



Missions for America

Semper vigilans!

Semper volans!

Publication of the Thames River Composite
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09 September, 2020

15 SEP-Senior Meeting-SUI

19-20 SEP-LISP

22 SEP-Senior Meeting

26 SEP-SAREX-Plainville

29 SEP-Senior Meeting

06 OCT-Senior Meeting

13 OCT-Senior Meeting

20 OCT-Senior Meeting

27 OCT-Senior Meeting

FRUIT SALES KIT PICKUPS

Volunteers will be at the squadron every Monday, Thursday, and Friday from 1800-1900. Members are requested to drop by and pick up their fundraising material as soon as possible.

SENIOR MEETING

08 September, 2020

Preparations for the upcoming subordinate unit inspection were reviewed.

Lt Pineau briefed the seniors on CAP's Mishap Review Process.

Maj Farley reviewed squadron goals. Some cadet progress have been slowed due to the pandemic restrictions.

Senior members were encouraged to continue to work on specialty track qualifications and professional goals.

CADET MEETING

10 September, 2020

Submitted by

S/SMSgt Noah Bosse, Cadet PAO

C/SSgt Ceniglio, Cadet Safety NCO, presented a safety briefing on cyber safety.

Lt. Drost taught a character development lesson on Perspective. The cadets watched a video and then discussed how to change perspectives.

REPORT ON WEEKLY OPERATIONS AND ACHIEVEMENTS, MISSIONS, PROMOTIONS, ACTIVITIES

Lt Michael Kopycienski and C/CMSgt Burton traveled to Bethel, Connecticut where they assisted the church in distributing food packets and post distribution clean-up and storage.



File photos of Cadets Burton, Motherway, Thornell and Bosse doing volunteers service in Bethel.



AEROSPACE CHRONOLOGY FOR THE WEEK

Sept. 9, 2006 - 1st flight of the Boeing 747-400 Large Cargo Carrier, the Dreamlifter. Four of these aircraft were converted from 747-400 passenger jets. They are used to deliver fuselage and wing assemblies from subcontractors in Asia, Europe and the United States to Boeing's Everett, Washington facility where the 787 Dreamliner is assembled.



According to reports, the TLD loader is the largest in the world.

The conversion of standard airliners so that they have the ability to carry large cargos may be traced back to Aero Spacelines which modified the Boeing 377 Stratoliner, itself a development of the B-29.



Israel operated a small squadron of Model 377s. 4X-FPN, Masada, is on display at the Israeli Air Force Museum, Hatzetim Air Base. The IAF named this type Anak (Giant) but they had no idea of how large it could become.

NASA needed to move the large rocket boosters used in the manned space program from the West Coast builders to Cape Canaveral but the trip via the Panama Canal was slow. John M. Conry, another character who deserves his own Coastwatcher article, had the solution. A friend, Lee Mansdorf, owned some Boeing 377s and was looking for a way to employ them. They sketched out a rough plan on a cocktail napkin and Aero Spacelines was born. Three distinct designs were produced



A Mini-Guppy on display at the Tillamook Air Museum.

The Pregnant Guppy, an ex PanAm airframe with a five meter section from an ex-BOAC 377 inserted behind the wing.





The Super Guppy was larger and used turboprop engines. Later, Airbus used four of them to transport Airbus components.

Conry also modified a Canadair CL-44 into the CL-44-0 Skymonster.



Airbus modified their A-300-600ST (Super Transporter) but the name Beluga became popular and was officially adopted. Airbus also produced the A-320-743XL, the Super Beluga. Five of each mark were produced.



(Credit: SevenSharp)

Not to be outdone, the Soviets produced the Antonov An-225 *Mriya* (Dream) to shift their space shuttle, *Buran* (Snowstorm), to various sites. The An-225 is the heaviest aircraft ever built and holds numerous records.



Sept. 10, 1952 - Marine Captain Jesses G. Folmar flying the piston powered Vought F4U Corsair shoots down a MiG-15, the only time a Corsair scored a victory of over the MiG during the Korean War.



He and his wingman, Capt. Walter E. Daniels had planned in advance how to engage any MiGs encountered. The superior performance of the MiG-15 would be countered by turning into the enemy in a head-on attack. After departing from the escort carrier *USS Sicily*, they ran into eight of them. Folmar got into position for the previously planned head-on fight and flamed one of the North Koreans.



This painting of Folmar's victory is on display at the Museum of Naval Aviation, Pensacola, Florida.

His joy was short-lived when another MiG shot him down. But luck was with him. After a successful bail-out, he was plucked out of the ocean by an amphibious rescue plane.

Sept. 11, 1917 – Birth of Donald James Matthew Blakeslee. Blakeslee joined the Royal Canadian Air Force before the U.S. entered WWII and flew Spitfires. He then transferred to one of the Royal Air Force's Eagle Squadrons, mostly volunteers from the United States. In 1942, Blakeslee became part of the USAAF 4th Fighter Group which flew P-47 Thunderbolts and the P-51 Mustang. He rose to command the group

ended, 353 Cubs had been sold at around \$1,400 each.



An E-2 at the Virginia Air Museum



Blakeslee decked out in RAF garb.

A superb leader and tactician, he led his group on the first P-51 escort mission over Berlin and the first of the Russian shuttle missions. By war's end he was credited with 15.5 air victories and amassed more sorties and combat hours than any other American fighter pilot.

William Piper, one of Taylor's investors bought out Clarence Taylor and hired a young engineer, Walter Jamuoneau whose modifications of the E-2 lead to the iconic Piper J-3 Cub.

Sept. 13, 1994– The Airbus Beluga makes its maiden flight. It is based upon the A300 with an enlarged upper fuselage and a hinged nose door. It is used to transport Airbus components from subcontractors to assembly plants in Hamburg and Toulouse. Five have been produced and they replace the Boeing Super Guppies formerly employed as transports.



Blakeslee flew this P-51B Mustang on the first Berlin escort mission. He favored the aircraft because it was equipped with a Malcolm Hood canopy. (Credit: American Air Museum)

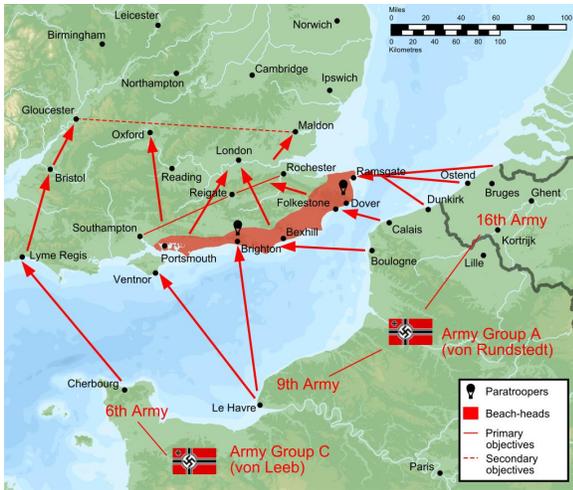


Beluga swallows not Jonah but an Airbus fuselage.

Sept. 12, 1930 – First flight of the Taylor E-2 Cub. The weak 20 HP Brownback Tiger Kitten engine managed to lift the Cub to a height of five feet and the flight ended with the end of the runway. A series of more powerful engines were tried and in February of the following year, a Continental A-40 developing 37 HP proved successful. A type certificate was awarded and when production

Sept. 14, 1940 – Hitler postpones Operation Sea Lion, the invasion of England.





The Plan

German High Command understood that Germany lacked both naval and air superiority. The *Kriegsmarine* lacked any operational capital ships. After heavy losses in the Norway campaign, they had only a heavy cruiser, three light cruisers and nine destroyers available. Against this paltry force, the British Home Fleet could muster an overwhelming array of battleships, cruisers and destroyers.

After failing to gain air superiority during the Battle of Britain, the Luftwaffe was unable to provide the vital air cover needed to protect the vulnerable cross-channel invasion transports. These were a cobbled together collection of river barges, ferries and tugboats, some of which had been hastily modified to function as landing crafts.



Typical barges gathered for the anticipated invasion.

Airborne assault was out. Four months earlier, the German airborne force, gliders and paratroopers had taken heavy casualties during the attack on the Netherlands, losing 250 Ju-52 transports and perhaps half its troop strength.

French Marshal Philippe Pétain, future leader of the collaborationist Vichy French government who was convinced that Germany would successfully invade Britain as it had done France. He warned Churchill in 1940 that in three weeks Britain would “have its neck wrung like a chicken.” Eighteen months later, in a famous speech, Churchill replied: "Some Chicken, some neck!"

Failing to subdue Britain, Hitler shifted his gaze eastward, towards the Soviet Union and started to implement plans for Operation Barbarossa. In 1707, Sweden invaded Russia. Study history! In 1812, Napoleon's *Grande Armée* reached the gates of Moscow. But Charles XII and Bonaparte faced a scorched earth policy, over-extended supply lines, and General Winter forced retreat and defeat. Hitler would soon learn the same lesson.

Sept. 15, 1991 - 1st flight of the Boeing C-17 Globemaster III. Designed and initially produced by McDonnell-Douglas, the C-17 has been rebranded after Boeing bought out McDonnell-Douglas. A total of 278 were built.

The predecessor Globemasters were the C-74 Globemaster I and the C-124 Globemaster II.



An RAF C-17 at Quonset Point supporting the RAF aerobatic team, the Red Arrows.

The Douglas C-74 Globemaster I was a limited production aircraft designed as heavy-lifter capable of carrying Army tanks, bulldozers, and artillery. Only 14 were produced.



The first C-74s had the unusual and unpopular double bubble canopy. It was soon abandoned and a conventional pilot's station was installed.

Douglas followed up with the C-124 Globemaster II, a far more successful design with 448 rolling off the production line. She was affectionately known as "Old Shaky" to her crews.



This Globemaster II was on display at the Bradley Air Museum before the the 1979 tornado devastated the collection.

It is interesting to compare some of the all-up weight of each of the designs with the C-5 Galaxy. It is instructive to note how the weights compare among the piston-engine, turbo-prop and pure jet aircraft.

The Globemaster I had a maximum take-off weight of 172,000 lb. Globemaster II could lift 194,500 lb off the runway. The turbine powered Globemaster III was capable of lifting 585,000 lb and the C-5, our largest strategic air-lifter has a 920,000 lb all-up weight.

AEROSPACE HISTORY

Semper Volans, a Reminiscence

by Stephen M. Rocketto

Today, September 10, marks the 60th anniversary of my first solo flight. It's been a good sixty years.

Years back CAP member Rob McGuire and I once engaged in a round of correspondence regarding our long time associations with aerospace. As a high schooler, Rob was an early proponent of model rocketry. In the mid '60s, he was the first advocate of this new hobby in Canaan, started a rocketry club at his high school, and demonstrated rocket flight to the local grammar schools. One of his two-stage rockets reached 3,500 feet, he flew camera equipped rockets and took aerial photographs which he then developed in his home darkroom.

As a youth he earned a ham radio operator's license, looked to a career in electronic research and getting a driver's license. His advice to Cadets is "Get motivated, Get a hobby, have fun with it. It may get you the job of your dreams and a lifetime of satisfaction." It worked for him.

McGuire now owns a Mooney holds the Airline Transport Rating and glider and seaplane instructor privileges, and works as a computer systems architect and avionics software specialist.

My early endeavors followed a similar path. Rocketry was not yet in vogue and radio controlled airplanes were beyond my skill and expense limitations so I settled for rubber band powered free flight models and U-control aircraft powered by the easily obtainable two cycle engines. I recall that my standard power-plant was the Herkimer OK Cub glow point engine with a displacement of 0.049 cubic inches. The engines used a nitromethane and oil based fuel and when running, emitted a loud insect-like buzz, not quite the rumble and roar of the real radials found on aircraft such as the T-6 Texan and the Beech 18. The fuel was death on the balsa wood firewalls and a good part of my time was spent reconstructing fuel soaked structural members. Eventually, my L-19 Bird Dog was irreparable.

My other problem involved an F-82 Twin Mustang. Getting both engines running at the same time with sufficient fuel for flight took three of us, two propping and one refueling. The Twin Mustang also gave me early experience in crew resource management, engine-out operations and asymmetrical thrust, all of it bad.

That OK Cub engine was a harbinger. Little did I think that the first airplane that I would get in and fly would be a Cub. There was a side advantage to the U-control hobby. The big dry cells which I used to light the glow plug to start the engine had another use. My coterie of friends I were also engaged in a rudimentary form of chemistry. We were not attempting to change base metals into gold but rather to change solids such as potassium nitrate, charcoal and sulphur into hot gases, smoke and noise. Anyway, we stumbled across the fact that we could produce hydrogen and oxygen from water by connecting the two poles of the battery to selected metals and placing them in water. And we knew about the *Hindenburg!* But I digress.

Unlike Rob, I had no interest in a driver's license. I was happy to bum rides from my buddies or used my bicycle or shank's mare for my independent explorations. However my life-long interest in aviation led me from models to full scale man carrying aircraft. Waterford Airport was a scant five miles from home.

In those days, "airport security" was what the air enthusiasts put up to cover their loans so that they had the lucre to fly. I was a regular visitor to Waterford where I made myself useful washing airplanes and handing tools to the bootleg mechanics which were always performing their own maintenance, an early introduction to the wonderful "dark side" of general aviation. From time to time, I was rewarded with a local flight or cross-country trip.

By my senior year in high school, I had been working part-time and saving to pay college tuition and I received a substantial scholarship and some loans. I realized that I could finance some limited flight instruction. But first I had to get by my mother, a depression era matron who knew the value of a buck and stood for no financial

tomfoolery. She never got a driver's license, knew how Notre Dame Coach Knute Rockne had died in an air crash, seen the wreckage of the *Hindenburg*, and followed the well publicized weekly losses of test pilots at what is now Edwards AFB. Nothing is as obsessive as the mother bear protecting her cub and a formidable obstacle stood in the way of my future in aviation.

I persistently argued that aviation was far safer than she believed. The metal wings of modern aircraft were not subject to wing failure which brought down the wooden-winged Fokker F.10 carrying Knute Rockne. Hydrogen was no longer in use and even if it had been, I would not be flying airships. Test pilots were flying experimental aircraft but I would dance aloft in well proven light planes. Receiving a scholarship, I had some surplus money which could be used for flight instruction. My logical approach combined with wheedling, whining, some groveling, and an appeal to Mom's deep-seated desire to see the needs of a son satisfied led to permission to fly. To assure my comfort and safety, she made me a white silk scarf and counseled me, for safety's sake, to fly low and slow.

Now back to Waterford Airport were I engaged the services of Pete Cloutier and his Piper J-3. For instruction, I paid Mr. Cloutier the princely sum of three dollars per hour and aircraft hire, wet, could be had for eight dollars per hour, a total of eleven dollars for each hour logged dual. Ground instruction was free!



N42592 and its 65 HP Continental engine. The aircraft was Cub yellow. The black lightning strike down the side made it go faster.

Fortunately, Mom did not know the details of flying a J-3. With no electric starter, my first lesson was "propping" the aircraft. The ritual for

starting the engine requires two operators and was performed in the following way. One man sat in the cockpit, let's call him the pilot, and the second man stood immediately in front of the aircraft, the "propper."

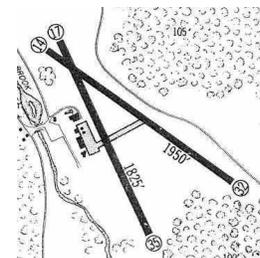
The ritual called for a series of commands and replies. First, the "propper" took position in front of the aircraft. He stood upright and close to the prop. If one got further from the prop, there was a tendency to lean forward and risk falling into the propeller which was an invitation to disaster. The "propper" called for "brakes on, throttle cracked, and magnetos off." The pilot replies "brakes on, throttle cracked, switch off." The "propper" tugged on the aircraft to assure that the brakes were set and pulled the propeller through about eight blades which delivered fuel to the induction system. Then the "propper" commanded "brakes on, throttle cracked, magnetos on." The pilot checked the brakes and throttle position and switched the magnetos to "both" and replied "brakes, throttle cracked, magnetos on." The "propper" grasped the propeller about half way between the hub and the tip and flicked it down.

With luck the engine started on the first pull. Cloutier could manage this feat by hanging out of the right side of the Cub, left hand on the door frame, and pulling the prop through with his right hand. I never tried this trick but I did learn how to prop an aircraft and never once did Mom ever learn about this unique aviation skill which I had acquired.

I also learned how to test the fabric of the Cub. I had told Mom that wooden wings were no more but never apprised her of the fact that the skin of the aircraft was nitrate doped cotton which deteriorated under the sun's ultraviolet rays. Testing was done with a small plunger which when placed against the skin, determined how much force was needed to puncture it. The hole was then patched with a piece of cotton, some glue, and some dope. I decided that Mom was better off not knowing that the material which covered the wings, empennage and fuselage of the Cub was the same as that which made up her dress.

Finally, the instructors all learned their trade in the days when engines were far less reliable than those of today. Engine failures were more common and expected. Consequently, every landing was dead stick. When passing the end of the approach end of the runway on downwind, the engine was throttled all the way back. A normal approach was flown and you were allowed a very brief burst of power on final to "clear" the engine. I thought it best not to inform Mom of this prudent need to practice a power-off landing. I also kept secret my lesson in entering and recovering from spins. The entire spectrum of early aviation movies and literature was filled with stark scenes of pilots dying in spins. There is no percentage in alarming your mother.

I was a ham-handed, club-footed student and the tail-dragging J-3, the short 1,900 foot runways and Waterford's location in a valley made for a long period of dual instruction. Then came September 10, 1960, the day before I left for college.



Waterford Airport (Credit: Paul Freeman, Abandoned and Little Known Airfields)

Last chance! Cleared to solo! Don't forget to trim. Twenty-five glorious minutes and three circuits aloft. Stick in right hand, left hand on throttle. Exhilaration! Time to land. Sweat! Carb heat. Flare and keep stick in belly. Squeak! Well, maybe a little bounce but a burst of power and hard work on the rudder pedals saves the day.

Away to Boston, the realities of paying tuition, room and board pretty much curtailed my nascent aviation career though I did manage to sneak in one flight out of East Boston's Revere Airport. The aircraft was an Aeronca 7AC Champ and I flew under the tutelage of Mr. Rodney Goreham, a WWII combat veteran of the Royal Canadian Air

Force and as I found out many years later, a Quiet Birdman.

Goreham has served a combat tour over Germany and been shot down so he had nerves of steel but a desire to live out a natural life span. Still ham-handed and club footed, I was on a final and too high so I attempted what I thought was a forward slip and drew an immediate physical response from Mr. Goreham. He seized the controls, entered coordinated flight, and got back to a safe airspeed. His verbal reprimand to the best of my recollection was "Don't ever do that again in one of my airplanes!" Cloutier and Goreham have both gone west and Waterford and Revere are now in the land of lost and forgotten fields but I have always cherished those early days.

We had no radios and the only instruments in the J-3 were an altimeter, airspeed indicator, tachometer, alcohol filled magnetic compass (fondly called a whiskey compass), and oil temperature and pressure gauges. The fuel gauge was mounted on the cowling, a metal rod which pierced the red fuel cap and was attached to a float in the 12 gallon fuel tank. The length of rod visible indicated the fuel state.



The fuel cap and gauge is centered on the cowl. The fuel tank is visible below the panel. Note the placard "Rear Seat for Solo Flying."

With neither a gyroscopic attitude indicators nor bank and turn indicator, instrument flight became problematic. With no radio, we were never distracted by air traffic controllers and could devote our full attention to aircraft control and navigation.

Navigation was rudimentary, either pilotage or dead reckoning. Pilotage is basically have a map or chart and following a route defined by easily identifiable landmarks. Dead reckoning involved using wind velocities, predicted and discovered in flight, to follow a magnetic course on the whiskey compass and checking it periodically by the time certain check-points were passed. Wags would say that "if you reckoned wrong, you were dead" but the name "dead reckoning" was really derived from "deduced reckoning, abbreviated as "ded. reckoning."

Due to weight an balance issues, solo was from the rear seat with terrible forward visibility on the ground. But in flight, with the the door locked down and the window locked up upi and enjoy the noise, breeze and passing scenery, always taking care to secure your chart else it depart through the open door.

Aviating was simpler in those days. But times change and not always for the better. Recently, my club installed a new radio panel in our plane. The price of the panel would buy two Cessna 172s in 1967! There were no terminal control areas and few if any temporary flight restrictions. The Federal Aviation Regulations was a slimmer volume and visiting airports and checking out the flight line was easy and pleasant.

But it is still fun to jump into an airplane and play with the cumulus. A night flight over a small town around Christmas provides a delightful vision of the celebratory lighting. Taking friends over the historic coast defense forts of Long Island Sound is always a delight. And there is always the personal satisfaction of a 720 degree 60 degree bank turn and hitting your own turbulence at the end or a squeaker of a landing in a crosswind. Most of the good times are behind me but the future still holds promise. *Semper Volans.*

