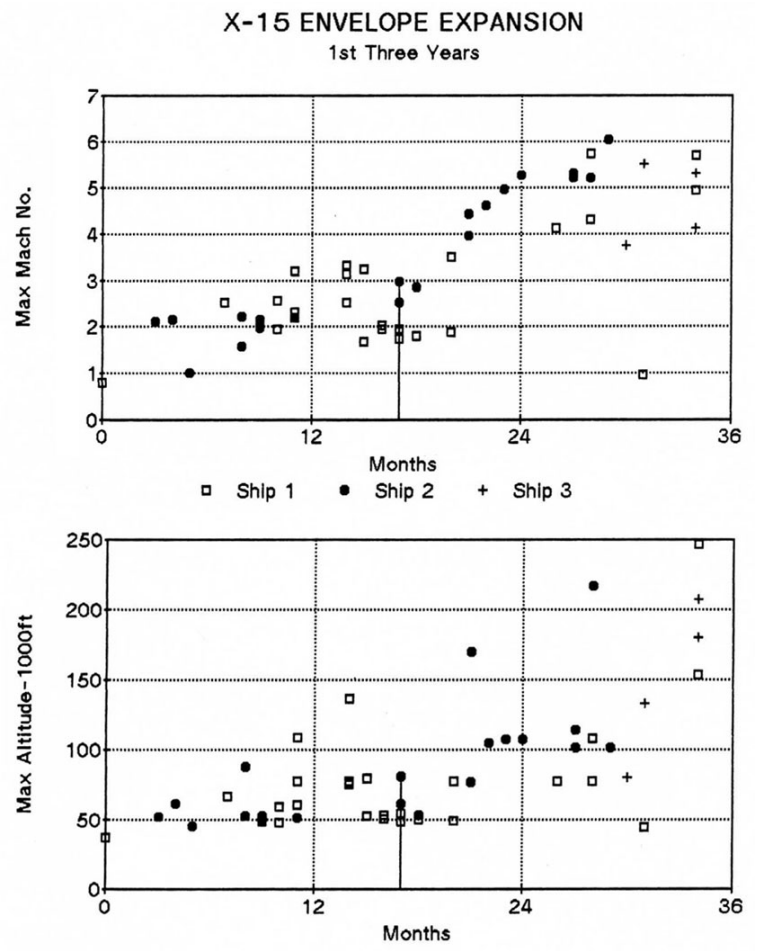

Together, these charts map the steady progress and rapid pace by which the X-15 program reached many of its goals within the first three years. It also shows the frequency with which these missions were flown, a great accomplishment in itself.

Joint Program

The X-15 was a joint program between the U.S. Air Force and the civilian-run NASA. Previous research programs were run exclusively by one or the other, but this led to problems. The joint X-15 program was a successful model that was followed on many subsequent projects including the Space Shuttle.

The joint program led to greater efficiency, with each agency handling its own areas of expertise. For example, the Air Force knew how to fly and maintain B-52s so they took sole responsibility for the mother ship. NASA was really good with instrumentation so they handled that.

Other areas were jointly shared by NASA and the Air Force. There were NASA pilots and Air Force pilots. There was a NASA flight planner and an Air Force flight planner. And the list went on. Bob said that overall it went very smoothly, and aside from some friendly rivalry the people from both agencies worked very well and very productively together.

Things They Learned

The X-15s were over-built, because they could never be 100% certain whether their predictions about heating, aerodynamic strain, and other factors were correct. The program was iterative in its approach, and it was understood from the start that the plane and procedures would be modified as the program progressed to accommodate the problems and conditions they encountered. They learned and adjusted as they went. Bob covered a large number of technical problems they discovered and solved. The following is a condensed description of some of them.

Simulator

They built a very advanced (for its time) simulator using a complete X-15 cockpit and air frame mockup, and the best analog computers available. (Digital computers of that era were too slow.) They used this simulator for pilot training, and for predicting what the craft would do under certain circumstances. It proved very accurate, correctly anticipating aircraft performance across a range of parameters and malfunctions. Each pilot trained for a couple weeks in the simulator before each flight. Pilots had to know automatically what to do in all circumstances, because flights were so short and fast there was no time for ground crew to "consult the manual" for the answers.

Zero G Fuel Pickup

At the mid-point of each flight, as the plane was at the top of its trajectory, they got about three minutes of weightlessness. At the time that was a very serious design issue; how do you get liquid fuel out of the tanks when there's no gravity pulling it towards the fuel pickup? Bob did not describe the specific fix for this one, but used it as an example of the things we now take for granted which were first encountered by the X-15 team.

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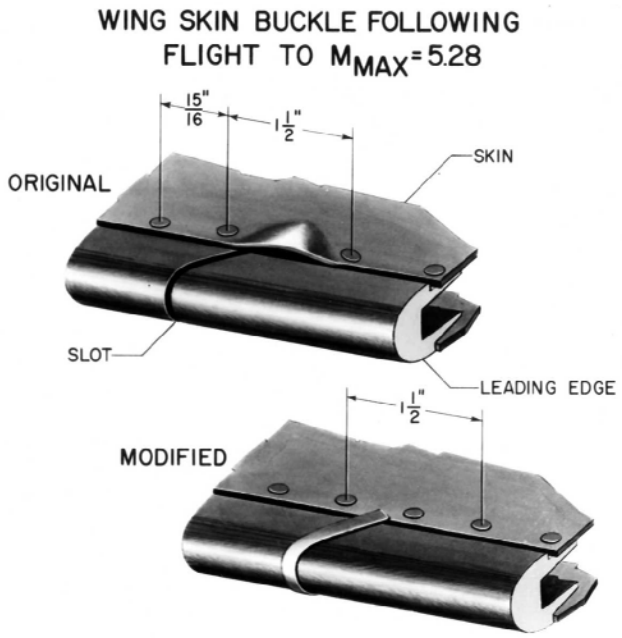
Four G, Eyeballs In

The pilot would experience up to 4G of "eyeballs in" acceleration during the flight. How does he keep his arm stable on the control stick without shaking it around and causing unwanted aircraft movements? The solution was the side-stick controller, a small joystick on the right-hand control console that foreshadowed that of the F-16 a decade or so later. The pilot's arm could rest well braced as if it were on an easy chair's armrest, and he controlled the plane with small motions of his wrist.



The solution to one local heating problem: Hot air collected in the expansion slot and caused the skin to buckle, so they added a rivet to the skin and a small fairing over the slot, welded on one edge to allow expansion.

And what the heck is "eyeballs in?" This term simply refers to the direction of the G forces during acceleration. If sitting in the pilot's seat and accelerating straight forward, the G forces can be said to be pushing the pilot's eyeballs into his skull. "Eyeballs out" G forces would be felt during strong deceleration.

Watch Those Hot Spots

Several times, unexpected heating problems led to aircraft modifications.

The canopy once popped open by about 1/8 inch while at mach speed, leading to hot air swirling around just inside the canopy rim and burning the canopy's seal. The cockpit depressurized, the pilot's pressure suit inflated as it was supposed to, and he landed the plane safely. They installed a small fairing of inconel to divert any hot air in case it happened again.

There were expansion joints along the leading edge of the wing to accommodate heating. As the speed of test flights increased, so did the heat from friction. They noticed that the inconel skin adjacent to one of these expansion joints was buckling and cracking. The problem was that the expansion joint, which was exposed to the supersonic air flow, was collecting super-heated air which in turn heated the skin locally, just at the joint. They added another rivet to the skin and welded a strip of inconel to one side of the expansion joint. Problem solved, and speeds continued to increase.

Late in the program, they had an opportunity to test a supersonic combustion ramjet. For this they needed to go around mach 7 or 8, well within the limits of the big XLR-99 engine if it could run longer. So they added two large tanks to the outside of one plane, one with ammonia and the other with liquid oxygen (LOX), and covered the plane with a pink, spongy ablative material so it could handle the heat of the extra speed. Most of the ablative material was sprayed onto the airplane's surface. The ablative material was known to be sensitive to any contact with LOX which caused it to become unstable and potentially explosive. All propellant lines had to be protected from contamination during ablative application, and the entire airplane was given a protective white paint job to ensure safety. They installed a dummy SCRAMJET (Supersonic Combustion Ram Jet) where the ventral fin was and flew a test flight well below the Mach 8 target speed. Back on the ground, the dummy engine was gone and parts of the plane were badly burned. They figured out that there had been an unanticipated shock interaction that had doubled or tripled temperatures locally. The development of a real and active SCRAMJET was well behind schedule so no further flights were conducted on the X-15.

A Single Fatality

Sadly, Major Michael J. Adams was killed when X-15A-3 #66672 (ship #3) disintegrated during a flight. Bob was on the accident board so knows as well as anyone just what happened. On November 15, 1967, Major

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Adams flew a test flight which included experimental equipment that had not been properly isolated with a circuit breaker. It had problems at 130,000 feet and began to arc. That caused electrical interference in the plane's electrical system, including key flight control systems. Major Adams knew there was a problem but could not identify it. His sidestick controller stopped working so he switched to the left-hand sidestick, which controlled the reaction control thrusters. But recently, the yaw and roll reaction control indicators had been redesigned and switched, and he inadvertently began adjusting yaw when he meant to adjust roll. The plane yawed up to 90 degrees by the time it reached re-entry, and it went into a spin at mach 5. It actually recovered as it reached thicker air at lower altitudes, but it recovered inverted. Now a problem with the control surface "gain" changers cropped up. The "gain" is the degree to which the control surfaces were allowed to move, and the gain changers were locked into high. Thus, the controls were moving far more than they should have as the computerized control system tried to stop the aircraft's gyrations. The pilot's stick inputs to the control system were essentially blocked out. The plane began oscillating in its mach 4-plus dive, reaching as much as 13 G. It broke up, killing Major Adams.

The sad thing is that during the investigation and using their simulator, they found that if the pilot had known to just turn off the electronic flight control system at exactly the right instant, the entry could have been completed with only the pilot controlling the control surfaces. Eight more flights were flown in ship #1, but this accident, plus some other problems, led to the cancellation of the program in 1968. The airplane had accomplished its intended mission, and was then used as a space test bed for many follow-on efforts leading to the Apollo and Space Shuttle programs.

This article covers only some of the highlights of Bob's very detailed and informative presentation. For more information about the X-15 program check your library or your favorite Internet search engine.

The Pacific Coast Air Museum expresses its great appreciation to Bob for coming all the way from Palmdale, California to make this presentation.

This X-15, seen under the carrier plane just after release, had extra fuel tanks and a dummy ram jet installed near the ventral fin. The white paint covers an ablative coating needed to handle extra heat at speeds up to Mach 8. This particular test did not go well – see the text.

About Bob Hoey

Bob graduated from the University of Washington in 1955 with a BS in Aeronautical Engineering. He earned an MS degree in Systems Management from USC in 1977. He served an Air Force officer and Government Civilian employee at the Air Force Flight Test Center at Edwards AFB in California. He participated in flight test engineering for air vehicles and reentering space vehicles, spanning early stability and control testing of the Century Series fighters (F-100 through F-105), mission planning/data analysis for the AF/NASA X-15 flight to Mach 6 and 340,000 feet altitude, the first Air Force fly-by-wire flight test (F-4), the first AF digital fly-by-wire flight test (A-7 Digitac), the YF-16 prototype, and numerous "Lifting Body" vehicles. Following retirement, Bob has served as consultant on many flight test projects including the Scaled Composites Spaceship One. In 1979, he built a BD-4 (4-place homebuilt airplane) which he generously donated to PCAM in 2014. ✪

November 18 Guest Speaker:

Willie Sharp: November 18, 1965, In Vietnam

November 18th marks the 5Oth Anniversary of a day forever etched in the memory of this month's guest speaker, Willie Sharp. He was serving with Fighter Squadron One Nine One (VF-191) and flying an F-8 Crusader off the carrier USS Bon Homme Richard (CVA-31). On November 18, 1965, he was assigned to a flak suppression mission. During his attack, Willie's F-8 (call sign Feedbag 108) was struck by ground fire. Attempting to reach the relative safety of the Gulf of Tonkin, Willie stayed with his burning aircraft until calling Mayday and ejecting over water. This day would go on to include his capture, escape and rescue. Willie describes what he calls his pure good fortune in surviving this mission and today having audio and film of the entire episode.

About Willie Sharp

William D. Sharp grew up in Dinuba, CA and received his Navy wings in September 1964. After learning to fly the F-8 Crusader in San Diego, and flew his first combat mission on April 15th. His cruise aboard the Bon Homme Richard ended in February 1966. He and his squadron deployed again on USS Ticonderoga (CVA-14) from August, 1966 through May, 1967. Willie completed his active duty assigned to Training Squadron Twenty-one (VT-21) in Kingsville TX as a Landing Signals Officer (LSO), mentoring advanced student pilots in carrier qualifications. Willie went on to fly for United Airlines for over 32 years, and was recognized as United's "Captain of the Year" in 1999. Willie and his wife make their home in Pleasanton, CA.

Time and Location:

Wednesday, November 18, 7:00 p.m.
Mesa Beverage Company, Inc.
3200 N. Laughlin Road. Santa Rosa, CA ✪

New Members Since August

Henry Beaumont, Life Member, Glen Ellen
Andrew Furlow, Livermore
Melissa Goldberg Family, Windsor
Linda Miller, Santa Rosa
David Kiddo, Santa Rosa
Clark Austin Family, Santa Rosa
Brian Walsh, Forestville
Tim Meiburg Family, Windsor
Guenter Meiburg, Santa Rosa
Kevin Tong Family, Santa Rosa
Daniel Malley II, Santa Rosa
Nicholas Rarick Family, Santa Rosa
Blaine Hunt Family, Windsor
Jay Yeager Family, Santa Rosa
Riley Petersen Family, Santa Rosa
Jason Allen, Junior Member, Santa Rosa
Beau Dawson, Santa Rosa
Henry Chadwick, Windsor
Jason Riggs Family, Santa Rosa

Air Show Flashback

Here's an angle you don't see from the flight line! Photographer John Nelson was right out in the landing zone as the USAF Wings of Blue Skydiving Team touched down.

2015 Elections for Board of Directors

Each year three members of the Board of Directors are elected to serve thee-year terms. The terms of directors Hunt, Morgan, and Hochberg will expire December 31, 2015. Julia Hochberg has announced that she will seek re-election but Lynn Hunt and Allan Morgan have "termed out" and are ineligible to run. Elections will be completed during the next few months. Two of the directors will be elected by the membership and one will be elected by the Board of Directors.

Our Bylaws require that candidates for the board of directors be *General Members at the time of nomination*. Before or after nomination, the Nomination Committee will determine whether candidates are qualified to serve. (Incumbent directors are presumed to be qualified and their candidacy is not evaluated by the Nomination Committee.) In making its determination the committee considers at least the following:

- Is the candidate a General Member?
- How long have they been a member?
- Why do they want to serve as a director?
- How do they see the position of director?
- Have they ever served as an officer or director of any non-profit organization?
- Are they presently serving as an officer or director of any non-profit organization? If so, how long have they served and what office do they hold?
- What is their present or former employment?
- Will they be able to regularly attend board meetings?
- Will they be able to regularly attend member meetings?
- Will they be able to commit at least a few hours per month to Museum business outside of the meetings?
- Will they be able to assist at the air show?
- Do they have ready access to email?
- What qualities do they possess that will make them an asset as a director?
- Does the candidate appear to be someone who will be able to get along in a group of eight other strong personalities?
- Is the candidate willing to assume responsibility for a major project or division of the Museum?
- Does the candidate understand the board's policy concerning conflicting interests?

To be elected, a candidate for director must be nominated. This includes incumbent directors. Nominations may be made in one of three ways:

- You may nominate yourself.
- You may nominate another.
- The nomination committee may nominate one or more candidates.

The nominations may be in the form of a written nomination, on a form provided by the Museum, or verbally, no later than at the November 18 2015 general meeting, 7:00 pm, at Mesa Beverage Company, Inc. 3200 N. Laughlin Road, Santa Rosa, CA.

All candidates will be given an opportunity to make a brief verbal campaign statement during the November 18 general meeting.

If you intend to run for election or intend to nominate someone else, please be sure to do so no later than the end of the time provided at the November 18 meeting. *If you intend to nominate someone else please discuss it with them first as they must be willing to explicitly accept the nomination, either in writing or verbally at the November 18 meeting.*

After the time provided for nominations has passed, the Nomination Committee will complete its evaluation of all candidates who have accepted nomination. Those candidates who are deemed qualified will be so notified and included on the ballot.

Each candidate appearing on the ballot will be given the opportunity to submit a written statement to be included with the ballot. *Submission of the statement must conform to these rules:*

- You must submit your statement no later than 5:00 p.m., Wednesday, November 18, 2015.
- All statements must be *submitted via email*, to admin@pacificcoastairmuseum.org.

Statements may not exceed 100 words, including your name. If over 100 words, only the first 100 words will be printed. You may use any legible style of font, not greater than 12. Other than adjustment for font size and the 100-word restriction, *your statement will be printed as submitted.*

If you are considering being a candidate, you are urged to prepare this statement now as it will be of help in making your verbal statement at the November 18 meeting.

If you have any questions concerning the nomination or election process, please call President Jim Sartain at 707-799-0912 . ✪

Continued at top of next page

Acquisitions Report

By Mark Fajardin, Director of Acquisitions

SH-60F Seahawk Helicopter

PCAM's latest acquisition, the SH-60F from NAS Fallon! This aircraft is on loan from the National Naval Aviation Museum at Pensacola, Florida.

Last month I was invited by the Commanding Officer of NAS Fallon to meet with the base Search & Rescue (SAR) Squadron, the "Longhorns", to survey their retired SH-60F helicopter and tour the facilities. Since the SH-60 was prepped to go into Fallon's museum it had been transferred to the National Naval Aviation Museum at Pensacola. Fallon is getting an HH-60 instead, so when I petitioned Pensacola for the SH-60 I was told that PCAM was number 21 of 21 on the request list and the SH-60 would be offered to other museums. That didn't sit well with me and after my usual back door politicking I received word on Nov. 3 that SH-60F BuNo 164456 would be transferred to the Pacific Coast Air Museum. An email from a Navy buddy said, "You are really good at what you do, keep up the good work." The good work is what all of us do preserving aviation history, and the Pacific Coast Air Museum is becoming well known for doing just that. So congratulations PCAM on another great acquisition!

EA-6B Prowler Simulator

On October 26 PCAM saved the historically significant and last surviving EA-6B Prowler Cockpit Simulator from NAS Whidbey Island, WA. The 6,000 pound simulator has trained generations of Prowler crews and was loaded onto the modified acquisitions trailer for the 935 mile return trip home with a layover at my brother's house in Portland. Whether in a neighborhood or at a gas station the simulator attracted a lot of attention with everyone saying, "That is so cool!" PCAM Acquisitions remains a busy and fun place with many exciting things coming in the months ahead, so stay tuned. ✪

Below: PCAM's new EA-6B Prowler Cockpit Simulator turned heads everywhere it went on its journey to Santa Rosa.

Gift Shop November News: Air Show Tee Shirts 30% off

SALE

We still have a limited supply of Air Show tee shirts and they are all 30% off! We have mens' sizes only. These are great quality shirts at really great prices.

Get your discount! Museum members get a 10% discount on these and all regularly priced merchandise! Sale items not included. ✪

Performers Reception Raises $10,000

Continued from page 1

Air Show Director Nancy Heath said a few words and thanked the performers for being a part of our amazing Wings Over Wine Country Air Show. The USAF F-16 Viper team and the Canadian Forces Snowbirds both presented lithographs to the Museum. As a special favor, all the Snowbirds signed the three model CT-114 Snowbirds aircraft made for display by PCAM's Peter Loughlin for PCAM parade floats and marketing. One signed Snowbird model was given to the Pacific Coast Air Museum, one was given to Air Show Director Nancy Heath, and one was auctioned at the Performer's Reception that evening.

The Snowbirds pilots signed the three model Snowbirds planes the Museum used to help promote the Air Show over the previous months.

Other silent auction items included wine donated by Turley and Trattore, aircraft models, a vintage aircraft helmet, aircraft art, a Round Table pizza gift certificate, a wooden propeller, a WWII aircraft camera, and other great finds! The silent auction raised around $2,400 during the event.

Left: The 1940s theme extended to some of the guests, who dressed appropriately!

The event was organized by Julia Hochberg and couldn't have been done without the help of many including: Kelly Straley, Kelsey Olson, Roger Olson, Bill Conklin, Julie Conklin, Lynn Hunt, Mary Jane Brown, Bob Smith, Joyce Procopenko, Reyna Vigil, Matt Parry, Dave Sheber, Diann Johnson, Judy Knaute, Al Musetti, and many other donors and volunteers who made it happen. In total, the event earned more than $10,000 for the Pacific Coast Air Museum. ✪

The Pacific Coast Air Museum's Platinum Sponsors

The Pacific Coast Air Museum thanks its Platinum Level Sponsors, whose contributions help make our museum the thriving community resource it is! If you would like to find out about sponsorship opportunities with the Pacific Coast Air Museum, contact Roger Olson, Director of Business Development, 707-396-3425 or rogerolson427@gmail.com ✪

The Pacific Coast Air Museum

Location
One Air Museum Way, Santa Rosa, CA, 95403
www.pacificcoastairmuseum.org
707-575-7900

At the Charles M. Schulz-Sonoma County Airport, north of Santa Rosa. Hwy 101 north to Airport Blvd. and go west. Turn left on North Laughlin Rd, right on Becker Blvd. then right on Air Museum Way.

Hours
Tuesday, Thursday, Saturday and Sunday.
10:00 a.m.—4:00 p.m.

"Climb Aboard"
A selected aircraft is available to "Climb Aboard" the third weekend of each month (weather permitting). Please visit our web site at www.pacificcoastairmuseum.org or call 707-575-7900 for details or more Information.

Member Meetings
Normally held on the third Wednesday of each month, 7:00 p.m. at Mesa Beverage Company, Inc. 3200 N. Laughlin Road, Santa Rosa, CA

"Straight Scoop" Newsletter
The museum newsletter, "Straight Scoop" is published monthly and is available online on the museum's web site. Members are encouraged to submit articles for possible publication. Deadline: the 26th of the month prior to publication. All articles in the newsletter are covered by copyright. If you wish to submit articles or use any of the content, please contact Peter Loughlin, Editor: pcam-news@loughlinmarketing.com, 707-575-7900.

Membership Renewals
$40 per year individual; $60 per year for families. Send renewals to the museum, address below.

Address Corrections
Please send to Pacific Coast Air Museum,
One Air Museum Way, Santa Rosa, CA 95403

Visit our web site at www.pacificcoastairmuseum.org or call 707-575-7900 for more Information.

Read the "Red Baron Flyer," the quarterly newsletter of the Charles M. Schulz-Sonoma County Airport: http://www.sonomacountyairport.org/red-baron-flyer

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Julia Hochberg	707-523-2800
Lynn Hunt	707-235-2552
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Don Mackenzie	408-605-3524
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Mark Fajardin 707-477-0377

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David Kinzie 707-575-7900

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Norma Nation 707-525-9845

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Peter Loughlin 707-704-6498

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Peter Loughlin 707-704-6498

PCAM YouTube Video Channel
http://www.youtube.com/user/PCAMvideos

PACIFIC COAST AIR MUSEUM

STRAIGHT SCOOP
November 2015

Climb Aboard
November 21-22, 2015
Ace Maker Weekend:
T-33 Shooting Star, T-37 Tweet,
T-38 Talon

REMEMBER THESE DATES

November 18, 2015	7:00 p.m. - 9:00 p.m.	PCAM Member Meeting at Mesa Beverage
December 16, 2015	7:00 p.m. - 9:00 p.m.	PCAM Member Meeting & Holiday Party at Mesa Beverage
December 16, 2015	7:30 p.m.	PCAM Board Member election ballots due
December 19, 2015	10:00 a.m. - 4:00 p.m.	Santa Fly-In: FREE ADMISSION
January 20, 2016	7:00 p.m. - 9:00 p.m.	PCAM Member Meeting at Mesa Beverage

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