



*Missions for America*  
*Semper vigilans!*  
*Semper volans!*

Publication of the Thames River Composite Squadron

Connecticut Wing  
Civil Air Patrol

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Issue 14.51

10 December, 2020

15 DEC-Senior Meeting-Change of Command  
17 DEC-Cadet Meeting-Character Development

No meeting-weeks of 22 & 29 December

26-30 DEC-Regional Cadet Leadership School

05 JA-Seniors Staff Meeting

06 JAN-Cadet Meeting-Aerospace

12 JAN-Senior Meeting-Commander's Call

### **SENIOR MEETING**

*08 December, 2020*

Maj Farley's Safety Briefing reported that CTWG is back to Phase One of the quarantine regulations which he reviewed.

Farley also reported the FAA waiver for orientation flights has been reinstated but that for the present, TRCS will not fly O'Flights.

The Squadron has met 11 of the sixteen goals. Three of the goals have been partially met and two have fallen short. In all cases, shortfalls can be attributed to the quarantine restrictions.

### **CADET MEETING**

*09 December, 2020*

Cadet Ceniglio briefed the cadet squadron on safety tips for the quarantine period.

Maj Farley explained the importance of the "phone tree" contact list and briefed the cadets on its use. Cadets were asked to check their numbers and correct them if they are incorrect.

Major Farley presented an aerospace education lesson on the Apollo 8 mission. His detailed briefing covered mission purpose, equipment and the orbital mechanics needed to successfully make the first trip around the moon.

## WEEKLY MISSIONS, ACTIVITIES AND AWARDS

### *Fruit Unloading and Distribution*

The citrus was delivered at 0700 on Friday, December 4. The following squadron members unloaded the truck, stacked the fruit in the trailer and conducted an inventory.



*Volunteers as interpreted by the Coastwatcher Film Noir Department*

The unloading crew were Matthew Madore, Scott Farley, Steve Rocketto, Jennifer Thornell and Mike Kopycienski. Cadets were Nick Buchko and Stephen Buchko. And Parents were Mrs Buchko.

Volunteers who worked on Saturday and Sunday to distribute fruit were Lt Col Doucette and Rocketto, Maj Farley, Lt Docker and Ceniglio, Mrs. Munzner and Cadets Cadets Munzner and Ceniglio.

### *Mission Radio Operator Re-qualification*

C/Capt Munzner and Lt Col Rocketto re-qualified as MROs.

### *Awards*

*Cadet Roan Shaffer received a community service ribbon.*

*Cadet Stephen Buchko received a recruiting ribbon.*

## CURRENT EVENTS

### *Habayusa 2 Capsule Recovered in Australian Desert Near Woomera*

NASA has received much praise for the amazing

flight of OSIRIS-Rex and the collection of material from the asteroid Bennu. It may be a hard act to follow but JAXA, Japan's Aerospace Exploration Agency, has managed to do it.

On Sunday, JAXA recovered a capsule which separated from their Hayabusa 2 probe. The capsule contains material from the asteroid Ryugu. Using special techniques, the recovered material will probably be sub-surface samples.



*A technician carries the retrieved capsule.*

This is the second time that Japanese Japan has garnered material from an asteroid. In 2010, Habayusa 1 landed on asteroid 25143 Itokawa and recovered a minute amount of material, the culmination of a seven year mission.

### *Chinese Moon Landing & Take-off*

Last Thursday, the unmanned Chinese Chang'e 5 lifted off from the moon with a load of lunar rocks. The four pounds of rocks were collected from the Sea of Storms and is due to land somewhere in Inner Mongolia in about two weeks.

## GONE WEST

### *Chuck Yeager*

Chuck Yeager, whose Appalachian drawl became a paradigm for the radio voice of the coolest of pilots filed his last flight plan and headed West on Monday, December 7, 2020.



*Brigadier General  
Charles E. Yeager,  
USAF*

Yeager was born in West Virginia in 1923. His family were farmers and he grew up in the town of Hamlin.



*Yeager is third from the left, in the front row.*

He enlisted in the Army in 1941 and served as a mechanic on the Beech AT-11 Kansan. A kindly pilot took him up for his first airplane ride and he relates "After about 30 minutes I puked all over my airplane. I said to myself, "Man, you made a big mistake."

*Yeager (left), an AT-11 crew chief at Victorville Air Base, CA, in the spring of 1942.*



Too young and with only a high school education, he was not eligible for pilot training. But Pearl Harbor led to a quick relaxation of the rules and he entered the "flying sergeants" program. Flight training was held at Luke Field, Arizona and on March 10, 1943, he received his wings and was promoted to flight officer.



*Aviation Cadet  
Yeager in front of  
Vultee BT-13  
Valiant (Credits: US Army  
Air Corps)*

In November, Yeager was in England flying the North American P-51C Mustang. He scored two kills and on his eighth mission was shot down over Nazi-occupied France.

*Flight Officer Charles E. Yeager, U.S. Army Air Corps, with his North American Aviation P-51B "Glamorous Glen." He named all of his aircraft after his fiance and wife to be.*



The French resistance assisted his evasion and he made it over the Pyrenees to Spain, finally reaching British held Gibraltar. Making it back to England, Yeager rejoined his old squadron, flew 56 more combat missions ending the war an ace, with 13 victories. He was also an "Ace in a Day, responsible for destroying five German aircraft on October 12, 1944.

The post war years were filled with testing a variety of new aircraft including studies of the strong and weak points of captured axis aircraft. This led to the best known achievement in his career, the breaking of the "sound barrier" in the Bell XS-1 on October 14, 1947.



*Captain Yeager and the Bell XS-1, first aircraft to exceed the speed of sound.*

Combat and test flying are not endeavors followed by the timid but risks can be balanced by prudent calculations. Yeager is quoted as saying that

*"I was always afraid of dying. Always. It was my fear that made me learn everything I could about my airplane and my emergency*

*equipment, and kept me flying respectful of my machine and always alert in the cockpit". but he also said that "Rules are made for those not willing to make their own."*

So in 1948, he flew a Lockheed P-80 under Charleston's South Side Bridge on the Kanawha River!



Yeager continued testing rocket and jet aircraft. In 1953, he became the first man to put Mach 2.5 on the meter, two and a half times the speed of sound, in the Bell X-1A. Eventually he commanded the Aerospace Research Pilot School, now the USAF Test Pilot School.

*Major Charles E. Yeager, U.S. Air Force, seated in the cockpit of the Bell X-1A in 1953.*  
(Credit: U.S. Air Force)



He spent a spell as a squadron commander in Europe flying the F-86H Sabrejet with the 417th Fighter-Bomber Squadron and the F-100D Super Sabre with the First Fighter Day Squadron before returning to test flying.

*Captain Charles E. Yeager, USAF with a North American Aviation F-86A Sabre, Los Angeles, 21 January 1949.*  
(Credit: Bettman/CORBIS)



*Lieutenant Colonel Charles E. Yeager, USAF, 1st Fighter Day Squadron, with North American Aviation F-100F- Super Sabre, George Air Force Base, California, 1958.* (Credit: U.S. Air Force)

In December or 1963, Yeager was almost killed when his Lockheed NF-104 astronaut trainer went out of control at 108,700 feet. After 14 flat spins, Yeager ejected at 8,500 feet becoming the first pilot to eject while wearing a full pressure suit. The incident is depicted in the film, *The Right Stuff*, but the movie makers took a lot of liberties and almost none of what is depicted, except the crash, is true. But that's Hollywood!



*Yeager in the cockpit of a Lockheed NF-104* (Credit: U.S. Air Force)

During the Vietnam unpleasantness, Yeager commanded the 405th Fighter Wing and flew 147 missions, mostly on the McDonnell F-4 Phantom II and the Martin B-57 Canberra. He then went on

to command the 4th Tactical Fighter Wing in South Korea.



*Colonel Yeager commanding the 405th Fighter Wing confers with crew chief TSGT Rodney Sirois, before a combat mission with a Martin B-57 Canberra during the Vietnam War. (Credit: Andrew Headland Jr./STARS and Stripes)*

He officially retired as a brigadier general in 1975 ending a 33 year career during which he logged 18,000 hours in hundreds of different types of aircraft. However, he continued to fly as a consultant for NASA and the USAF and engaged in a wide range of private ventures.

Over his lifetime, Yeager set many records and acquired many honors. The Civil Air Patrol awards The General Charles E. "Chuck" Yeager Aerospace Education Achievement Award to any member who completes the Aerospace Education Program for Senior Members.



Candidates for the "Yeager Ribbon" by studying a book, *Aerospace, The Journey of Flight*, and take a 100 question test on the history and technical aspects with which all CAP members ought be familiar.

## AEROSPACE CHRONOLOGY FOR THE WEEK

**Dec. 9, 1951** – First flight of the Fiat G.80, Italy's first true jet. Two prototypes and three production machines were built but the design failed to be adopted for service use.



*G.80 on display at the Italian Air Force Museum*

**Dec. 10, 1941** – Billy Mitchell's belief that aircraft can sink capital ships is justified when a force of 85 Indochina based Mitsubishi G3M Nells and G4M Bettys sink the battleship *HMS Prince of Wales* and the battlecruiser *HMS Repulse* using a combination of torpedoes and bombs.



*Painting by Chris Flodbert shows Repulse and Prince of Wales in line astern.*



*Nell and Betty bombers comprised the primary attack force.*



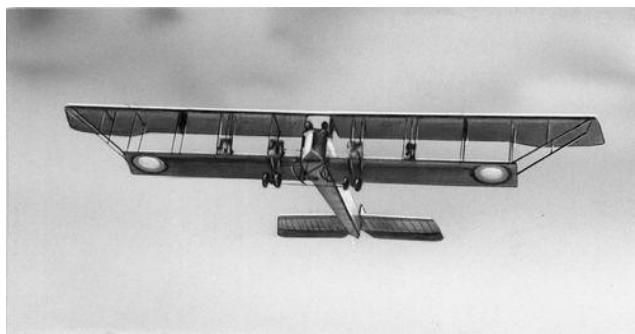
The proud Royal Navy never requested air support from Royal Air Force fighters based in Singapore. That combined with an underestimation of the quality of Japanese tactics and equipment led to the elimination of the major British naval force in the Pacific. The cost to the Japanese was four aircraft downed by anti-aircraft fire.



*Aerial imagery of the maneuvering vessels during the horizontal bombing phase of the attack.*

A rare occurrence of chivalry occurred on the day following the battle. Lt Haruki Iki dropped two wreaths of flowers on the battle site in honor of the lost Japanese pilots and in honor of the brave defense exhibited by the Royal Navy sailors on the two doomed ships.

**Dec. 11, 1913** – First flight of the Illya Muromets, a four engine aircraft designed by Igor Sikorsky specifically for commercial service. Sixty were built and in WWI, The Russians formed a 40 aircraft squadron, the *Eskadra Vozdushnykh Korablei* which was used tactically, mostly against rail centers.



*S-23 bomber version of the Illya Muromets*

**Dec. 12, 1941** – On his way to take command of the Hawaiian Department of the Army a week after the Pearl Harbor attack, Maj. Gen. Herbert A. Dargue and his staff are killed when the Douglas B-18 in which they were flying crashed in California's Sierra Nevada mountains during bad weather. Dargue is the first army general officer to die while on duty during World War II.



*Dargue was a pioneer of U.S. military aviation. Here is with Edgar S. Gorrell flying against Pancho Villa in the 1916 Punitive Expedition in Mexico. Gorrell was a graduate of the USMA and MIT and saw service in WWII. (Credit: US Signal Corps)*

**Dec 13, 1951**– Maj. George Davis, a WWII Ace with 7 kills shoots down four MiG-15 Fagots in one day. Davis would later be posthumously awarded the Congressional Medal of Honor for a fight on 10 February 1951 in which he was killed.

*Davis and the Air Force Congressional Medal of Honor*



His citation reads:

*Major Davis' element leader ran out of oxygen and was forced to retire from the flight with his wingman accompanying him. Davis and the remaining F-86 continued the mission and sighted a formation of approximately 12 MIG-15 aircraft speeding southward toward an area where friendly fighter-bombers were conducting low-level operations against the Communist lines of communications. With selfless disregard for the numerical superiority of the enemy, Davis positioned his two aircraft, then dove at the MIG formation. While speeding through the formation from the rear, he singled out a MIG and destroyed it with a concentrated burst of fire . . . now under continuous fire, he sustained the attack and fired at another MIG which burst into smoke and flames and went into a vertical dive. Rather than maintain his superior speed and evade the enemy, he elected to reduce his speed and sought out still a third MIG-15. During this latest attack his aircraft sustained a direct hit, went out of control, then crashed into a mountain 30 miles south of the Yalu River. Davis' bold attack completely disrupted the enemy formation, permitting the friendly fighter-bombers to successfully complete their interdiction mission . . his superb courage against formidable odds exemplified valor at its highest.*

**Dec. 14, 1986** – Dick Rutan and Jeana Yeager leave Edwards Air Force Base in the Voyager, an aircraft designed by his brother, Bert Rutan. On December 23, they land back at Edwards after flying for 216 hours and covering 24,0987 miles. This is the first non-stop aerial circumnavigation of the earth without refueling.



(Credit: WTOP)

**Dec. 15, 1944** – Famous big-band leader Glenn Miller, a major in the USAAF and two other officers disappear on a flight from RAF Twinwood Farms, Bedfordshire, England to Paris.



Credits (USAAF)

Miller was on his way to Europe to give a concert for the troops who had liberated Paris. The aircraft was a Noorduyn UC-64 Norseman.



Miller and the AAF Band entertaining troops.

The most likely cause for the disappearance is that an inexperienced pilot, foggy weather, and a carburetor which had just been worked on led to carburetor icing, loss of power, and a crash. A second less likely theory suggests the possibility that the Norseman wandered at low altitude into an area over the English Channel into which RAF Lancasters were salvoing bombs. One of the explosions brought down the aircraft.

*Miller was probably in a Norseman like this one, painted with D-Day invasion stripes.*



As might be expected, conspiracy theories abound. Two such are that powerful forces of the government covered up his death by a Nazi assassin or of a heart attack in a Paris bordello.

The indefatigable Richard Gillespie founder of TIGHAR, The International Group for Historic Aircraft Recovery and tireless pursuer of Amelia Earhart's Lockheed has also expressed an interest in the Miller aircraft. A BBC report that a fisherman had snagged an airplane in a net in the English Channel in 1987 (But it got away!) has been investigated. But as is the case with Earhart. The fisherman, interviewed, *years later*, saw pictures of the Noorduyn Norseman and remembers that the aircraft he snagged was the same type. Good luck on that search. The bottom of the English Channel is "paved" with the wreckage of WWII aircraft to say nothing about a 1000 years worth of shipwrecks.



*Miller's  
memorial stone  
may be found in  
New Haven's  
Grove Street  
Cemetery.*

## FEATURED AIRCRAFT

by

C/TSGT Stephen Buchko

During the late 1960's, the Vietnam War was at its hottest. The Americans were hastily adapting the Bell UH-1 "Huey" helicopters into an armed assault helicopters, capable of carrying armed troops to the frontlines yet able to provide fire support for the soldiers on the ground. But the Huey couldn't carry many soldiers, and it was inadequately armed.

Meanwhile, the Soviets were studying the conflict. They saw the shortcomings of the Huey, but they liked the idea. They first tried arming the Mil Mi-4 "Hound" Helicopter. But the Hound was an old helicopter, it entered service in 1953 and was the Soviet equivalent to the Sikorsky S-55, so it was found to be inadequate.



The Soviets wanted a heavily armed and armored, twin engine helicopter. The winning design came from the Mil Moscow helicopter plant, with founder Mikhail Mil contributing to the design. This was designated the Mi-24 and was approved in February, 1969. Mil many design features from his other recent helicopter, the Mi-8 Hip, including the fuselage layout and engine placement of two Isotov TV-2 1500hp turboshafts.



*Mi-8M*

On September 19, 1969 the prototype Mi-24 made its maiden flight. The original helicopter, Code-named Hind-A by NATO, looked very similar to the Mil Mi-8 Hip transport helicopter. It used a modified Mi-8 fuselage. But the Hind-A had two flaws.



*Mi-24A* (Credit:Riyah)

The armor protection around the canopy was very thin and with the crew crowded in close quarters. One well-placed hit could kill them all. To combat these flaws, the Mi-24 Hind-D appeared with a totally redesigned cockpit area using more robust armor and tandem seating in separate cockpits rather than side by side.

The Hind-D also added a power chin turret with a four-barreled 12.7mm Gatling gun. A twin barreled 30mm cannon was sometimes fitted to provide heavier fire support. Later models also had a 23mm cannon in a remote controlled turret facing aft. It also can carry additional guns, bombs, unguided rockets and anti-tank guided missiles suspended from hard points on its stub wings.



(Credit: CTK/Eastphoto)

The Hind's first taste of combat came in 1977 in the Ogaden War when the Somalis invaded the Ethiopian region of Ogaden. However, the first major use of the Mi-24 was in the 1979-1989

Soviet-Afghan wars in which the Mi-24 undertook airstrikes against the Afghan rebels in conjunction with Sukhoi Su-25 "Frogfoot" attack aircraft. The Mi-24 excelled in this type of combat, but when the CIA supplied American-made Stinger short range Surface-to-Air Missiles to the rebels, it started to become the hunted, not the hunter.



*Mujahideen wields a Stinger in the Safed Koh Mountains in 1988.* (Credit: Robert Nickelsberg/Liaison)

In the 1990's, because of its service during the Croatian War of Independence, the Chechnya Wars, and later the Kosovo War, the Mi-24 gained a reputation for rugged dependability and reliability. Since then, the Mi-24's has also fought each other! During the 2008 South Ossetia War, both sides, Russia and Georgia, committed Mi-24 units to combat.



*Two version's of the Mi-24 Hind are in use with the Georgian Air Force, namely the Hind-F (foreground) and the Hind-E (behind).*

In the end, 2,300 Hinds in dozens of variants were built and employed by around 60 different nations and many countries are still using it to this day.