



POWER FROM PRATT & WHITNEY: Said to be the most powerful production turbojet engine in the free world, the Pratt & Whitney J-75 is now the subject of a full-scale manufacturing program at East Hartford, Conn. Engine is described as "in the 15,000 lb. th. class", a rating that can be substantially augmented with afterburning. Selected for the Republic F-105, and the Martin P6M flying boat, the J-75 has also been approved for civil use and will power both the Boeing 707 and the Douglas DC-8. First few Avro CF-105 Arrows will also fly with J-75's.

motor ambulance to the main hospitals of Vancouver.

Three companies have been given a one-year permit for charter flights only. They are Pacific Western Airlines Ltd., Vancouver; B.C. Airlines Ltd., Vancouver; and Cassidair Ltd. of Cassidy where the Nanaimo Airport is located.

Harbor board officials emphasized that earlier reports of permission for regularly scheduled flights were completely wrong. Designated landing area is one mile east and west, and approximately one-quarter mile north and south within certain specified limits.

COMPETITIVE CRISIS

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Handley Page: "It should not have been difficult for aeronautical engineers to decide in terms of scientific efficiency, if you like, which was the better of the two airplanes, and therefore abandon one or the other project and save the country money. Would you agree with that?" Sir Frederick's answer was a blunt "No."

The Reason Why: He then went on to recite all the truisms about losing wars by saving money, the disastrous effects of German standardization of airplanes in the 1914-18 War, the value of design teams and skilled craftsmen. In the end the Select Committee accepted Sir Frederick's thoughts. They agreed that the Victor and Vulcan program was generally

successful. As part of their 344 page report recorded, "It must be borne in mind that the cost of an unsuccessful gamble would not only have destroyed the whole deterrent strategy as far as this country is concerned, but would incidentally have wasted the enormous expenditure on atomic weapons, as there would have been no means of delivering them."

Personally, I don't think there was much of a gamble in betting on one V-Bomber instead of two. And I doubt if the double program was really worth while on a pounds, shillings and pence basis. I'm curious to see if the British really believe that it was. For if they do, they'll be paralleling future programs for insurance, in spite of their economic eclipse. Moreover, and speaking generally, I believe there have been some fundamental changes in our social structure and our technical foundation that, when added up with the economics of the business, will render such duplication impractical in the future. Of course the idea of dropping free competition even on high cost programs dies hard in our Western World. And rightly so. Yet every sign post to the future indicates that the real big money programs in aviation will be more on a monopoly basis—in spite of committees from the U.K. and fancy phrases from the U.S.

In the first place, our social structure is changing. Economist Adam Smith's 18th Century ideas on "laissez faire" and free competition in all

fields are losing ground. Professor A. N. Whitehead summed up the past and present situation in his book *Adventures in Ideas*: in the past "the men who got the goods onto the spot first, at the cheapest price, made their fortunes; the others were eliminated. This was healthy competition. This is beautifully simple and with proper elaboration is obviously true. It expresses the dominant truth exactly so far as there are stable conditions. But when we are concerned with a social system which in important ways is changing, this simplified conception of human relations requires severe qualification."

Accepted Monopolies: In our changing world of today we have accepted many qualifications. For one thing, we have monopolies. There is the Bell Telephone, the British Columbia Electric Company, the Ontario and Quebec Hydro-Electric Commissions, Trans-Canada Air Lines, and many others. And we must be flexible enough to extend this to certain areas of aviation as our economy dictates. As Professor Whitehead says, "We are faced with a fluid, shifting situation in the immediate future. Rigid maxims, a rule-of-thumb routine, and cast iron particular doctrines will spell ruin."

There has also been a change in our technical structure. In the old days the practical state of the aeronautical art ran well ahead of the technical data. Designers sketched new airplanes on the back of old envelopes. They built these designs. Many were successful. But these days are gone. Now it requires a deep well of technical data before the designer can even start the first drawing. James B. Conant, in a series of scientific lectures at Yale University some years ago, pointed out that this is the standard evolution in any scientific endeavour. He illustrated this theme by saying, "The late Professor L. J. Henderson was fond of remarking that before 1850 the steam engine did more for science than science did for the steam engine." After that date, of course, it was the other way round.

Modern airplanes, like modern steam engines, have passed the time when they can be built from simple sketches. The designer is automatically limited, right from the start, to a set pool of research data. Competition doesn't alter this fact. It only