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## 2022 Event Schedule

**Sun-n-Fun**
**April 5-10**
**Lakeland, FL**

**Oshkosh**
**July 25-31**
**Oshkosh, WI**

**Swift National 2022**
**TBD**

# Swift Museum Foundation, Inc.

**Volume LIV Issue #3** **February 2022**

## Executive Director's Report

***By Scott Anderson***

This month we are publishing a financial report of the Swift Museum Foundation to the membership. This report was provided to us by Sam Swift, our Finance Committee Chairman.

In addition to Sam being an airline Captain he is also a CPA. We are very fortunate to have him in this capacity. Sam has been our Finance Chairman for many years now and we really appreciate the great job he does for us.

Much of the cash asset we have is in our parts fund, which is earmarked for Adel landing gear parts that have been ordered from McFarlane Aviation. PMA parts can be time consuming to have produced. Dealing with FAA approvals and extremely busy vendors in the current environment to procure these much needed items has taken far longer than we had hoped. However, there is light at end of the tunnel. Hopefully, it's not another train and we should have these parts soon.

The Endowment fund has done surprisingly well thanks to our fund manager at CapStar Bank. Fred Burke has kept on top of the markets and has advised us to make changes as he sees opportunities. Great job by Fred.

Our fixed assets are self explanatory and represent the Foundation's growth over the years.

Income figures show good parts sales helping to sustain our current inventory and provide support to Swift aircraft owners.

We had a successful raffle this year thanks to the change to online ticket sales. Most of this fund has been transferred to the parts fund (a large part of the cash assets) to pay for the new parts that have been ordered. Thanks to Raffle Chairman Paul Barnett for developing the online method of holding our raffle. Let's have another great fundraiser in 2022!

There are many expenses in keeping the lights on here. Insurance costs for our facility, inventory, and our liability coverages are expensive but necessary to protect your organization. Utilities, phone, internet, payroll, and other overhead are also a factor in our operating expenses. Even after all

**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**
Paul Mercandetti
Jim Roberts

**Building**
Roger Weber
Scott Anderson
Paul Barnett

**IT/Web**
Tracy Rhodes
Jim Jones

**Aging Aircraft**
Steve Wilson
Ken Coughlin
Dave Carpenter

these expenses, our income figures reflect that we are operating well. We still need everyone to consider your Swift Museum Foundation for your donations to help us sustain and grow.

Next month's issue will have a report on our March 4th Board of Directors meeting .We have a full agenda for this meeting with quite an array of topics. Stay tuned!

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## Swift National Fly-in and Convention Report

***By Paul Mercandetti***

They say no news is good news... Not much to report right now. The Board of Directors will be meeting on March 4th. We will then lock in a date and place for our 2022 Swift National Fly-in & Convention.

From what little response I have received so far, it looks like the timeframe of choice is late September, early October. So, with that in mind, we will look at all the options available to us and do our very best to make choices that will be the beginning of a great Swift National 2022! We'll let you know ASAP.

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## Swift Formation Committee Report

***By Paul Mercandetti***

Thank You! Most of the Swift Formation members have responded with their proficiency reports and I have sent them their cards. If you are operating a little behind the power curve and have not sent in your SFC dues and Proficiency Report yet, it is not too late. If you did not receive your card and think you should have, contact me. Our excellent team member Sue will make sure I get it right… if in the highly unlikely event that I MAY have made a mistake.

The weather is getting warmer and it's time to brush off the cobwebs, if you haven't been flying much over the winter. A thorough preflight and a review of our procedures is in order. Now, get out and fly and enjoy the skies before they raise the fuel prices again. Checkspeedgeardown

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## Swift Parts Item up for Bid

Swift Parts Department has a **$50.00 McFarlane Aviation Gift Certificate** available to the highest bidder. No minimum bid. Contact Swift Parts.

## Swift Museum Foundation, Inc. Financial Overview 12-31-2021

***By Sam Swift — Finance Committee Chairman***

I want to thank the membership for all their loyalty and support to not only our fine fleet of airplanes, but also to our Foundation. This Foundation would be nothing without you, the members. Speaking of membership, our membership numbers have grown to 650, as of 12/31/2021! Let's keep the momentum going!

This past year has been a great year for SMF. We have mostly recovered from the woes of 2020 that forced us to cancel not only our raffle, but also our annual gathering at Swift Nationals. These two events are very important to us for fundraising purposes so it was great to have both back in 2021. Below is a very high-level overview of our financial position, as of 12/31/2021. Please note that our accountants have not yet reviewed our financial statements, so there are a few entries (most notably Accumulated Depreciation and the associated Depreciation Expense amounts) that are made once they calculate the final numbers.

SMF finished the year with Assets totaling $1,714,150 and Liabilities of only $1,827, which leaves our Equity (Net Assets) at $1,712,323. Our income for the year was $109,222. (again, subject to an additional estimated $13,000 in Depreciation Expense not yet shown below). These rough numbers break down, as follows:

ASSETS:

| | |
|---|---|
| Cash | $219,802 |
| Receivables | 9,401 |
| Endowment | $315,868 |
| Museum A/C | $375,000 |
| Parts Inventory | $177,927 |
| Fixed Assets (net) | $616,152 |
| Total | $1,714,150 |

LIABILITIES:

| | |
|---|---|
| Accrued Liabilities | $ 72 |
| Accrued Payroll | $1,249 |
| Accrued Sales Tax | $ 505 |
| Total | $1,827 |

INCOME (in order of profitability by profit center, and net of associated EXPENSES):

| | |
|---|---|
| Parts Sales | $80,182 |
| Raffle | $53,358 |
| Membership Dues | $32,680 |
| National Convention | $15,769 |
| Misc Income | $12,129 |
| Donations | $11,953 |
| Interest Income | $ 7,105 |
| Less: Other Expenses | ($103,954) |
| Net Income | $109,222 |

Thank you again for all of your support to make SMF what it is today!

## From our Historical Archives:

# The Lost Engine

*A tear-away powerplant creates some special landing problems*

Parts Department
Globe Aircraft Co.

March 20,1946

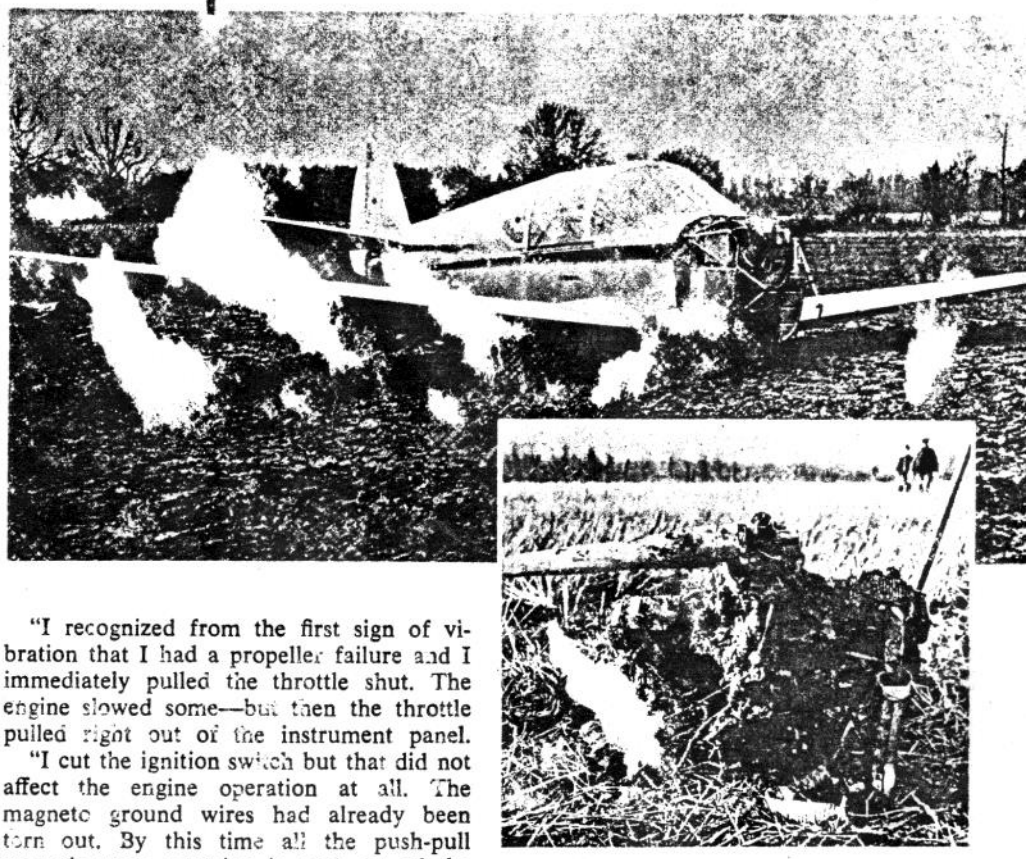
Gentlemen:

I would like to order some parts for my Swift. Yesterday while flying I lost my engine. I did manage to land safely but the airplane will need some work before it can be flown again. Please send me everything forward of the firewall. . . .

Leonard Lockwood York, who wrote this letter, actually did rebuild his *Swift* from the firewall forward and flew it again (it is still flying today, 30 years later) is one of the few pilots who have literally lost an only engine in flight and managed to bring the airplane down safely. Engine "tear-aways," as they are called, are rare occurrences in single engine aircraft. Usually not more than one or two a year are reported. But when they do happen the pilot, unless he is prepared for the situation, may be unable to cope with the sudden shift in the center of gravity, and could experience a complete loss of control. The nose may pitch up abruptly, or the aircraft may stall and go into a nonrecoverable spin.

A number of readers have asked about the best procedure for dealing with this kind of emergency. As each make of aircraft has its own flight characteristics, it is not possible to establish a standard procedure. But in general the key factor appears to be *airspeed*. In an engineless aircraft airspeed is controlled by the elevator, and if the speed is not kept up high enough the elevator may become useless. (Elevator response is more or less directly proportional to airspeed below Mach I.) Mr. York's own account of his experience, written shortly after it happened, may be instructive. A Naval aviator in World War II, he was an experienced test pilot for Continental Engine Co. in 1946. His aircraft was a Globe *Swift*, a low-wing retractable tail-dragger with an 85 hp Continental fuel-injected four cylinder engine. On the day of the accident he had taken off from Muskegon, Mich., Municipal Airport at 8:52 a.m. on a flight to Cleveland:

"The engine and propeller and airplane were operating normally until I was just northwest of Amherst, Ohio (about 20 miles short of the Cleveland Airport). I was flying at 1,500 feet indicated, which was about 1,000 above the ground. The altimeter was set at 30.09 as per the Toledo altimeter setting. I had just started a turn to the left when suddenly a severe vibration began, and the engine cowling started to move up and down rapidly with a noisy thud, thud, thud. Then the thud changed tone and became less of a thud and more of a jingle.





Top—the Swift, barely scratched, lies in a field after York bellied it in, engineless. Lower photo—half the prop remains with the engine after it was dug from the Ohio earth.

"I recognized from the first sign of vibration that I had a propeller failure and I immediately pulled the throttle shut. The engine slowed some—but then the throttle pulled right out of the instrument panel.

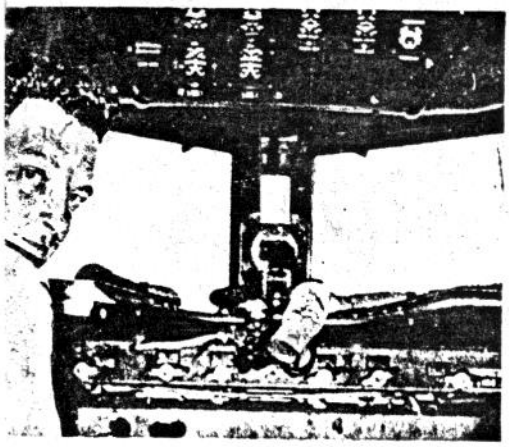
"I cut the ignition switch but that did not affect the engine operation at all. The magneto ground wires had already been torn out. By this time all the push-pull controls were pumping in and out of the instrument panel at a velocity that seemed to match the engine rpm."

### Shake, rattle and roll

"The vibration became extremely severe. Both ashtrays were emptied and ashes were flying over the entire inside of the airplane. All the loose articles in my pockets were shaken out and maps and everything else that was not fastened down went sailing around the cockpit. Outside I could see cowling in various-sized pieces go flying past the windows; luckily none of them struck the airplane. In spite of the vibration the flight characteristics of the airplane were pretty normal—until I was approximately 600 feet above the ground. . . .

"*And then the engine fell off!* The airplane nose came up violently and the left wing went down in what apparently was a secondary stall, resulting in a quarter snap roll to the left. I immediately shoved in full left rudder and full forward wheel. Gradually the nose came down and the airplane went into a very steep glide. Straight ahead—to the north—I could see trees to the left and a field to the right. The area around me consisted of fairly level farmland—my good luck. The field ahead, as it turned out, was plain black dirt; the crop that would be harvested there later in the year had not yet made its appearance. It would eventually—including some engine parts.

"I remember thinking that I had never heard of anyone successfully landing a single engine airplane minus the engine.



York at the controls of a Navy DC-4 in 1945, about a year before his "lost engine" incident.

(Later I was reminded that stunt pilot Paul Mantz, and also Jesse Jones, a test pilot, had done it, and I though we might form an exclusive club—we would have our meetings in a phone booth!).

"I also remember thinking about diving the airplane into the trees. In dense timber the airframe might be broken up over a sufficiently long distance of travel to absorb the shock and maybe take the accident at least out of the fatal category. I was reluctant to deliberately break up an aircraft, especially one I was fond of, but it seemed the best bet to survival.

"The airspeed was indicating about 110 mph. With the wheel full forward, the airplane remained in a steep glide, but it was under control. I found I could ease the wheel back just about an inch and still maintain flight at 110. I was trying to hang onto that 110 mph, because at that speed full down flipper (elevator) was sufficient to overcome the imbalance of trim caused by the missing weight of the engine, propeller, etc. Reducing speed below that would have resulted in a climb (followed by a loss of airspeed and stall) and a spin of uncontrollable characteristics.

"I noticed the red light on the panel, indicating that the wheels were still up. I was surprised they had not been shaken down during the severe vibration. I decided to try to put the airplane into the field gear up—rather than into the trees. I would just fly it into the ground at 110 mph, so it could decelerate without lift. I would keep the nose pushed down all the way to avoid a stall—no flare, no roundout, just bore it in.

"Keeping the wheel one inch back of full forward I got the airplane almost to the ground, but it refused to go on down, no matter how hard I pushed forward on the wheel. When the wing was about 18 inches from the ground the nose—or what was left of it—began to come up . . . very slowly. I leaned forward and waited for the tail to hit. When it did hit I leaned back and bridged into the seat belt which was snugly fastened, as is my normal practice.

"The airplane dug its nose into the ground at a fairly level attitude and at a speed of approximately 90 mph. It slid along the ground for about 150 feet, the flat firewall scooping up mud and dirt as it went along, which helped the airplane to stop. I didn't get a scratch.

"I climbed out of the airplane and looked at my watch. It was 11:28:30. From the position of the broken blade and the engine I was able to calculate later that the total time elapsed (between the first vibration and the time I stepped out of the cockpit) amounted to something less than 40 seconds.

"Some farmers came over and asked if I was all right. They said I was on a Mr. Garek's farm. I wanted to find the engine, so five of us started walking, in line, back along the flight path. In a field about seven-tenths of a mile from where the airplane stopped we found the engine, deeply buried in the ground—so deep that after it was pulled out one of the farmers jumped down inside to examine the hole and he was unable to get out unassisted, and had to be helped up. One blade of the propeller was missing."

## The blade surfaces

"We could not locate the missing blade, but it was found the next day, by a high-tension line-walker for the Ohio Public Service Company, a man named Richards. He got so interested in his find that he carried it all the way back to his home, where it became a kind of showpiece for everyone in the community to see and wonder about. As soon as I heard about it I contacted Richards and got the propeller. He described the place where he had found the blade as '. . . four towers west' of where the engine fell. Since the towers are spaced 500 feet apart, that means the blade was found 2,000 feet away from the engine. The blade was found sticking vertically in the ground, tip down, imbedded down to the metal ferrule.

"I was especially interested in that propeller because it was a new design and although laboratory tests all said it was okay, I had voiced some suspicions about its compatability in the *Swift*. It didn't take long to find out I was right. Half of the wooden blade had separated from the engine, after the head of the main screw in the blade butt failed—presumably from excess vibration. After the blade flew off, three bolts in the engine mount had failed, and various tubes of the mount had sheared, allowing the engine to tear away. We never did find most of the cowling.

"But the airplane itself had little damage, other than a slight caving in of the belly from the landing. There was no damage to the wings except that the airspeed mast on the left wing was broken, along with some wing fittings. The right wing apparently had brushed the ground at some point during the landing, but so lightly I had not noticed it, and the wingtip was undamaged.

"Engine damage was just what you might expect from a 600-foot fall: fins were broken off and external parts were generally beaten up. I removed what was left of the propeller from the crankshaft and in doing so noted that clay had been driven into the back face of the key-way on the prop hub until it molded the entire rear section so that it made a cast of the rear end of the propeller actuator hub. This will give some idea of the impact involved in the drop of the engine.

"I arranged for a truck to move the wings and engine to the barn of the farmer, Mr. Garek. All of the people at the scene of the accident were very helpful and cooperative.

"Mr. Wagner, the Civil Aeronautics Administration Inspector from Cleveland who came to the accident scene, concurred that the accident was due entirely to mechanical failure and was not in any way caused by lack of care, or lack of technique by the pilot. He also complimented me on the flight job done. I have thought a lot about it since. I can think of nothing more I could have done to retain the engine in the airplane, or to land the airplane with less damage. I guess I was lucky at that."

Engine tearaways, as in the case of Lock York's *Swift*, are fortunately rare, and almost invariably the consequence of a broken propeller. Sometimes it is simply not possible to shut down an engine, following a propeller failure, in time to prevent the severe vibrations from weakening or shearing the engine mount. Preventing the cause is much easier than flying the engineless airplane, but good propeller maintenance remains one of the least understood and most neglected areas of pilot concern (see "Nick-Knocked Props" in the June issue of FAA GENERAL AVIATION NEWS).

Lock York's experience is not meant to provide data guidelines for any other pilot who might be unlucky enough to face the same frightening task. That 110 mph airspeed, for example, which proved to be just right for York's *Swift* in that particular configuration might be all wrong for another aircraft. Furthermore, you will not find that kind of information in a handbook or flight manual, because airplanes are not tested for such conditions. If the occasion should arise, you will have to work it out for yourself. York managed to do everything right because he was thoroughly familiar with his airplane and he had a solid understanding of aeronautical theory.

And also because he wasted no time (he had only about 40 seconds to impact) in giving way to panic or despair. A legacy from his years as a Naval aviator was the motto: *Never give up! Keep flying—try to retain control of the airplane, no matter what.*

Pretty good advice for any emergency.



*Be a part of Swift history and this very special display by purchasing a Globe Factory Replica brick. This is your opportunity to have a personalized brick placed on permanent display at Swift Museum Headquarters.*

*Do it for someone special, do it for yourself or your Swift! Contact HQ's for information.*