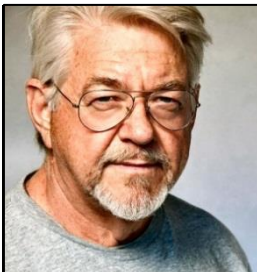


The RAM.

Vol 47

The Magazine by and for Serving and Ex-RAAF People,
and others.

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It's Elementary.

Anthony Element

Reflections on Terrorist Alerts.

We were sitting in Harvey's garage. I've told you about Harvey; Vietnam Vet, thousand yard stare, a homespun philosopher with a greying ponytail and more than his fair share of tats. He tends to think for a while before he speaks. And he reckons he does his best thinking while listening to the Grateful Dead at volumes that blister the paint on his garage walls.

Fortunately, he's got extremely tolerant neighbours.

We'd just cracked our first tinnies of the day and were watching out the door as the sun eased



down towards the horizon, tinting a few streaky clouds crimson and gold. Alongside Harvey stood his immaculate, gleaming Harley and beside that stood his equally gleaming, perfectly laid out tool board. I don't have a tool board at my place. In fact, I don't even have any tools. My wife says I'm dangerous with a tool in my hand. I don't really know what to make of that... but on the plus side it does get me out of a fair few home

maintenance chores. (See, I'm not as stupid as I look; well, not quite.)

Anyway, we watched nature's light show for a bit, then Harvey says, "What do you make of this heightened terrorism alert." "Well," I replied, "I'm not expecting anything too exciting in our street any time soon." "I guess," he said, "life must seem fairly simple to anyone who thinks the solution to every problem is to blow something up."

I took a long drink while I thought about it. "I wonder what makes this week any more dangerous than last week." "Nothing," said Harvey. "I reckon politicians only jack the alert up so if some idiot does inject the excrement into the air moving device, they won't be held responsible and they can say, 'Well we warned you'."

“Probably,” I said. “I came back from Sydney last night and the airport security was just the same pain in the arse as it always is. No worse.”

Harvey looked down at the half drunk can of Fosters almost hidden in his huge paw. “Listen, mate, if the terrorists had any brains, which mostly they haven’t, they’d ignore the airports and go for a brewery. Now that could really hurt a man. I know it’d annoy me.” I shuddered at the horrible image Harvey had just conjured up. “They keep saying we should be alert, not alarmed,” I said. “Well, they got it half right ‘cos I’m not especially alarmed. But I can’t figure out what we’re supposed to be alert for.”

“Suspicious characters, I guess,” Harvey opined.

“Well they’re easy to find,” I replied. “All I have to do is go stand at the front door of the ICAC hearings. Every second person looks like a suspicious character, and that’s just the journos.” “Yeah,” said Harvey, “but we’re supposed to be on the lookout for someone who might have a bomb strapped to their butt.” “No worries in that case. I look at lots of butts. In fact, I fancy myself a bit of a butt connoisseur.”

He gave me a look. “Mate, I think they’re more likely to be male butts.”

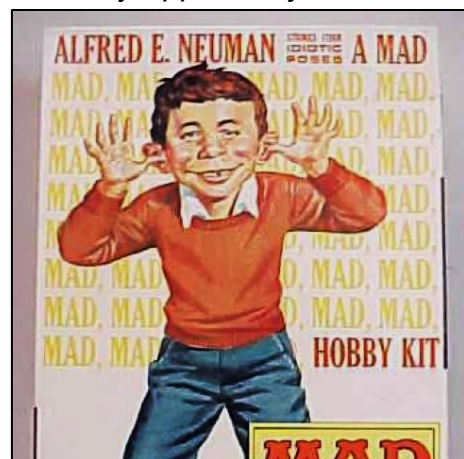
“Oh,” I said. After a minute, I added, “I don’t look at them very often.” Harvey sighed and reached into his fridge for a couple more tinnies. “So what do you reckon we ought to do about these terrorists?” I asked. Harvey flicked the ring pull off his can into a recycling bin parked conveniently next to his garage door and settle back into his favourite, tattered old deck chair. “Well,” he said, “we could start by taking the piss.”

I waited while Harvey thought about what he wanted to say next.

“I’m not saying we shouldn’t have sensible precautions, but if we take these wankers too seriously we just give ‘em oxygen. So we should take the piss at every opportunity.” “What do you mean?” I asked.

“Well, we should have terrorist joke competitions. And any time we want to portray a terrorist, we should use a picture of Alfred E. Neuman. You know, the character with the freckles and the missing front tooth that used to be on the cover of Mad Magazine.”

Harvey emptied his tinnie. “See, we should be on the lookout, but we shouldn’t be scared of these dopey bastards. And it’s hard to be scared of someone when you’re too busy laughing at them. Plus, if the only response the terrorists ever get is a giant piss take, eventually, maybe even those morons’ll start



to figure they might not be on a winning strategy.”

He reflected for a moment, released an almighty belch, scratched his capacious gut, and then continued. “Not that blowing yourself up ever seemed to me like much of a winning strategy anyway.”

“Why do you think they do it then?”

Harvey stroked his beard. “Well,” he said, “they’re not giving that much up, when you come to think about it. They’ve got no beer, no pubs, no radio, no television, no Playboy or Penthouse, no fishing, no cricket, no footie, no surf, no pies with sauce, no dancing, no music, no bikinis on the beach, no miniskirts, and no decent motor bikes. I mean, what’ve they got to live for anyway?” “And,” Harvey said, after a moment’s more reflection, “They got no imagination.”

“How do you know that?”

“Well, take that Underpants Bomber. Listen mate, any bloke that can stick a bomb in his tackle bag has definitely got no imagination. I mean... just think about it. Because he certainly didn’t. Brrrrhhh!” He shivered visibly. “And, what’s more...” Clearly Harvey was warming to his subject. “They’ve completely ruined it for a lot of people.”

“What do you mean?”

“Well,” he said, “You take my mate Sido. There was a time when, if he saw a bag left on the train, his first thought would’ve been, I’ll have that. But now... well, he’d probably leave it there.” After a moment, he shook his head slowly. “It’s a sick world, when you come to think about it.”

We sat for a bit, watching the last of the sun’s rays slip behind the hill on the other side of the valley behind Harvey’s house.

“So, is there anything you reckon’d be worth blowing yourself up for?” he asked.

I thought for a while.

“Well,” I said, as I scrunched up my empty. “I was going to say, a life time’s supply of the good stuff. But now I think about it, that’s not such a good deal. How about you?”

“Nah mate,” Harvey said. With his now empty tinnie, he pointed out the garage door. “See tomorrow evening, there’s probably going to be another sunset just as pretty as the one we just watched.”

“And nothing’s worth missing out on that.”



Solar song??

Ron Shannon sent us this, he says!!

I'm not sure if what follows would be suitable for inclusion in the Magazine, but here goes Thirteen years ago I installed a solar power system on my home and we haven't had an electricity bill since. Not only that, but it has also paid our rates and phone bill, too. In the course of doing the battery maintenance on the system one day, these thoughts came to mind:-



Sing a song of sixpence,
The battery's full of amps,
Four and twenty solar panels
Lighting up the lamps.

Technology is wonderful,
It lets us get quite lazy
And memories of hard work days
Begin to seem quite hazy.

A little sunshine comes along,
The system goes berserk!
Capturing all that energy
So I don't have to go to work.

Is the system a slave to us?
Or are we all short-sighted?
Expanding waistlines should tell us
We are, instead, benighted.

Hollywood must be the only place on earth where you can be fired
by a man wearing a Hawaiian shirt and a baseball cap.

Weird Aircraft.

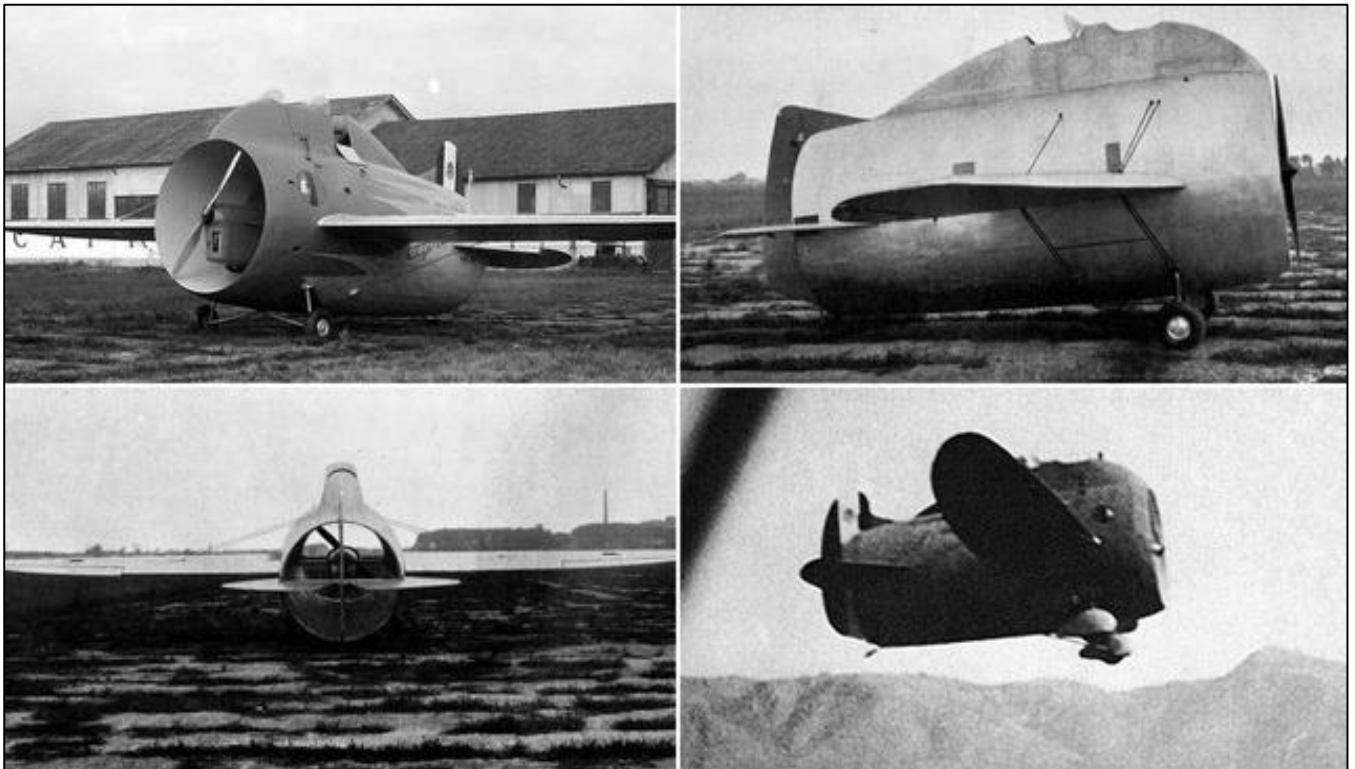
Aerospace engineers have come up with some revolutionary forward-thinking amazing straight-up (insane??) designs. Sometimes these dreams never make it off the drawing board, but sometimes, some wonderful times, they become real and when these alien bodies lift off into the sky, it's like watching a spaceship transporting the human race directly into the future.

Check these amazing planes out:

Stipa-Caproni, an experimental Italian aircraft with a barrel-shaped fuselage (1932).

The principle of ducted fans is well understood now. They require a duct with correct tapering at each end and a low drag but powerful engine at its core. Multiple-bladed propellers, or a fan as on a modern high-bypass turbofan are needed for efficiency. Placing a Tiger Moth engine

inside a fat tube doesn't cut it. An Italian government engineer, Luigi Stipa, convinced the Caproni Company to build an aircraft to test his theory that a tubular fuselage gave significant extra thrust to a conventional engine and propeller. The resulting Caproni-Stipa aircraft had a corpulent annular fuselage which concealed a Gipsy engine and two-bladed propeller. All this achieved was high drag and low noise, although the landing speed was reduced to 68km/h. Performance was otherwise lower than a conventional airframe with the same power plant.

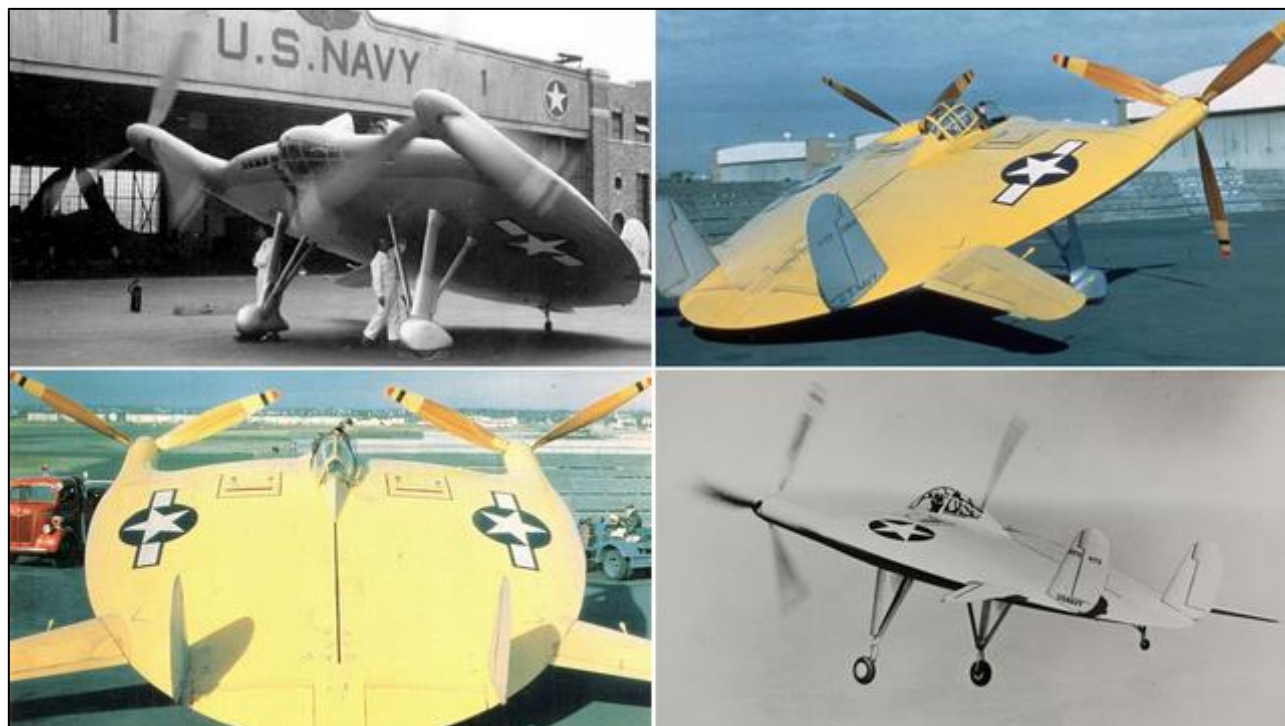


Stipa claimed that the outer fuselage was profiled to generate lift. It was said that this contributed 37% of the total. The Stipa's pilot and passenger had to sit in cockpits perched atop the fuselage. An inherent flaw in the design is that there is little room for any payload. Humped surfaces around the cockpits would have seriously impeded the view of pilot and passenger unless they leaned to one side, which would have been essential during take-off and landing.

It actually flew too, see [HERE](#)

Vought V-173, the "Flying Pancake."

The Vought V-173 "Flying Pancake" was an American experimental test aircraft built as part of the United States Navy fighter aircraft program. The aircraft featured an unorthodox "all-wing" design consisting of a flat, somewhat disk-shaped body (hence its name) serving as the lifting surface. Two piston engines buried in the body drove propellers located on the leading edge at the wingtips.



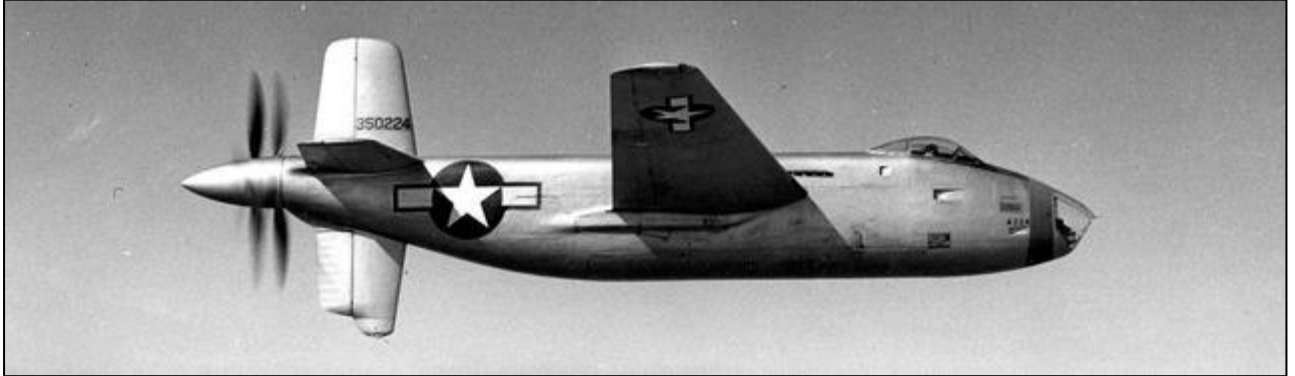
Blohm & Voss BV 141, a World War II German tactical reconnaissance.



The Blohm & Voss BV 141 was a World War II German tactical reconnaissance aircraft. It was notable for its uncommon structural asymmetry. Although the Blohm & Voss BV 141 performed well, it was never ordered into full scale production for reasons that included the unavailability of the preferred engine and competition from another tactical reconnaissance aircraft, the Focke-Wulf Fw 189.

Ever since she read THAT book, I've had to buy all kinds of ropes, chains and shackles. She still manages to get into the shed, though.

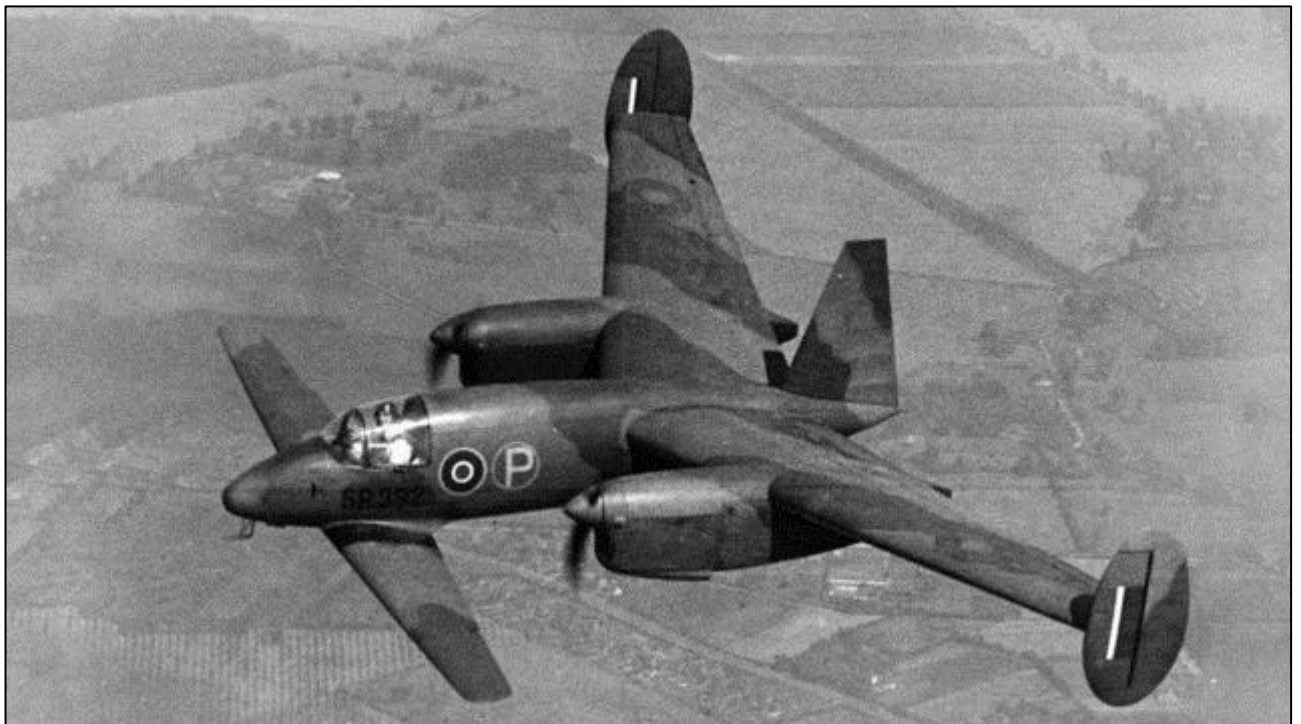
Douglas XB-42 Mixmaster



The Douglas XB-42 Mixmaster, which was first flown in 1944, was an experimental bomber aircraft, designed for a high top speed. The unconventional approach was to mount the two engines within the fuselage driving a pair of contra-rotating propellers mounted at the tail in a pusher configuration, leaving the wing and fuselage clean and free of drag-inducing protrusions.

Two prototype aircraft were built, but the end of World War II changed priorities and the advent of the jet engine gave an alternative way toward achieving high speed.

Libellula.



The Libellula M39B was a tandem-winged and twin-engined British experimental plane which was designed to meet a specification requiring a fast bomber and which would give the pilot an excellent view for landing on aircraft carriers (1945). The project was cancelled at the end of the war and the airframe broken up.

North American XF-82.



Stitch together two P-51 Mustangs and you get this long-range escort fighter (1946). The North American F-82 Twin Mustang was the last American piston-engine fighter ordered into production by the United States Air Force. Based on the P-51 Mustang, the F-82 was originally designed as a long-range escort fighter in World War II; however, the war ended well before the first production units were operational.

In the postwar era, Strategic Air Command used the planes as a long-range escort fighter. Radar-equipped F-82s were used extensively by the Air Defense Command as replacements for the Northrop P-61 Black Widow as all-weather day/night interceptors. During the Korean War, Japan-based F-82s were among the first USAF aircraft to operate over Korea. The first three North Korean aircraft destroyed by U.S. forces were shot down by F-82s, the first being a North-Korean Yak-11 downed over Gimpo Airfield by the USAF 68th Fighter Squadron.



Initial aircraft retained both fully equipped cockpits so that pilots could fly the aircraft from either position, alternating control on long flights, while later night fighter versions kept the cockpit on the left side only, placing the radar operator in the right position

Northrop XB-35

The Northrop XB-35 was an experimental flying wing heavy bomber developed for the United States Army Air Forces during and shortly after World War II. The airplane used the radical and potentially very efficient Flying Wing design in which the tail section and fuselage are eliminated and all payload is carried in a thick wing. Only prototype and pre-production aircraft were built, although interest remained strong enough to warrant further development of the design as a jet bomber, under the designation YB-49.



McDonnell XF-85 Goblin.



The McDonnell XF-85 Goblin was an American prototype jet fighter, intended to be deployed from the bomb bay of the Convair B-36 (1948). Built by the McDonnell Aircraft Company, it was

intended to be deployed from the bomb bay of the giant Convair B-36 bomber as a parasite fighter. The XF-85's intended role was to defend bombers from hostile interceptors, a need demonstrated during World War II. Two prototypes were constructed before the program was terminated.

The XF-85 was a response to a United States Army Air Forces (USAAF) requirement for a fighter to be carried within the Northrop XB-35 and B-36, then under development. This was to address the limited range of existing interceptor aircraft compared to the greater range of new bomber designs. The XF-85 was a diminutive jet aircraft featuring a distinctive egg-shaped fuselage and a forked-tail stabilizer design. The prototypes were built and underwent testing and evaluation in 1948. Flight tests showed promise in the design, but the aircraft's performance was inferior to the jet fighters it would have been facing in combat and there were difficulties in docking. The XF-85 was swiftly canceled, and the prototypes were thereafter relegated to museum exhibits

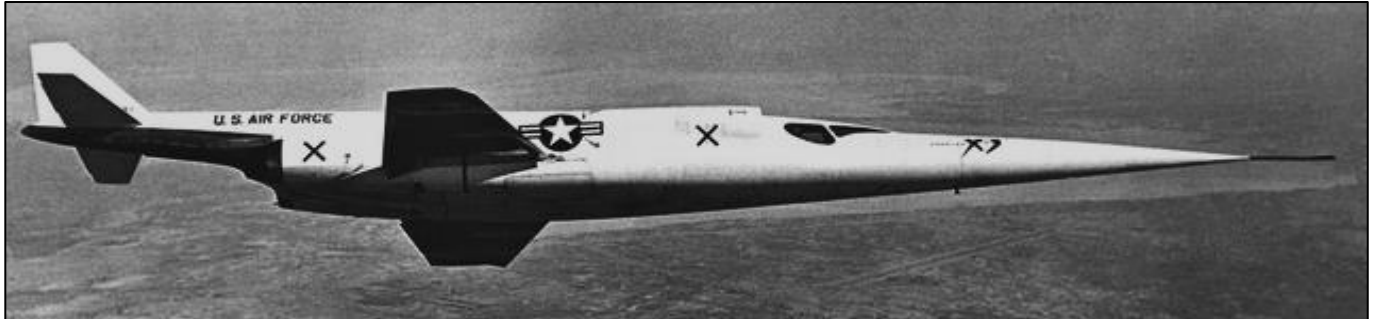
Martin XB-51.



The Martin XB-51 was an American "tri-jet" ground attack aircraft. Designed with one engine at the tail, and two underneath the forward fuselage in pods, it made its maiden flight in 1949. It was originally designed as a bomber by the United States Army Air Forces and was designated XA-45 but the "A" classification was eliminated and the XB-51 designation was assigned instead as the requirement was changed to low-level bombing and close support. The XB-51 lost out in evaluation to the English Electric Canberra which entered service as the B-57.

Douglas X-3 Stiletto.

The Douglas X-3 Stiletto was a 1950s United States experimental jet aircraft with a slender fuselage and a long tapered nose, manufactured by the Douglas Aircraft Company.

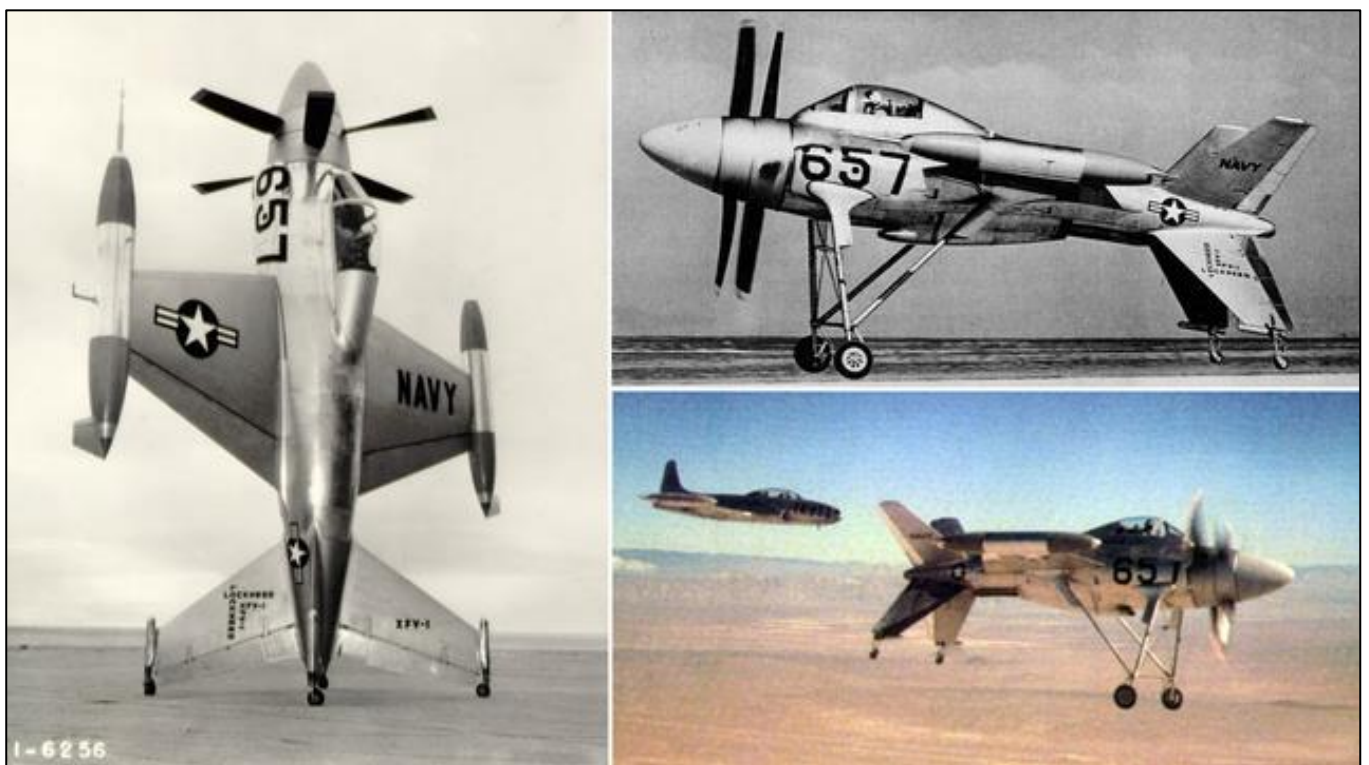


Its primary mission was to investigate the design features of an aircraft suitable for sustained supersonic speeds which included the first use of titanium in major airframe components.

Douglas designed the X-3 with the goal of a maximum speed of approximately 2,000 mph but it was, however, seriously underpowered for this purpose and could not even exceed Mach 1 in level flight. Although the research aircraft was a disappointment, Lockheed designers used data from the X-3 tests for the Lockheed F-104 Starfighter which used a similar wing design in a successful Mach 2 fighter.

Lockheed XFV.

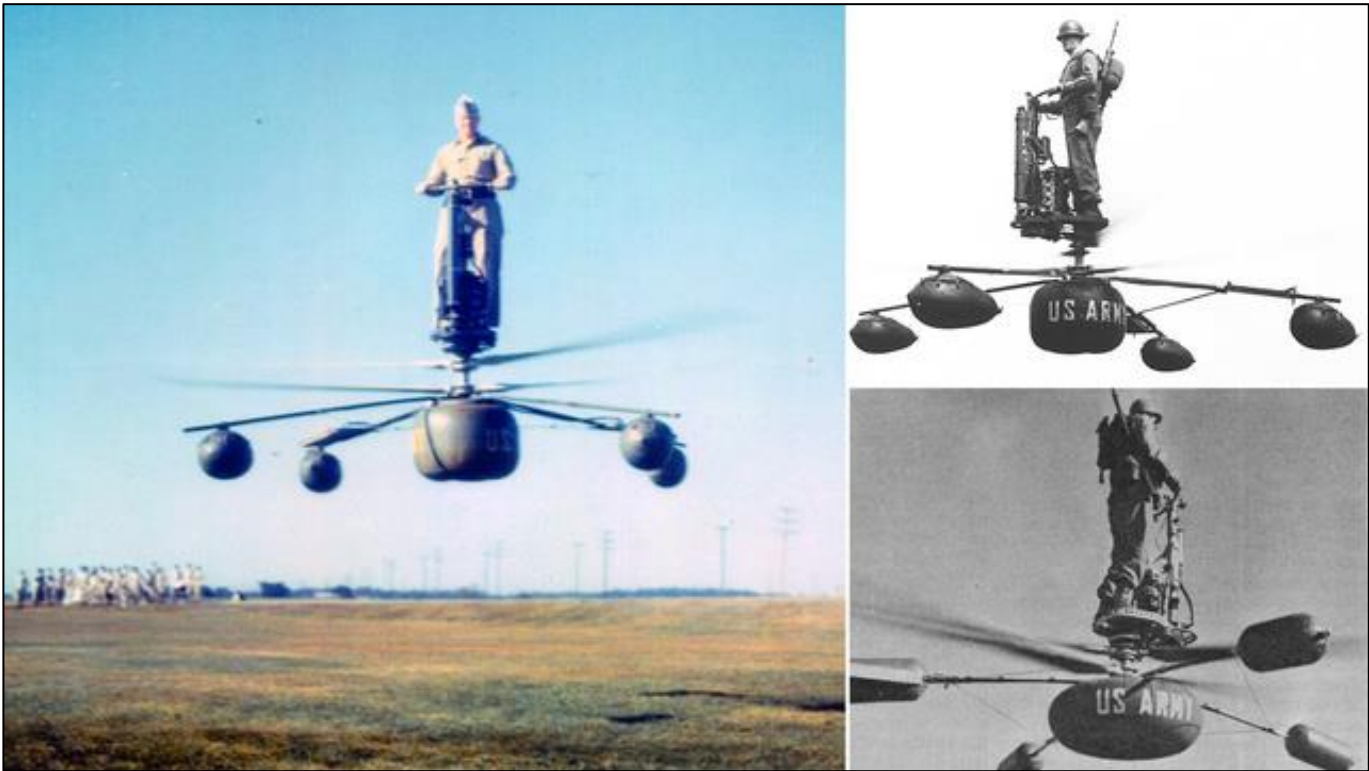
The American Lockheed XFV (sometimes referred to as the Salmon) was an experimental tail sitter prototype aircraft built by Lockheed in the early 1950s to demonstrate the operation of a vertical take-off and landing fighter for protecting convoys from platforms mounted on the afterdecks of conventional ships..



It was powered by a 5,332 hp Allison YT40-A-14 turboprop engine driving two three-bladed contra-rotating propellers. The tail surfaces were a reflected cruciform v-tail (forming an **x**) that extended above and below the fuselage. The aircraft had an ungainly appearance on the ground with a makeshift, fixed landing gear attached.

De Lackner HZ-1 Aerocycle.

The HZ-1 Aerocycle was an American one-man "personal helicopter" developed by de Lackner Helicopters in the mid-1950s. Intended to be operated by inexperienced pilots with a minimum of 20 minutes of instruction, the HZ-1 was expected to become a standard reconnaissance machine with the United States Army.



Although early testing showed that the craft had promise for providing mobility on the atomic battlefield, more extensive evaluation proved that the aircraft was in fact too difficult to control by untrained infantrymen and after a pair of crashes the project was abandoned.

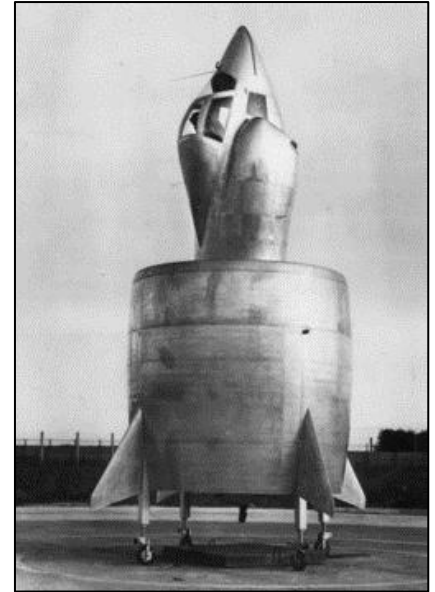
Snecma Flying Coleoptere (C-450)

The Snecma Flying Coleoptere (C-450), developed by the French company SNECMA in the 1950s was a French experimental, annular wing aeroplane, propelled by a turbo-reactor, able to take off and land vertically. It was a single-person aircraft with an annular wing designed to land vertically, therefore requiring no runway and very little space to take-off. There were

several prototypes developed and tested, however the design proved to be very unstable and flying it was dangerous.

The pilot sat on an ejection seat attached to the front of the aircraft. More or less normal control surfaces directed the aircraft in horizontal flight and thrust vectoring was used to make manoeuvres while vertical. The difficulty with tail-sitting aircraft is landing them, with the pilot looking downwards over his shoulder. Transitioning to and from the horizontal to the vertical is also fraught with danger.

So it was on only the Coléoptère's ninth flight, when it failed to hover and began to plummet instead, oscillating about all three axes for good measure. The pilot ejected and the Coléoptère shot off at about 50 degrees before crashing, bringing an end to the program.



Avro Canada VZ-9 Avrocar.

The Avro Canada VZ-9 Avrocar, a VTOL disk-shaped aircraft developed by Avro Aircraft Ltd. (Canada) as part of a secret U.S. military project (1959).



The Avrocar intended to exploit the [Coandă effect](#) to provide lift and thrust from a single "turborotor" blowing exhaust out the rim of the disk-shaped aircraft to provide anticipated VTOL-like performance. In the air, it would have resembled a flying saucer.

Originally designed as a fighter-like aircraft capable of very high speeds and altitudes, the project was repeatedly scaled back over time and the U.S. Air Force eventually abandoned it. Development was then taken up by the U.S. Army for a tactical combat aircraft requirement, a sort of high-performance helicopter. In flight testing, the Avrocar proved to have unresolved thrust and stability problems that limited it to a degraded, low-performance flight envelope; subsequently, the project was cancelled in September 1961.

HL-10.

The Northrop HL-10 was one of five heavyweight lifting body designs flown at NASA's Flight Research Centre (FRC—later Dryden Flight Research Centre), Edwards, California, from July 1966 to November 1975 to study and validate the concept of safely manoeuvring and landing a low lift-over-drag vehicle designed for re-entry from space. It was a NASA design and was built to evaluate "inverted air foil" lifting body and delta planform. It currently is on display at the entrance to the Dryden Flight Research Centre, Edwards Air Force Base, California.



Dornier Do 31.

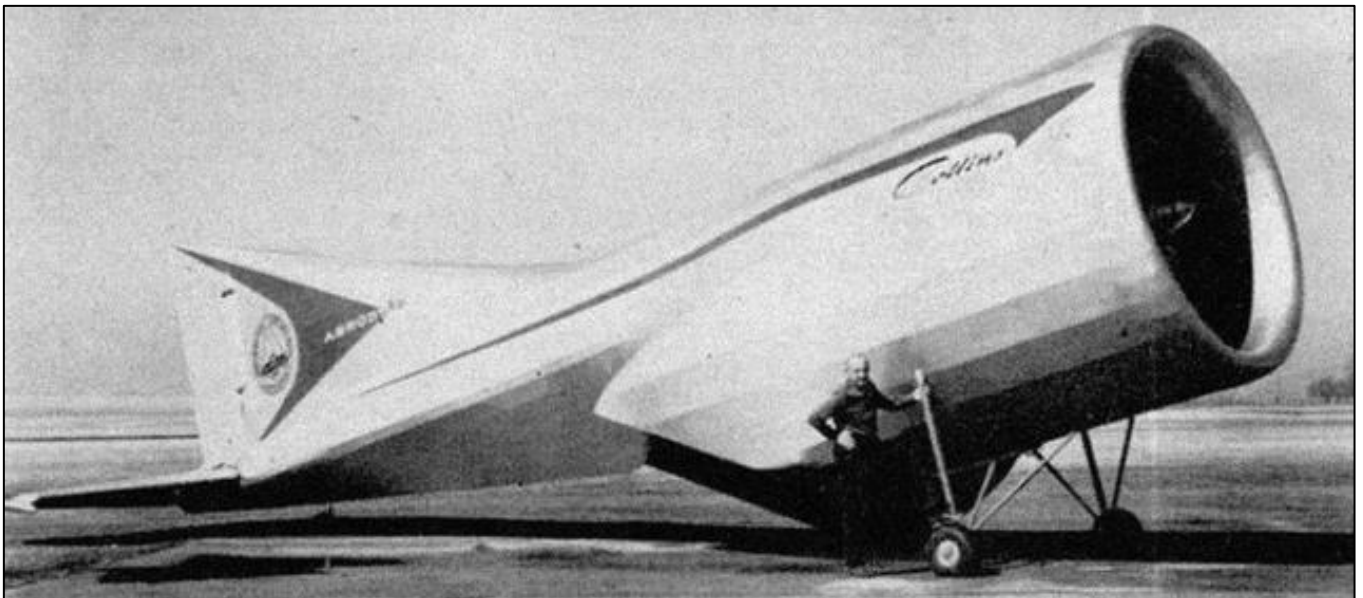


The Dornier Do 31 was a West German experimental VTOL jet transport built by Dornier in 1967. The Do 31 was designed to meet a NATO specification for a tactical support aircraft for a

VTOL strike aircraft but the project was cancelled in 1970 due to high costs, technical problems and a change of requirement.

Alexander Lippisch's Dornier Aerodyne.

The Dornier Aerodyne was the designation of an unmanned "wingless" VTOL aircraft. Conceived by Alexander Lippisch, it was developed and built by Dornier on behalf of the Federal German Ministry of Defence. Lippisch was part of the team. The first flight took place on 18 September 1972. The development ended on 30 November 1972 after successful hovering-flight testing with the aircraft. Experimentation did not continue due to lack of interest in the Bundeswehr (German Armed Forces), and/or the desire to undertake plans for manned helicopters. The propulsion was generated by two co-axial shrouded propellers.



"Harder!" she cried, gripping the work-bench tightly. "Harder!"
"Okay," I said. "What's the gross national product of Nicaragua?"

Hyper III

The NASA Hyper III was an American unpowered full-scale lifting body remotely piloted vehicle designed and built at the NASA Flight Research Center at Edwards Air Force Base, California. The Hyper III was designed to help in the M2 lifting body program, it had a flat bottom and sides, and a simple straight wing with no control surfaces that was designed to simulate a pop-out wing that had been proposed for a re-entry vehicle. The Hyper III had twin fins and rudders canted at 40° from the vertical, and hinged elevons on the horizontal surface. The landing gear was a fixed tricycle type, using spring steel legs from a Cessna aircraft. It was fitted with an

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emergency parachute system and controlled by 5-channel radio link; instrument data was downlinked using a 12-channel radio.

On 12 December 1969 the Hyper III was launched from a helicopter at 10,000 feet. It glided 5 km, turned round, came back and landed. After the three-minute flight it was not flown again as the Centre cancelled the program



Bartini Beriev VVA-14.



The Bartini Beriev VVA-14 (Vertikal'no-Vzletayuschaya Amphibia) was a vertical take-off amphibious aircraft which was developed in the Soviet Union during the 1970s. Designed to be able to take-off from the water and fly at high speed over long distances, it was to make true flights at high altitude, but also have the capability of 'flying' efficiently just above the sea surface, using ground effect. The VVA-14 was designed by Robert Bartini in answer to a perceived requirement to destroy United States Navy Polaris missile submarines.

Bartini, in collaboration with the Beriev Design Bureau intended to develop the prototype VVA-14 in three phases. The VVA-14M1 was to be an aerodynamics and technology test-bed, initially with rigid pontoons on the ends of the central wing section, and later with these replaced by inflatable pontoons. The VVA-14M2 was to be more advanced, with two starting engines to blast into the cavity under the wing to give lift and later with a battery of lift engines to give VTOL capability, and with fly-by-wire flight controls. The VVA-14M3 would see the VTOL vehicle fully equipped with armament and with the Burevestnik computerised ASW (anti-submarine warfare) system, Bor-1 MAD (magnetic anomaly detector) and other operational equipment.

After Bartini's death in 1974, the project slowed and eventually drew to a close.

Ames-Dryden (AD)-1.

The NASA AD-1 was both an aircraft and an associated flight test program conducted between 1979 and 1982 at the NASA Dryden Flight Research Center, Edwards California, which successfully demonstrated an aircraft wing that could be pivoted obliquely from zero to 60 degrees during flight.



The unique oblique wing was demonstrated on a small, subsonic jet-powered research aircraft called the AD-1 (Ames Dryden-1). The aircraft was flown 79 times during the research program, which evaluated the basic pivot-wing concept and gathered information on handling qualities and aerodynamics at various speeds and degrees of pivot.

Of course, the big question is WHY????

B377PG - NASA's Super Guppy.

The Aero Spacelines Super Guppy, which first flew in its outsized form in 1980, is a large, wide-bodied cargo aircraft that is used for hauling outsized cargo components. It was the successor to the Pregnant Guppy, the first of the Guppy aircraft produced by Aero Spacelines. Five were built in two variants, both of which were colloquially referred to as the "Super Guppy". These aircraft began life as 1940's and 50's-vintage Boeing Model 377 (C-97) Stratocruiser airframes, and were fitted with Allison turbo-prop engines.



Grumman X-29.



The Grumman X-29 was an American experimental aircraft that tested a forward-swept wing, canard control surfaces and other novel aircraft technologies. The aerodynamic instability of the airframe required the use of computerized fly-by-wire control. Composite materials were used to control the [aeroelastic divergent](#) twisting experienced by forward-swept wings, also reducing the weight. Developed by Grumman, the X-29 first flew in 1984; two X-29s were flight tested over the next decade.

McDonnell Douglas X-36.

The X-36 was built to 28% scale of a possible fighter aircraft, and controlled by a pilot in a ground station virtual cockpit with a view provided by a video camera mounted in the nose of the aircraft. For control, a canard forward of the wing was used as well as split ailerons and an advanced thrust vectoring nozzle for directional control. The X-36 was unstable in both pitch and yaw axis, so an advanced digital fly-by-wire control system was put in place to stabilize the aircraft.



First flown on May 17, 1997, it made 31 successful research flights. It handled very well, and the program is reported to have met or exceeded all project goals. McDonnell Douglas merged with Boeing in August 1997 while the test program was in progress; the aircraft is sometimes referred to as the Boeing X-36. The X-36 possessed high maneuverability that would be ideal for use as a fighter. Despite its potential suitability, and highly successful test-program, there have been no reports regarding the X-36's development.

Are you sure you want this?" I asked. "When I'm done, you won't be able to sit down for weeks." She nodded. "Okay," I said, putting the three-piece lounge suite on eBay.

Beriev Be-200 Seaplane.

The Russian Beriev Be-200 Altair (1998), of which 9 were built, is a multipurpose amphibious aircraft designed by the Beriev Aircraft Company and manufactured by Irkut. Marketed as being designed for fire-fighting, search and rescue, maritime patrol, cargo, and passenger transportation, it has a capacity of 12 tonnes of water, or up to 72 passengers. These aircraft are now being successfully used as fire-fighting water bombers across Europe.



Proteus.

The Proteus, a tandem-wing, high endurance, twin-engined research aircraft, built by Scaled Composites in 1998 to investigate the use of aircraft as high altitude telecommunications relays. The Proteus is actually a multi-mission vehicle, able to carry various payloads on a ventral pylon. An extremely efficient design, the Proteus can orbit a point at over 65,000 feet (19,800 m) for more than 18 hours. It is currently owned by Northrop Grumman.



I lay back exhausted, gazing happily out of the shed window.
Despite my concerns about my inexperience, my rhubarb had come up a treat.

The Lancaster Squadrons.

Richard Harcourt, a friend of ours who is an ex-RAF radio bod, sent us a link to a YouTube movie which shows what life was all about being posted to a Lancaster Squadron during World War 2.

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The movie runs for about an hour and if/when you've got the time, we suggest you watch it, you have to admire the courage of these blokes, stumping up day after day for this sort of work.



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