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2016 EVENT SCHEDULE

Fund Raising Raffle Tickets Now Available!

> Sun-N-Fun Lakeland, FL April 5-10

Swift World Domination II: A World Takeover June 12

Swift National 2016 Athens, TN (MMI) Come Celebrate The Swift's 70th Birthday!! June 8—12

AirVenture 2016 Oshkosh, WI July 25–31

Triple Tree South Carolina Sept 7-11

Reno Air Races Sept. 14-18

Swift Museum Foundation, Inc.



March 2016

Volume XLVIII Issue #4

Chairman's Comments by Will Roberson

We are full speed ahead on the raffle to support the Swift Museum Foundation. This is a very important raffle for us and we are asking for your immediate help! Please take the flyer in last month's newsletter or the one in this month's and spread it around to friends, businesses, associates etc. There is something in it for all....either the \$30,000 Credit towards a Continental or Lycoming engine, \$20,000 Cash or the 2nd prize of a Garmin 796 and 3rd prize of a Stratus 2S. We need you to sell tickets and time is of the essence. It is a bargain at \$100 a ticket because of the value of the prizes AND the fact that only 999 tickets will be sold. We are on a short fuse because the drawing date is Saturday June 11th.! Please help. Get tickets from Pam or have the people contact her at HQ. C'mon Swifters....we can do this!!!

Volunteerism: We have talked about this before and you all know that it is the lifeblood of a non-profit organization such as ours and we are only as good as our members want us to be. A recent example is retrieving the Lo Presti cockpit mock up and the Swift jigs from Sebastian, Florida where some of our stalwart members got the job done for us. Bud Brown, Jim Jones, Dave Carpenter and Steve Roth completed these two trips that went from Georgia to Florida to Georgia and on to HQ in Tennessee. Add all of this up and it is over 6000 miles and several days of time spent plus



they funded their own expenses throughout. Well done gents!

On the receiving end was Scott Anderson, who has become an expert on the fork lift and Paul Mercandetti, both who never tire in volunteering to get things done. Mark Holliday is well into the planning and execution of the museum layout and it is coming along beautifully. More items will be added before Swift National in June and I am positive you will be very pleased with the progress. All of the museum aircraft have been moved except one and they are beautiful in the new setting. Add to these efforts those who came to HQ for the work session with Jim Jones...Bill and Buddy Kientz flew in from St. Louis, Pick Freeman came from South Carolina, Frog Jones and Bryce Ulmer from Georgia and Scott Anderson and Paul Mercandetti from Tennessee. Pam has the entry way and office looking sharp and very professional with the beautiful Globe Factory Brick display case built by Bryce Ulmer the centerpiece. By the way....we do need to keep filling the shelves with these member's bricks. So if you haven't purchased one...**please do so soon**. We would like to have this nearly done by Swift National. (See photo page 3)

The bottom line is we are making progress daily....but....we do need your help and though we realize it is not possible for many to journey to Athens...however....you can all help through donations, selling raffle tickets and supporting Swift gatherings throughout the year. Thank you all, wherever you are for you assistance and support. WE ARE BETTER TOGETHER AND THE SWIFT SPIRIT IS ALIVE AND WELL!! WFR

SMF Committees

Executive Will Roberson **Pickens Freeman** Sam Swift Dave Carpenter Pamela Nunley

Nominating

Will Roberson William Kientz Pamela Nunley

Audit

Will Roberson Pickens Freeman Sam Swift

Finance

Sam Swift Will Roberson Ernie Hansen Pamela Nunley

Fund Raising

Jim "Frog" Jones Gerry Hampton Ernie Hansen

Newsletter Steve Whittenberger

Pamela Nunley

Nat'l Convention/Fly-in

Paul Mercandetti Sandy Mercandetti Pamela Nunley

Parts

Dave Carpenter Asa "Bud" Brown Ernie Hansen Bo Mabry

Formation

Michael Kennedy Sandy Mercandetti

Building

Pick Freeman Scott Anderson Pamela Nunley Roger Weber Paul Barnett

IT/Web

Tracy Rhodes **Rocky Rutter**

Aging Aircraft Steve Wilson Ken Coughlin

President Comments by Jim "Frog" Jones

I want to thank everyone who showed up at our first work session to prepare our museum Swifts and to start emptying out the downtown storage facility (savings will be \sim \$300 per month/\$3600. per year). All of this is to get ready for Swift National in June. Paul Mercandetti,

Scott Anderson, Bill and Buddy Kientz, Pick Freeman, Bryce Ulmer and I had a rousing good time despite the bitter cold of 17 degrees. Although we were working mainly inside...that is a bit of a misnomer. That old warehouse is like a tomb....dark, dirty and frankly a mess of old Swift jigs, formers etc. The only advantage in working inside the warehouse was that we didn't have any wind. We got a lot done and there is more to do but we made progress. What keeps you going is the incentive of how great our new museum facility is...it will be undoubtedly one of the finest type club museums in the country. I hope all of you make the journey to Hg in Athens to see it...I'm sure

Scott, Bryce & Paul — Thanks to everyone!

you will be pleased. We have a lot to do before Swift National and we will schedule a few more work sessions. Please join in if you can...it is fun to see how much we can get done together. We'll let you know when the next one is. Also, if you have any artifacts or interesting pictures please send them to Pam and we will make a display for them. This is a work in progress and we probably won't have every-thing done by June but we view it as a living museum that will continue to grow in the depth of Swift information available. One more thing.... Please help us sell the raffle tickets!

Executive Director Comments by Pam Nunley

Raffle ticket sales are off and running and we still need your help! We have **999** tickets to sell and, due to State of Tennessee requirements, a short time in which to complete the task. Please contact us here at HQ's to purchase tickets by phone, email or mail. All contact information is on page one of this newsletter.

We are in need of volunteers willing to check-out and sell tickets in your area. If you are willing to support SMF in this way, please call and request the number of tickets you would like to check out. All tickets must be returned (sold & unsold) to Headquarters not later than lune 8th. This is a good way to bring in support from all aviators and the general public as well. Even if you don't want or need and engine.... \$20,000. is a good fit for anyone!

Museum Progress: Many thanks for all the volunteer efforts we have to date. We have another important project and that is to hang Swift serial #3 in the Museum and we will need some help on this important project. #3 needs to be cleaned up and prepared for hanging. Cleaning, re-assembling and putting a finish on it are the main tasks. As with so many other projects here, Scott Anderson has volunteered to help with this project as well but he will definitely need some help. If you are willing to help out please contact us here at HQ's to coordinate. Please help in any way you can!

The good news is that Swifter Chuck Mosely with assist from Ray Brown has volunteered to hang it for us. They are professional aircraft movers, hangers and mounters that have hung aircraft as large as a B-17 and B-25 in the National WW II War Museum in New Orleans and other key places around the country. They are standing by to hang #3...-..so please help in getting it ready for display.



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Swift Museum Foundation, Inc. — Facebook Page. The fb page is being set up for us by Steve Roth and is initially on line now at *Swift Museum Foundation, Inc.* For those of you who are Facebook savvy give it a try. Steve has prepared full detailed instructions for those of you not familiar with Facebook and we will bring that to you next month.

Sun 'n Fun ...April 4-10 is just around the corner. This will be important because we need this venue and its large crowds so we can sell raffle tickets. As you know this is also Swift's 70th and a good attendance would be a great tribute to Swift. Perry Sisson has arranged great Swift parking right behind the past Grand Champions. Volunteers will also sell raffle tickets at the type tent and on the flight line by the Swifts. We need your help for this and we are counting on you. This is a great way to visit and fellowship and support Swift at the same time! Please contact Perry by March 31st if possible to help him with a head count, dinner arrangements and work schedules for the tents.

Contact Perry Sisson at diamond2055@aol.com or 239-340-0547

"World Domination II: A Swift Takeover" The date of this event is June 12, 2016. The object will be to see how many Swifts we can get airborne in a single 24 hour period... regardless of location or duration of flight. It doesn't matter where you are located or what time you fly. Just go fly your Swift on that day and report it to Perry Sisson.

In 2012 during "World Domination; the Day of the Swift", we had 101 Swift's fly in 4 different countries, 32 were in the air at the exact same time and 136.2 hours of flying time were logged on that single day. For more information contact Perry for this one also.

Clarion County, PA Airshow and Fly-In – Friday and Saturday August 12 – 13. They would love to have some Swifts and if you can make it they offer a very generous reward for your attendance. They would like you offer rides to some VIPs and fly a little formation at the show... and for that they will provide I free hotel room per Swift....Transportation to and from the Hotel...Free fuel per official flight...Free fuel top off before you depart. This is a great deal ...please see if you can work it into your summer plans. Donald Cumpston is your contact at <u>don@clarionairport.com</u>. For more information go to http://www. clarionairport.com/open-house.

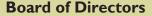
At Right: Globe Factory Brick Cabinet designed and crafted by our own Bryce Ulmer of Locust Grove, GA.

We are in the process of cleaning and placing all the bricks in this beautiful display. At this point we have about two and one half rows to go. The plaques are being made and will be inset in each brick displaying the donors requested verbiage.

If you have not purchased your brick yet, please give it some thought. You are helping to preserve the history of



Swift while at the same time your memories and contributions are being honored in perpetuity. As you can see, there are a limited number of these original Globe Factory Bricks available.... Don't hesitate. Globe Factory Bricks are \$1000 and may be paid in installments. *PSN*



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Founded by Charles E. "Charlie" Nelson 1968

Oil and Water Really Don't Mix by David Westridge (N78140/Carolina Girl)

Although I enjoyed the challenge of restoring "Carolina Girl" as I reported previously I can unequivocally say that rebuilding the landing gear power pack was not my favorite pastime. However, it can be done... even by a novice such as I....provided you get some good advice along the way as I did...compliments of Ed Lloyd, Dave Carpenter and Ken Coughlin. I also found that the support of Pam and others at HQ was invaluable.

Symptoms: Gear retraction problems, seemingly hydraulic pump problems, pressure of only 325-350 psi and a rapid bleed off of pressure plus some frothy hydraulic fluid. I quickly found that Swift HQ has no power packs in stock so it was readily evident that a rebuild was in order.

Getting Started: I drained the reservoir fluid through a paper filter to determine what was in the sludge and to my amazement I found a lot of gunk and water. The **Commings** manual was my next step and I started the tear down. I worked one side at a time in order to NOT mix the left and right parts, pulled the selector valves in the reservoir body to inspect the steel seal plates (#13 in the manual) and the brass seal plates (#14 in the manual). Bad news...the steel seal plates were deeply pitted from rust but good news...the brass seal plates were fine. After consulting Dave and Ken I determined that the steel plates were junk and started a search for NOS plates. Pam saved the day. She dug around in our parts department and to my surprise called back and said she had located some NOS plates. Lucky me. As soon as I got the plates I started. I buffed the brass plates on newspaper (old Marine Corps trick) as newspaper is about the finest abrasive you can find and I also found that I could buff the steel plates the same way with excellent results. Do not use any abrasive grit...just the dry newspaper that you change frequently as each section becomes smooth.

I removed the pump assembly in the reservoir and cleaned the sludge and pieces of gasket from inside the pump chamber and channels and then washed out the pump with mineral spirits. I then used a moderate amount of air pressure to blow out the solvent and any debris. I did NOT disassemble the pump itself as it looked clean and unworn...(looking in from the bottom you can see the pump gears.)

I removed the relief valve (#8) and pulled out the spring (#7), the check ball (#6) and the relief valve seat (#4) to clean and check the condition. NOTE: I used 0.040 steel safety wire with a very tight "hook" on the end to remove the relief seat. Everything was good so I cleaned the pieces and mounting channel and reassembled the relief valve. After I cleaned the reservoir channels and all the selector valve pieces, I carefully reassembled the selector valves into the reservoir body and filled it with clean hydraulic fluid.

Behind the selector valve steel plates there is a ball check valve (#11) and a spring (#12) that must be pushed into the channel and held down in order to install the steel plate (#13) in its proper position. (Note: there is a collar that extends about 1/32 inch from the back surface of the steel plate into an enlarged hole in the selector mounting seat.) In order to hold the spring down while installing the steel plate, I used a 1/8 inch wooden dowel with a (V) notch cut in the end and inserted through the appropriate hole to depress the spring while I installed the steel plate. (Note: the spring has an "arm" across the top to push it into the channel).

Using #10 wire with a 35 amp fuse and an on/Off switch wired in line, I created a 12 volt power lead to control the pump motor to test the unit. I was now ready to test my work.

I hooked the pump to a fully charged 12 volt source, ground the unit and turned on the pump (remember the book says 10 secos or less). I was crushed! Barely 200 psi and it did not hold pressure.

Back to the work bench. I carefully disassembled the entire power pack again and checked that everything was clean and properly assembled....it was! I carefully checked the selector plates condition and used a digital micrometer to check that the surfaces were square. Everything looked fine. I carefully reassembled the power pack and tried again....200 psi +/- 15 psi. After a day of careful reflection, it dawned on me that the steel plates were "new" and the brass plates had "fitted" themselves into the old plates. Therefore, I concluded while the plates were of uniform thickness, the surfaces were not "mating" to achieve a good seal.

I got out my finest lapping compound (1500 grit)...sealed the back of the steel plates with a single layer of cellophane packing tape to keep trash out of the channels and trimmed it to the edge of the steel plate and I inserted the plate

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into the body of the reservoir. I then removed the "O" ring from the selector body...wrapped a single layer of cellophane tape around the selector valve body, installed the brass selector plate on the end of the valve body... Added a light coat of lapping compound and inserted the valve into the reservoir. The tape was used to keep the selector valve tight in the mounting hole and prevent chafing of the valve body.

I made a wooden dowel handle to fit over the end of the selector valve stem (#16) and carefully lapped the surfaces... checking frequently. I found that my conclusion was correct as the surfaces were lapped. I could see the slight areas where the surfaces were not touching. I continued to lap until both surfaces had even....full...contact as evidenced by the lap marks.

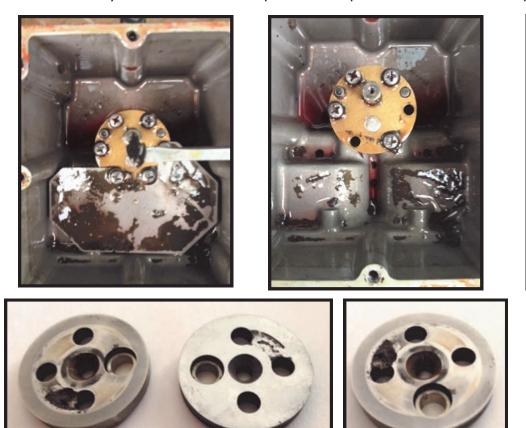
I cleaned the reservoir completely with solvent, used compressed air to make sure all solvent was blown out and the channels were clean and carefully reassembled in the power pack. (Note: At this point I had screwed the relief valve (#8) about $\frac{1}{2}$ way into the reservoir body.)

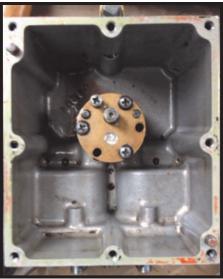
I connected the unit to my power source and hit the switch. Holy smoke!!! It was 550 psi and climbing within 3 sec when I turned it off. I unscrewed the relief valve about to $\frac{1}{4}$ of the way and applied power again. Viola!!! Within 5 sec or less the pump delivered 375 - 400 psi with the pressure holding steady after I turned off the pump. I adjusted the pressure to 424 - 450 psi with the pressure holding steady after I turned off the pump. I let it sit to see how long it held pressure...5 hours later I still had 300 psi on the gage.

Lessons I learned: I. Rebuilding the pump requires patience and attention to every detail. 2. Parts are hard to come by. 3. The Hydraulic Manual is accurate but does not tell you everything you need to know. 4. The rebuild kit has everything you need but the paper gaskets must be adjusted because the fit is not exact. 5. Never under estimate the knowledge and support of the long time Swift network. 6. And of course.....oil and water don't mix and the water will corrode any steel parts in the system.

Tools I made: I. Wooden scraper to remove old gasket (hard oak) **2.** The spring hold down dowel. **3.** The pressure test gage (I got the gage from Northern Tools and used the rubber hose as described in the manual. **4.** The power cord with in fuse/holder and single pole switch. **5.** The wooden handle lapping tool.

I sincerely hope this might be of some value to some of you out there who find it necessary to rebuild your power pack. It is not easy but can be done with patience and perseverance and some expert advice.





Photos submitted by author: David Westridge

Thank you David!

The Globe Beam

As mentioned last month we have received a full set of **Globe Beams** from Scotty Freebairn that are important artifacts from our history. The first issue was August 1942 and the cover was most appropriate in that it featured a man on horseback gazing into a sunny cloud flecked sky at an aircraft flying by....of course the aircraft was a Swift and I suspect the man on horseback represented Mr. Kennedy and his substantial background with horses. To put it in perspective, this issue was the start of a monthly magazine that enjoined all the employees to work as hard and as well as they could to support the war effort. This was only 8 months after Pearl Harbor and our country was in a full out effort to catch up on war production and no effort was too small to be a contributor in the patriotic push. The inside cover was **"A Duty Code for the Man Behind the Man Behind the gun."** There were several duties among them: "My sense of duty to my country will not permit me to shirk the work which I am now called upon to do to protect this country which has given me a better way of life than workers enjoy anywhere else in the world." Also: "I reaffirm my faith in America and dedicate myself to the regular, punctual and dependable performance of my full share of the work required to make my country "the arsenal of democracy, the liberator of oppressed people throughout the world, and the defender of freedom."

Further: "America must win this war. Therefore, I will work, I will save, I will sacrifice, I will endure, I will fight cheerfully and do my utmost, as if the issue of the whole struggle depended on me alone." For those of you old enough to remember there were daily tasks that all contributed to the war effort. Globe aircraft under the guidance of John C. Kennedy was a leader in these efforts. Thus began the **Globe Victory Program** which was the workforce credo that later forged the birth of our beloved Swifts…rugged, reliable and a joy to fly. (Unfortunately this cover is too faded to reproduce for the newsletter but it will be available…along with other copies…at Swift Headquarters. Very interesting reading!

Pop Johnson and the Swift

When Mr. Kennedy realized in 1940 that his Bennett aircraft would not be able to win the Army Air Corps competition for a light twin engine trainer because it had no production background....he... being the aggressive entrepreneur and stubborn Scotsman that he was...almost immediately began looking for another aircraft project. In late 1940 he was approached by R.S. "Pop" Johnson an amateur aircraft builder and aggressive promoter. Pop was building a two place personal airplane in a hangar nearby on Meacham Field and his vision was that he would develop his airplane he called the "Swift" and Bennett Aircraft would put it into production and market it to the world. Mr. Kennedy was impressed by the project and hired Pop Johnson to be his chief designer and factory representative. Thus, the Bennett Aircraft Corp. was reorganized as the Globe Aircraft Corporation in early 1941.

So who was R.S. "Pop" Johnson? Pop originally made his living from 1918 – 1924 as a machinist and metal worker in the Dallas area. He became interested in flying and learned to fly in 1921 which morphed into a strong desire to build his own aircraft. Then in 1923 he bought a derelict Curtiss JN-4 "Jenny" with rotted wood and rebuilt it with 4130 steel tubes in the fuselage and designated his "new" airplane the H-1. Pop continued flying and got his ATP rating and then taught his three sons...Dave, Del and Eddie to fly in the rebuilt Jenny. In 1928, Dave, at the age of 18 also got his ATP and was the youngest ever to win that rating. Del and Eddie also earned their ATP's and all three sons went on to airline work as pilots for American and TWA. (Pop and Dave were also the first father/son combination in the country with ATP ratings). Pop continued in a variety of aviation jobs with several aviation companies in

Colorado Springs, Colorado; Dallas and Houston, Texas; Lock Haven, PA and finally Culver Aircraft of Columbus, OH. While at Culver he worked under their chief designer, Al Mooney. (NOTE: In 1940 the Culver facility moved to Wichita where it got the backing of Walter



Beech for the majority of its production.)

Culver Cadet in the foreground w/ Porter Houston Sr. & his Swift (Photo courtesy of Porter Houston, Jr.)

Page 7

Swift Museum Foundation, Inc.

Thus the stage was set for Pop Johnson to introduce his own aircraft...which he called the Swift. Pop was not a trained engineer but he did have an intuitive feel for aircraft and an eye for design. Although he flew the Culver Cadet many times there were some aspects of it he felt needed improving so he set about designing a similar aircraft which ultimately became the Swift GC-1...s/n I and it was certified by the CAA as NX17688.... The Swift was born!.

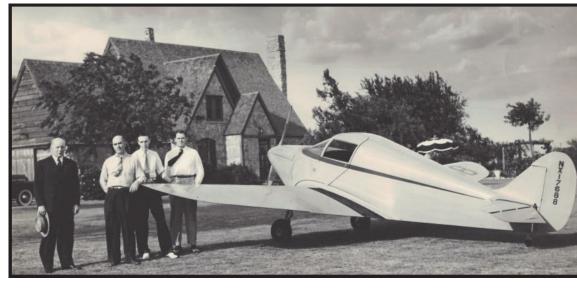


Photo from our archives:

From left: Pop Johnson, John Kennedy, Bud Knox, un-identified person & NX17688 in front of the Kennedy home adjacent to the Globe Factory.

Three D drawings of the Culver Cadet and the Swift GC-I were very similar but one of the most distinctive changes was the shape of the trailing edge of the wing. The Cadet was more of a semi-ellipse while Pop favored a tapered straight line for the trailing edge. Also, Pop built the Swift fuselage using four seamless chrome-molybdenum tubes covered with fabric. He also



changed the landing gear to a manually operated hydraulic pump. The original engine was a Continental A-80 (80hp) driving a Roby controllable pitch propeller. It was advertised to carry two people at a cruise speed of 130 mph (145mph max) with a service ceiling of 16,200 ft. This prototype was rolled out in February of 1941 and the first production aircraft Swift (s/n NX17690) was introduced in July 1941 and flew its first flights with pilot J.V. Boyer aboard.

Now that the Swift was getting ready for production Mr. Kennedy had another job for Pop Johnson and that was to go on the road and use his considerable promotional skills to sell the aircraft all over the country. (Mr. Kennedy had hired in January 1941 a highly capable and accredited chief engineer E.H. "Bud" Knox and he felt Pop Johnson's skills would be better placed in sales.) Pop Johnson said flatly "NO" and thus a confrontation was begun between the stubborn Scot and stubborn Swede. As a result Pop Johnson left Globe, however, Globe retained Johnson's "homebuilt NX17688". This produced an argument and lawsuit on who owned certain design rights. The conclusion by the court was that NX17688 would be scrapped by Globe...and subsequently a letter was sent to the CAA on April 14, 1942 confirming this fact...the letter was signed by Bud Knox. Pop Johnson remained on Meachum Field and began design on what was to become the Johnson Rocket 125. Our own Mark Holliday has completed extensive research and states "I am convinced the Swift became the Rocket by modifications. There is evidence, both pictures, and written." That airplane (NX41674, Our Museum Johnson Rocket) first flew on November 27, 1942.

The world was changing rapidly and the winds of war were blowing briskly....which would once again change the immediate direction of the Globe Aircraft Company.

(Next month- Globe during the war effort.)



Unusual shot of Chris Chicouene's Swift N3856K...deep 6 O'clock Photo courtesy of Ed Lloyd