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**2018**

## **EVENT SCHEDULE**

### **Triple Tree**

September 5-9  
South Carolina

### **West Coast Swift Natl.**

September 27-30  
Jackson, CA

### **Red River Swift Wing**

October 5-6  
Mt. Pleasant, TX

### **Southern Swift Air Group & Southern Navion Air Group**

Oct. 5-7  
Georgetown, SC (KGGE)  
(See attachment/insert for details)

# *Swift Museum Foundation, Inc.*



**Volume XLIX Issue #9**

**August 2018**

## **Executive Director Report by Scott Anderson**

August has been a month for member generosity and great things for Swift.

Longtime member Tom Numelin joined our organization back in the 70's shortly after Charlie Nelson started the International Swift Association. He has been the caretaker of his beautiful original Swift N80671 for over 45 years.

Tom contacted me wanting to make the donation of N80671 to the Swift Museum Foundation! We worked out the details and Mark Holliday agreed to make the trip to California to pick up the airplane and bring it back to Headquarters.

Everything fell into place with Mark safely arriving in Athens after a long trip of dealing with smoke from the fires out west and not much help in the way of tailwinds. He reports that the airplane is in great shape and felt safe and comfortable



during his journey. It will be up to the Board of Directors to decide what will be done with the aircraft once the aircraft registration is processed and Swift Museum Foundation, Inc. becomes the official owner.

We cannot thank Tom enough for his most generous donation. He is the kind of person that has helped to make the Swift Museum Foundation into what it is today. We also are very grateful to Mark Holliday for jumping in and getting the airplane moved so quickly.

Another member, Robert Zambelli, has made a donation of Swift parts to us. Robert has donated a center section and various other airframe parts. Swift member Norm Fox, from Maryville TN, had driven from coast to coast earlier this year picking up two donated airframes and wings. Norm also answered the call to make the trip to South Carolina to pick up this donation for us.

Remember, the Swift Museum Foundation relies on donations like these to exist and continue to support your Swifts.

Keep us in mind when you have good used parts that you don't need or when you might want to consider donating your aircraft. Our **501(c)3 Tax Exempt** status allows us to provide you with a donation receipt letter for use when filing your taxes.

Many thanks again to all who contribute so generously to the Swift Museum Foundation!

**SMF Committees****Executive**

Paul Barnett  
Paul Mercandetti  
Sam Swift  
Scott Anderson

**Nominating**

Paul Barnett  
Pick Freeman  
Scott Anderson

**Audit**

Paul Barnett  
Paul Mercandetti  
Sam Swift

**Finance**

Sam Swift  
Paul Barnett  
Scott Anderson

**Fund Raising**

Jim "Frog" Jones

**Newsletter**

Pamela Nunley

**Nat'l Convention/Fly-in**

Paul Mercandetti  
Sandy Mercandetti  
Scott Anderson

**Parts**

Steve Wilson  
Ken Coughlin  
Steve Roth

**Formation**

Michael Kennedy  
Sandy Mercandetti

**Building**

Roger Weber  
Scott Anderson  
Paul Barnett

**IT/Web**

Tracy Rhodes  
Jim Jones

**Aging Aircraft**

Steve Wilson  
Ken Coughlin  
Dave Carpenter

**The Chairman's Comments by Paul Barnett**

Given that we are simply unable to stop the hands of time, I would like to take this opportunity to express my gratitude to my Swift Family for making the wonderful world of Swift enjoyable to all with whom we encounter.

By definition, a Swifter need not be a caretaker of an aircraft; yet he or she must care about the historical significance of our beloved aircraft and make every effort to preserve it's integrity for present and future generations.

I invite each and every Swifter over the next 30 days to take the time to introduce at least one person unfamiliar with our beloved aircraft to the wonderful world of Swift.

Today's world affords people young and old with entirely too many wrong-turn opportunities; one cannot go wrong when he or she turns right to Swift.

Flying season is upon us, please invite others into our organization, share the monthly newsletter with them, allow them to take a sneak peak into what Swift is all about....let's open those hangar doors and invite others in. Keep in mind, Annual Membership Dues are less than Dinner for Two; continued membership growth and charitable givings are essential to preserving our heritage for future generations.

I respectfully and kindly serve as your Chairman in hopes of continuing to build upon the foundation that has been prepared by others who equally love and cherish The Swift, please feel free to call upon me at anytime, I may be contacted by phone at 601-835-7520 or email [pbarnett@pbnissan.com](mailto:pbarnett@pbnissan.com).

**Parts Department News by Scott Anderson**

**We have now placed the order for the 2302-1 and 2302-2 landing gear actuator arms and cranks.**

Several members stepped up during Swift National 2018 and on good faith paid in advance to help acquire the funds to place this order. Those orders will be filled first and the remaining parts will be in our inventory for sale to the membership.

Your belief in your parts committee and Board of Directors is being rewarded with the actual order of the parts. It will take some time to have these parts in our hands as the FAA paperwork and tooling will have to be completed.

We have also ordered new blank instrument panels, both flat and original styles. We hope to have all these items on hand before the end of the year. Your Board of Directors elected to use the majority of the profits from the 2018 raffle in order to move ahead with getting these parts made.

Thanks to your parts committee of Steve Wilson and Ken Coughlin for their hard work in making this possible. To the members who pre-ordered these parts and everyone who participated in the raffle, **you made this possible and we thank you all very much!**

## President's Comments by

The Oshkosh arrival on Sunday was very interesting this year to say the least, three days of bad weather with low ceilings created arrival delays. These delayed arrivals compressed into one day saturated the Ripon/Fisk arrival. On approaching Ripon we tuned the ATIS and Fisk arrival frequencies. (Note photo below) The area was extremely heavy in traffic and they were



turning arrivals back to hold at Rush Lake and Green Lake. We elected to pick a spot about 10 miles south of Ripon and hold. He did ovals for about 1 ½ hours, then chose to divert to Dodge County for additional fuel and wait out the traffic. While at Dodge County a SIAI Marchetti F-260 also came in for fuel, the former owner was Harry Shepard, long time Swift supporter. After about another 1 ½ hours of fueling, waiting and listening to Fisk arrival on our phone via ATC web link, we launched and headed toward Ripon once again, listened to arrival- got in line behind a C-170-had good spacing at 105 MPH, 1800 feet. Approaching Fisk the C-170 elected to start slowing down, we were closing on him, noticed he had his flaps down, we were now indicating 80 MPH. Fisk Control then notified everyone to make a left turn at Fisk and go back down to Green Lake for holding until further notice, landings at KOSH had been suspended.

We started our left turn, looking to our left a Cherokee 140 or 180, had moved into our 8 o'clock position, same altitude, the canopy and windscreen was full of Piper. I immediately pushed stick forward to avoid mid-air. I later asked J. P. Roberts, (A flight Instructor and Airline Captain how close he thought we were, he said 25 feet I thought 100 feet. Having experience in formation flying and being close to other airplanes had taught me to react rather than think. We decided to it was time for another plan. We proceeded to Green Lake climbed to 2300 feet, 135 knots and returned to Fisk. On arriving Fisk we looked down and saw a conga line of airplanes at 1800. The best words we heard next were, Silver taildragger turn right now for base entry for runway 36 left. The biggest takeaway ways, delay arrival until the traffic is reduced; Super Swifts use the 2300 feet 135 knot arrival. And remember all pilots do not follow the published arrival procedures, be aware and keep your head outside the cockpit.

A very special thank you to Steve and Barb Wilson for coordinating the Swift parking and Swift dinner at Primos', there about 40 Swifter's in attendance. There were about 15 Swifts in Vintage Parking on Rows 82 and 83. Those parked on Swift Rows were the following, Another special thank you to Stan Price for arranging for the Swift Table in the Vintage Type Club Building and getting the volunteers to man the table at various times and days during the week. The Swift Forum was held in the Vintage Type Club at 10:00Am on Tuesday morning, Dave Carpenter and Bo Mabry once again did an excellent job on presenting and discussing various maintenance issues or concerns. There appeared to be about 70-90 people in attendance.

The Swifter's attending Oshkosh via Swift are the following; Steve & Barb Wilson, Stan Price, Alan & Janet Dicker, Steve Roth, Dave Carpenter, Jim "Frog" Jones & J. P. Roberts, Blake Uhl & Suzzane, Eric Bulger, Ron Sipple, Mark Holliday & Marilyn Taylor, Jim Roberts, Jerry Cohen, Sandy Mercandetti, Greg Langman, Rubon Crayon, Jerry & Holly Bauerle, Klaus Plasa. Those attending via other methods of transportation; Paul Mercandetti with two grandsons, C-182), Will (Buddy) Kientz & Jessica Vanderzwaag, Luscombe(Sarge), Jerry Kirby and Don Abbot diverted to Fond du Lac and parked their Swifts, Thomas White, gave up in Iowa and parked his Swift, Bill Shepherd other than Swift, Johnny Johnson T-6, Paul Barnett T-6, Wade & Terry Gillaspie, Cessna 195, Dana Gibbs, diverted to Appleton.

## Board of Directors

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### Founded by

**Charles E. "Charlie" Nelson**  
1968



Those driving to Oshkosh were Jeff & Donna Smith (NC), Richard & Wendy Kaczmarek (GA), Pat & Vickie Moore (MN), and Bo & Gloria Mabry (SC). Many former Swift owners stopped by Swift row and said how much they miss having a Swift and many others stopped and said they are looking for the right Swift to purchase.

A considerable amount of time was spent visiting with the vendors who have donated product for the fundraising events held at Swift National for the past several years, thanking them for their donations and presenting them with a "Thank You Gift". This year's gift was the Chuck Mosely prints which were matted, of a Stock Swift and Super Swift. The vendors were very appreciative of the way the Swift Museum Foundation shows thanks for their support and will continue to support our fundraising efforts in the future. Will (Buddy Kientz was along for a couple of days making the deliveries, saying thank you and being introduced to the vendors. It appears he may have interest in keeping this going for the next several years.

Three members of the Swift community were recognized with awards this year. Lynn Dawson's **1956 Cessna C-172 won "Best Contemporary"**, C-170/C-172/C-175/C-177 Award. Mark Holliday's **Swift N3860K was awarded the "Best Swift Award"**. Jim Jones **Swift N3824K was recognized as the "Classic Aircraft Lindy Award Outstanding Custom Classic Class C"** (151 -235HP). I have been blessed to have been the caretaker of this Swift for over 44 years. Jim Roberts beautifully polished Swift was in the running for the running for probably the same award and I am sure it was not an easy decision for them to choose the winner.

The Swift Museum Foundation was represented in the Type Club Coalition by Bo Mabry and Jim "Frog" Jones. This group has been meeting at Oshkosh for the past 5 years and discuss various ways type clubs are addressing safety concerns and issues among its members. The SMF has shared the benefit of the Swift Initial/Recurrent Pilot Training Handbook. The group also emphasizes the addition of non-certified electronics and auto pilots for classic aircraft.



Jjim Jones' Swift N3824K



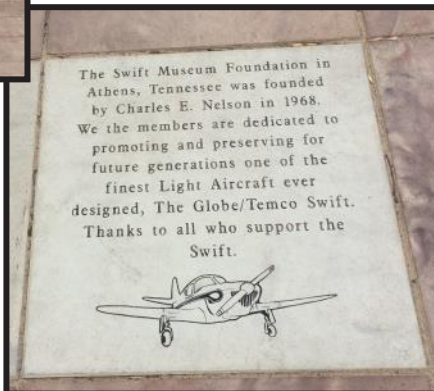
Mark Holliday's Swift N3860K



As mentioned in the last newsletter, the SMF Brown Arch Brick is now installed. We are very fortunate to have such a prominent location. All Swift members past, present and future can be proud of this recognition for The World of the Swift!



Jim "Frog" Jones with "two of the nicest young men I have met in a long time!"  
Paul & Sandy Mercandetti's Grandsons Chris and Max.



Well attended Swift Forum

## Continental fuel injection system calibration and maintenance.

By Bill Ross, Vice President, Product Support, Superior Air Parts  
(Part 2)

*The following is part 2 of an excerpt from Bill Ross' new book Engine Management 101. Published by Superior Air Parts, Inc., Engine Management 101 is a compilation of what Bill Ross has learned during his 35-plus years of experience as a pilot, aircraft owner, piston aircraft engine industry leader and FAA A&P and IA.*

### The calibration conundrum.

Not surprisingly, I have had many people argue with me on whether fuel system calibration really needs to be done. These people believe that if the gauge in the panel reads the correct fuel flow on takeoff, the system is good to go!

While this thinking may seem correct, in reality it could not be farther from the truth. (The ironic thing about these pilots is that there's a good chance their engines routinely exhibit stumbling problems, chronic cylinder issues and reduced performance. However, their pride will not allow them to listen to the facts.)

I actually had a doctor argue with me about whether or not he should have the fuel system calibrated. He kept stating that if the fuel system reads correctly on the flow gauge, it should be OK. I suggested that he let me assist with diagnosis of some of his patients, after all, I did complete two semesters of anatomy and physiology in college.

Anyway, I made believer out of him after he allowed me to check his aircraft fuel injection system. After adjusting it in accordance with Continental's recommendations, the engine came back to life.

It ran smoother, cooler and produced more power than ever before. We agreed he would stick to medicine and I will stick to aircraft piston engines. In the interest of safety, please do not be one of these kinds of owners. Follow manufacturer's recommendations!

### This is how it's supposed to be done.

Your mechanic does not require an elaborate piece of equipment like that depicted below to do a fuel system calibration. The Port A Test unit shown can cost anywhere from \$4,000 to \$5,000. Many quality shops have these types of units, but they are not required.

To perform a calibration, the mechanic simply needs two calibrated gauges as shown in the picture. Tools like this are available from most industrial or instrumentation suppliers. With the addition of a few fittings and hoses your mechanic is prepared to calibrate your fuel system correctly.

One gauge range is 0 to 60 in one (1) PSI increments and used to measure unmetered pump pressure. The second gauge range is 0 to 30 in 0.2 PSI increments and is used to measure metered pressure.

If you have a turbocharged engine, the second gauge should be a differential type so the mechanic can reference compressor discharge outlet pressure as well. This pressure is often referred to as "upper deck." In the turbocharged engine, the reference is not to outside pressure but rather the boosted pressure before the throttle plate (upper deck pressure).

Each of the gauges mentioned should be calibrated by a qualified laboratory prior to use and should be checked periodically in order to ensure their accuracy when setting the fuel system performance.

With regards to troubleshooting, I often have owners call in and report their engine "dies on rollout." I ask about fuel system set up and they reply, "Oh, that's not it." Or, "We did that." In reality they don't have a clue about what I am talking about. They will tell me all about how their fuel-flow is "in the green" or at the "specified amount."

I get the same feedback from uniformed mechanics that have no idea how to calibrate the fuel system or the importance of said calibration to the operational longevity of the engine.

Funny thing is, if they read the Service Information Letter, they would know that fuel flow is not a target, it is pressure. Anyway, there are four things we need to check and set during calibration:

**WARNING!** No adjustments to the fuel system should be made with the engine running!

1) Unmetered Fuel Pump Pressure.

This adjustment is made at the specified idle RPM and is the output of the fuel pump only (unmetered pressure). Therefore, the unmetered gauge is connected directly to the fuel pump for reading. The setscrew located on the back of the fuel pump is used to adjust the flow.

2) Metered Fuel Pressure or Nozzle Pressure.

This adjustment is made after a series of full power runs. The target number is the full power metered pressure specification. The gauge is connected at the manifold valve, which is downstream from the throttle and control or metering unit. It is adjusted by turning the 5/32 Allen screw on the side of the pump, which is the adjustable orifice.

3) Idle Speed.

This adjustment is made at the idle stop and controls the amount the throttle valve will open when it is set at the idle RPM specified by the manufacturer.

4) Idle Mixture Rise.

This adjustment is made at the fuel control or metering unit depending on model of engine. We adjust this in order to obtain a 25 to 50 RPM mixture rise at idle. This means that when idle cut off is selected, the engine should automatically increase from 25 to 50 RPM. This allows for a slightly rich condition at idle and prevents stumbling of the engine during abrupt throttle movements at low power.

The entire fuel system must be set as a whole and not just the top end flow. I cannot stress the importance of having this completed by a competent mechanic that has the proper training, tools and calibrated instrumentation to complete the task.

**Truth is, panel gauges can lie.**

The reason we do not want to use the aircraft's fuel flow gauge for setting the fuel system is because part of the check is to verify accuracy of the aircraft instrumentation. There are many of you out there that are saying to yourself, "I have the most expensive engine monitoring system that money can buy and it was just calibrated by NASA engineering."

Please do not fall into that trap. I have seen many of the most sophisticated of engine monitors read inaccurately more times than I care to count. Obviously, this can be a real problem when it comes to fuel system calibration. If you are not cross checking accuracy, you are wasting time and money.

During fuel system calibration your mechanic should use a calibrated strobe tachometer to verify actual engine RPM. In fact, we were recently performing a fuel system calibration on a Beechcraft Bonanza and we found that the aircraft's tachometer was reading in error by nearly 150 RPM. It doesn't take a Master Mechanic to know that this error can be a real problem when calibrating the fuel system.

The good news is that fuel system calibration is relatively inexpensive. The average time required to complete fuel system calibration is around four hours. Now, that is for an aircraft that does not already have the cowling off for some scheduled maintenance.

When it's done in conjunction with an annual inspection, calibration should add no more than three hours to your bill. Believe me folks, it is cheap insurance against cylinder issues, lack of performance and, best of all, it helps improve safety. Do not ever let some wizard on the Internet or website chat forum tell you it is not required.

**Seeing is believing.**

Years ago, I was part of an annual Beechcraft owner's meeting and the participation varied from 100 to 200 owners and their aircraft. We would put on seminars and discuss ways to maintain and operate their engines effectively. One subject was always fuel system calibration.

One year, I decided we would pick six aircraft at random and check the fuel system calibration. My thought was this test was either going to prove my point that mechanics don't properly calibrate the fuel systems or it was going to prove that I was wrong and I would forever quit bitching about the importance of fuel system calibration. Either way it was a win for the attendees.



Not surprisingly, all aircraft selected were outside specified parameters and many were problematic with rough idle, quitting on rollout, lack of engine performance and so on.

Needless to say, I was somewhat relieved that I did not make an ass of myself. But at the same time, troubled by the fact that so many owners were not giving their engines the proper maintenance.

Many of the owners whose aircraft were select commented on how well the engine ran after our technicians properly adjusted the system. Pilots reported everything from no more stumbling, to engines running cooler, aircraft climbing better, smoother engine operations – all the way to their engines even having “more power.”

Eureka! My point was driven home and now at least those attendees believe when they hear me preach about the importance of fuel system calibration. One small step for this man...

In summary, if you fly an aircraft equipped with a Continental Fuel Injected engine, make sure your maintenance provider is familiar with fuel system calibration. It's as simple as asking three questions:

- 1) Did you set the fuel system in accordance with Continental instructions?
- 2) Were my unmetered pressure and metered pressure within specifications at annual?
- 3) Do you have the correct gauges for setting up the fuel system?

If you get funny looks or non-confirmatory responses to any of these questions, chances are your current mechanic will end up costing you a lot of money in the long run.

#### **How to get your free digital copy of Engine Management 101 by Bill Ross.**

Any aircraft owner or pilot who would like to learn how to operate their aircraft's engine for greater efficiency and longer life can request a free digital copy of Bill's 144-page book, Engine Management 101, by sending an email to: [EngineManagement101@SuperiorAirParts.com](mailto:EngineManagement101@SuperiorAirParts.com)

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#### **Torque knee bolts in S-144, S-144A and S-144B kits by Ken Coughlin**

Torque knee bolts in each listed seal kit may need to be changed over what is provided in the kit. The upper knee AN 24-36 clevis bolt may require the AN960-416 washers to be deleted. In some Swifts, the bolt length is too short to allow the cotter pins use even if the washers are omitted and the AN4-320-4 nut is substituted for the intended AN4-310-4 nut. It may require an AN24-37 or even -38 to offer enough length.

The lower bolt, AN4-27 will be short if your "bird" is equipped with any type P-51 style gear door. These doors use the lower knee attach bolt to secure the single or double door pull bracket which is anywhere from .040 to .090 thick. If your bird does have these doors, you will require AN4-30 bolts even though the kits provide only the standard AN4-27 lower bolts. At the moment, Swift Parts can only provide the AN4-30 and/or AN24-38 bolt at extra cost.

Be sure after installing either or both of these longer bolts that a power off (by hand only) retraction test is conducted to be sure that these new longer bolts still clear all retraction components between gear up and rear down. It may be necessary to trim the nut end of these longer bolts to provide the necessary clearances. Once the hand operation confirms such clearances are adequate, do a power-on test. Good luck.

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#### **Red River Swift Wing Fall Gathering**

The RRSW Fall Gathering at Mount Pleasant Regional Airport (KOSA) will be here before we know it. Be sure to mark your calendar for Friday, Oct. 5 – Saturday, Oct. 6 with early arrivals on Thursday, Oct. 4. We have several activities and events lined up for those interested. A special treat will be a tour of the Mid America Flight Museum owned by Scott Glover. He truly has a remarkable collection of vintage aircraft and it is steadily growing.

Please send in your [pre-registration form](#) for planning purposes and make your reservation at the [Hampton Inn & Suites in Mt. Pleasant](#) for the group discounted rate. Rates are \$79 for a double queen or king standard or \$89 for a king studio suite. Once you have selected your arrival and departure dates, click on "Add Special Rate Codes" and enter "RRW" under the Group Code. If you would like to call the hotel directly just mention the Red River Swift Wing. We look forward to seeing everyone!

*Larry & Brenda LaForce*



**In Memory — Richard “Dick” Collins**

**We are saddened to report the passing of long time Swift owner, member, SMF supporter and most of all friend. Dick Collins of Portola Valley, California.**

**Dick and Jeanie were a huge part of the heart of Swift and will be greatly missed by all of us.**

**We will be honoring Dick and his remarkable life in aviation and the Swift in our next issue.**