

In This Issue

#### PACIFIC COAST AIR MUSEUM

#### Volume XXII, Number 3

#### March 2017

## Pacific Coast Air Museum Announces Aviation Education Sessions for 2017

By Art Hayssen, PCAM Education Chair and Dave Ford, Vice President

With some assistance from Allan Morgan, our former Director of Education, we've assembled more of the aviation education classes that the Pacific Coast Air Museum is famous for. We've already held two Boy Scout Merit Badge classes, two more are scheduled for later in the year, and our annual



PCAM Education Chair Art Hayssen (left) and Connie Reyerse (top of stairs) guide a group of Boy Scouts through the Lockheed Jet Star during the January 28 Boy Scout Merit Badge class.

Aviation Summer School is set for June. This is in addition to the many school groups and field trips we host throughout the year.

#### **Boy Scout Merit Badge Classes**

A one-day class that earns a Merit Badge in Aviation, this approximately 6 hour course at PCAM follows the curriculum requirements established by the Boy Scouts of America. The Boy Scout Merit Badge Class is a great weekend activity for Scouts and is a rare opportunity to earn a Merit Badge in an environment perfectly suited to it: at an institution devoted to education, taught by experienced aviators, at an airport where, as the grand finale, participants can sit in a real airplane and go flying. Topics include kinds of aircraft, basic physics/ aerodynamics of flight, aircraft engines and careers in aviation.

Two Boy Scout Merit Badge sessions were held in January, one led by Art Hayssen and the other by Nancy & Rob Heath. Another two classes are scheduled this year, one on May 20 and the other on October 7.

On January 28 Art Hayssen taught 17 scouts, 16 from Sonoma Troop 16 and 1 from Windsor Troop 20. The first several hours were classroom work on aerodynamics and meteorology. Keven Quirk gave a talk about building aircraft and had some hands-on work to illustrate riveting aluminum skin to form aircraft components.

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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**

Hey! What about our new and exciting web site? It is up and running and looks great. We have now entered the 21st Century in the marketing and promotion area. Thanks to Peter Loughlin for pursuing this complex event.

We had a very successful EAA Ford Tri-motor event that is chronicled elsewhere in this newsletter. I was most impressed by our volunteers. We had a great turnout and all were willing workers. Our efforts were rewarded with a substantial sum of money that goes into our general funds.

The summer PCAM events are starting to dot the calendar. As the preparations get more organized we will need the usual high number of volunteers to help out. When a chance arises please raise your hand to lighten the work-load of other members. Be sure to log and turn in the hours that you volunteer. That gives us good support for obtaining sponsors.

We are planning to put on a 'Meet our Vets' event where local students and parents will get a chance to visit and hear directly from our Sonoma County Veterans of WWII and Korea. The event is planned for the Memorial Day Holiday. Carol Lawson and Andy Werback are the contacts for this event. Volunteers needed.

The Museum has taken possession of a Marchetti SM.1019, a turbine-powered single-engine float plane. It is in flyable condition but our exact plans for it are undefined.

Connie Reyerse, our Executive Director, has been undergoing a serious medical condition that will require him to step down as Director. He is going to work as a volunteer with our displays and also wants to help with the Jet Star. We wish him well and a swift recovery.

The C-118 is in the process of being salvaged. We were able to sell enough of the aircraft that it will put some money into our budget.

HELP WANTED: We are in need of an Executive Director for Museum operations. This is a less than full time paid position. It is at the center of activity of all we do



Our "new to us" SIAI-Marchetti SM.1019

here at the Museum. If you are interested in this exciting position, or know of someone who might be, please contact me at 707-799-2878.

We are starting to get more sun these days so soon the grounds will dry enough to mow the grass. In case you have not noticed, much effort has already been expended to clean up the Butler area and the Museum grounds in general. Thank you to our hard working crews.

At our next general membership meeting on March 15, 2017 our guest speaker will be Jonna Doolittle Hoppes (Gen. Doolittle's granddaughter).

— C J Stephens President, Pacific Coast Air Museum

March 2017



# EAA Ford Tri-Motor Makes a Historic Visit to KSTS

By Andy Werback

Last month's newsletter went to print just as the Tri-Motor event was concluding. After flying the previous weekend in Sacramento (500 passengers), N9645 spent 4 days at Santa Rosa flying 357 passengers plus quite a few of our volunteers who flew on a space-available basis.

This particular Ford Tri-Motor is one of two currently flying in revenue service, out of 199 originally built by Stout Metal Airplane Company, at that time a division of Ford Motor Company, in 1928. It seats 10 and has 3 Pratt and Whitney R985 engines. (If you looked closely, the instruments for the #1 and #3 engines are mounted externally on the engine struts.) The airplane was restored by William Harrah of Reno in the late 1960s, and made its first flight with a new corrugated aluminum skin in 1971. It is presently owned by Liberty Aviation Museum in Port Clinton, Ohio, and leased to EAA.

One of the more interesting bits of information given to passengers is that all of today's major US airlines can trace their lineage back to the Ford Tri-Motor. This airplane started with Transcontinental Air Transport (TAT), which soon became Transcontinental and Western Airlines (T&WA) and then Trans World Airlines (TWA). And then, American Airlines, and then... well.

Thursday and Friday were pretty marginal due to inclement weather, but on Saturday we were able to launch 18 flights, and on Sunday, 17 flights, for a total of 42. Between EAA's <u>www.FlyTheFord.org</u> web page and the Museum's website, Facebook and airshow web pages, we got a really good start on pre-booking passengers. Many more came out to have a flight experience after seeing this very large, radial-engine airplane flying slowly over their neighborhood or office. Because of the 80-85 mph cruise speed, many people commented that they had plenty of time, after hearing the engines, to go out and



EAA Chapter 124 volunteer Mike Tovani (left) and Carol from the Pacific Coast Air Museum (right) helped put the Tri-Motor into the Sonoma Jet Center hangar one evening. We'd like to salute all our valued volunteers who made this event possible, helping PCAM earn a tidy sum as our share of the proceeds.

watch the Tri-Motor fly overhead.

We received a very nice thank you letter from EAA for the support of the Tri-Motor on the Santa Rosa tour stop. It was a lot of work by many volunteers, and PCAM President C J Stephens had this to add:

I would like to add my thanks and congratulations to this note.

I was truly amazed at the amount of flying that we were able to complete in this, one of the wettest months in history. When I first learned what we were going to attempt, I figured we would be lucky to get 5 passengers airborne. Wow. We did nearly 400 in those couple of days and it was mostly due to the crew. It was a huge team effort and a great event.

Thank you all. -- C J

The Pacific Coast Air Museum would also like to thank our generous sponsors: Sonoma Jet Center, Kaiser Air, and the Charles M. Schulz Museum. We couldn't have done it without you! 😒



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# **Getting to Know You**

#### About Dave Ford... A New Key Player in PCAM Education Programs

By Barbara Beedon

At the February Member Meeting, PCAM Vice President Dave Ford gave a report on what he and Julie Conklin have found out about the PCAM Educational programs – as put on by Allan Morgan for the past several years. Allan moved to Texas two years ago.

Dave reported that there are plans in place for two sessions of Summer School, and two Merit Badge classes (with four planned per calendar year). There is also interest in the Windsor High School Flying Club,

and in working with a Scout program in Sebastopol.

A former director of the Empire Aero Club, Dave joined the Education Committee to lend his expertise and experience as Vice-Chair to Art Hayssen. A goal is to find people whose interests match the work that needs to be done. David and Julie are reaching out to area schools, and will meet with Windsor HS in March, and with David Casey at Analy HS about career pathways through SCOE. Julie Barnes has contacts with Sonoma State University, and Art Hayssen with the Scouts. Charley Taylor agreed to work with the BUCK Institute to gain more involvement in the Annual Science Fair at the Fairgrounds in the September/October timeframe. He also has contacts at the USS Hornet Museum in Alameda.

The challenge will be to continue and build upon the standards set by Allan Morgan for many years. Allan recently visited Santa Rosa and met with Dave, Julie, Art and Charley Taylor. Art will be conducting Summer School classes in June.

Dave, his wife Marge, and dog Bentley, have had a Family Membership for about 4 years. Dave's oldest son



Dave Ford and the EAA Ford Tri-Motor, at STS, February 2017

Bill, who lives in Colorado, built his own airplane, a Lancair Legacy – he also has the flying "bug". His son Don is a Flight Nurse with CalStar assigned to Ukiah.

Dave comes from a family of aviators. His father was

an aviation pioneer on the east coast and spent his career in aviation and retired from the FAA. In 1955, when Dave was a senior in High School he soloed in an Aeronca 7-AC at Petaluma Sky Ranch. At Santa Rosa High, Dave played football, was a Civil Air Patrol Cadet, and set his sights on the Air Force Cadet Program. However, during his first FAA medical, he was informed he had to wear glasses. Unfortunately, this put flying in the Air Force out of the question. Nor could he fly for the commercial airlines, so he followed advice from his uncles (all pilots) to stick with

private flying... they said "it's more fun," and that has proved to be true.

Dave graduated from USC Marshall School of Business, worked for five years in banking, as an AVP/ Manager of a Southern California Savings and Loan, and forty years in the field of real estate appraising. He helped form the Conejo Valley Rotary Club and served as President. He served 5 years on the Board of Directors of the Conejo Valley Chamber of Commerce. During that time he was instrumental in obtaining the former Oxnard Air Force Base for general aviation. He was appointed to the Ventura County Aviation Advisory Commission. He organized an Aviation Explorer Post. In 1976, he was the General Chairman of Conejo Valley Days. In 1981, he met General Jimmy Doolittle at a fly in at the Nut Tree, something he will always remember.

If you don't already know Dave, introduce yourself to him. And please consider volunteering to help with the PCAM Educational Programs. It's a great way to reach out – by educating young people (future aviators) – about flight and aircraft operation, while also letting the public know we are an important and vital part of the community. 🗘



# In Case You Missed It: February 15 Member Meeting Guest Speaker:Whit Hall on A Six-Year-Old's View of Pearl Harbor

By Whit Hall, Colonel, US Army (Retired Edited by Peter Loughliln

Our speaker on January 18 was Whit Hall, who was at Pearl Harbor on the morning of December 7, 1941. He was just six years old. This is a condensed version of the speech he made at our meeting.

#### The First Attack

Living in warm and peaceful Hawaii in 1941 was like heaven for a six year old kid. But that same feeling of paradise added to the calm and lack of readiness at our Hawaiian military headquarters. The morning of Sunday December 7 I was outside riding my bike and my mother was asleep upstairs. My father, a flight surgeon with the Army Air Corps, was away helping deliver B-17 bombers to the Philippines to help defend against an expected Japanese attack there.

I heard a disturbance, saw a plane on fire in the sky and black puffs of smoke in the air. I jumped off my bike and ran inside to wake my mother. She was reluctant to get up. When she did, she said the planes were B-17s due in from the mainland, something everyone knew about. But then she heard the explosions in the distance and went to the window, where we had a view of Ford Island and the battleships about a mile away. We could see Japanese planes with their rising sun insignia on their sides. One of them flew low close to our house. It was probably a torpedo bomber getting lined up for an attack. We could see the anti aircraft rounds exploding in the air.

My mother was a tough woman. There was no panic. There was a plan for where to go and what to do in the event of an attack, and she did what she had been told to. She grabbed my 4 year old brother, threw clothes on us, packed a small bag with essentials and ran us out the door. We packed up a neighbor woman who had severe diabetes, and ran to a pre-designated house. I looked back and saw a Japanese airplane in flames diving close behind our house. There was a Navy ship in the channel just a couple of hundred yards away making all sorts of noise firing its antiaircraft guns. We kept running.



This modern satellite photo of part of Pearl Harbor shows the approximate view Whit and his family had of Battleship Row (red X) from their house (red circle).

#### **Evacuation and a Safe Haven**

In half an hour, a dozen or more women and kids had assembled. It was the pause between the first and second waves of the attack. An Army sedan driven by a young soldier pulled up. It was amazing to find that the evacuation of the military families had actually been planned and rehearsed, and more incredible that in the chaos of a terrifying surprise attack, it worked.

We piled into that sedan sitting on each other three deep. The driver drove flat out down the highway between the sugar cane fields. He had been told to go fast because they believed there would be fifth column Japanese snipers in the cane fields shooting at cars. Later, I learned that there had been no support for the attack by resident Japanese Americans or Japanese agricultural workers. Racial fears made unproven fears of sabotage by US residents more dangerous than the *Continued on next page* 

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known capability of Japanese aircraft carriers. Think about that in connection with our various national fears today.

After a long wild ride, we arrived at a beautiful large estate on a hillside overlooking Honolulu and the channel into Pearl Harbor. The owner expected us. Mattresses were already on the floor of the dining room, which became the kids' dormitory.

An important lesson was that even at just six I could sense people's courage. We kids were all excited, but not crying. There must have been well over a dozen women and children at that home. We could see the smoke still rising from Pearl Harbor. Sure, the wives were terrified that they would never see their husbands again. They had no idea what was going to happen to them or their children. But that crowded house was orderly, safe, and a shelter for us all.

## The Speech

For kids, living in that big house was fun, sort of like a summer camp. But we knew something serious was happening. On December 8, all the families were gathered around the radio, very quiet and serious, listening to a man with a firm voice. I didn't realize it but it was President Roosevelt delivering his famous "day that will live in infamy" speech.

We could see the gravity of it all in our parents' faces. No one said a word. When the speech was over, the radio played the Star Spangled Banner and the strangest thing happened: all those women and then the children stood and came to attention. It was like being in church. Some of the adults had tears in their eyes. That scene is as clear in my memory today as is the bombing itself.

#### **Back Home**

We didn't know, but Dad had shipped out from Manila the morning of the 7th. After a very tense week and a half, his ship came sailing into Pearl Harbor despite Japanese claims to having sunk it. A few days later we sailed for home aboard a small Army transport ship in a convoy returning wounded sailors and military families to the mainland. We landed in San Francisco late the night of Christmas, 1941. There were crowds at the dock to honor the wounded and to welcome the families.

### A Puzzle

The preparations for evacuation were detailed and rehearsed, so the military brass obviously knew on some level that an attack was likely. Yet The US Army and Navy had been caught flat footed. I have read a lot trying to understand how this came to be, but I can conclude only that humans will be humans and no plan or strategic warning is going to be 100% effective as long as people are involved. Our top generals and admirals failed a test of leadership by not asking the hard questions and not foreseeing new conditions. Filters between the facts and the decision makers are numerous. We don't have to think long before we can find similar failings in our own experience, daily lives, and businesses. Who looks for trouble, even when leaders should be doing just that?

# About Whit Hall

Whitney Hall was born in Kansas City, Missouri and traveled the country following his father's many assignments. He graduated from High School in Amarillo, Texas and attended Texas A&M one year before entering the U.S. Military Academy at West Point. Whit's career as an Armor officer included teaching assign-



ments at West Point and the National War College in Washington DC where he would earn a Masters Degree in Political Science at Georgetown University. He retired in 1982 while serving as the Installation Commander of the San Francisco Presidio. He and his wife Sigrid have resided in Petaluma for the past 20 years. Whit is an active member of the Petaluma Rotary Club. ©



# March 15 Guest Speaker:

# Jonna Doolittle Hoppes on An Evening with the Doolittles

Our March 15th guest speaker is author Jonna Doolittle Hoppes who will join us to share stories of Jimmy Doolittle and his wife Joe. As the granddaughter of Gen-



eral Doolittle, she is eminently qualified to talk about the man as a son, husband, father and grandfather. April 18th marks the 75th anniversary of "Doolittle's Tokyo Raiders" flying off the flight deck of the USS Hornet to bomb the Japanese mainland just four months after the attack on Pearl Harbor. Jonna will cover Jimmy's many accomplishments in aviation as well as his philosophy of life.

#### **About Jonna Doolittle Hoppes**

Jonna Doolittle Hoppes is the founder and executive director of The Doolittle Foundation, an organization dedicated to making US military history available to students. She is currently involved in developing lesson plans for teachers and in setting up programs that link veterans with local schools. Her lectures are focused on encouraging veterans to record their individual histories. Ms. Doolittle Hoppes is the author of two books. Calculated Risk: The Extraordinary Life of Jimmy Doolittle is a memoir of her famous grandfather and his equally extraordinary wife. Her second book, Just Doing My lob is a collection of biographical stories from World War II. She is on the boards of three key historical foundations and museums, and is an advisor to the Flying Tiger Historical Foundation. Autographed copies of her books will be for sale at the meeting.

# Time and Location:

Wednesday, March 15, 2017, 7:00 p.m. Columbia Distributing. 3200 N. Laughlin Road. Santa Rosa, CA Cost: Free for Members and Guests. 😒

# **Busting the Top Gun Myth**

#### PCAM F-14A Tomcat and F-5E Tiger II were NOT Movie Stars

By Peter Loughlin, Research by Mark Fajardin

This story was originally published in a more detailed form in the June 2014 Straight Scoop newsletter.

Rumor around PCAM is that our F-14A Tomcat #160889 and F-5E Tiger II #72-1387 were used in the making of the 1986 Tom Cruise blockbuster movie Top Gun. To set the record straight, they were not. Neither plane appeared in Top Gun, nor any other movie that we are aware of. We apologize to anyone who might have heard otherwise at PCAM or through any PCAM publications.

# Setting the Record Straight

Mark Fajardin, formerly PCAM's Director of Aircraft Acquisitions, had heard the rumors about their role in the movie and always doubted them. He dug into the records, studied each plane's log books, and concluded that they never flew past the cinematographer's viewfinder.

They couldn't have, because they were both elsewhere during the filming of Top Gun.

The following is adapted from Mark's report on the subject.

The movie Top Gun was filmed in late 1985 at NAS Miramar in San Diego and NAS Fallon in Nevada utilizing VF-51, the "Screaming Eagles". All aircraft carrier scenes were filmed on board the USS Enterprise utilizing VF-114, the "Aardvarks", and VF-213, the "Black Lions". The interior aircraft carrier scenes were filmed inside the USS Ranger at pier side.

# Historical Records of the Individual Planes

#### F-14A TOMCAT. 160889

• May 1979 to Oct 1980: VF-124 Fleet Readiness Squadron, NAS Miramar

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- Nov 1980 TO Sept 1988: VF-24, NAS Miramar
- Oct 1988 TO Aug 1994: VF-124 Fleet Readiness Squadron, NAS Miramar
- Sept 1994: VX-4
- Oct 1994 TO Jul 1995: VX-9 Detachment to Point Mugu
- CNO Message to Strike Aircraft, August 18, 1994
- 20 Oct 81 23 May 82: VF-24 USS Constellation, CVW-9 (NG) WESTPAC + Indian Ocean Cruise
- I5 Jul 83 29 Feb 84 VF-24 USS Ranger CVW-9, (NG) WESTPAC + Indian Ocean Cruise
- 24 Jul 85 21 Dec 85 VF-24 USS Kitty Hawk CVW-9, (NG) WESTPAC + Indian Ocean Cruise
- 03 Jan 87 29 Jun 87 VF-24 USS Kitty Hawk CVW-9, (NG) World Cruise
- I0 Jun 88 01 Aug 88 VF-24 USS Nimitz CVW-9, (NG) RIMPAC Cruise
- F-14A 160889 Special Operations: Coyote / Olympic Presence / Earnest Will

The historical record shows our F-14 Tomcat (160889) assigned to VF-24 on board the USS Kitty Hawk for a WESTPAC + Indian Ocean cruise while the movie was being made. All historical findings are from the aircraft logbook submitted by the National Naval Aviation Museum Pensacola Florida.

#### F-5E Tiger II, 721387

- 05 Nov 73 TO Jun 82:USAF 425TH TFTS, Williams AFB
- 07 Sep 84 TO 26 Oct 84:USAF 425TH TFTS Williams AFB
- Apr 86 TO Nov 86: USAF 425TH TFTS Williams AFB
- 30 Sep 87 TO 04 Apr 89: USAF 425TH TFTS Williams AFB
- Transferred to the United States Navy 1989
- Dec 89 TO Feb 96: VF-45
- Mar 96 TO Feb 05: VFC-13 NAS Fallon

The historical record shows our F-5E Tiger was assigned to the United States Air Force during the making of the movie Top Gun. It only began Navy service four years after filming.

# The Topgun School

That said, the fact is that our F-5E was indeed used by the Naval Fighter Weapons School or "Topgun", later the Naval Strike Air Warfare Center or NSAWC. It was part of Fighter Squadron Composite VFC-13, the "Saints", which is the "aggressor" squadron. The F-5 played the role of an enemy aircraft to challenge pilots in F-14s because its performance closely mirrored that of the MiG-21, a likely opponent wherever the U.S. might go into combat anywhere around the world. The F-5 still wears the aggressor colors of VFC-13.

Our F-14 was never assigned to Topgun. It came to us from Air Test & Evaluation Squadron VX-9, the "Vampires" at Point Mugu California

PCAM also received an F-16N Viper—it came from NAS Miramar (Fighter Weapons School) in 1994. Like the F-5E, the F-16N was used as an "Aggressor" aircraft. The PCAM F-16N did not star in any movies we are aware of either.

The F-14A Tomcat, F-5E Tiger II, and F-16N Viper aircraft at the Pacific Coast Air Museum are all on Ioan from the National Naval Aviation Museum at Pensacola, Florida.

# Conclusion

Training workhorses yes, movie stars no. Please help us pass along the correct information to our visitors and volunteers alike.

PCAM is very fortunate to have been the recipient of these planes once they had out flown their useful lives. To us, it makes no difference whether they were movie stars or not. It is our responsibility and privilege as an organization devoted to historical accuracy and the education of the public to present their true stories. These two aircraft served the United States well, and their service records need no embellishment.

PCAM is always on the lookout for accurate information about any and all aircraft in our collection. If you happen to have any documented evidence of the service histories of any of our aircraft, kindly let us know.  $\bigcirc$ 



# PCAM Flight Wing Goes Italian

By Lynn Hunt



The latest acquisition by the Flight Wing is a significant departure from the other aircraft that now call PCAM home. A turbine-powered seaplane in the form of a Siai Marchetti SM1019 is the most recent addition and one that will turn some heads. This aircraft is not a restoration pro-

ject in need of countless hours of work. Quite the opposite, it sports modern avionics, a fresh paint job and a recent annual inspection. You can see from the photographs that she's a beauty.

The Marchetti 1019 is fashioned after the Cessna L-19 Birddog and was used by the Italian military as a liaison aircraft with STOL capabilities. It is powered by an Alison 250-B15 turbine engine producing 317 hp.

Even though the Marchetti is ready to fly it will take us a while to learn about the care and feeding of such an airplane. We also need to address pilot training and determine insurance and operating costs. There will need to be some resources identified (both manpower and financial) before we can take to the air.

The unique qualities it brings to the table will provide the Flight Wing members with a unique opportunity to become familiar with turbine engine technology and the aircraft that rely on them.

# Flight Wing Announces Fly Days

Beginning in May of this year PCAM's Flight Wing will host a FLY DAY specifically intended to get museum members into the air. All airworthy Flight Wing aircraft will be operating along with participating FW member aircraft that are available and willing. The goal is a simple one: Give back to our hard-working volunteers by doing what we do best, sharing the magic of flight while showcasing the Flight Wing's accomplishments. As long as we can keep fuel in the tanks, we will fly. The Flight Wing will attempt to make this a monthly event starting on Saturday, May 20th . A



Our L-1019. Note the wheels that retract into the floats. So one could take off from the concrete runway at the airport, fly to Lake Berryessa, land on the water, have a swim and a little lunch, take off again, and land back in Santa Rosa.



The SM-1019 cockpit and instrument panel.

summer schedule is in the works so watch your newsletter for dates. The Flight Wing hangar will also be open so you can survey the many projects underway. These rides are free to museum members. 🗘



# PACIFIC COAST AIR MUSEUM -FLIGHT WING JACKETS-

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Jacket Sizing Chart									
	s	М	L	XL	2XL	3XL	4XL	5XL	
Neck	14-14½	15-15½	16-16½	17-17½	18-18½	19-191/2	20-201/2	201/2-22	
Chest	34-36	38-40	42-44	46-48	50-52	54-56	58-60	62-64	
Waist	28-30	32-34	36-38	40-42	44-46	48-50	52-54	56-58	



# Details of the SIAI Marchetti SM.1019

#### By Connie Reyerse

Recently we were asked if PCAM would welcome the donation of a Marchetti SM.1019. My first thought was, "What is an SM.1019?" I looked it up on the internet and found it to be a very interesting airplane, especially because it is equipped with floats and retractable wheels, so within the same flight it can land and take off from both water and dry land.

Here's what Wikipedia says about this plane:

To meet an Italian Army requirement for a short takeoff liaison aircraft, SIAI-Marchetti modified the design of the Cessna 305A/O-1 Bird Dog with a new turboprop engine and a revised tail unit. The prototype first flew on 24 May 1969 powered by a 317 hp (236 kW) Allison 250-B15C turboprop engine.

#### **General characteristics**

- Crew: 2
- Length: 8.52 m (27 ft 11<sup>1</sup>/<sub>2</sub> in)
- Wingspan: 10.97 m (36 ft 0 in)
- Height: 2.86 m (9 ft 4<sup>1</sup>/<sub>2</sub> in)
- Wing area: 16.16 m2 (174 ft2)
- Aspect ratio: 7.45
- Empty weight: 690 kg (1,521 lb)
- Gross weight: 1,450 kg (3,196 lb)
- Powerplant: I × Allison 250-B17B turboprop engine, 298 kW (400 hp) each

#### Performance

- Maximum speed: 285[4] km/h (177 mph)
- Cruising speed: 281[5] km/h (175 mph)
- Range: 1,340 km (832 miles)
- Endurance: 8 hours 45 min
- Service ceiling: 7,620 m (25,000 ft)

#### (https://en.wikipedia.org/wiki/SIAI-Marchetti\_SM.1019)

So if this airplane looks familiar it is because of its Cessna 0-1 Bird Dog roots. The Bird Dog's history goes back to 1959! The Marchetti SM.1019 is the Italian derivative of the O-1, but with its Allison turboprop, it is a true STOL aircraft.

# More About the SM.1019

The following information is from an informational flyer published by Sierra Industries available at www.sijet.com/download/N250MH SM0407 web.pdf

A development of the once widely-used Cessna O-1/C -19 Birddog with a turboprop engine, the SM 1019E is a two in-tandem seat, high wing, fixed-tailwheel landing gear aircraft. This provides extremely good visibility, as well as short take off and landing requirements even on unimproved airfields. Approximately 100 of these aircraft were built.

The all-metal structure is very light and robust, designed to allow easy maintenance of the frame.

The leaf spring type landing gear is equipped with low pressure wheels and extremely efficient brakes. Its simplicity is such as to require very little maintenance.

The 400 HP Allison 250B17B engine is derated to 320 HP. This is the reason for the uncommon climb performance of the aircraft and for the extremely long life of the engine, also operating in hot days and at very high altitude.

The engine drives a three-bladed, constant speed, automatic feathering, reversible pitch propeller.

The aircraft has two instrument panels equipped with the most up-dated flight instruments, the rear one being removable. An easily accessible and roomy bay is available for the installation of remote-controlled avionics.

The armament is carried by four standard wing pylons.

#### Performance

Two aspects of the aircraft performance have been particularly stressed in the design – S.T.O.L. characteristics and operating range.

Immediately after takeoff, the aircraft is capable of maintaining a stabilized rate of climb of more than 1600 feet/min., while the 70 knots landing speed, over the 50 foot standard obstruction, is well above the stalling speed.

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Under these conditions, take off and landing run distances are of approximately 300 feet with full load. The 400 HP engine, derated to 320 HP, maintains STOL qualities even under extreme environmental conditions such as high temperature or high altitude.

The operating range is the other outstanding performance of the SM1019E, resulting from accurate matching of the aircraft aerodynamics and power. Resulting fuel consumption is approximately 40 kg/h or 2.25-2.75 NM per kg of fuel at a speed of 100-110 knots, which is the most appropriate for surveillance missions. Under these conditions it is possible to attain approximately 6 flying hours or a range of 550-600 NM.

The use of external fuel tanks for a total of 40 gals. can increase the range of the aircraft to about 750 NM.

We at PCAM have a diverse collection of unique aircraft and I feel that the addition to the SM.1019 will only improve that. It will become the second float plane in our collection next to the HU-16 Albatross. We look forward to showing it off to the public soon.  $\heartsuit$ 

# **Air Show Flashback**

This rare World War II SBD-5 Dauntless dive bomber flew in from Planes of Fame in Chino, California. It made several flying passes each day, including this low-speed pass with its landing gear, flaps, and arresting hook all extended. Yes, those are dozens of holes in the flaps. Piercing the flaps in this way reduced buffeting and increased control when the flaps were extended during a nearly vertical attack dive.



# **March in Aviation History**

On March 10, 1967, Captain Max C. Brestel, USAF, shot down two MiG-17 fighters in one mission. This was the first such "twin-kill" mission for Americans during the Vietnam War. Captain Brestel was performing flak suppression for other attack aircraft during a raid on the Thai Nguyen Steel Mill, at the time the most heavily defended target in North Vietnam. When MiGs attacked other American planes, Brestel first helped chase some from the tails, and after several minutes he and another pilot found themselves in position to get behind four others. Brestel shot down one with his 20mm cannon and in short order shot down a second. This was no small feat for an F-



105D, a large plane better known for dropping bombs than for winning dogfights. The Pacific Coast Air Museum has in its collection an F-105F, a larger two-seat version of the F-105D flown by Brestel. This aircraft is on loan from the National Naval Aviation Museum at Pensacola, Florida. 😒



#### **PCAM Education Program**

Continued from page 1

The scouts split into 3 groups and rotated between visiting the Charles M. Schulz-Sonoma County Airport FAA control tower, touring PCAM open cockpit aircraft, 'flying' 20 minutes each in the 3-D flight simulator under the supervision of Caitlyn Jurin, and really flying on a 30 minute flight out to the coast with an FAAlicensed volunteer pilot.

Many thanks to the PCAM Crew Chiefs for the open cockpit sessions: Jim Mattison, Connie Reyerse, Duane Coppock, Paul Doto, and Don Thoman. And to volunteer pilots Art Hayssen with the Cessna 182, Paul Heck with the Piper Comanche and Kevin Quirk with the RV. Also thank you to Caitlyn Jurin for the flight simulator, Kevin Quirk for speaking to the class and Michael Joyce from the PCAM Flight Wing for leading the visits to the FAA control tower. If you volunteered and were not mentioned, please let Art know!

Upon completion of the classroom work and the full rotation of activities, each scout was signed off and received their "First Flight" certificate and earned their Boy Scout Merit Badge in Aviation.

Earlier in January, Nancy and Rob Heath led a group of 9 scouts from Windsor. Their session was classroom work, close examination of a Bonanza A-36, control surfaces, control panel, and instruments. After lunch, they split into two groups and toured the FAA control tower, which was the last event of the day.

#### Information & Registration

Advance reservations are required. Merit Badge classes often fill up, so please register well in advance. Upcoming dates are May 20 and October 7, 2017. Tuition is \$70/student.

#### More Info on the PCAM website:

http://pacificcoastairmuseum.org/discover/educationalprograms/boy-scout-merit-badge-class/

#### Questions? Call or email:

Art Hayssen, PCAM Education Chair, at 707-321-2040 or email him <u>art@hayseenaviation.com</u>. Or, contact Lee Ann Sacchi, PCAM Office Administrator, 707-575-7900 or email <u>Admin@PacificCoastAirMuseum.org</u>

# Aviation Summer School: Two Sessions Scheduled for June, 2017

The Pacific Coast Air Museum provides unique educational experiences for 8th to 12th grade students exploring aviation. Both sessions of our Aviation Summer School courses teach the basics of flight and meet several of the California State Standards in Social Studies, Science, and Math.

Two 10-hour aviation courses are offered. Each syllabus provides five days of exciting classroom aviation activities.

- Several guest speakers on specific subjects
- A tour of the Pacific Coast Air Museum
- Flying our 3-D flight simulator
- Sitting in the cockpit of a Mach-2 aircraft
- A local flight with an FAA licensed pilot

#### <u>Session 1: Aviation 101</u> June 5-9, Monday through Friday 10:00 a.m. – 12:00 p.m.

Syllabus:

- Physics of Flight
- History of Flight
- Aircraft Powerplants
- Hypoxia
- Spatial Orientation
- Aircraft Safety

# Session 2: Aviation 102 June 12-16, Monday through Friday, 10:00 a.m. – 12:00 p.m.

Syllabus:

- Navigation
- Flight Planning
- Weight and Balance
- Aviation Careers

Concluded on next page



Continued from previous page

#### Information & Registration

Students may take one or both courses. Taking both courses includes two flights.

Enrollment is limited, so **advance reservations are** required.

Tuition is \$165/student/course (or \$320 per student if you sign up for both courses).

#### More Info on the PCAM website:

http://pacificcoastairmuseum.org/discover/educationalprograms/aviation-summer-school/

#### Questions? Call or email:

Art Hayssen, PCAM Education Chair, at 707-321-2040 or email him <u>art@hayseenaviation.com</u>. Or contact Lee Ann Sacchi, PCAM Office Administrator, 707-575-7900 or email <u>Admin@PacificCoastAirMuseum.org</u>. •

# **Gift Shop March News**

#### **Member Discount**

The staff of the Pacific Coast Air Museum Gift Shop would like to remind all Museum members that they get a 10% discount on all regularly priced merchandise year-round. So whenever you need a gift for that special aviation buff in your life, or maybe a cool PCAM jacket for yourself, remember that you get a special deal! 🗘



# 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 Doug Clay, PCAM Development Chair, 925-997-2774 or <u>dougclay@gmail.com</u>.





# 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

Wednesday, Thursday, Friday, Saturday and Sunday. 10:00 a.m. - 4:00 p.m. Closed on major holidays.

#### **Open Cockpit Weekends**

One or more aircraft are open for close examination the third weekend of each month (weather permitting) and you can even climb aboard some of them! For more info phone 707-575-7900 or visit www.pacificcoastairmuseum.org.

#### **Member Meetings**

Normally held on the third Wednesday of each month, 7:00 p.m. at Columbia Distributing, 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: pcamnews@loughlinmarketing.com, 707-575-7900.

#### **Membership Renewals**

\$50 per year individual; \$100 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 guarterly newsletter of the Charles M. Schulz-Sonoma County Airport: http://www.sonomacountyairport.org/red-baron-flyer

## **Board of Directors**

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•					
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(Saturo	lay - Thursday)				
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Website Administrator Peter Loughlin 707-704-6498

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

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March 2017

**STRAIGHT SCOOP** 



March 2017

#### **REMEMBER THESE DATES**

March 15, 2017	7:00 p.m 9:00 p.m.	PCAM Member Meeting at Columbia Distributing
March 18-19, 2017	10:00 a.m 4:00 p.m.	Open Cockpit Weekend
April 6, 2017	11:30 a.m 1:30 p.m.	Hot Dog Thursday: First of the Season!
April 15-16, 2017	10:00 a.m 4:00 p.m.	Open Cockpit Weekend
April 19, 2017	7:00 p.m 9:00 p.m.	PCAM Member Meeting at Columbia Distributing
May 4, 2017	11:30 a.m 1:30 p.m.	Hot Dog Thursday
May 17, 2017	7:00 p.m 9:00 p.m.	PCAM Member Meeting at Columbia Distributing
May 20-21, 2017	10:00 a.m 4:00 p.m.	Open Cockpit Weekend
May 20, 2017	9:00 a.m 3:30 p.m.	Boy Scout Merit Badge Class
May 20, 2017	10:00 a.m 4:00 p.m.	Flight Wing "Fly Day": Watch for more information!
June 1, 2017	11:30 a.m 1:30 p.m.	Hot Dog Thursday
June 17-18, 2017	10:00 a.m 4:00 p.m.	Open Cockpit Weekend
July 15, 2017	9:00 a.m 4:00 p.m.	Annual PCAM Car Show: Watch for more information!

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