Prime Minister

THE LEAR FAN PROJECT

1. I am glad to report that I shall shortly be announcing an important new industrial development (ID) project in Northern Ireland which could provide up to 1,250 jobs. The Lear Fan, an executive turboprop aircraft which is being developed by the Learavia Corporation at Reno, Nevada, is to be produced at Aldergrove.

2. The Lear Fan was designed by the late Bill Lear, who previously designed the world's most successful executive jet (the Lear Jet). Its innovative feature is that it will be constructed of carbon fibre reinforced plastic, which makes possible greater speed, range and payload and major fuel savings in comparison with conventional aluminium airframes. This is generally regarded as a technology rich in potential, of the kind we need in our efforts to strengthen Northern Ireland's diminishing manufacturing base.

3. In assessing the technical and marketing prospects for the project my Department has had advice from experts in the Ministry of Defence and the Department of Industry. This has usefully clarified the risks inherent in this as in any advanced technological project, which I have had to weigh against the opportunities it presents. As a result I have built a number of safeguards into the financial arrangements to protect our financial position should major problems be encountered.

4. Learavia will be majority shareholders in the new Lear Fan Company which will develop and produce the aircraft. The bulk of the development programme will be financed from private sector sources; the Government's initial contribution (including money spent on retaining the option to date) will be £3.5 million, while a further £3.5 million has already been invested by Learavia; up to £12 million will be raised by Oppenheimers, the US investment bankers; and the balance — £4.5 - 7 million on Learavia's estimates — will be sought from the market. The manufacturing operation will attract ID grants of up to £11 million for plant and equipment, buildings and employment. The total Government financial contribution will be within the normal cost per job limits for the area (i.e. up to a maximum for the project of £16.25 million).

5. I have discussed this project with Keith Joseph, Francis Pym and John Biffen, who are content that I should proceed as proposed.

6. I intend to announce this project by issuing the attached press notice at about 4 pm on Thursday 14 February - the main thrust of our publicity will be at the Belfast end.

7. I am sending copies of this Minute to the Secretaries of State for Defence and Industry, the Chief Secretary, Treasury, the Paymaster General and to Sir Robert Armstrong.

3.5

11

HA

12th February 1980

WORLD'S MOST ADVANCED BUSINESS AIRCRAFT TO BE BUILT IN NORTHERN IRELAND

MAJOR PROJECT WILL PROVIDE 1200 JOBS

Plans have been made to build the world's most advanced executive aeroplane in Northern Ireland, adding significantly to the Province's already well-established aerospace industry.

The Secretary of State for Northern Ireland, the rt hon Humphrey Atkins MP today gave details of the project which is expected ultimately to provide up to 1250 jobs, both skilled and semi-skilled, at Aldergrove in Co Antrim.

The Secretary of State said the Department of Commerce has successfully negotiated an arrangement with the Learavia Corporation, of Reno, Nevada, which provides for the manufacture in Northern Ireland of the Lear Fan, an advanced executive turboprop aircraft. Mr Atkins said the Lear Fan, designed by the late Bill Lear, designer of the Lear Jet, the world's most successful executive jet aircraft, is an exciting new design of aircraft and is the first civil aircraft to make extensive use in its structure of high-strength, low-weight carbon fibre materials.

Development work on the Lear Fan at the Reno headquarters of Learavia is well advanced; Learavia expect development to be completed by mid-1982 with some of the development work being done in Northern Ireland, and first delivery of the aircraft to be made at about the same time.

The project involves the establishment of a new UK manufacturing company which will also absorb the current Learavia development team and workforce in a US subsidiary company. It is proposed to set up a production unit at Aldergrove for the exclusive manufacture of the Lear Fan aircraft.

Mr Atkins said the project should do much to reduce unemployment in the Antrim area. It is expected that the workforce will grow from about 200 by the end of this year to up to 1250 in 5 years time.

The Secretary of State said: "Already some 100 advance orders have been placed for the Lear Fan, an indication of its future prospects. Northern Ireland already has a well-established aerospace industry in Short Brothers and the establishment of Lear Fan can only enhance the Province's image, especially among US investors, as an important high technology centre within the EEC.

Within the last two years, a considerable number of jobs were lost through the closure of defence establishments at Aldergrove and Antrim and the Department of Commerce has been making strenuous efforts to find an alternative project capable of putting the valuable skills of those who lost their jobs to good use once again. I am delighted that the Lear Fan project will offer such an opportunity. There will also be opportunities for women to develop the necessary skills for working on this project."

NOTES FOR EDITORS

The Lear Fan

The Lear Fan 2100 is a new design of revolutionary turboprop aircraft aimed at the fast-developing executive aircraft market. The aircraft has undergone its wind tunnel tests and the first prototype is scheduled for test flying by the autumn of 1980.

The essential elements of the Lear Fan design are its clean aerodynamic lines and use of carbon fibre reinforced plastic in the construction of the fuselage, wings and tail fins. Carbon fibre has not hitherto been used to such an extent in the construction of any aircraft but is finding increasing application in aircraft manufacture because of its contribution to weight reduction and fuel efficiency.

The weight saved by using carbon fibre results in material improvements in aircraft performance, range and safety. The developers of Lear Fan are aiming for a speed in excess of 400 miles per hour, a service ceiling in excess of 40,000 feet, a flight range of approximately 2,750 miles and they expect the fuel consumption to be better than 10 miles per gallon. These factors are claimed to represent a very significant advantage for the Lear Fan over its competitors.

It is envisaged that the airframes will be built entirely in Northern Ireland. Early production aircraft will be fitted out with mostly US-manufactured components but attention will be given to the substitution of UK components where these are satsifactory in price, quality and availability.

The Northern Ireland manufacturing operation will represent an investment of up to about £20 million.

Technical Details

The Lear Fan will be constructed of advanced graphite composite materials which are stronger and lighter than aluminium. The computer designed fuselage shape is the most aerodynamically efficient profile ever used in general aviation and results in dramatic reduction of drag.

The slim, high-aspect ratio wing is designed to be efficient at 400 mph and 41,000 feet, yet gives excellent low speed stability and docile landing characteristics. The wing span is 39 ft 4 ins.

The Lear Fan has a six passenger interior, 12 ft 10 ins long and 4 ft 8 ins high, with provision for two pilots, or one pilot and seven passengers.

Besides the weight and strength advantages of graphite, there are others. Unlike aluminium, the material is not susceptible to metal fatigue from usage and will not corrode. Hence the Lear Fan airframe can be expected to out-last an aluminium airframe and require little maintenance. Airframe damage is readily repairable, frequently at lower cost than aluminium.

The Lear Fan will be powered by two 850 shaft horsepower (shp) Pratt and Whitney PT6B-35F engines flat-rated to 650 shp. Power is transmitted to the single pusher propeller through an aft-mounted gear reduction unit. Nacelle drag and the danger of asymmetric thrust resulting from engine loss are eliminated. It is asymmetric thrust, resulting from failure of one engine, that is responsible for many accidents in conventional twin-engines-in-the-wings aircraft.

All engine and transmission components are accessible through quick access panels. Novel engine mounts permit the engines to swing outward for ease of maintenance.