

*Missions for America
Semper vigilans!
Semper volans!*



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CURRENT EVENTS

Current Events

SpaceX has launched a Dragon module with a crew of four. The mission is funded by cryptocurrency billionaire Chun Wang and is in a retrograde polar orbit which will take it over both poles. The mission will run 27 experiments to collect data about auroras and other polar phenomena.

The mission's name is Fram2 after the Norwegian

schooner *Fram* which completed a number of polar voyages in the last decade of the 19th century and early part of the 20th century. The ship was used by some notable explorers as Fridjof Nansen, Otto Sverdrup and Roald Amundsen.

FEATURE ARTICLE

Frankenplanes

From time to time, aircraft are assembled from parts donated from other aircraft. There are two modes of building what are called Frankenplanes. The first is using major components of badly damaged aircraft, generally two of them, to reconstruct a fully functioning aircraft of the same type. The second mode is to assemble a new aircraft from parts taken from another aircraft or other aircrafts. The advantage of this mode is cost and time saved in building a prototype.

Recently, the aft section of an F-35 which suffered a collapsed nose gear was joined to the forward section of an F-35 salvaged from an F-35 which had had an engine failure and fire, to create a Franken-Lightning II for restoration to full operational status. A team of technicians at Hill AFB in Utah built the tools and jigs to make the project possible. After the completion of re-assembly, all of the unique tooling has been stored for future use.



(Credits: victoria fontane)

An example of using parts from a number of other aircraft to create and experimental or prototype is the Fisher XP-75. Early in World War Two, Fisher, the auto body division of General Motors answered the Army Air Force call to develop an interceptor. Donovan Berlin, the designer of the Curtiss P-40 suggested that the use parts for other types of aircrafts to save money and time, A contract was signed for two prototypes and Fisher went to work.

Following Berlin's idea, components were gathered from three production aircraft. Landing gear came from Vought's F4U Corsair. They used wings from a North American P-51 Mustang and the empennage was that of the Douglas SBD Dauntless.

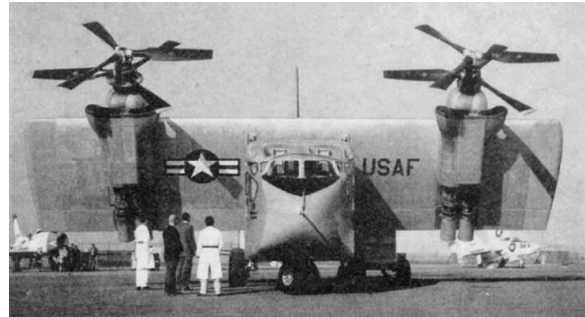


As might be expected, many changes were needed. P-40 wings replaced the Mustang wings. And when flight tested, the modified original design was found to be unstable, had engine cooling issues, poor spin characteristics and high aileron forces. Fourteen was produced before the Air Force terminated the contract.

The Germans tried the same methodology. They tried to produce a multi-engine jet bomber, the Ju 287 using a fuselage from the Heinkel He 177 Greif, the tail of a Junkers Ju 188, undercarriage from a Junkers Ju 352 and the nose wheels from a Consolidated B-24 Liberator. The undercarriage as fixed, the wings swept forward and the two engines provided insufficient thrust to overcome its drag, limiting its top speed to 347 mph.

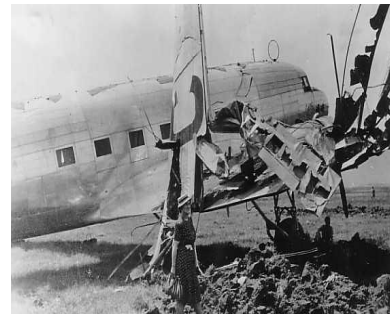
The X-18 was a testbed for two concepts: tilt-wing and short and vertical take-off and landing (S/VTOL). Only one was built.

The Hiller X-18 Experimental tilt-wing fuselage was taken from a Chase YC-122C Avitric. The turboprops were salvaged from the Navy's two vertical take-off take-off experimental aircraft, the Convair XFY-1 Pogo and the Lockheed XFY-1 "Salmon."



The X-18 was unfairly regarded as a failure but you cannot ignore its proof-of-concept contributions towards future developments in the tilt-wing and S/VTOL designs. The engines were cross-shafted so if one engine failed control could be maintained and the tilt-wing is a feature of the Bell-Boeing V-22 Osprey.

In 1941, a China National Aircraft Corporation was bombed by Japanese aircraft in 1941 and a 100 kg bomb pierced the right wing and exploded underneath, shredding the wing.

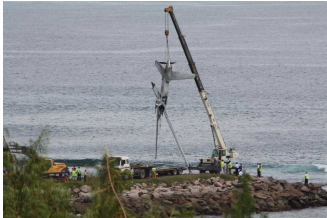


A CNAC DC-2 was being overhauled in Hong Kong and the engineers removed it and shipped it with a parts kit to Saifu where the damage plane was grounded. With some difficulty the DC-2 wing was attached to the DC-3 and the DC-2 1/2, with a five foot shorter right wing than left wing, was test flown and returned to service after a DC-3 right wing was obtained as a replacement.



AEROSPACE HISTORY

April 4, 2012—Lacking both experience and a checklist, a military contractor based in the Seychelles launched a remote controlled USAF MQ-9 Reaper without permission. One minute after take-off, he accidentally shuts down the engine, attempts and attempts an emergency landing but forgets to lower the landing gear. The Reaper bounces off the runway and into the Indian Ocean.



*Reap What Ye Shall
Sow!
MQ-9 Fished out of
the Indian Ocean.
(Credit: Le Seychellois Hebdo)*

April 5, 1976—Howard Hughes goes West while aboard a Learjet heading north. Hughes was a medical patient being flown from Acapulco to Houston.

It would be a gross understatement that Hughes was eccentric give his careers in industry, film, real estate and his bizarre later life. But his involvement in aviation is worth some column space in *The Coastwatcher*.

Moye Stephens, mentioned last week in Part One of “The First Flight Over Mount Everest” taught him to fly. Backed by the enormous financial resources of his industrial empire, he worked on the designs and flew a number of notable airplanes. He set both closed course and transcontinental records with his H-1.



*Hughes
and his
record
setting H-1*

In 1938, he took a Lockheed 14 Super Electra

around the world, breaking Wiley Post's old record by four days.



*Spectators mob Floyd Bennett Field after
Hughes's record circumnavigation.
(Credit: Beckmann-Getty Archives)*

Hughes is credited with influencing the design and construction of the Boeing 307 Stratoliner, the first pressurized airliner, and the highly graceful and highly successful Lockheed Constellation.

His wooden H-4 flying boat was at one time the largest aircraft in the world.



*Hughes in his customary fedora at the controls of
the H-4.
(Credit: Bettmann/Corbis Archives)*

Hughes was regarded known as a daring but lackadaisical pilot. He crashed four times, once killing a government inspector and a company employee. His near fatal crash test flying the XF-11 left him near death and with recurrent life-long

medical problems.



Hughes at the controls of the radical XF-11
(Credit: UNLV)

Heavily involved in airlines and the aircraft industry, Hughes, at one time or another, owned three airlines: Trans World Airlines, Northeast Airlines, and Hughes Airwest. He also owned Hughes Aerospace, a pioneer corporation in helicopters and aviation electronics.

It is fitting that Howard Hughes died in flight aboard a Learjet while being flown to a hospital in Texas.

April 6, 1994 – The President of Rwanda, Juvénal Habyarimana, and the President of Burundi, Cyprien Ntaryamira are assassinated when their Dassault Falcon 50 is hit by an SA-16 surface-to-air missile while attempting to land at Kigali International Airport at Kigali, Rwanda.



Rwandan "Air Force One" Before Shoot-down.

Ten others die in the shoot-down. The alleged perpetrators and the usual suspects, the Rwandan Patriotic Front, Hutu Power extremists, Tutsi rebels, or henchmen of Paul Kagame who eventually became President.

April 7, 1941, - The Douglas Havoc I entered service as a night fighter with No. 85 Squadron,

RAF. Two days later, the the squadron claimed its first confirmed victory.



No. 85 Squadron Havoc
Note the radar antenna and flame dampeners.
(Credit: Imperial War Museum)

The Havoc is a little known but very interesting WWII aircraft. Originally, the Douglas DB-7, she saw wartime service with the Soviet Union, United States, Britain, Commonwealth nations, Vichy French, Free French, and Dutch. The British bomber versions were called Bostons. The U.S. designated them as the A-20 Havoc and the night fighter version as the P-70. The photo-reconnaissance version was the F-3.

The aircraft has a single pilot and a navigator-bombardier and radioman-gunner. Most of the 7,500 produced went on lend-lease to Russia.

April 9, 1959 – Mercury program – NASA announces the selection of the United States' first seven astronauts, the "Mercury Seven."



The "Mercury Seven" After Survival Training at Stead AFB.

L-R: Gordon Cooper, M. Scott Carpenter, John Glenn, Alan Shepard, Virgil I. Grissom, Walter Schirra and Donald K. Slayton.

(Credit: NASA)