



*Missions for America
Semper vigilans!
Semper volans!*

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10 JAN-TRCS Commander's Call/Cadet CoC
17 JAN-TRCS Meeting
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14 FEB-Commander's Call (Valentine's Day)
21 FEB-TRCS Meeting (Fat Tuesday)
28 FEB-TRCS Meeting

CADET MEETING

03 January 2023

submitted by

C/Amn Lucas Dellacono

The Cadets were offered with a Virginia Tech Corps of Cadets recruitment presentation by a Civil Air Patrol cadet from Thames River Composite Squadron, C/2dLt Rachel Alexander. She spoke about daily cadet life, accommodations and on-campus activities.

Alexander pointing out features of Virginia Tech Corps of Cadets life.



C/MSgt Knets, received the new STEM Basic Award for completing projects sourced from the CAP supplied Snaptricity kit.



Cadet Knets is congratulated by Maj Bourque

(Photocredits: Cadet Dellacono)

SENIOR MEETING

03 January, 2023

submitted by

2dLt Joanne Richards

Updates were provided by department heads for finance, cadet programs, communications, aerospace, public affairs and facilities.

MISSIONS

Thames River flew its first ice patrol on 27 December. Captains Adam Spreccace and Jason Otrin flew to New Haven and picked up LCDR Sarah Janaro from USCG Sector Long Island Sound and flew the Ice Patrol East mission, the Connecticut River to Hartford and the Thames River. Ice was photographed and transmitted to the USCG for analysis.

Our second mission on January 31st was cancelled due to low visibility and ceilings.

CURRENT EVENTS

Joe Kittinger Goes West

Col Joseph W. Kittinger II went West on December 9, 2022.



A larger-than-life personality, Joe Kittinger had a lifetime immersion in aviation. He soloed in a Cub at 17 and earned his USAF commission and wings in 1950.

After duty as a fighter pilot, Kittinger served at the Air Force Missile Development Center at Holloman AFB in New Mexico and flew the chase aircraft during Col John Paul Stapp's rocket sled experiments which investigated very high g-load effects on a human being. His association with Stapp led him into what became the hallmark of his career, high altitude parachuting from a balloon. In 1960, he bailed out at an altitude of 102,800 feet setting an unofficial world record and fastest free-fall speed by a human being.



While in New Mexico, he became part of the Roswell flying saucer crash and the purported recovery of alien bodies. The Air Force had been conducting drop tests of anthropomorphic dummies from high altitude balloons as part of the study of high altitude bailouts. Some of them landed outside of military reservations and the appearance of recovery teams hauling the heavy instrumented dummies away on gurneys. Public curiosity led to attempts to badger officials for more information.

A testy Kittinger, annoyed, curtly told one of them to bugger off and the legend of the angry red-headed captain entered the UFO literature. Angry perhaps, confidential military secrets were involved but Joe had a sense of humor. When he settled down after retirement from the Air Force, the doormat of his Orlando home says "Welcome UFOs and Crews." The greeting on his answering machine is "Hello, you've reached the home of the UFO mystery man"

Kittinger served in Vietnam flying three tours and logging 483 combat missions. His first two tours were air commando operations flying the B-26 Invader and B-26K Counter-Invader before the United States was "officially" engaged.



Kittinger, far right and some of the first Air Commandos in front of one of their b-26s.

His third tour was an assignment flying the F4D with the famous 555th Tactical Fighter Squadron, the “Triple Nickels.” He was credited with taking down one MiG-21 but on May 11, 1972, just before the end of his third tour, he was shot down and spent 11 months as a prisoner of war. One thing he did during his time of imprisonment was planning a trip for a solo trans-Atlantic balloon flight.

The solo balloon flight became a reality. On September 14, 84, he lifted off from Caribou, Maine in Rosie O'Grady's *Balloon of Peace*, a helium filled Yost GB55.



A balloon is a very simple aircraft with little that can go wrong mechanically but on the first night, his gas stove malfunctioned and he lived for the next three days on a bag of peanuts and four cans of cold spaghetti. Thunderstorms over Italy forced him to land and after 84 hours, the Rosie O'Grady buffeted by rain and strong winds made a rough landing in a forest near Montenotte and Joe broke his ankle. He said the landing “...was an interesting one.”



Kittinger, deflated balloon behind and standing on a broken ankle, gives the V sign for victory and awaits his champagne.

(Credit: Kittinger Collection)

Joe's log book records almost 17,000 hours of flight time of which 9,000 hours are non-military flights. He was always eager to promote aeronautics and he generously contributed his experience and skill to the aviation community. He was instrumental in advising future high altitude parachutists including Felix Baumgartner who broke his skydiving record. Two years ago, he donated a \$5,000 prize and a cup to Civil Air Patrol for the first National Aerospace Education High-Altitude Balloon Challenge for Cadets and personally presented the Kittinger Cup to the winning squadron.

During a 1984 interview, Kittinger noted that “Life is an adventure, and I’m an adventurer,. You just have to go for it. That’s the American way.” He has left aviation a lasting legacy of remarkable achievements and charted a course for how to live a lifetime's flight. Joe, blue skies and tailwinds.

X-37B Record Setting Flight

These days, the recent remarkable flight of the Boeing X-37B Orbital Test Vehicle (OTV) has been overshadowed by the dazzling imagery from the James Webb Space Telescope and Elon Musk's repeated SpaceX Falcon flights. But on November 12, 2022, the X-37B #1 landed at the Kennedy Space Center concluding its sixth mission, a mission which spent 908 days in low earth orbit.



The X-37B at Kennedy after landing.

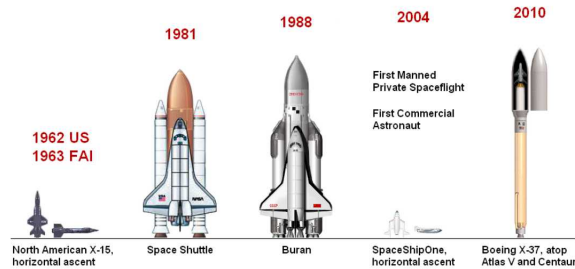
(Credit: Boeing/U.S. Space Forces)

The missions have been shrouded in secrecy. The Air Force states that the OTV is "an experimental

test program to demonstrate technologies for a reliable, reusable, unmanned space test platform.” Much of the experimental packages which they carry are classified but some of them have been openly discussed, mostly materials and electronic systems testing. There have been some murmurings that the OYVs might be able to perform on-orbit inspections of other spacecraft, conduct intelligence, surveillance and reconnaissance missions or provide targeting data.

The unmanned X-37B is lofted into orbit by an Atlas V or Falcon 9 Launcher and returns to earth for automatic landings. The on-board propulsive power for orbital maneuvering is a single Aerojet rocket and energy for the communications and experiments is provided by a solar array consisting of gallium arsenide solar cells and lithium-ion batteries.

First Spaceplanes



(Credit: Kevin Case)

Currently, there are two X-37Bs operated by the USAF. The all-up weight is 11,000 pounds and a 500 pound payload is packed into a 4 foot by 7 foot cargo bay. Wing span is a diminutive 14 ft and the length is about 30 feet, about the same as a Cessna 182.

AEROSPACE HISTORY

January 4, 1957 – The Brooklyn Dodgers became the first major league baseball team to purchase an airliner for transporting the players. Dodger president Walter O'Malley was a buddy of Eastern Airline president Eddie Rickenbacker. Eastern had an order for 20 Convair CV-440 Metropolitan and Captain Eddie allowed the Dodgers to take one of the for \$775,000.



The pioneering use of air transport allowed the Dodgers and Giants to move to the West Coast in 1958. Ironically, the team which replaced them in New York, an event made possible by air transportation bore the corporate name, New York Metropolitan Baseball Club, Inc., Mets for short.

January 5, 1945 – The Bell H-13 Sioux featured in the opening title sequence of TV's Korean War comedy-drama M*A*S*H is the descendent of the first Bell helicopter which participated in a rescue mission. Jack Woolams had to bail out of a P-59 Airacomet and landed in a snow covered field. He had lost his boots when the parachute opened and walked bare-footed two miles to a farm house.



Woolams on the wing of a P-59. (Credit "Bell")



The wreckage in a snow covered field (Credit: Niagara Aerospace Museum)

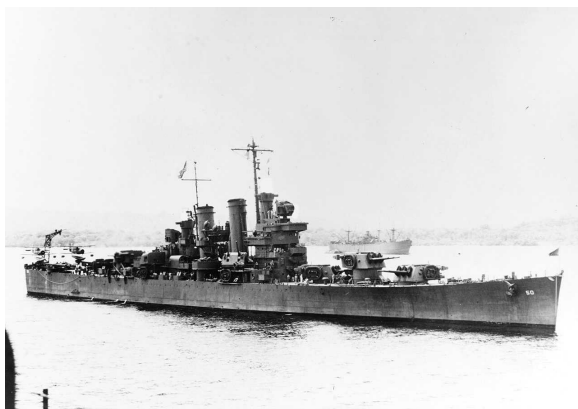
The company ambulance could not get to the farm house because of the snow so Bell Aircraft president Lawrence D. Bell sent the company's second prototype Bell Model 30 helicopter, NX41868, flown by test pilot Floyd Carlson, and carrying doctor, J.A. Marriott, M.D., to the location to take Woolams to the hospital.



*NX41868, Bell Model 30 #2, the rescue aircraft.
(Credit: Bell)*

As a side note, Bell's TV exposure overshadowed the reputation of the Air Force Sikorsky H-5 "DragonFly" (S-51), the Marine Sikorsky HO5S (S-52) and the Army Sikorsky H-19 Chickasaw

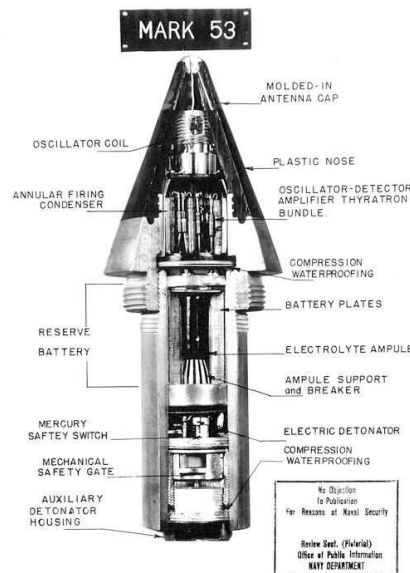
January 6, 1943– One of the most important and least known advances in weaponry, the proximity fuse, made its debut when 5 inch anti-aircraft guns on the USS Helena (CV-50) brought an Aichi D3A Val dive bomber.



USS Helena. The twin five inch turrets, two to a side are visible. One is trained outboard just in front of the stack and the second is trained aft near the end of the superstructure. (Credit: U.S.Navy)

The fuse is a complex miniaturized electro-

mechanical radio transmitter and receiver fitted into the warhead of an artillery round. It broadcast a signal which when reflected from a target doppler shifted its frequency. The frequency indicated the distance to the target and at a pre-set distance, a circuit closed, firing a fuse which detonated the warhead. A direct hit was no longer needed. As in horseshoes, close enough scored points. Lethality of artillery was improved by an estimated 5-10 times.



The design was not trivial. It was pre-solid state electronics and the tiny glass vacuum tubes had to withstand 25,000 rpms and 20,000 g's when fired from a 5in/50cal gun.



A 3.4 inch variable time fuse

One of the tube designers was Dr. James Van Allen who later developed instrumentation flown on the early satellites and honored by the naming of the eponymous radiation belts discovered in 1958 by Explorer I, the first successful U.S. satellite.

January 7, 1911 – Lieutenant Myron Sydney Crissy, United States Army, drops the first live bomb from an airplane. From an altitude of 1,500 feet, he manages to put the 36 pound bomb loaded with picric acid inside a 20 square foot target area on San Francisco's Tanofan Race Track. The aircraft is a Wright Model B flown by exhibition pilot Philip O. Parmalee.



Golden Gate NRA, Park Archives, PAM Photo Collection, GOGA-1766

Crissy, holding bomb on left Parmalee might be considering whether or not just flying is dangerous enough already.

On November 11, 1911, the aerial bomb is first used in combat. Italian Lt. Giulio Gavotti, flying an Etrich Taube monoplane bombed Turkish positions in Libya during the Battle of Ain Zara.



Life on a desert ramp in Libya.

He dropped at least four four pound grenades, each about grape fruit sized on two Turkish positions. The Ottoman's protested noting that bombing from balloons had been outlawed by the Hague Convention of 1899. But crafty Italian diplomats rejected their protest pointing out that the ban did not explicitly mention heavier-than-air craft.

January 8, 1998 – Boeing changes the name of the MD-95 jetliner to the 717 – 200 and therein lies a story.



AirTran was the launch customer and acquired 117 including the first and last built. When Southwest acquired AirTran, the leased the entire fleet to Delta.

Boeing's commercial jetliners all bore a similar designation, 7X&7 from the 707 to the 787 with the sole exception of the 720,. At one time during its development state, the 720 was denominated as the 707-20 and the 717-020, confusingly the same designation given to the KC-135. The 720 name was in answer to a request from United Airlines to satisfy their merchandising needs but the aircraft was essentially a shortened 707 derivative.

Rival Douglas had produced the highly successful DC-9 family.



Aeromexico DC-9-32

When McDonnell and Douglas merged, the DC-9 Series 80 was renamed as the MD-90. The MD series was developed ending in the MD-95. When Boeing swallowed McDonnell-Douglas, they decided to rebrand to MD-95 and chose 717-200 which had never been used publicly and left a void in the 7X7 sequence.

Boeing is studying a new mid-sized aircraft which would likely become the 797 but work has been forestalled while waiting for the development of new engines and new technology. What is intriguing is what might come after 797 in the Boeing line.

January 9, 1962 – First flight of the Hawker Siddeley Trident.



Trident 2E. The 'E' stands for "extended range."

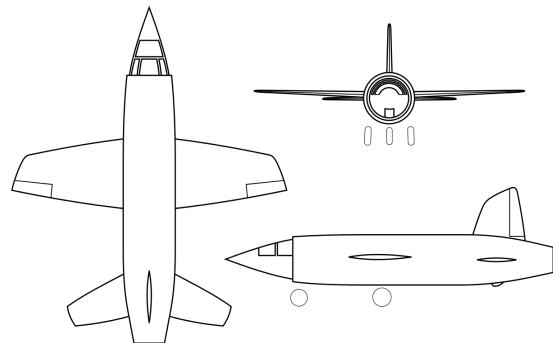
The Trident was one of the three engine medium range narrow body commercial jet liners which populated the airspace in the 1960s and exemplified by Boeing's highly successful 727, BAC's One-Eleven, the Tupolev 154 and the Yak 42. It has a history of certification ownership similar to the 717-200/MD-95

The original work was done by de Havilland as the DH.121. But in the 1950's the British government decided that there were too many aircraft manufacturers for the available markets and sought to force amalgamation of many of the companies. Wishing to maintain independence, de Havilland formed a consortium with two other companies, Hunting and Fairey under the name Airco, a defunct company which had once been

one of the largest during the Great War and the employer of Geoffrey de Havilland. For a short time, the aircraft was designated the Airco. DH.121.

On 4 February 1958, de Havilland, along with Hunting and Fairey, announced that they had agreed to form a partnership for the purpose of manufacturing and marketing the DH.121; the consortium adopted the corporate name of the defunct Airco company, The Ministry of Supply was not amused by the end run but the Airco consortium moved ahead and then made a massive blunder. They contacted Boeing, then engaged in the 727 project and suggested a meeting, hoping the Boeing might partner with Airco in producing the DH.121. Boeing visited the de Havilland Hatfield plant, was taken on board and given access to de Havilland's proprietary data. Boeing did not reciprocate when Airco visited Seattle.

This episode is a reminder of what happened during the race to be first to Mach One. The British company Miles Aircraft had designed the turbine powered M.52 and in 1944, the British Air Ministry provided drawings and experimental data to Bell Aircraft but Bell did not reciprocate.



3-View drawing of the Miles M.52. (Credit: MLWatts)

In 1947, Bell was flight testing the rocket powered X-1 but had problems with stability. They used the Miles data to reconstruct the horizontal stabilizer, making it a one-piece variable incidence control surface and on October 14, 1947, the Bell X-1 became the first aircraft to exceed Mach One.

The M.52 was never completed. The cash-strapped British government terminated the contract in February of 1946, citing economic reasons and less well-known, a failure of nerve by the government about the future of supersonic flight.

One does not know what information acquired from Airco went into the Boeing 727 but as the Chinese government well knows, proprietary data from a rival commercial rival can grease the skids to commercial success.



Eventually, the Airco consortium disintegrated and in 1960, de Havilland was absorbed into the Hawker-Siddeley company and the HS.121 Trident went on to make its first flight two years later and enjoyed limited commercial success.

However, its advanced electronics made it the first aircraft capable of Category 3C operations, zero-zero landing minima. However, the large bay required for the CAT-C equipment required that the nose wheel be off-set to the port side, a feature it shares with the A-10 Warthog except the the A-10 nose wheel is off-set to starboard to accommodate the Vulcan cannon.



The Trident Off-Set Nose Gear (Credit: MilborneOne)



A-10 Off-Set Nose Gear

Due to the chaos in the British aircraft industry and demands for design changes by its principal customer, British European Airways, the Trident was “a day late and a shilling short” and only 117 were built compared to the over 1,800 which rolled out of Boeing's Renton plant.

January 10, 1883 – Birth of Arthur Charles Hubert Latham, a pioneering French aeronaut and record setting pilot.



Wilbur Wright with Latham at Asbury Park, N.J.

In 1910.

(Credit: Cole & Co.)

The *Daily Mail* had offered a £1,000 pound prize for the first pilot to fly across the English Channel. Latham, Charles de Lambert and Louis Blériot all staged near Calais for the 22 mile flight to Dover.

Latham made two attempts, on June 6, 1909 and July 27, 1909 flying an Antoinette IV. Both flights suffered engine failures and he ditched in the Channel making him the first pilot to ditch and aircraft and the first to do it twice.

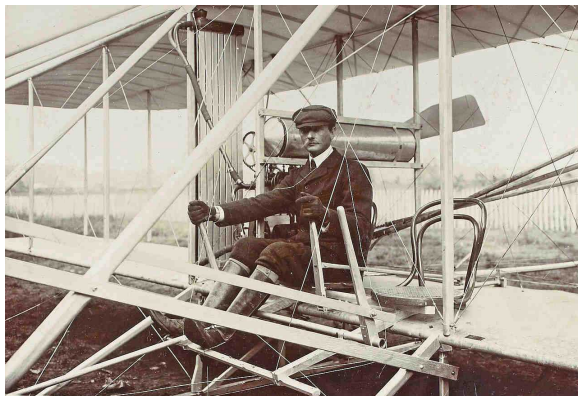


Latham passes a barque during his 2nd flight on July 27th.



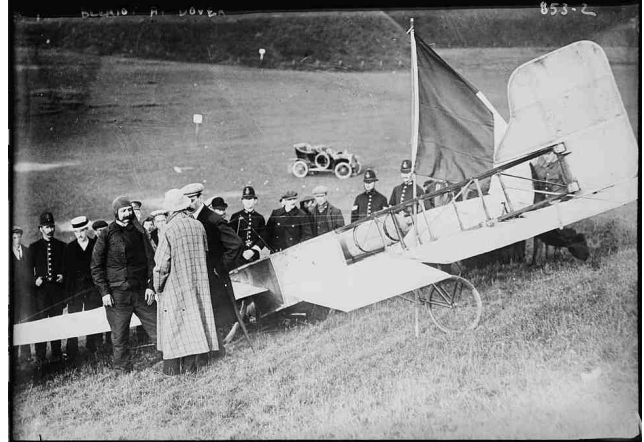
Latham on the wing of his aircraft during the salvage effort.

Lambert, who had been taught to fly by Orville Wright wrecked his Wright Flyer and withdrew from the race.



Lambert in a Wright Model A. (Credit Jules Beau)

On July 25, 1909, Louis Blériot copped the £1,000 pound prize by flying his Blériot IX monoplane across in 36min 30sec. He made a hard landing on a downward slope of Northfall Meadow near Dover Castle in Kent damaging his landing gear but walking away unharmed and richer by £1,000 pounds sterling.



(Credit: Library of Congress)

MINI-QUIZ



Col Larry Trick sent *The Coastwatcher* a photo of the ramp at the Navy's Test Pilot School, NAS Patuxent River, Trapnell Field, Maryland. Can you name each of the Pax River's stable of a dozen aircraft?



Send your answers to the Editor for credit in the next edition. srocketto@aquilasys.com.