EAGLE'S PROPWASH

APRIL 2021 ISSUE

CHAPTER 113 *"The Backyard Eagles"*

Our Web Site:
www.eaa113.org
group.eaa113.org

Gatherings: 7:30 PM
the 3rd Thursday of each month at the
EAA 113 AVIATION EDUCATION CENTER
Mettetal Airport (1D2)
8512 Lilley Road
Canton, MI 48187
(734) 392-8113

A few weeks ago I flew above Walled lake and saw this. This guy has a small yellow plane (I think it's a piper cub) on floats. During the cold winter, he's breaking the ice that he can take off and land.

Photo Courtesy of Shahar Golan

Member Services

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John Maxfield	(248) 890-6767	
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IMC/VMC: Herb Schulke	(734) 233-7864	imcvmc@eaa113.org
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Stefan Rairigh	(734) 383-4346	webmaster@eaa113.org support@eaa113.org
Aviation Center Management Committee:		
Al Bosonetto	(734) 261-5518	
Dave Buck	(734) 223-2675	
John Maxfield	(248) 890-6767	
Dave Steiner	(734) 645-1150	

CHAPTER MISSION STATEMENT:

"EAA Chapter 113's major focus is on the relationships with people who have diverse aviation interests, centered around their love of flight, fellowship, learning, and fun.

Chapter members have a passion for flying and are willing to share it with others.

Chapter 113 provides the opportunity for exchange of information, as well as the interaction that leads to friendships that last a lifetime."

BOARD OF DIRECTORS:

"The Board of Directors are to provide both advice and assistance to the chapter officers on an ongoing basis."

PRESIDENT'S *PODIUM*

Dave "Drano" Steiner (734) 645-1150
president@eaa113.org
April 2021

Inverted C-47 into OSH – NOT!
In case you were wondering about last month's picture, no, we did not arrive inverted into OSH in the Yankee C-47. Just a software issue somehow. So, trying it again this month … tempting April Fool's!

Ray Scholarship
Yes, you heard it correctly. EAA 113 has been selected for the opportunity to choose and mentor a Ray Scholarship for some young person to get their glider, light sport, or private certificate. 125 chapters were chosen for this opportunity, out of the 140 that applied from the 883 EAA chapters in the USA. Seventeen chapters are participating in the 50/50 program where the Ray fund puts up $5K and the chapter the other $5K.

The EAA 113 Scholarship Committee will select, review and submit our candidate to EAA National for final approval. This young person must be highly motivated, aviation-focused and intent on getting their certificate. Parents/Guardian must also be involved. And of course the Chapter members. Nathan Pyles, ATC and CFI, has already agreed to be the Chapter liaison with the chosen candidate. However, the candidate is free to select a CFI of his/her own.

When a candidate is chosen, you are going to be seeing a lot about her/him in future issues of this newsletter. **This is a BIG DEAL for EAA 113.** We must be successful! If so we can apply next year AND could then also go for the 50/50 match so we could mentor two candidates. If our candidate does not get their certificate within a year, that will count against us. If we don't find a suitable candidate, it will not count against us; we'll just have to reapply in 2022. But as of this writing, it appears we have at least one very well-qualified and motivated candidate. That's step #1. There are a lot of other requirements to be met. It's sort of a long and detailed checklist, BUT checking all the boxes is very doable. If everything is done correctly by all parties, there will be another next generation pilot out there in about a year's time. The goal of the Ray Scholarship program is to get young people started on a lifetime aviation journey. If they choose to go on for additional certifications, so much the better. Last year they had an 80% success rate for candidates; this year the goal is 90%. The general success rate is only about 20%.

It's possible that the Ray Scholarship candidate could also receive an EAA 113 Don Zimmermann Scholarship this year. Applications for that closed March 31st, and will be awarded in June. For more on the Ray Scholarship requirements, view this hour-long webinar on the EAA website: https://www.eaa.org/eaa/eaa-chapters/eaa-chapter-resources/chapter-programs-and-activities/ray-aviation-scholarship-fund

Progress on the Don Zimmerman Workshop
OCCUPANCY PERMIT finally! No, this isn't an April Fool's joke. At the March membership gathering, I announced that on March 4th we received our certificate of occupancy for the new addition (the same date of the Ray Scholarship notice). Not only that, two Chapter directors have each pledged $500 challenge money to help outfit the space with work benches, an air compressor, tools etc. John Maxfield will be heading up the committee to oversee that. If you have any good quality tools, etc. to donate, **DO NOT** drop them off without speaking to John first (248.890.6767) or email: johnomaxfield@gmail.com

A HUGE thank you to Dan Jones, Joe Kirik and Jim Brown who were instrumental in overcoming a myriad of issues that could have derailed this project. Without them and the support of the membership, this addition would not have happened or come to a successful conclusion.

ALASKA – SEPTEMBER 2020

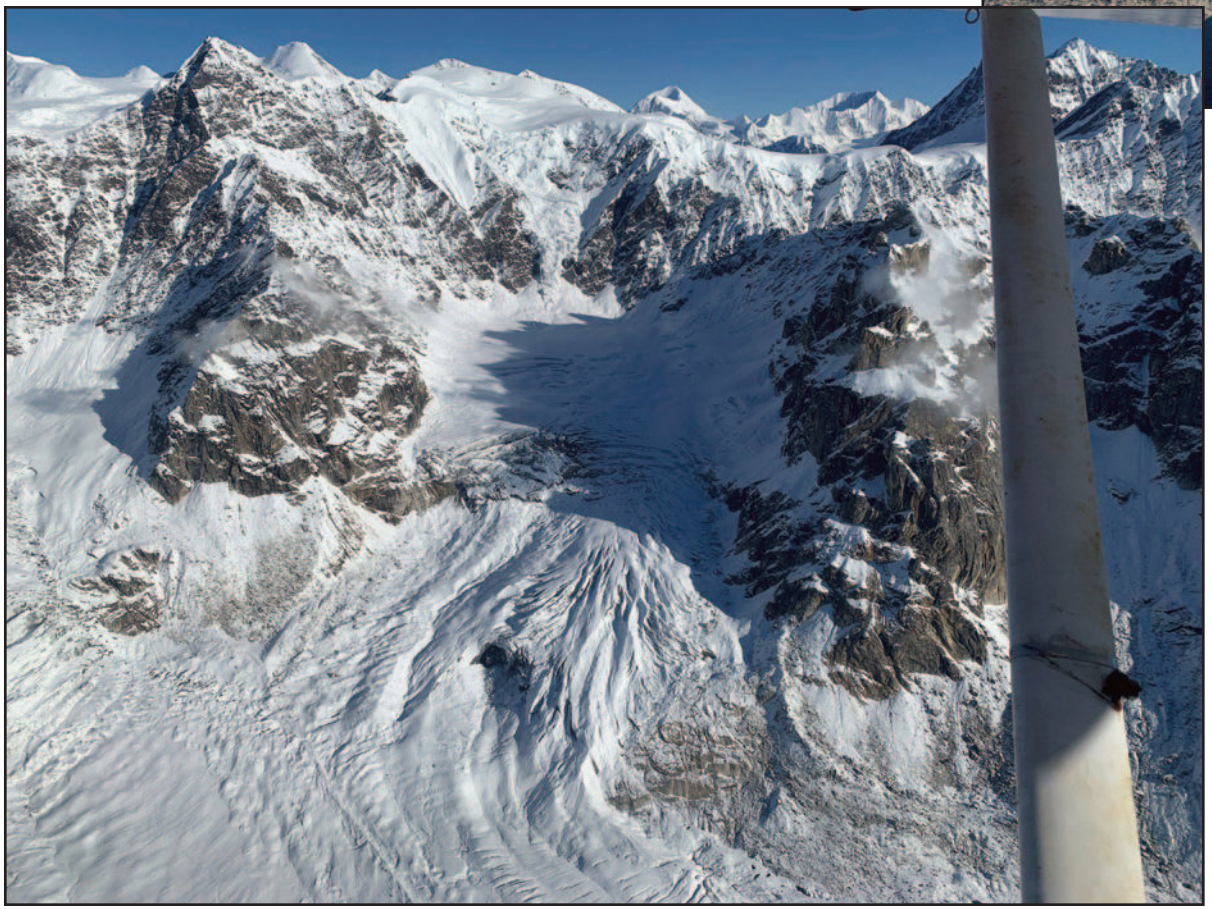
By Martina Reik

In early September we flew to Anchorage to meet with a friend who has built a Zenith 750 Stol. He introduced us to the flight characteristics of the Zenith and we enjoyed the scenery: We saw whales in the Knik River, Knik Glaciers and landed at a mud strip close to the Knik Glacier. It was an awesome start into this vacation.

From Anchorage we drove to Seward and did the 'usual' tourist stuff and visited Exit Glacier, went on boat tour to spot some wildlife, and went on some hikes in the area.

The next destination was Talkeetna, where we set up for seaplane plane flying with Alaska Floats and Skis. After we got used to the planes and did some touch and gos on one of the lakes, we flew into the Denali National Park. It was a breathtaking experience and we were lucky with the weather and Denali could be seen from far away.

All Photos Courtesy of Martina Reik



BAHAMAS – MARCH 2020 & DECEMBER 2020

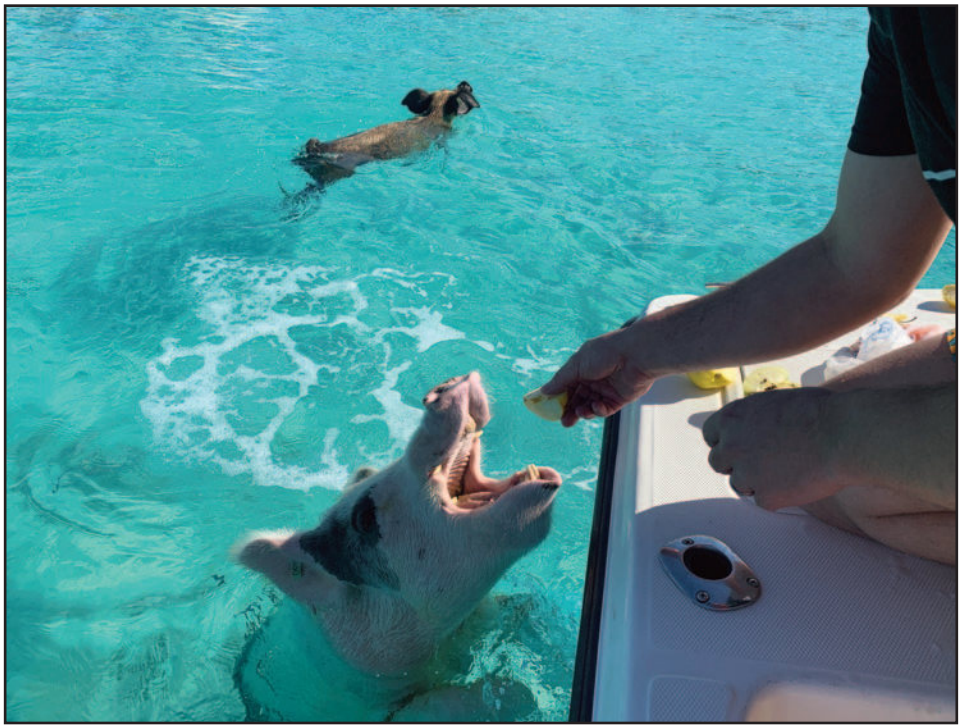
By Martina Reik

The year had to end on a good note and therefore we flew to the Bahamas just before the Christmas holidays. Long Island was our destination and just like in March 2020, we were the only guests in our guest quarters. We enjoyed the empty beaches, good food and drinks a lot. Temperatures were just perfect.

We flew over to the Exumas. In Staniel Cay we rented a boat and spend a day on the boat to visit the highlights of the Exumas: the swimming pigs, the Thunderball Grotto, and the nursing sharks in Compass Cay. It was an awesome trip!

We left Long Island on January 2nd, 2021. Weather forecast for the northern part of Florida showed a large weather system and weather in Michigan didn't look promising either. We flew from Port St. Lucie to Knoxville, TN. After another stop in Dayton, OH we arrived back in Mettetal on January 4th, 2021.

There is something magic about the Bahamas and this was certainly not the last trip.

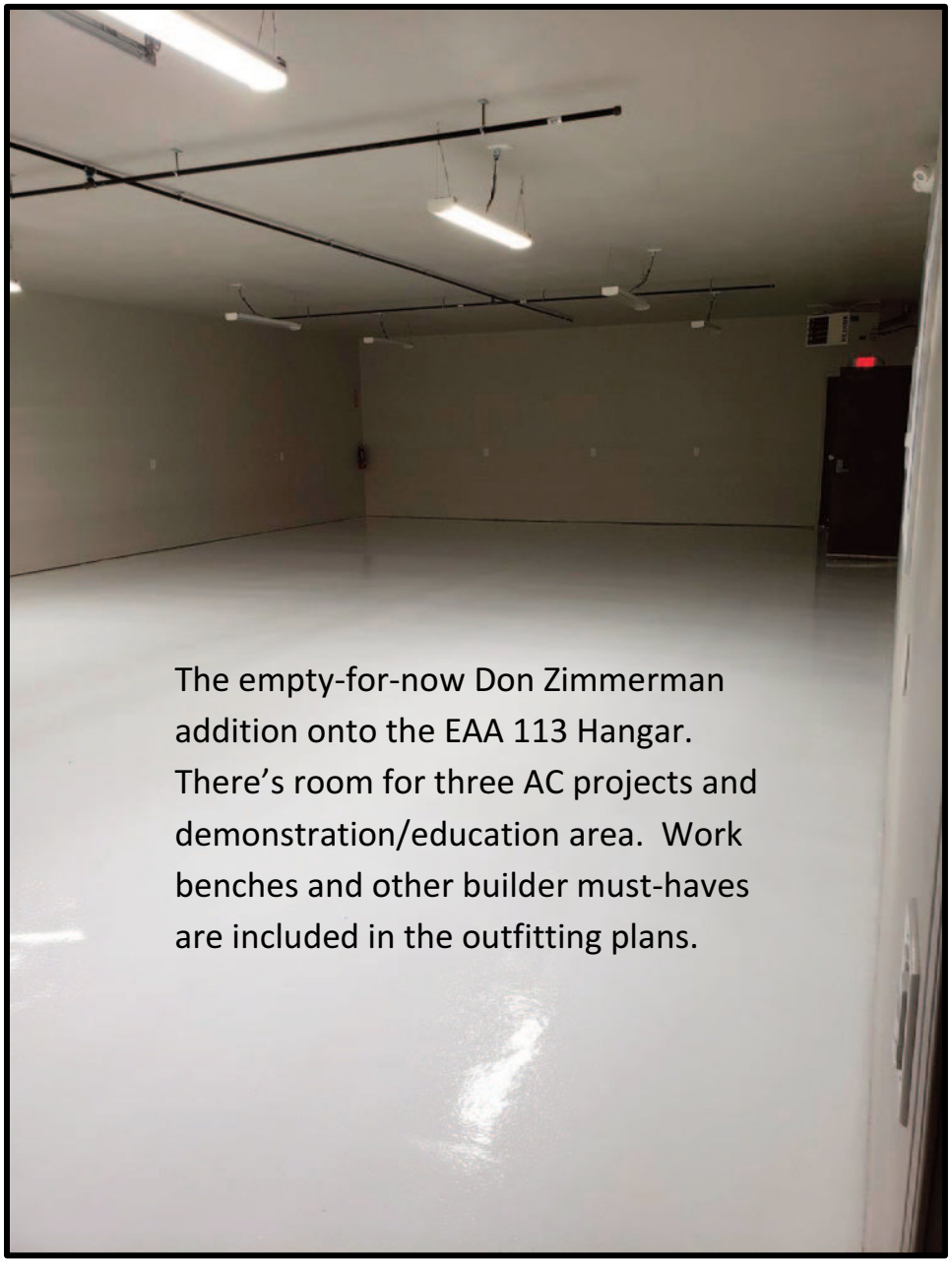


All Photos Courtesy of Martina Reik

What's BIG & WHITE & EPOXIED & answers you with a LARGE ECHO?

The Don Zimmerman Workshop at EAA 113 of course. Here's a photo of the addition with its beautiful, freshly epoxied floor. With nothing in it but automatic LED lights, painted walls and the new floor surface, it makes a really great echo chamber. But in the not too distant future it will be alive with the sights and sounds of aircraft project builders and learn-to-build work sessions for kids of all ages. Portable work benches and other outfitting is in the works.

The build-out committee is putting together a wish-list of tools and equipment wanted for this new space so it will be turn-key ready as much as possible for move-in and aircraft building and building demonstrations. John Maxfield will be heading up the committee to oversee the outfitting. If you have any good quality tools etc to donate, **DO NOT** drop them off without speaking to John first. 248.890.6767 or email johnomaxfield@gmail.com



The empty-for-now Don Zimmerman addition onto the EAA 113 Hangar. There's room for three AC projects and demonstration/education area. Work benches and other builder must-haves are included in the outfitting plans.

HINTS AND KINKS

By Pete Waters

This month I have dragged a useful tip from my days in college, where we had limited tooling, as the courses were for teaching industrial arts.

One time in the workshop, I needed to have an hole slightly larger than an available drill, actually needing a metric, and the instructor showed us a method to make a simple drill to match an odd ball diameter.

He termed it as a “D BIT”.

This was made from a piece of drill rod slightly larger than the diameter needed.

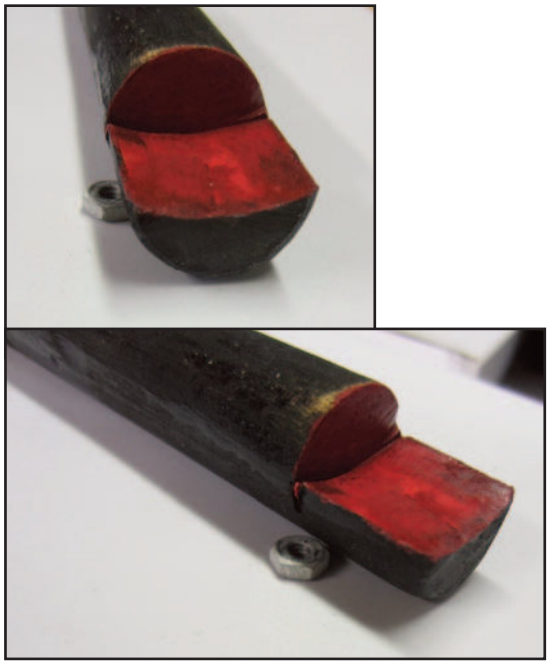
The rod was taken down to the diameter needed and the tip filed to a “D” shape on the end, at the maximum diameter. I show a piece of music wire and a wooden dowel of the required shape. If the material to be drilled was steel, we hardened and tempered the bit, and gently used it to enlarge the drilled hole.

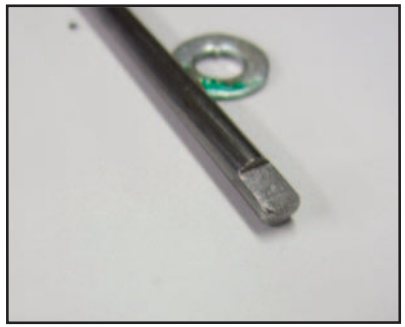
Note that the shape is on maximum diameter and slightly concave. It also has a small lead on the tip.

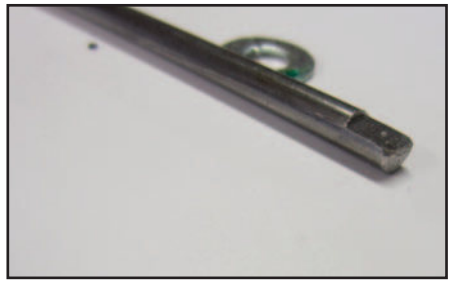
I revived this memory when building my Avid MKIV, during the tail hinging.

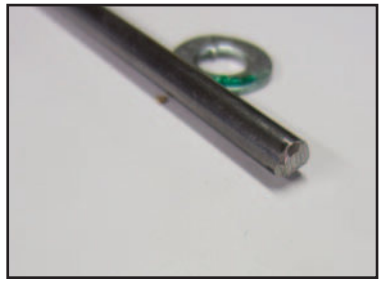
They used short pieces of tubing welded onto the hinge positions, and pressed in pieces of HDPE tubing.for bearings. These “were” 3/16” internal diameter, but were now way too tight for the AN393 Clevis Pins.

Another problem was that the hinge positions were a long way in from the tips, even for my 12 inch long drill, so I made a “D” bit from 3/16” music wire 36 inches long, and gently reamed the holes.









The Irvin Air Chute: Life Preserver of the Air

Leslie L. Irvin, shown wearing one of his parachutes, 1930s. Image source: private collection.

Leslie L. Irvin, after whom the Irving Air Chute Company was named, was born in Los Angeles, California and became a stuntman for the movie industry. He made his first parachute jump from an airplane at age 14. His nickname became "Sky-Hi Irvin.' His wife later said, "The air was his whole life. He had no other amibition beyond the next jump, the next balloon trip."

Irvin did not invent the parachute, but he worked ambitiously on developing a parachute that could be worn by the user and operated by a manual ripcord, the opposite of the static-line "automatic" parachutes of the day. When he demonstrated a silk version of his parachute design in April 1919 in Dayton, Ohio, he was awarded a military contract by the U.S. Army. What had begun as a prototype created on a borrowed millinery sewing machine in Buffalo became the "Irving Air Chute Company" in June 1919. (The company name was the result of a typographic error and remained until 1970.) Leslie Irvin was 24 years old at the time.

The first Irving factory was created in Buffalo. In 1928, 50 parachutes were manufactured per week. According to Flight magazine (October 11, 1928), "The manufacture of parachutes does not call for greatly skilled labour; it demands rather extreme care and caution." Each raw material component was tested before being used: the harness cord, webbing, snaps, buckles the silk, even the thread.

The company grew quickly because it had few competitors and in the 1920s and early 1930s nearly every parachute used was made by Irving Air Chute. In 1925, the Royal Air Force of the United Kingdom ordred Irving parachutes for its airmen. Leslie Irvin moved to England in 1926 to operate a new Irving factory in Letchworth as vice-president.

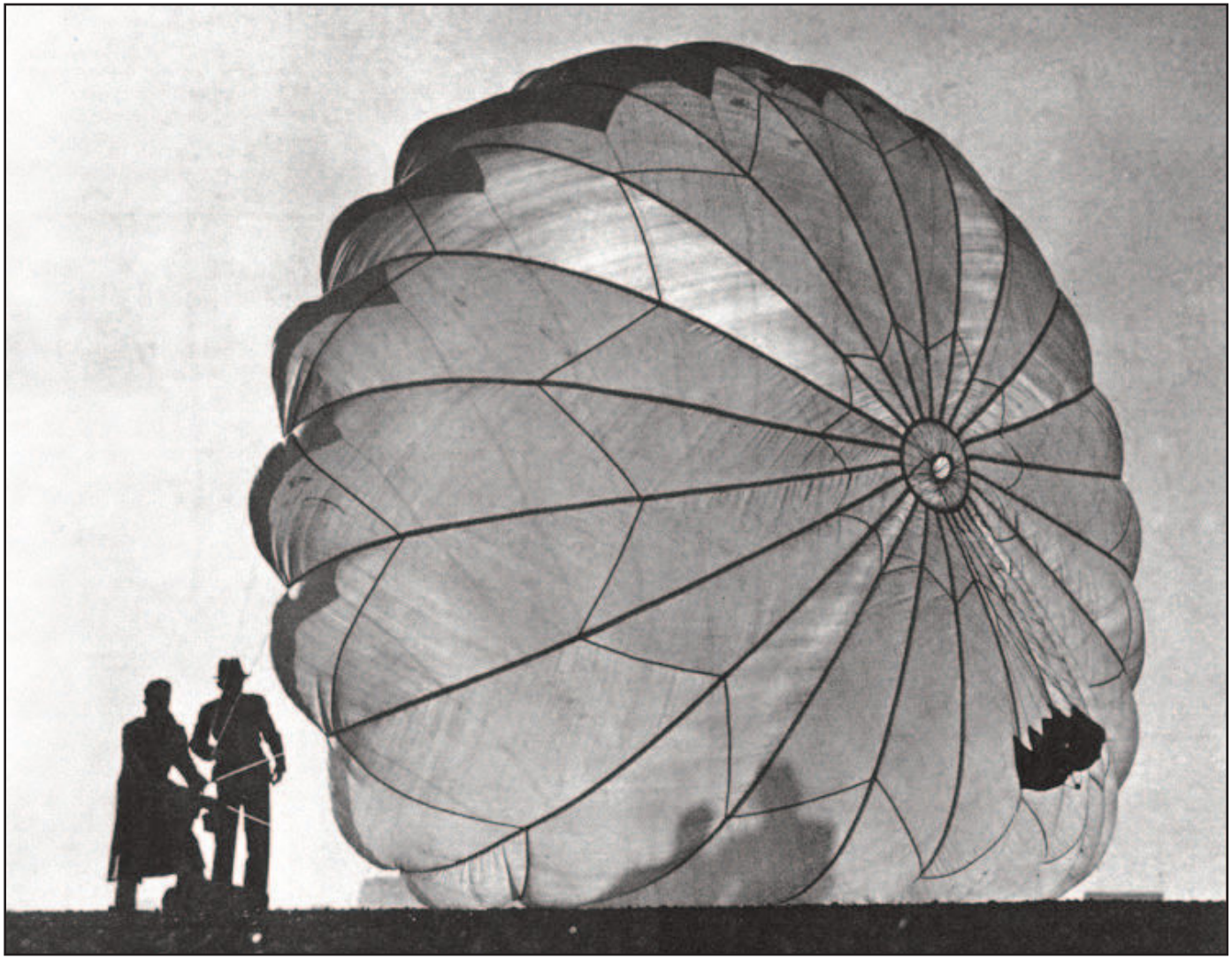
Leslie Irvin at right beside a pilot and parachuter (and Curtiss plane) in June 1920. In that year, the Irvin Air Chute won the Aerial League of America's Aerial Safety Trophy. Image source: Flying magazine, June 1920.

George Waite, Buffalo factory president. Image source: Life Magazine, private collection.

The Buffalo Irving Air Chute factory at 1670 Jefferson Avenue. Image source: private collection.

Cover of LIfe Magazine, March 22, 1937, featuring Irving Air Chute Company. Image source: private collection

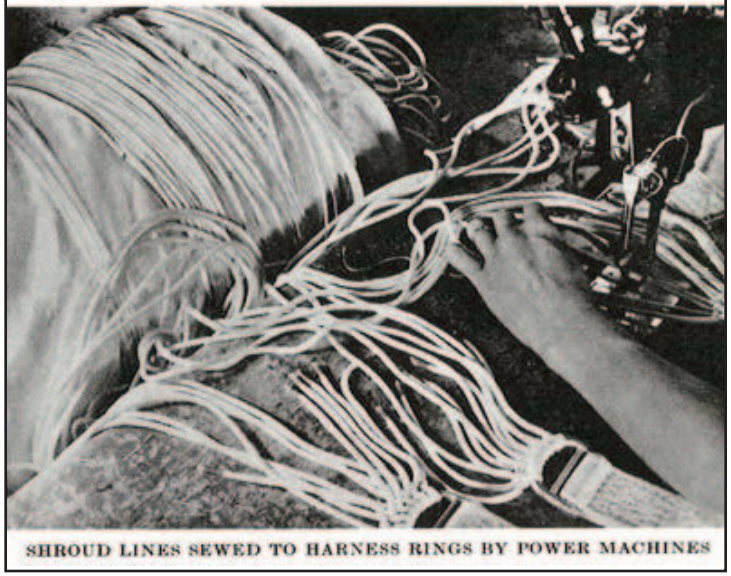
The Irving Air Chute Company was the cover story for the March 22, 1937 Life Magazine. The seven-page story featured photos of parachutists using the chute as well as the rubber dummy (cover photo) utilized for testing each parachute.



Backlit photo showing the design of the Irving parachute. Photo taken for Life by Margaret Bourke-White, 1937. Image source: Life Magazine, private collection.

"Irving Air Chute's chief asset is its patented folding technique which insures the parachute's opening. Its bias construction gives it more strength than other types and is its distinguishing feature. A 24-ft. Irving chute is made of 24 panels, each manufactured in four sections cut on a bias. Thus if a rip starts it must go across all threads and will quickly dead-end against a seam. All seams consist of four thicknesses of material sewn together with a very strong thread (tensile strength: 8 1/2 lb.). When all the seams are joined together, two rows of one inch silk tape (tensile strength: 300 lb.) are put around the top (or vent) of the chute, one row around its skirt. Shroud or ratlines are brought down through each seam but before they are inserted, they must be pulled to a uniform tension. This is done by laying them on a table and pulling them around rollers to a tension of 625 lb., thus assuring an equal pull all over. When completed, each chute is tested twice before packing and numbering." (Life article, March 22, 1937)

FIRST STEP IN CONSTRUCTING A PARACHUTE: CUTTING ON BIAS



SHROUD LINES SEWED TO HARNESS RINGS BY POWER MACHINES

Buffalo Irving Air Chute employees at work sewing silk parachute sections. Leslie Irvin is standing, center. Image source: "Buffalo Airport, 1926-1976".

Steps in packing Irvin parachute at the Buffalo factory, 1937, in Life magazine. Image source: private collection.

"For U.S. Government use Irving must use, whenever possible, domestic materials. Ordinarily, Japanese silk is preferred. Last year Irving used 125,500 yards of silk and a ton of silk thread in filling its orders. Its peack production was 124 parachutes a week, each one worth about $350. Net sales for 1936 totaled $1,345,418."

Life article, March 22, 1937

In July 1940, as part of its promise to end U.S. dependence on silk (and Japan), Irving Air Chute delivered to the government an experimental order of parachutes made from DuPont nylon.

Prior to World War II, the Army required each Irving parachute to be drop-tested before shipped. In the early 1930s the Kenny Flying Service had the contract for two drop-tests of every parachute. Later the Buffalo Aeronautical Corporation was awarded the contract, using a Ryan monoplane with a hole cut in the floor, through which the 180-lb solid rubber dummies were dropped. The plane made as many as 50 trips per day.

Pressure to supply large quantities for the war forced a shift to new testing methods and better quality control, thus eliminating the need to drop-test each parachute.

Irving Air Chute employees airing the silk parachutes, 1937, in Life magazine. Image source: private collection

Silk parachutes were susceptible to decay when stored packed and so they had to be aired every two or three months to prevent mold or sweating. The photo at left is of the interior of the Buffalo factory.

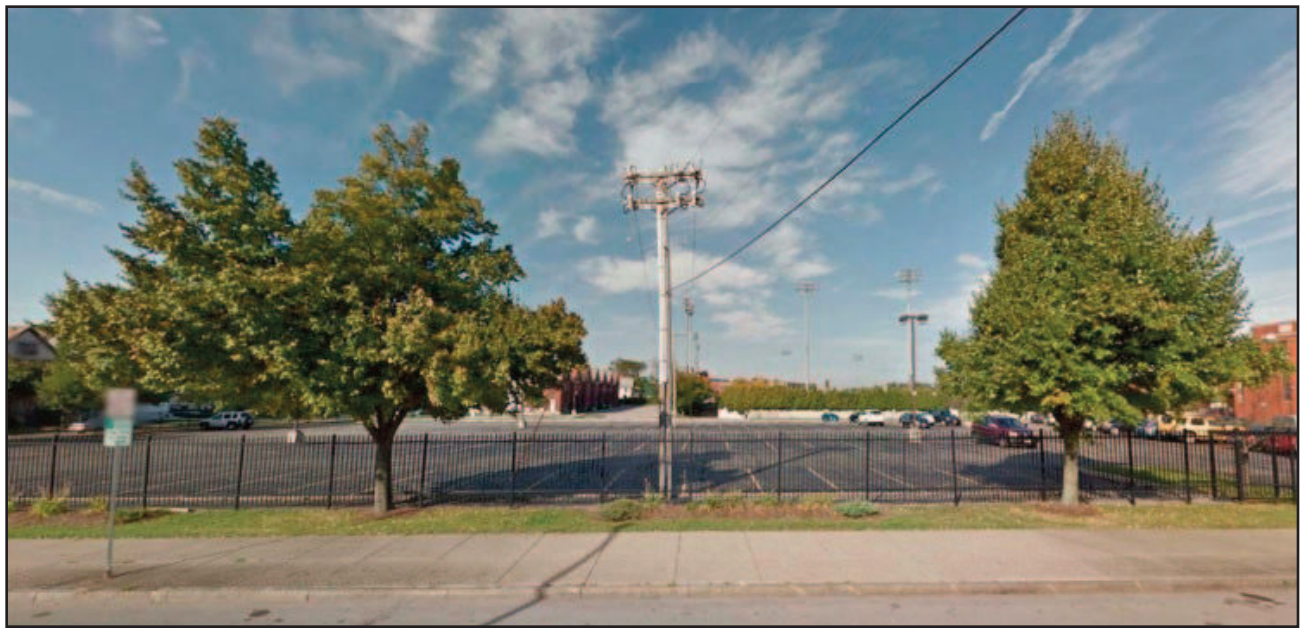
By 1939, 45 foreign countries were using Irving parachutes, including Germany, which had confiscated an Irving plant and bought its patents in 1936.

The paratrooper landings of the Allied forces on D-Day were made using Irivng parachutes.

The company expanded, opening a plant in Lexington, Kentucky in 1942, Fort Erie, Ontario in 1945, Glendale California in 1949. The Buffalo factory was expanded in 1950 and then closed in 1953; the age of the plant and union challenges were cited as reasons for the closure. Local production was moved to the Fort Erie factory.

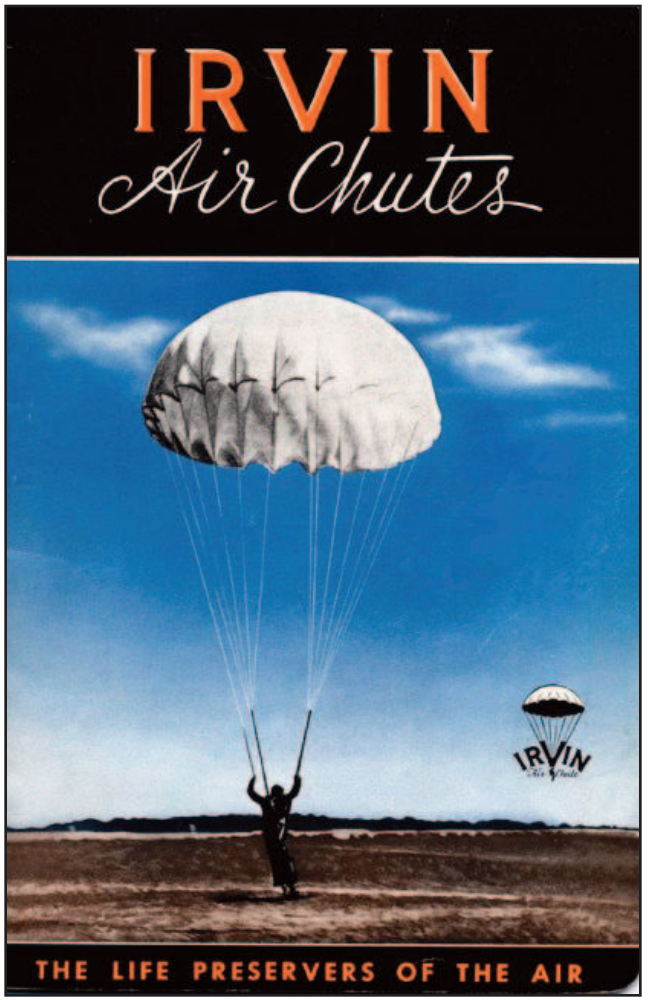
Leslie Irvin, who had moved back to the U.S. to manage the company after George Waite's retirement in 1946, moved home to California with his wife in the 1960s. When he died in 1966 at age 71, his obituary called him, "Father of the Parachute."

The Irvin Air Chutes company became Irvin Industries in 1970, Irvin Aerospace in 1996, and then merged with other companies in 2007 to become Airborn Systems. Among many other products related to the aviation industry, the company still makes parachutes.



The Irving Air Chute factory at 1670 Jefferson was demolished and is a parking lot.

The company is now called "IrvinGQ" - for more, please see:
https://www.irvingq.com/our-story/



Cover of a company booklet advertising the different types of parachutes made by the company, c. 1945-49. Image source: private collection.

Editor's Note: My two sisters, two cousins, and I all had dresses make from one Irving parachute that our mother obtained after WWII as war surplus. I hated those dresses because I was the recipient of 4 identical hand-me-down dresses in addition to my own, so I basically wore the same dress for years. She also saved hundreds of yards of the cord that years later we later found in boxes under her bed.

Planning Ahead

As the calendar flips to March, we are reminded that it has been one year….yes, *one long year*….since our lives were changed by something so unimaginable. Life has been difficult to say the least but EAA 113 has found ways to continue to stay in touch and reach out to our aviation family. It is obvious that everyone longs for the "good old days" when we can once again be together in person. However, in spite of our best efforts, we must continue to be diligent and comply with the official guidelines set forth for our protection.

The current restrictions in our state remain the same on indoor limits which prevents the EAA Aviation Center from opening to the public. There have been some preliminary indications that the restrictions may be lifting some in the near future. Another, perhaps a surer thing is ….*Spring is coming*!! Once warmer weather is fully upon us, we are planning on opening the EAA Aviation Center to allow some Chapter events to be held outside or in the hangar with extra spacing. Look for updates in your email or next newsletter.

We do not have actual dates for any upcoming events yet, as we continue to wait just a little longer for the weather both locally and from Lansing. Large public events such as our Pancake Breakfast remain under strategic logistical evaluations. However, please know that plans are well under way for several exciting Chapter events this year. Such as:

Open House for the new Zimmerman Workshop (possibly May)

Backyard Adventure (possibly in June)

Oshkosh AirVenture (Fingers crossed July)

Young Eagles & Youth Workshop (possibly August)

60th Anniversary Banquet (possibly September)

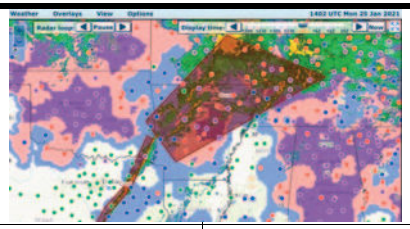
It is our goal to get these events on the calendar as soon as we are given the clearance to proceed. Until then, we will continue to check the weather, get our plans filed and hold short…..just a little longer!!

The EAA 113 fun will be flying again soon!!

~Debbie

April 2021

Due to the uncertainty of COVID restrictions, we will maintain virtual gatherings unless weather permits for us to spread out in our open hangar. Watch your email for updates!

Sun	Mon	Tue	Wed	Thu	Fri	Sat
"Probably doesn't necessarily mean this is good kite flying weather.... huh!!"				1 *Virtual* ***EAA 113 Homebuilder's Gathering7:30 pm***	2	3 
	5	6	7	8 *Virtual* ***EAA 113 Board Meeting 7:30 pm***	9	10
11	12	13 No Go! 	14	15 *Virtual* ***EAA 113 General Gathering 7:30 pm***	16	17 No Go! 
18 No Go 	19 	20	21	22  *Virtual* ***EAA 113 IMC Club Gathering7:30 pm***	23	24
25	26	27	28 GO!!!!!!! 	29	30 	

When bartenders find new jobs after all the bars close down

Calling all video enthusiasts!

Submit your video of the month to Jack McClellan at vicepresident@eaa113.org

(Or you might be watching quilting how to videos next month....)

Neat YouTube video on the Luscombe:
https://www.youtube.com/watch?v=pw9LsMZ1H90

Next Virtual Gathering:

April 15, 2021

7:30 PM

Virtual Gathering via Zoom

Check your email for details.