The Wingman
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Around the Patch:

by Joe Messinger
Newsletter Editor/Webmaster

A couple weeks ago we met at "The Church on the Rise" and dined on Spaghetti and meatballs, salad and garlic bread. Ester Nicholls stepped in and took over for Ken, home nursing a migraine, who had been scheduled as our cook and speaker for the evening. She cooked but didn't speak. So, this made for a shortened meeting.

We did get word that Ken had passed his practical LSA test and is now licensed to bore holes in the sky with the rest of us. Congratulations Ken! And are you sure that was a migraine?

Treasurer Mark Ralston announced that our treasury had gained $385.00 thanks to some of the folks who attended Paul Schafer's celebration of life and Paul's sister Rosalie Halley, who made sure their generosity was forwarded to us. Mark also said that we have not had any luck selling the A-50 Continental so he will mothball it for the time being and see what happens.

Kevin Bruton hasn't been around much lately. Now that he has his A/P he accepted a job working on helicopters that takes him anywhere in the country that the company has a sick chopper.

Steve Kame ended the meeting with an enthusiastic report on the upcoming Veterans Day Parade. He said that the military will furnish a warbird flyby and then the parade committee still wants area pilots to do a second flyby. The consensus is that it will be a single file, in trail formation, with the faster airplanes up front and the slower aircraft bringing up the rear.

Summer is here and with it "flying season"

We had a couple of events on the last Saturday of June. Cottage Grove repeated their Wings and Wheels event, which some of our members attended, and Grants Pass hosted a day-long airport open house. Since I could only do one, I elected to make the trip south so I could get a Double-Double, Animal Style after the event. They had airplanes, cars, pancakes and flybys. The first scheduled event of the day was a demonstration of Ultralight Aircraft, followed by a flyover of the Harvard T-6 Texan and a surprise aircraft that I missed and forgot to ask what it was. The last event of the day was the rubber chicken drop. Rubber chickens were dropped from an altitude of 200 feet (or more) and the closest to the target was the winner. From what I could tell, everybody left their Norden bombsights at home.

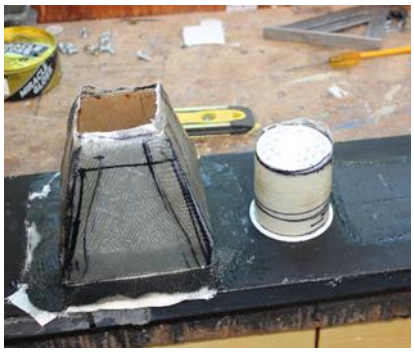
They had several interesting airplanes on display like a Yakovlev Yak 52, a Beechcraft T-34 Mentor, North American T-28 Trojan and a Harvard. For the uninitiated, a Harvard is a British or Canadian version of the North American T-6 Texan, not to be confused with the Beechcraft T-6 Texan II, a modern replacement for the North American. The Navy also put tail hooks on North American's T-6, painted them bright yellow and called them the SNJ Texan. Down the way a bit they had a Boeing CH-47 Chinook helicopter on display and folks could walk through and ask questions of a crew member standing by.

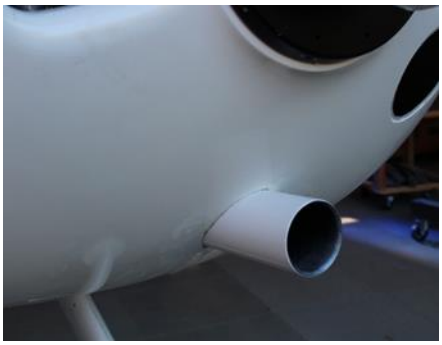
As for civilian aircraft I was taken by the patriotic paint scheme on an Extra 300 and the military paint scheme of the Ercoupe 415-C owned by EAA Chapter 725 president, Joe Williams. Most of the other airplanes were something one sees at your local airport if you hang around enough. You'll find photos on following pages.

Rose GlaStar June 2022 Build Report

The long daylight days of June can be exhausting, and summer is "flying" by. But I am still building.

The beginning of the month saw a continuation of work on installing the oil cooler. I designed a mold for the oil-incoming-air-expansion plenum with about a 3:1 expansion ratio. It had to be fiberglassed in several stages.





I decided on a 3" circular inlet opening through the lower cowl using a piece of 3" ABS pipe, and glassed it to the lower cowl. It will connect to the oil cooler plenum with a short piece of hose.

The next cowl modification project was moving the engine cylinder cooling air intake. The cowl was designed for a Lycoming engine and the ULPower engine intakes are higher and smaller. The engine install manual suggests an opening on either side of only 11 to 15.5 square inches, depending on the aircraft design. I plan to use a 3x5 inch opening of about 15 square inches which should cover slow flight and may be too large for cruise, but better to fight too cool than too hot. I cut out the new opening in the upper cowl, used foam to mold in the curves and glassed one side. There were lots of steps: measure, cut, glue on foam, sand to shape, glass, remove foam and glass again. I still have the other side to do, plus closing off the two lower cowl openings.

At the June EAA Leadership meeting, George Dorius brought over the tack-welded exhaust pipe outlets that he so graciously has been helping me with. They fit and are ready for final welding.

After mid-June, the weather forecast indicated a period of no rain so I decided to move the airplane outside the shop so both wings could be attached to rig the cables to the flaps and ailerons. This is the final step needed before the upper wing skins can be installed, completing the wings.

On June 23, Mark Ralston came over. We gingerly moved the fuselage outside, set up the scaffolding and installed both wings. For the first time, it really looked like an airplane, sort of.

We spent the day sorting out various cables (there are 10 separate cables) and figuring out which pulleys they went through. We ended the day more confused than when we started. With a good night's sleep and re-reading the directions dozens of times, I finally got them in the correct place. Then the adjustments started with the goal of getting both flaps to go the same direction, the same distance, and at the same time. Just when I thought I had it, I would find a cable that slipped off a pulley, or some other conflict, and have to start over. But perseverance finally won out and I had the satisfaction of seeing both flaps deploy with the flap lever.

Next and last project for the month was repeating the frustration, by installing the aileron cables and adjusting them to go in ***opposite*** directions in different amounts (22.5 degrees up and 17.5 degrees down) at the same time. Fortunately the days were long on light, and after lots of adjustments, that job too was done.

Not to wear Mark out, I had another friend help me remove the wings and move everything back into the shop. By 2:00 p.m. and in 102 degree weather, with the sun and heat reflecting off the shiny aluminum, the move was completed.

This Day in Aviation History

In the month of July two well-known American aviators, Wiley Post, in 1931, and Howard Hughes, in 1938, successfully circumnavigated the world. Read on to see why, even though they received accolades in the media, neither man was officially recognized for these efforts.

- 1 July 1931 (USA) American aviator Wiley Post returns to Floyd Bennett Field in New York, having flown around the world in 8 days 15 hours and 51 minutes. Post was the first aviator to accomplish the feat.

  In 1930, the record for flying around the world was not held by a fixed-wing aircraft, but by the *Graf Zeppelin*, piloted by Hugo Eckener in 1929 with a time of 21 days. On June 23, 1931, Post and the Australian navigator Harold Gatty, left Roosevelt Field on Long Island, New York, in the *Winnie Mae* with a flight plan that would take them around the world making several stops for fuel, before returning to Roosevelt Field on July 1. They had traveled 15,474 miles in record time. This was the first successful aerial circumnavigation by a single-engine monoplane. The reception they received rivaled Charles Lindbergh's everywhere they went. They had lunch at the White House on July 7, rode in a ticker-tape parade the next day in New York City, and were honored at a banquet given by the Aeronautical Chamber of Commerce of America at the Hotel Astor. After the flight, Post acquired the *Winnie Mae* from F.C. Hall, and he and Gatty published an account of their journey titled, *Around the World in Eight Days,* with an introduction by Will Rogers.

- 10 July 1938: Howard Robard Hughes, Jr., with crewmembers Harry Connor, co-pilot, Tom Thurlow, navigator, Richard Stoddart, radio operator and Ed Lund, flight engineer, begin a record-breaking round-the-world flight in a specially modified Lockheed "Super Electra."

They departed Floyd Bennett Field, Brooklyn, New York, at 7:19:10 p.m. on 10 July with stops planned for Le Bourget Aerodrome, Paris, France, Moscow, Russia, USSR, Omsk, Siberia, Yakutsk, Yakut ASSR, Fairbanks, Alaska, Minneapolis, Minnesota, and back to Floyd Bennett Field. They landed at Floyd Bennett at 2:34 p.m., 14 July. The distance flown was approximately 14,800 miles (some sources differ). The total duration was 91 hours, 14 minutes, 10 seconds. Actual flight time was 71 hours, 11 minutes, 10 seconds and the average speed for the flight was 206.1 miles per hour.

Before they departed on their adventure, the twin engine aircraft was christened *New York World's Fair 1939*. Hughes had made an agreement with Grover Whalen and the fair's organizers that the airplane would carry the name to promote the fair. The airplane, NX18973, was powered by two air-cooled, supercharged, 1,823.129-cubic-inch-displacement Wright Cyclone GR-1820-G102 nine-cylinder radial engines. They had a normal power rating of 900 horsepower at 2,200 rpm, which could be pushed up to 1,100 horsepower for take-off burning approximately 55 gallons per hour of 91-octane gasoline.

The international organization for flight records, the *Fédération Aéronautique Internationale*, requires that a circumnavigation cross all meridians in one direction and be at least the length of the Tropic of Cancer, 22,858.729 miles. Howard Hughes' "around the world flight" circled the Northern Hemisphere and was at least 8,058 miles short of the required distance, so no official record was set. (The same is true of Wiley H. Post's two earlier "around the world" flights which used a similar route.)

- 7 July 1981 (France/England) — The MacCready "Solar Challenger" makes the first solar-powered aircraft flight across the English Channel with 28 year old, 122 pound, Stephen Ptacek at the controls. The 163 mile flight took 5 hours and 23 minutes, starting from Pontoise — Cormeilles Aerodrome, north of Paris to Manston Royal Air Force Base in England.

The day was a sunny English summer afternoon with the sun shining during the five and-a-half-hour 165 mile flight. The flight was made at an average speed of about 30 miles per hour and a cruising altitude of 11,000 feet. Late in the afternoon, the Solar Challenger landed softly on the concrete runway of Manston Royal Air Force Base, on the southeastern coast of England.

The airplane was designed by Dr. Paul MacCready, Cal Tech, who also designed the Gossamer Albatross, the first human powered plane to cross the Channel. Weighing just 210-pounds, the 47 foot wingspan Solar Challenger is powered by 16,128 photovoltaic cells on the wings and tail that convert solar energy to electricity, which drives the 2.7 horsepower motor. The aircraft does not have any battery back-up power

Why did Dr. MacCready choose to test a solar-powered aircraft in a country not renowned for its abundance of sunshine? Dr. MacCready confessed that he could not resist the challenge of the English Channel.

Grants Pass Airport Open House