

LEFT: Sir Frank Whittle and (RIGHT) Mr Mogens Bramson.

## Visionary who backed Whittle's jet engine

AS the giant Boeing 747 jumbo jet is about to enter scheduled transatlantic service, the Royal Aeronautical Society are preparing to publish for the first time a remarkable 6000-word document which led directly to the financing of the first British jet aircraft engine.

Accompanying the document in the society's February journal will be a powerful plea for belated recognition of the man who drew it up, signed by Sir Frank Whittle, the engine's inventor.

An engineer, Mr Mogens Bramson, now living in San Francisco, was commissioned in 1935 by an Edinburgh-born man, Mr Lancelot L. Whyte, to analyse Whittle's ideas and theories, and it was on the basis of his favourable judgment, formed against a background of much adverse expert opinion, that the financing was arranged

Whyte was sent to Bramson by a London firm of investment bankers. A financial expert, he was also a theoretical physicist. He is the second of the signatories behind the plea for recognition of what Bramson's judgment has since come to mean to the world.

Whittle had spent five years trying to interest British aeroengine firms in his project. By 1935 he was so depressed about the chances of getting his engine developed—and so short of cash—that he allowed the basic patent to lapse rather than pay a £5 renewal fee.

In the document drawn up by Bramson, the engineer says Whittle's "theoretical calculations and deductions are substantially correct. Should the discovery be successfully put into practice the points of superiority over existing aeroplanes would be: economical speeds of 500 m.p.h. and over, probable ranges of 5000 miles and over the use of non-volatile fuel, freedom from noises and vibration."

He summed up: "The proposed development, though necessarily speculative as regards time and money required,

is so important that it should, if possible, be undertaken."

The judgment, like the invention, was remarkably ahead of its time. Mr Bramson, who signed his findings on October 8, 1935, has recently been asked for any hindsight thoughts. These, too, are to appear in the RAS journal.

He writes that he conducted his practice as a consulting engineer in 1935 from Bush House, London, "and Flt.-Lt. Frank Whittle appeared there one day. He wanted financing for the development of a system of jet propulsion of aircraft, which he had invented.

"About two years earlier he had submitted it to the British Air Ministry, who had turned it down

"He was a bright, confident, young officer-pilot in the RAF who seemed to know what he was talking about. This impression was somewhat qualified by the eyebrow-raising improbability of his basic thesis that aeroplanes could be made to fly without propellers."



Mr Bramson's initial study of the proposals took two weeks, and "at the end of that period I got quite excited," he said.

"I suddenly felt, 'This must be done!' A survey of my clients produced a London firm of investment bankers, O. T. Falk & Co., whom I approached." They sent Mr Whyte along and he commissioned a full investigation.

The rest is recorded history. Three years later the first Whittle jet engine was tested at Rugby, and the first jet-powered aircraft flew in 1941.

Mr Bramson concludes his hindsight re-reading of the original report: "I find there are only minor points of emphasis rather, than of substance, that would need amendment.

"But any temptation to feel smug about that is immediately squelched by one's immense admiration for the originator of one of the most striking and consequential technological revolutions of our time."