‘Aviation Tales’ Newsletter: July 2025

So far, here on the Kapiti Coast, we have had a relatively ‘mild’ but ‘wet’ start to the winter season and I for one am always happy to be on the Spring side of the “*Shortest Day*”.

Dawn Aerospace takes an order for Aurora Spaceplane

Dawn Aerospace’s Aurora spaceplane is set for a 2027 delivery as the first space-capable vehicle sold directly to customers, offering supersonic, high-altitude access for defense, life sciences, and semiconductor research.

Image with thanks: Dawn Aerospace.

Oklahoma will be the launch site of this New Zealand made spaceplane that will take-off in pursuit of groundbreaking microgravity research and suborbital spaceflight.

The Oklahoma Space Industry Development Authority (OSIDA) is partnering with Dawn Aerospace to launch the company’s Aurora spaceplane from the Oklahoma Air and Space Port in Burns Flat, Oklahoma.

This multi-million agreement elevates Oklahoma to a premier U.S. launch site for microgravity research and suborbital spaceflight.

“Oklahoma is positioned to be at the forefront of the next space frontier and a hub for national defense,” said Oklahoma Lt. Gov. Matt Pinnell. “With targeted investment, the state is moving to secure frequent and reliable space access and is set to become America’s busiest suborbital launch site.”

The Aurora Mark 2 is a rocket-propelled, remotely piloted aircraft that can climb 100 km altitude, touching the edge of space, twice a day.

It is said to be: “the fastest, highest-flying aircraft ever to take off from a runway.”

Recent Aviation Events:

The Boeing B787 'Dreamliner' crash.

Such a sad state of affairs when a modern passenger aircraft is brought down by a yet to be established onboard malfunction.

We are all awaiting the results of the on-going investigation and thankfully the recovered 'black boxes', containing the cockpit voice recorder and flight data recorder (FDR), have been forwarded for analysis.

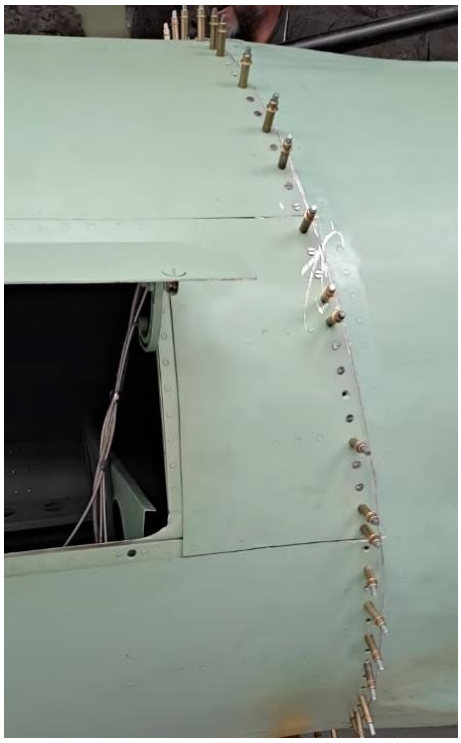
VT-ANB. The Air India Boeing 787-8 Dreamliner pictured at London Heathrow on a previous occasion .

Aircraft Restoration News:

Further to the January 2025 Newsletter: Six months on there has been more progress.

Recent news on the restoration of Westland Whirlwind P7056 for display at the Kent Battle of Britain Museum.

The arrival of the new rear fuselage section

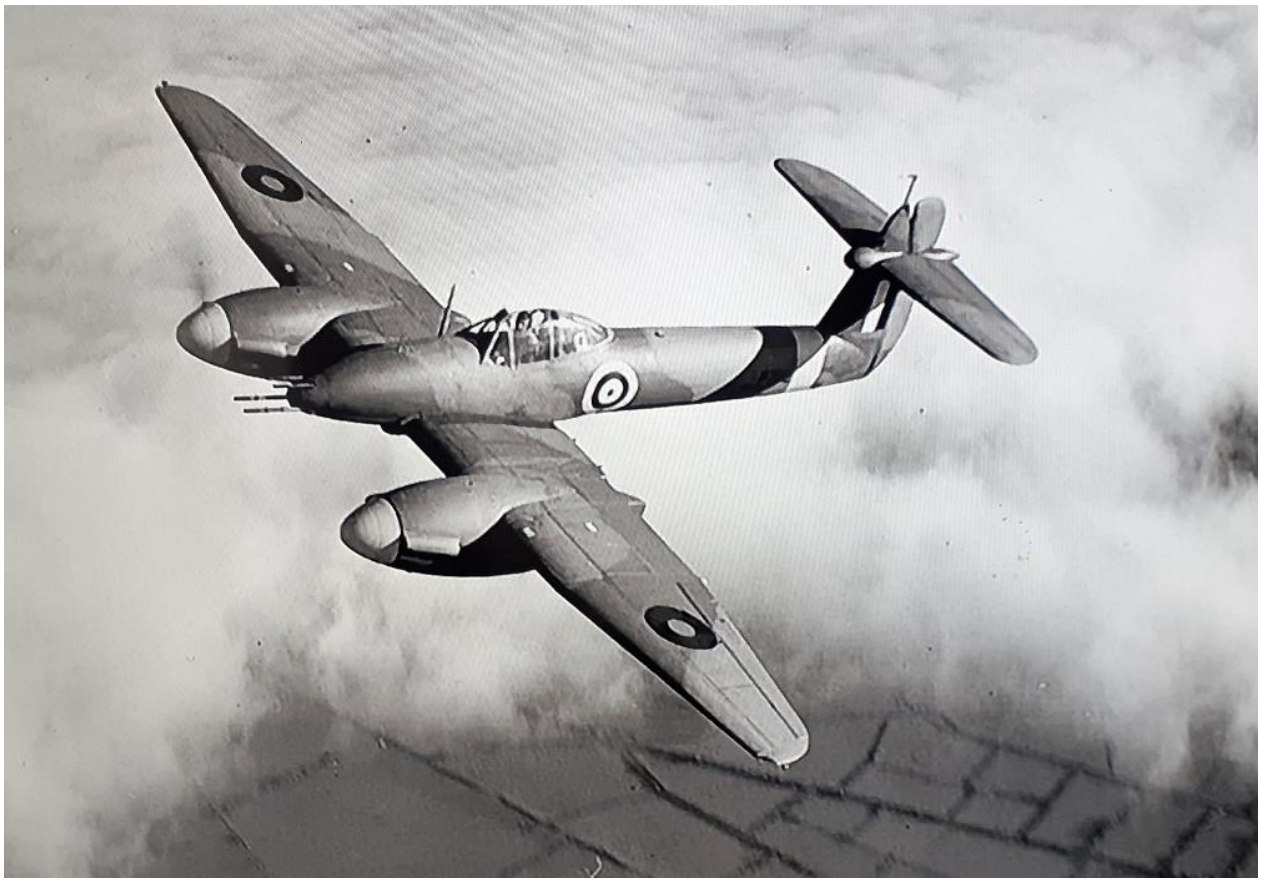


Trial fit of the rear fusalage: Note the extensive use of what is known as: ‘Cleco’ tempory fasteners.

Cleco: ‘Cleveland Tool Company’

Westland Whirlwind P7056 continues to make steady progress.

Now with the rear fuselage securely fitted.



A very worthwhile project working towards having a unique Westland Whirlwind aircraft on display.

Aviation Personalities:

Mr Richard (Dick) Ifield

Richard Ifield shunned publicity all his life but he was an immensely accomplished inventor.

Before World War II he invented a fuel pump system that was to become standard equipment on early jet aircraft. That invention alone earned Lucas Industries, the company that sponsored Ifield, millions of pounds through the sale of manufacturing licences.

At one stage in Britain during the WW2, the British army's advanced design division, for whom Dick Ifield had prepared tank steering and transmission designs, was competing for his services with the people developing jet engines.

The jet people won.

'Dick' Ifield

He had no formal engineering qualifications but nonetheless was recognised by the top English and Australian engineering bodies.

Despite his lack of qualifications he was registered as a chartered engineer, a fellow of the Royal Aeronautical Society, the Institution of Mechanical Engineers and the Institution of Engineers, Australia.

During 1933 'Dick' Ifield married and in 1935 he sold his business, borrowed some money from relatives and he and his wife set off to England in search of fame and fortune.

It was a journey, one of Ifield's sons, Frank, was to take on the 'road to success' as a singer.

Going to England was a big gamble. Many had tried and failed. But as Ifield said of himself:

"I have always been an optimist; without which characteristic no inventor could even begin along the road to success."

The young Australian had a 'swag' of ideas and inventions, but he was hoping particularly to interest someone in his idea for an infinitely variable transmission for use in motor vehicles.

After a seemingly endless series of interviews, the Riley Car Company became his first sponsor and paid him a retaining fee.

Dick stayed with Riley until 1938.

In 1940, Dick Ifield joined Lucas Industries, who needed a new fuel pump for a top-secret project: The jet engine.

He was to maintain a business association with the company for the next 30 years.

In his memoirs, Dick Ifield wrote that he knew of no successful jet engine in the immediate post-war period that did not use his pump and control system. Even today many aircraft gas turbine engines use Ifield fuel pumps and control systems based on his inventions.

“Early in September, (possibly 1938) a Mr Irving phoned Dick to say that the Lucas company were looking for an improved pump for some secret project, and he had recommended Dick’s helical gear pump for their consideration.”

Mr Irving had arranged a meeting with Dr. E. A. Watson (Lucas Group Chief Engineer) at Bendix and he asked Dick to be present.

Dr. Watson was impressed with the performance of Dick’s helical gear pump but said that it would not meet their requirements.

Seemingly he was unwilling to state what the requirements were!

A few weeks later, Irving again phoned Dick, saying he had learned something of the Lucas pumping requirements and had recommended the design of pump Dick had invented for his Hydrostatic transmission scheme.

He asked Dick to bring his drawings, for another meeting with Dr. Watson at Bendix.

This time, Watson was very impressed with the design of Dick’s pump and immediately gave him the first of several Lucas design contracts.

“This was for the urgent design and detailing of a variable displacement pump, to operate on kerosene fuel, delivering 250 gallons per hour at 3000 RPM and to stall, off-stroke, (reduce displacement) at 400 PSI (pounds per square inch, pressure), but with the potential for development to operating at pressures up to 1000 PSI, or even 2000 PSI.”

‘Dick’ engaged Frank Freeman to work with him on the design and details, in a room of his family home.

On the completion of this contract, Dr. Watson asked if Dick could invent a new form of speed governor combined with the pump, to throttle the delivery at a predetermined maximum RPM; he also gave Dick a second design contract for this.

On the completion of the details, Watson gave him a third design contract, for a hand operated hoist, for raising the under-belly gun turrets of Boulton & Paul bomber aircraft.

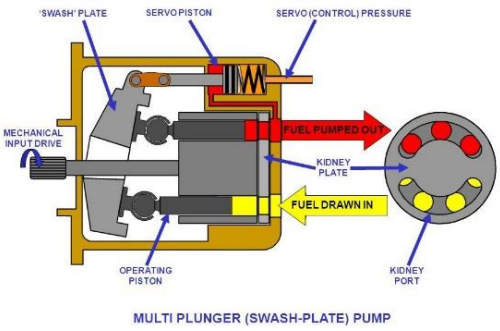
This hoist was never made; Dick suspected that this was a means to further test his ingenuity and design skill, but also to keep his team profitably occupied until the pumps had been tested.

These designs and prototype manufacture were examples of what can be done in short time.

The first design and detailing contract was completed early in October.

This pump was made in Dr. Watson's tool room without a single question being necessary, it was on test during December, and it was fully proved to meet the specified requirements by the 21 December, with no modifications found to be necessary.

The detailing of the second pump, including an entirely new concept in speed governing was completed, again manufactured with no need for any questions and it was proved on test, during mid-January.



The Ifield pump was compact, high performance with an infinitely variable capacity.

This made for an ideal fuel pump for the early jet engines: The Whittle W2 engine.

The Lucas company were delighted with the performance of these pumps. They had tested all existing makes and types; none had given such high volumetric efficiencies, and all had failed quickly when operated under load on kerosene.

About mid-January, Mr. Irving telephoned to inform Dick that Oliver Lucas desired a meeting with him at his office. He asked Dick to take all his coloured drawings of his inventions and to visit him on his way, for a preliminary chat.

Irving informed Dick that Lucas wanted to purchase his Patent relating to his pump and that they wished to employ Dick, to take charge of the development of his pump and of other special equipment for a new secret project.

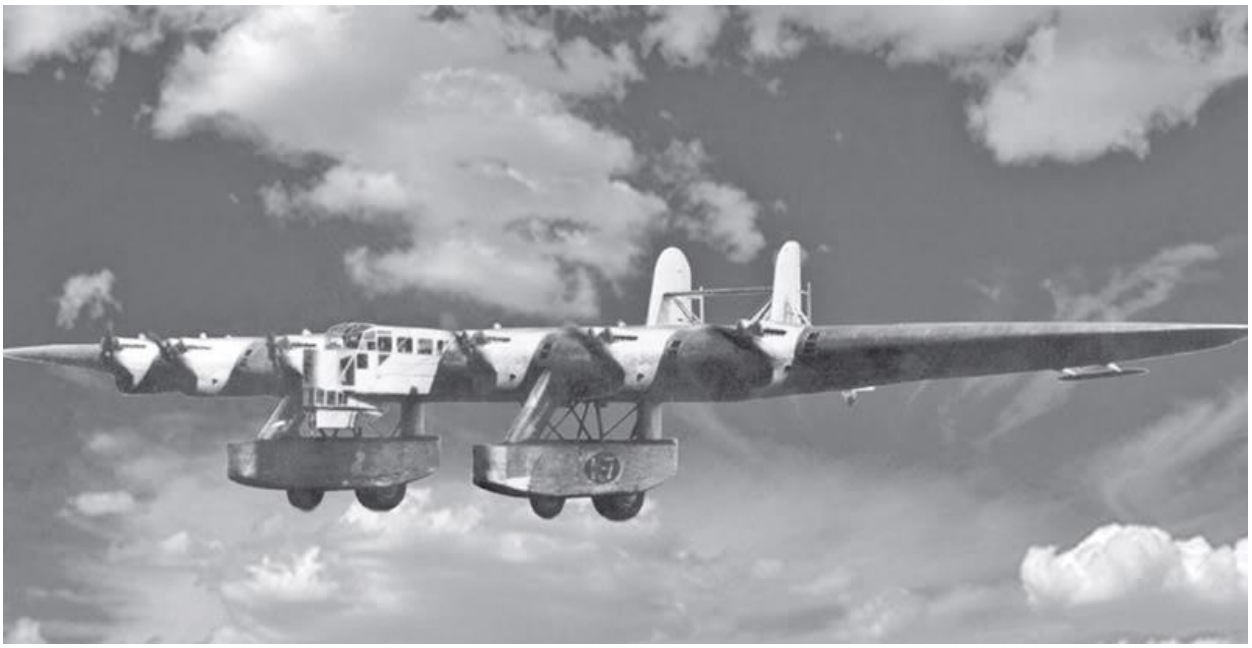
He recommended that Dick should ask a moderate 1,000 pounds for his pump Patent; this would ensure acceptance and Dick could anticipate greater rewards later, for his other inventions.

He also recommended that Dick should ask for a salary of 1,000 pounds per year for his services!

Note:

This will be the final presentation of Aviation Personalities, and I would like to spend the remainder of 2025 taking a look at some of the strange but true aircraft that graced our skies during the years gone by.

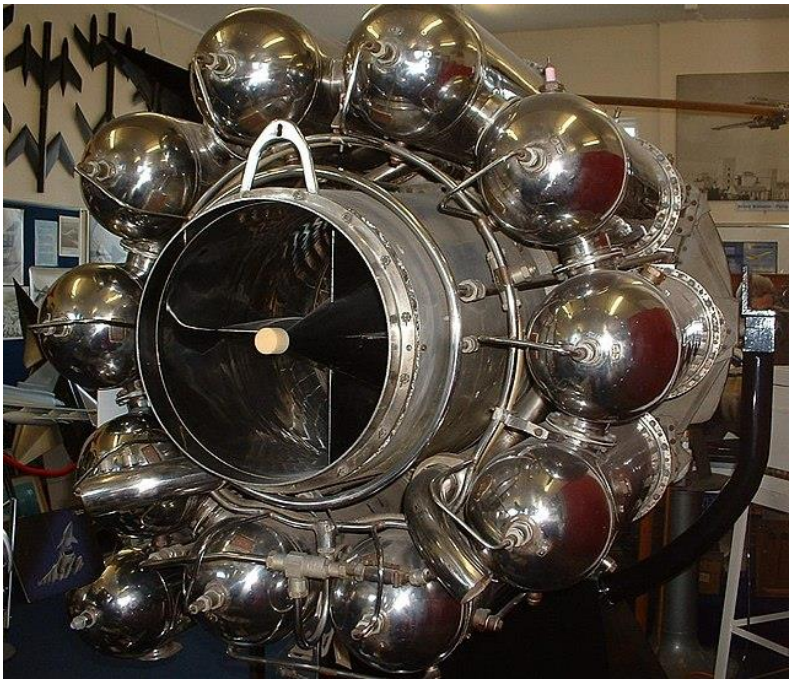
For Example:



Any ideas of the origin or constructor of this very unusual aircraft?

I look forward to bringing to you an interesting and perhaps thought-provoking range of "Strange but True" aircraft during the remainder of 2025.

Tail Piece:



The exhaust end of an Early Whittle jet.

A ‘shining’ example of Britain’s early lead in the development of the jet engine

- **Do you have any interesting aviation topics you would like to have researched for a future newsletter edition?**
- **Do any of the articles you have read in this newsletter edition require further explanation?**

Please get in touch.

This month’s motivational statement:

“Shoot for the moon. Even if you miss it, you will land among the stars.”

Les Brown.

The ‘Aviation Tales’ newsletter is produced monthly.

For further information, or my other services.

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