

*Missions for America  
Semper vigilans!  
Semper volans!*



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*The Coastwatcher* is back! In November, I was delivering fruit from our annual fundraiser when I failed to "Check Six" and a large box van rammed me from behind. No good deed goes unpunished,

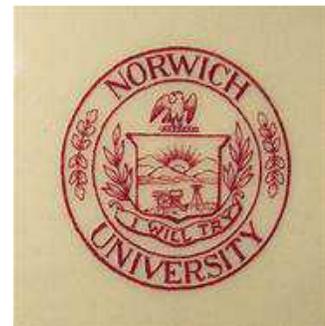
I suffered crushed vertebrae and broken ribs and spent four months in hospitals and rehabilitation centers and am now back home doing my physical therapy and planning to "walk like an Egyptian." But for now *The Coastwatcher* will be published intermittently rather than on its past weekly

schedule.

I would like to thank all of you who wished me well or visited me over the last three months.

### WHERE ARE THEY NOW

*Ben Kelly*



Former Cadet Lieutenant Ben Kelly is a freshman at Norwich University where he is planning on a career in law enforcement, possibly as a conservation officer.

Ben shot with the Quaker Hill Academy Rifle Team under coach Rocketto and he has not only made the Norwich Team but has fired a series of personal bests with the .22 caliber rifle and the air rifle.

*Ryan Schantz*

Former Cadet Major Ryan Schantz graduated from Christendom College with a degree in Political Science and Economics. While at school, Ryan volunteered with the local fire department and coauthored two anthologies.

He is now working at Fidelity Investments and passed the FINRA series 7 and 63 exams to become a phone broker for the firm.

Ryan has been accepted into Ave Maria University's MBA program, and will commence on-line part-time studies

*Matthew Fago*



*Loading a parachute in a rocket prior to launch*

Cadet Captain Matthew Fago is still active in Thames River Composite Squadron but his future plans require his absence.

Fago has been working as a volunteer fireman and has been certified as an emergency medical technician.

He has just had his tonsils removed prior to reporting for basic training. Matthew joined the 103<sup>rd</sup> Air Lift Wing, Air National Guard at Bradley International Airport. Upon his return from Basic, he will attend college and will take advantage of the tuition waiver which covers 100% tuition to Connecticut state colleges and universities.

### GONE WEST

Dick Rutan went West on May 3, 2024.

Rutan and his co-pilot, Jeana Yeager piloted the the Rutan Model 76 Voyager on the first unrefueled non-stop aerial circumnavigation of the earth. The pair departed Edwards AFB on December 14, 1986 and landed on December 23 after a westbound 26,366 mile flight lasting 9 days, 3 minutes and 44 seconds.

Voyager was a Rutan Aircraft Factory, honchoed by Burt Rutan, Dick's brother. Fully loaded, it weighed just under 10,000 pounds 72% of this was fuel, around 1,000 gallons.



*Rutan, Yeager and Voyager (Credit" Nick Perry, AP)*

Rutan was an Air Force combat veteran who flew 325 missions in Vietnam and retired with the grade of lieutenant colonel with a Silver Star and Purple Heart. In southeast Asia, Rutan flew the F-100F as a Fast Forward Air using the the call sign "Misty Four Zero." He was shot down but rescued.

Another of his unique accomplishments is the first official carriage of U.S. airmail by a rocket-powered aircraft. In 2005, he flew a ten mile mail delivery in a Rutan X-COR EZ-Rocket.

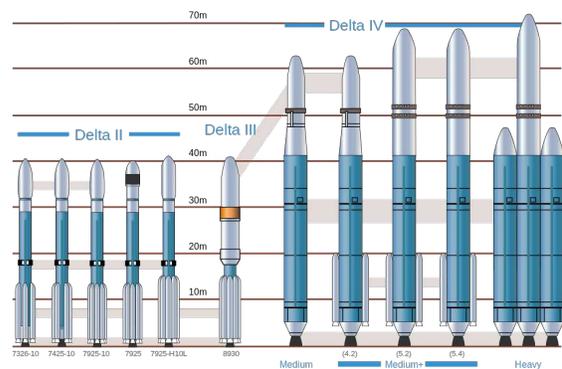
*-We are diminished-*

### CURRENT EVENTS

*End of an Era*

The last of the Delta family of rockets, a Delta IV Heavy, was launched from Cape Canaveral Space Force Station on April 9<sup>th</sup> lofting a classified spy satellite for the National Reconnaissance Office.

The Deltas in various configurations have served the United States space program since 1950, 64 years and 389 launches. The replacement is the new Vulcan which has better performance and is cheaper.



## ***The Iranian Air Attack on Israel***

*Truth is the first casualty of war*

*First attributed to Aeschylus*

The 24/7 news cycle, the need for a commentator to say something, the appalling ignorance of many of the hacks who report the “news” and the propaganda spewed forth by the engaged combatants all contribute to reports which either are skewed from reality by haste, ignorance or deliberate fabrications. So this report is a best effort to discuss the recent attack by the Islamic Republic of Iran upon the State of Israel.

Iran has been waging a proxy war against Israel for years using non-state actors such as Hamas and Hezbollah and states such as Syria. But until the missile and drone attack on April 15<sup>th</sup>, Iran has never directly challenged Israel.

The reason for this direct attack is unclear. Iran claims that it is a response to the Israeli attack on the Iranian delegation in Damascus which killed Brigadier General Mohammed Reza Zahedi, commander of the Islamic Revolutionary Guard Corps (IRGC) and members of his staff. IRGC is a designated terrorist organization and Zahedi was meeting to arrange the transfer of armaments to Iranian proxies for use against Israel.

But there may have been other reasons. Iran may be sending a message of direct support to its many proxies. It may be attempting to sense the reactions of the international community. Most likely they are feeling out the defenses available to the Israelis.

The attack was no surprise. Israel and its allies, the United States, the United Kingdom, Jordan, Saudi Arabia and France seem to have engaged in a coordinated effort to shoot down the missiles.

Jordan and Saudi Arabia follow the Sunni doctrines of Islam whereas Iran is Shia. The split involves an argument about whom is the true successor to Muhammad and the two sects take the difference seriously enough to wage war against each other.

Both Saudi Arabia and Jordan had reasons to lend assistance to Israel.

Drone launched by the Houthis but supplied by Iran has struck major oil production facilities in Saudi Arabia and the Saudis back forces trying to restore the legitimate government of Yemen.

Iran has said that Hamas is the true representative of the Palestinian people but their support of the Palestinians in both the West Bank and Gaza vacillates as conditions change.

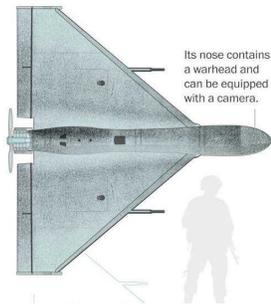
The Hashemite Kingdom of Jordan has no truck with Palestinians. In 1951, a Palestinian assassinated Abdullah I, King of Jordan and wounded Prince Hussein.

In 1970, Yasser Arafat, chairman of the Palestinian Liberation Organization (PLO) attempted to overthrow the Jordanian government. The PLO had established a strong military presence in Jordan, literally a state-within-a-state threatening the government of King Hussein. A civil war ensued and thousands of his followers were killed. He and his organization were expelled from Jordan and went to Lebanon where they then destabilized the legitimate government.

Although the attack utilized around 330 ballistic missiles, cruise missiles and drones it ignored the principle of mass. The Israelis did not have to deal with the incoming missiles at one time but sequentially. This may have been a failure in tactics by the Iranians. And the Iranians did not target civilian populations which might indicate that they were just sending a message and did not intend to instigate a major war. The only death was a seven year old Bedouin child in the Negev who was struck by shrapnel from an intercepted missile.

The attack itself consisted of Shahed 138 and 131 drones. The Shahed 136 cruises at 115 mph with a range of 1,600 miles and carries a 100 pound warhead. The Shahed 131 is less capable than the Shahed 135 with a shorter range and a much smaller warhead.

**SHAHED-136**  
 Length: 11.5 ft.  
 Width: 8 ft.  
 Max. take off weight: 440 lb.  
 Max. speed: 115 mph  
 Range: About 1,100 - 1,500 miles



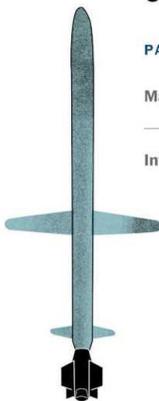
The cruise missiles were probably part of the turbojet powered Soumar family, perhaps the Paveh 131 with a range of around 1,000 miles and carry a warhead of several hundred pounds.

**Cruise missile**

**PAVEH**

Max. range: 1,025 miles

Introduction: 2023



Two types of intermediate range ballistic missiles (MRBM) were probably used, the Kheibar Shekan and the Emad IRBMs with ranges of around 1,000 miles and probably carry warheads of around 500 pounds.



Launch sites were mostly in Iran but it is likely that Syria and South Yemen also provided launch sites for drones and cruise missiles. Hezbollah contributed with barrages fired from Lebanon.

The attack was spread over five hours making defense easier. It is also believed that some 50% of the Iranian missile failed to launch or suffered failures in flight. Reports indicate that only six or seven ballistic missiles managed to strike Israel. They were targeted at the Nevatim and Ramon air bases and caused minor damage.

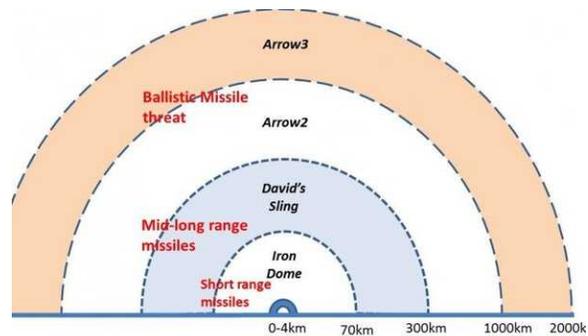
Fighters shot down many of the drones and cruise missiles before they reached Israeli territory. RAF Eurofighter Typhoons based in Cyprus and USAF F-15Es and F-16s probably based in Saudi Arabia or Qatar and supported by aerial refueling took part. French aircraft and radars were also active, most likely from the United Arab Emirates.

Given the extraordinary record of kills by the USAF, USN, RAF and Jordan, there was little work for the Israeli layered missile interceptor systems which may have scored 20-30 successes.

Iron Dome is effective against short range missiles and artillery shells. It is a mobile launch system and its radar is effective to 40 miles.

David's Sling can deal with longer range missiles and has a radar with a 180 mile range.

The Arrow system can designate targets at 1,500 miles and has the ability to strike exo-atmospheric ballistic missiles.



In addition, Israel still has the Patriot missile system but is retiring it and the units may be transferred to Ukraine.

burned the fabric off the control surfaces and crazed, even melted plexiglass windscreens and turret domes. Estimated destruction was around 80 aircraft.

### *Lessons Learned*

The Iranians learned that their ordnance was less than reliable although it is suspected that most of what they fired were older and less dependable models. They also found out that the Israelis and their allies could mount a robust defense. However, a mass attack coordinated so that all types of missiles and drones saturate the defense simultaneously would be more effective.

Although Israel came out of the battle with no significant infrastructure damage, it was a costly victory given the price of the interceptors used versus the cost of Tehran's cheap drones and cruise missiles. It also realizes that the support tendered by its allies was crucial for the success of the defense.



*Ash deposits and damaged elevators on 240th B-25s*



The 340th had the dubious distinction of having the highest aircraft losses of any medium bomber outfit. It is also noted for a bombardier, Joseph Heller, author of *Catch-22*.

### AEROSPACE CHRONOLOGY

13 May, 1944 - 59 Ju 88 bombers fling at 3,000 feet hit the base of the 340th Bombardment Group at Alesia, Corsica. With moon and flares illuminating the targets, major destruction occurred. Approximately 60 B-25 bombers were destroyed.



*The Ju 88 Attackers*

Previously between 18 and 23 March, Mount Vesuvius had erupted. At that time, the 340th were based at Pompeii Airfield at the base of the volcano. Hot ash and tephra damaged engines,

*The 240th does a fly-by in hopes of appeasing Vulcan, Roman God of Volcanos.*



14 May, 2005— Didier Delsalle touches his Eurocopter AS350 down on the summit of Mt Everest for almost four minutes and is recognized by the Fédération aéronautique internationale with a new altitude record for helicopters, 29,045 ft. He repeated the feat a day later.

*Delsalle and the Eurocopter at base camp*





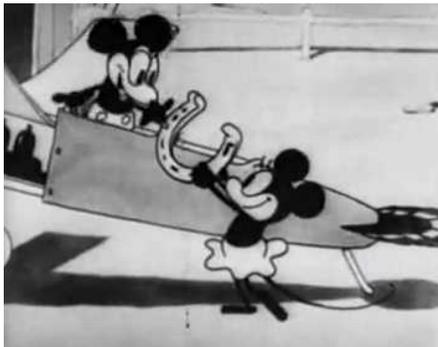
*A bad place for an auto-rotation.*

*Cockpit view of the approach to the summit.*



The helicopter was more or less standard with items such as passenger seats removed to save weight. Delsalle utilized the updrafts and downdrafts to assist. He states that at one point "I found an updraft so strong that I could rise up with almost no power."

15 May, 1928 – Mickey Mouse makes his first cartoon appearance in *Plane Crazy*, a tribute to Charles Lindberg. Disney cannot find a distributor until March of 1929.



*El Raton will need the luck because he is going to have a weight and balance problem with that horseshoe. Perhaps Minnie has taken out flight insurance on Mickey*

This is five months after *Steamboat Willie* is released so the palm for first place is awarded to a boat cartoon rather than a plane cartoon. Reminds one of the *Memphis Belle* claim about first to complete 25 missions.

16 May, 1929 – Aviators collaborate and produce the first and only silent film to win the Academy Award for best picture. Three principals, Director William Wellman, Writer John Monk Saunders, and Actor Richard Arlen were all WWI pilots. Buddy Rogers, the male co-star learned to fly for the picture. And incidentally, the culmination action is the Battle of the St. Mihiel Salient. Billy Mitchell led the air action at St. Mihiel.

*Arlen, the "It Girl" Clara Bow and Rogers on the poster.*



Gary Cooper had a beautifully done bit part which launched his career. Supposedly he showed Howard Hughes a copy of the script but Howard only showed interest only into seeing how Wellman would manage the aerial filming.

The Army cooperated and filming was done at Kelly Field in San Antonio and Selfridge Field in Michigan. Three hundred pilots participated and at least eight different types of aircraft were utilized.



*Wellman developed novel techniques for filming air-to-air scenes.*

Saunders wife was Fay Wray. Wray is the "Beauty that killed the Beast." if you recall the aircraft attack on King Kong at the top of the Empire State Building.

*Saunders & Wray*



*Kong takes on a flight of Helldivers*

As a point of interest, the original movie *King Kong* was a creation of Merriam Cooper. He was a

bomber pilot in World War I, a volunteer in the Polish Kościuszko's Squadron which fought against the Communists in the 1920 Polish-Soviet War was a logistics officer for the Doolittle Raiders and worked setting up the "Hump" transport operation between India and China. Merriam had a bit part as one of the pilot's attacking Kong. John Travolta is a late-comer to the Hollywood aviation community.

Search for "Kong, Empire State Building" on "You Tube" if you wish to view a combination of a live performance and 1933 animation.

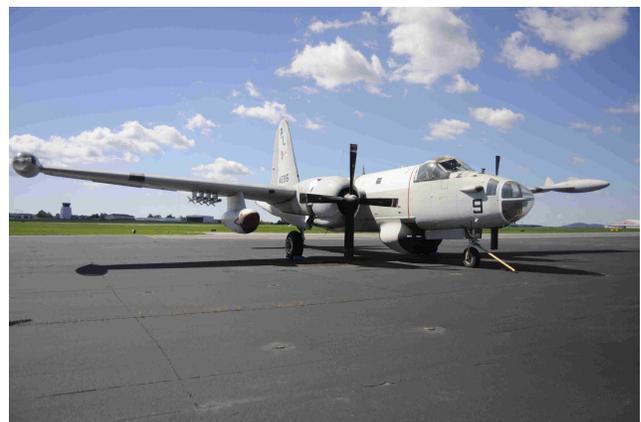
### *Big Day for First Flights*

17 May, 1946 – First flight of the Douglas XB-43 Jetmaster. Douglas uses the experience gained by building the XB-42 prop plane to produce the first American jet bomber. The XB-42, featured in last week's issue, had an airframe optimized for jet engines after the buried piston engines and tail mounted propellers were removed.



But the technology of jet engines and jet airframe design was in its infancy. The Air Force decided that four engines were needed and the rather conventional North American B-45 Tornado won the bomber contract.

The highly successful Lockheed P2V took to the air. This versatile aircraft was used for maritime patrol, anti-submarine warfare, and communications and signal intelligence.



A technology demonstrator, the McDonnell-Douglas X-36 made its first flight at Edwards AFB. The aircraft was tailless and the investigations focused on stability, weight reduction and radar cross-section.



The X-36 is a sub-scale drone, controlled by a pilot sitting in a ground-based cockpit. It follows a long tradition in which sub-scale models are used to garner data about design characteristics.

*Ladies Day*

*A quintet of aviatrixes share May 18th as a birthday or day of achievement.*

1905 – Birth of Ruth Blaney Alexander US Female aviation pioneer. On September 29th, 1929 she entered flight instruction and two months later became the 65th licensed woman pilot in the United States. Her flying career only last one year but it was a year of phenomenal achievements.



The day after being licensed she set a new altitude record for women. She rapidly developed her skills and became a commercial pilot and the first female American glider instructor. Four months

after that she set the absolute altitude record for light planes, 26,600 feet. The altitude record flights were quickly followed by speed and distance records over a route along the west coast from Mexico to Canada.

On September 18th, 1930, the 25 year old Ruth departed Lindbergh Field, San Diego intending to fly home to Wichita but a mile from the airport flew into low clouds and a fog bank, crashed and was killed, almost a year to the day of her initial flight instruction.

1952 - Jeana Yeager (no relative to Chuck) is born. She earned a private pilot certificate in 1978. Starting in 1980, Jeana set a number of distance and speed records flying Burt Rutan designed aircraft. Her most notable achievement was as co-pilot to Dick Rutan on Voyager's epic unrefueled non-stop circumnavigation of the earth, a 9 day 3 minute 44 second 24, 986 mile marathon.



*Yeager, Rutan, and Voyager*

1953– Jackie Cochran becomes the first woman to break the sound barrier. After a remarkable two decade aviation career, Cochran decided to break the world speed record for women held at that time by another Jackie, Jaqueline Auriol of France. After the USAF refused to help, she turned to the Royal Canadian Air Force which not only loaned

her the only Canadair Sabre 3 ever built but also and provided a support crew.

*Cochran standing on the wing of her F-86 talking to Chuck Yeager and Canadair's Chief Test Pilot Bill Longhurst (Credit: Air Force Flight Test Center History Office)*



Jackie not only set a new women's speed record but on one run, went supersonic. By the time of her death in 1980, she held more speed and altitude records than any other aviator, alive or dead.

1966 – Former British actress Sheila Scott departs London Heathrow for her first round the world solo flight, 29,000 staged miles in a Piper Comanche named *Myth Too*.



*Sheila Scott*

She learned to fly in 1958 and in around two decades of flying set over 100 aviation records, mostly for endurance and distance. Sheila was also the first to complete an equator to equator flight over the North Pole. Her honors include induction into the Order of the British Empire and the Collier Trophy.

1971 – Desiree Tylor Horton is born. Known as "Chopper Chick," Horton has had a diverse career flying charter, ferrying helicopters, fighting wildfires, and most famously, a Los Angeles traffic reporter and television commentator. Helicopters not her only choppers. Desiree has also appeared as a model in Harley-Davidson motorcycle and clothing catalogs.



19 May, 1978 – The first prototype of the Sikorsky Blackhawk crashes. The YUH-60A and the three aboard were killed due to a maintenance mistake.



*The first Blackhawk before the crash.*  
(Credit: Sikorsky)

The aircraft was forced into a nose-down attitude while transitioning from hover to forward flight. An unconnected air speed sensor controlling the tailplane actuator caused the crash. Lessons were learned and some 4,000 Blackhawks in many variants have been produced.

20 May, 1932 – Amelia Earhart departed Harbor Grace, Newfoundland, on a first female solo transoceanic flight flying a Lockheed Model 5B Vega.



*Earhart and Vega* (Credit: Library of Congress)

21 May, 1977 – The Concorde celebrates the 50<sup>th</sup> anniversary of Charles Lindbergh's first solo of the Atlantic using the same route in the "Spirit of St. Louis." The Concorde takes just 3 hours, 44 minutes. Lindbergh's time 12 33 hours, 29 minutes.

