



Missions for America

Semper vigilans!

Semper volans!

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10 March, 2020

SQUADRON CALENDAR

14 MAR-CTWG Rifle

MAR 14-15-Unit Commander's Course

17 MAR-TRCS Meeting

21 MAR-CTWG Rifle

24 MAR-TRCS Meeting

28 or 29 MAR-Water Survival Training

07 APR-TRCS Staff Meeting

11 APRIL-First Aid Course

14 APR-TRCS Commander's Call

16-18 APR-NER/CTWG Conference

21 APR-TRCS Meeting

28 APR-TRCS Meeting

05 May-TRCS Staff Meeting

12 May-TRCS Commander's Call

16 MAY-Commander's Cup Rocket Contest

CADET MEETING

10 March, 2020

Lt Drost, Character Development Officer led the cadets in a seminar in which they explored the issue of keeping a confidence. The session opened by studying the case in which a general officer spoke too freely about the plans for the invasion of Europe and was called to account. Open discussion allowed the cadets to explore this and similar situations and come to grips with such concepts as trust, gossip, and information leaks.

SENIOR MEETING

10 March, 2020

Major Farley offered a question and answer safety discussion about protecting oneself from the possibility of contracting the corona virus. This same safety brief was repeated at the cadet meeting.

Pilots reviewed the danger of "confirmation bias." in which there is a tendency to interpret a situation as confirmation of one's existing beliefs. The discussion opened with a review of a recent situation in which there was a repeated failure to notice the correct take-off setting for flaps. Members freely related "war stories" about themselves falling into the same trap.

PROMOTIONS AND TRAINING

Communications Officer Lt Michael Kopycienski ran a training session for Cadet Michael Jeznach, the incoming Cadet Communications Officer



Cadet Trinidad and Lt Cantwell Observe the Training

PROMOTIONS



Cadet Johnpaul Wolfe is promoted to C/Amn and receives the Curry Award Ribbon



Cadets Stephen Buchko and Theodore Deveau are promoted to C/SrA and receive the Mary Feik Award Ribbon. Maj Farley and Cadet Deveau demonstrate the "elbow bump," the now viral maneuver to avoid a handshake and the dreaded corona virus.



Cadet Rachel Alexander is promoted to C/MSgt and presented with the Charles Lindberg Ribbon. C/SMSgt Elizabeth Burton displays her Two Year Membership Ribbon as Major Farley explains the requirements.



Four Cadets received NRA marksmanship medals. Cadet Kelly, Marksman, C/IstLt Munzner, Sharpshooter 8th Class, Cadet Buchko, Pro-Marksman and Cadet Wolfe, Sharpshooter 4th Class.

THE PUZZLER

*Submitted by
Thecla Abbiati*

According to airport records for 2019, the 10 busiest US airports by total passenger boardings are randomly listed below. Can you rank them and identify the major cities they serve?

DFW, SFO, MCO, ATL, ORD, JFK, LAX, SEA, DEN, LAS (*Answers at the end of this edition.*)

PROPOSED TOUR-USCG SECTOR LONG ISLAND BASE

Wing Operations is sponsoring a tour of the USCG Sector Long Island Base in New Haven. Interested officers should notify Squadron Commander Farley. Cadets should notify Cadet Deputy Commander Lt Thornell.

HISTORY

*Ed Heinemann
Doyen of the Attack Aircraft Designers
by Stephen M. Rocketto*



Ed Heinemann and the Prototype Skyhawk

March 14th marks the birthday of Edward H. Heinemann, born in 1908 and Chief Engineer at Douglas Aircraft from 1936 to 1960. At the age of eight, he failed to get a model airplane given to him as a gift to fly but it was the start of a career which culminated in 22 different designs. Trained as a draftsman, he received his schooling at Manual Arts High School in Los Angeles, the same institution attended by Jimmy Doolittle. During his early career he apprenticed under luminaries such as Jack Northrop and North American Aviation's Dutch Kindelburger.



Heinemann's first design, the Moreland M-1, a parasol wing monoplane.

He worked throughout the Great Depression on a number of projects which culminated in the Douglas SBD Avenger, the dive bomber which avenged Pearl Harbor, sinking *Akagi*, *Hiryu*, *Kaga*, and *Soryu*, four of the Japanese carriers which were part of the *Kido Butai* Pearl Harbor attack force.



Two SBD-3 Dauntless dive bombers off the USS Hornet prepare to attack the IJN cruiser Mikuma during the Battle of Midway.

A series of notable successes followed. Three classic attack aircraft emerged from his drawing board in World War II, the A-20 Havoc, A-26 Invader, and A-1 Skyraider.



A-20G Havoc

The Havoc was a single pilot attack bomber generally carrying eight fifty caliber machine guns in the nose. Half of the 7,500 produced were lend-leased to the Soviet Air Force. Variations also were equipped with a glazed nose for bombardiers.

The Intruder replaced the Havoc at war's end but saw considerable service in Korea and was rebuilt

for special operations in Vietnam. Like the Havoc, the Intruder could be equipped with a "bombardier" nose. Some models had upper and lower gun turrets controlled by a gunner using a periscope, an unwieldy and difficult to use system with little history of success.



Bombardier nose A-26C at Planes of Fame, Valle, Arizona

After the retirement of Martin's B-26 Marauder the A-26 designation was switched to B-26 causing some confusion to this young historian. And when the United States started sending Air Force Special Operations Forces to Indochina the designation reverted to A-26A, a silly political decision in order to hide the fact that the United States was putting bombers into the fight.



An On Mark Conversion of B-26B and C models to the A-26K Counter Invader photographed at the Air Commando Museum, Hurlburt Field, Florida

The Skyraider is considered to be the the paragon of attack planes. Seven variations and many subtypes were produced. They first saw combatservice with the Navy in Korea where they made the last torpedo attack in history against the Hwacheon Dam. The Air Force noted its capabilities and adopted it for both themselves and the Republic of Vietnam's air force.

Korean War Navy AD-4 carrying modified torpedo on way to the Hwacheon Dam (credit: US Navy)



Indochina War-Air Force A-1E at the National Museum of the USAF



Sometimes called the “Flying Dump Truck,” the aircraft dropped at least two unusual pieces of ordnance. Noting that their Skyraiders had “...dropped everything on them [the North Koreans] but a kitchen sink” challenged the men of VA-195 aboard the *USS Princeton* to meet the test. In August of 1952, ordnance men attached a kitchen sink to a 1,000 pound bomb and Lt. (j.g.) Carl Austin flying an AD-4 dropped it during a raid on Pyongyang.



The Merry Pranksters admire their work!

Not to be outdone and following the rule that “vulgar is better,” Commander Clarence J. Stoddard and the men of VA-25 operating off the *USS Midway* celebrated the dropping of six million pounds of ordnance by dropping a toilet on a Vietminh position in the Mekong Delta.



The Black 'E' on the “potty” is a Navy Award for Aviation Maintenance Excellence.

The problems of high speed jet flight was also “attacked” when the D-558-1 Skystreak and the D-558-2 Skyrocket flew for the National Advisory Committee for Aeronautics (NASA's predecessor)

and the US Navy.



Skystreak #1 sat the National Museum of the USN

Although the primary purpose of the turbojet Skystreak was to gather data on trans-sonic flight, it set an absolute speed on August 20th, 1947 when Commander Turner Caldwell, USN, averaged 640.774 mph in Skystreak #1. Five days later, Lt. Col. Marion Carl, USMC, in Skystreak #2 managed to squeeze an extra 10 mph out of the aircraft and hit 650 mph.

The D-558-2 Skyrocket added swept wings and rocket engines to a turbojet in a study of supersonic flight. Capable of taking off under its own turbo power, it was carried aloft by a mothership during the rocket test phase. On November 20th, 1953, Scott Crossfield became the first man to fly at twice the speed of sound.



Skyrocket launched from P2B (B-29) Mothership

Then Heinemann returned back to supplying aircraft for the Navy's attack community. The twin engine A3D Skywarrior, a strategic bomber and the diminutive A4D Skyhawk provided the Navy and Marines with a one-two carrier based punch.

For both designs, Heinemann applied his basic rule to “simplify and lose weight.” The weight was especially critical for carrier operations. Competing designs weighed in at around 100,000 pounds. Heinemann brought the Skywarrior in at 68,000 pounds and met all of the other contract specifications.



EA-6B at National Vigilance Park honoring the seven aircrew lost on a National Security Agency mission in the Mediterranean.

The Skyhawk was unique in that it reversed the trend for aircraft to weigh more and cost more. Bonus money was offered to anyone who could save a pound of weight in the design. The aircraft was so small that it did not require folding wings and the leading edge slats dropped automatically, features which eliminated motors, actuators, and plumbing. The slat feature is visible in the images below.



An A4D and a C-124A at the Bradley Air Museum, before the 1979 tornado

TA-4J at Grissom Air Museum, Peru, Indiana,



Marine A-4. The dorsal hump houses electronics.

In a throwback to the corrugated skin of the Fokker and Ford tri-motors, the rudder was ribbed which added strength and reduced the material needed. In the end, the Skyhawk's empty and gross weights compared favorably with the classic Skyraider prop plane which it replaced. It also came in under-cost, an extremely rare occurrence in a government sponsored project.

Heinemann did not neglect the Navy's fighter community. The F3D Skyknight was a twin engine night fighter whose pudgy silhouette led to a nickname, “Willy the Whale.” Unlike most Heinemann designs, the “Whale” was heavy.

As a dedicated night fighter, it carried for that time, an enormous 30 inch radar screen, associated vacuum tube electronics, and four 20 mm cannons. The large nose required by the radar allowed for a commodious cockpit featuring side-by-side seating, two steel thermos bottles, ashtrays and a cigarette lighter. *Sans* ejection seats, the crew bailed out by sliding down a ramp and dropping out of the bottom of the aircraft.

F3D-2 at the Flying Leatherneck Aviation Museum, MCAS El Toro.



The anemic J34 engines produced just over 3,000 pounds of thrust each so aviation gasoline was used to boost the power. The design featured turbojet exhausts canted slightly downward but this feature did not endear it to carrier captains or air base commanders. The heat from the exhausts could set a wooden carrier deck afire or melt the

tarmac on a ramp. Most of the Skyknights were based on land and flown by Marines.

But the Skyknight scored six air-to-air victories in Korea, more than any other Navy or Marine type and went on to serve during the Cuban Missile Crisis and in Vietnam as an electronic counter-measures aircraft.

His F4D Skyray was the first Navy aircraft to exceed Mach One in level flight. It also set a record for time to altitude from a standing start, reaching 41,221 feet in 2 minutes and 36 seconds, a rate of climb of around 19,000 feet per minute. Heinemann received the 1953 Collier Trophy for the Skyray design.

*F4D at the
New
England
Air
Museum*



After retirement, Heinemann opened a consulting firm and worked with General Dynamics on the F-111, the YF-16, on submarine programs in Groton, Connecticut and the development of the liquified natural gas ship at the Quincy Massachusetts shipyard.

Burt Rutan once stated that Heinemann was one of those engineers who “provided my inspiration.” Adm. Thomas H. Moorer, former Chairman of the Joint Chiefs of Staff, writes that “Ed Heinemann has been the guiding force behind a remarkably successful series of combat aircraft. No one better deserves the title, 'Mr. Attack Aviation.' ”

THE WEEK'S AEROSPACE ANNIVERSARIES

Mar. 11, 1959 – First flight of the Sikorsky's S-61, better known as the SH-3 Sea King. Primarily employed as a hunter-killer of submarines, the amphibious Sea King did yeoman's service for the off-shore oil industry and as a short haul airliner.



Mar. 12, 1947 – First flight of the Douglas Cloudster II. Using experience and data acquired from its work on the XB-42 Mixmaster, Douglas produced a single prototype.



The unusual feature of the aircraft was that two engines buried in the fuselage drove a single pusher propeller mounted in the tail. A high price and the lack of a market resulted in Douglas abandoning the project.

Mar. 13, 1922 – Portuguese pilots Capt. Gago Coutinho and Capt. Sacadura Cabral depart Lisbon and make the first successful aerial crossing of the South Atlantic. They arrive in Brazil on June 16th aboard the third replacement of the Fairey III aircrafts which were used up on the trip.



Mar. 14, 1885 – Gervais Raoul Lufbery, “American” World War I pilot, was born. He score all but one of his victories while flying in French units. Lufbery had a tenuous family connection with the Town of Wallingford where you find a street, a park, and the VFW Hall bearing his name.



Lufbery in the uniform of a French military aviator. Mascot Whiskey nuzzles Lufbery. He had two lions, Whiskey and Soda.



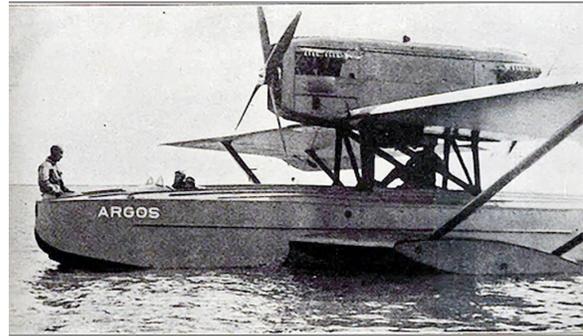
Mar. 15, 1967– First flight of the S-65, designated MH-53 and better known as the Super Jolly Green Giant search and rescue helicopter.



*HC-130P refuels HJ-53B over North Vietnam
(Credit: Jim Corcoran 40th ARRS)*

Mar. 16, 1927 – The Portuguese seaplane *Argos*, piloted by Sarmento de Beires, makes the first night aerial crossing of the South Atlantic, taking off from Portuguese Guinea and landing in Brazil. The aircraft was a Dornier Do J Wal and a crew of

four. The Dornier launched from Lisbon's Tagus River on March 7th and hopped from Casablanca to Bolama in Portuguese Guinea.



The heavy fuel load for the trans-Atlantic crossing meant that one crew member had to be left in Africa. The next stops was the Rocks of Saint Peter and Saint Paul and Fernando de Noronha Island east of Brazil, an 18 hour crossing. The final legs to Rio de Janeiro were via Recife and Natal.



Mar. 17, 1949 – *Sunkist Lady*, an Aeronca 15AC Sedan, departs Fullerton Municipal Airport, California piloted by Dick Riedel and Bill Barris. The goal: break the world's air endurance record of 736 hours set by Wes Carroll and Clyde Schliepper in 1939. The plan: a cross-country round trip from Fullerton to Miami, Florida and return.

The red and white *Sunkist Lady* was accompanied by another Aeronca, *The Lady's Maid* which carried the ground crew of Lloyd Colboch, Don Janson, and Frank Miller. They flew ahead and landed at planned refueling and resupply airports.

In a deal with Willy Motors, a local distributor would supply a Willys Jeepster which was loaded with food, water, and gasoline in three gallon cans. Repeated runs were made down the runway until the cargo and fuel had been transferred by hand. Then on to the next destination.



After reaching Florida, the weather west turned sour so they orbited the Miami area for two weeks!

The local FBI office became suspicious of their nocturnal resupply efforts and investigated suspecting some kind of smuggling. The G-men must not have read the newspapers which had been printing stories about the flight.

The weather improved and they got back to Fullerton on April 11th but then continued to fly in order to break the 1000 hour mark. The *Sunkist Lady* landed at Fullerton on April 11th after 42 days aloft. The flight consumed 6,552 gallons of avgas to cover about 75,000 miles. Time aloft was 1,008 hours

Sic Semper Gloria! Later that year, Bob Woodhouse and Woody Jongeward flew another Aeronca Sedan, *The City of Yuma* for 1,124 hours.



City of Yuma

The flight was a publicity stunt which hoped to influence the government to re-open the Yuma Army Airfield which had been closed since the war ended. Their goal was to fly for 1,010 hours, two hours more than the *Sunkist Lady*. Ten-Ten became the name of their refueling car, a 1948 Buick convertible.

Mirabilis dictu! The stunt worked. They got the Army to open up the Yuma AAF which is now Marine Corps Air Station Yuma. Today you can find the Aeronca and the Buick on display in Yuma City Hall.

That record lasted for nine years when *Hacienda*, a Cessna 172 Skyhawk clocked 1558 hours on the Hobbes meter, establishing a record which still stands.

The Hacienda pilots, Robert Timm and John Cook, depended upon a Ford truck with a fuel tank in the back. The Cessna had a 95 gallon belly tank and an onboard winch lowered a hose to the truck. The co-pilot seat was removed and replaced with a foam pad, not quite as luxurious as that which might be found in the Hacienda Hotel which they were promoting but an order of magnitude better than the accommodations in the Aeroncas.



Hacienda

(Credit: AP Photo/Yuma Daily Sun)

The Hacienda is now displayed in the McCarran Airfield terminal, Las Vegas, Nevada.

And the *Sunkist Lady*? Sadly, she has been lost to history.

Puzzle Answers

ATL, Atlanta; LAX, Los Angeles; ORD, Chicago; DFW, Dallas; DEN, Denver; JFK, New York; SFO, San Francisco; SEA, Seattle; LAS, Las Vegas; MCO, Orlando