



European Fighter Aircraft

Many employees will know that over the last few years discussions have been taking place between various European governments, air forces and aircraft manufacturers about producing a new European Fighter Aircraft (EFA). We thought that you would be interested to know the latest news about this project because it has the potential to be Dowty Rotol Limited's biggest single programme between now and the start of the next century.

It is estimated that 1000 of the fighters will be required for the air forces of Britain, Germany, Italy and Spain with the probability of the Norwegian, Danish, Dutch, Belgian and other air forces taking the total much higher. Dowty Rotol Limited is already actively preparing for the bidding competitions due to commence later this year, after which there will be an intense period of design and development to meet the target of a prototype flying by the end of 1989. EFA production will start in mid-1991 and the first production aircraft is due to start flying by 1994.

The following is a brief history of the EFA project. In 1981, British Aerospace worked on the P110 private venture fighter and Dowty Rotol Limited was selected for three systems. By 1983 the project had developed into a collaborative effort with the Germans and Italians and renamed the ACA. The governments of these countries withdrew their backing for the ACA but our German and Italian industrial partners remained in the programme which was renamed the EAP.

The BAe Experimental Aircraft Programme (EAP) has Dowty Rotol landing gear, hydraulics, secondary power gearbox and leading edge flap system all configured for this advanced combat prototype

The EAP which will fly by this summer and at Farnborough, incorporates the following Dowty Rotol systems, some of them in collaboration with European partners:-

- * Main and nose landing gear with hydraulics
- * Leading edge flaps
- * Secondary power gearboxes
- * Automatic bleed valves
- * Airbrake jacks

Although we are involved in producing these systems for the EAP, it does NOT follow that we shall be selected automatically for the EFA programme which is the one that really matters. At the most we can expect some account to be taken of our present efforts, especially where the engineering design on the EAP also applies to the EFA. The new plane will have new systems and because of the high volume of orders expected many companies both in the UK and Europe will be fighting very hard to secure a share of this business. In order to ensure that we succeed with our bidding in the next few months, a special EFA Office has been set up at Dowty Rotol in what was the Board Room. The EFA Office will co-ordinate and control the entire inputs of Dowty Group companies throughout the pre-proposal and bidding phases of the programme.



Stuart Russell, Programme Manager EFA

There is an EFA co-ordination team at Dowty Rotol and representatives have been appointed at all the Dowty companies concerned to ensure swift and accurate response to EFA requirements. The entire exercise is being masterminded by Stuart Russell, DR Sales and Marketing Manager, with special appointment as Programme Manager EFA. He has already carried out three months market research work and planning on the forthcoming EFA programme.

He has collected and studied every relevant document, visited our potential customers and collaborators and assembled the Dowty Group team. So Stuart is best able to comment on the EFA effort as he sees it. He says,

'The most important element in the programme will be that of collaboration. Each of the systems with which Dowty is interested — landing gears, flying controls, flaps, gearboxes, hydraulics, electrics and electronics — will involve close collaboration both within Group companies and among our European partners. We can only succeed through collaboration. I cannot stress this too strongly.

'Secondly, after systems responsibilities have been established, we shall have to make supreme technical efforts to meet the weight and reliability targets which are being set.

'Thirdly, the importance of on-time deliveries must be recognised although we shall be caught in the middle of a demanding and changing situation. By this I mean that whilst the EFA key delivery dates are already set, the aircraft role, weight and configuration are still far from settled. Discussions are taking place between the British, German, Italian and Spanish teams at the EFA Headquarters in Munich to reach agreement. Therefore we shall have difficult build and tight delivery problems ahead of us, but we must overcome this challenge.'

Current Performance

Sales turnover

The regular update on our Sales turnover is shown below. As you can see, after a disappointing October performance, we exceeded our target in November and December.

	Target	Achieved
October 1985	£8,579,000	£6,206,000
November 1985	£8,805,000	£9,158,000
December 1985	£6,669,000	£7,175,000
January 1986	£8,043,000	£8,051,000
4 months total	32,096,000	30,590,000
10 months total	78,548,000	76,993,000

As a result of the shortfall in October we are £1.5m behind target for the 10 months forecast and it will be a difficult, but not impossible task, to meet the end of year target of £95m.

Order book

	Orders received	Total outstanding
October	£10,958,000	£144,521,000
November	£ 8,026,000	£143,389,000
December	£ 5,129,000	£141,343,000

There was an increase of £1.6m in the order book compared to the end of the last quarter and some of the major orders released are shown below.

- 17 sets of BAe ATP landing gear
- 20 sets of Fokker 100 landing gear and hydraulics
- £800,000 of marine hydraulics
- £2.9m of AV-8B landing gear

In addition a further £7.4m of orders were received for detail spares from customers throughout the world with the largest orders being received from the UK, USA, India, Germany, Philippines, Japan and Spain.

We are also pleased to report that the orders received in January amounted to £18,881,000 leaving an outstanding order book of £152,173,000 at the end of that month.

The majority of our business is of course within the aerospace industry, but it may interest you to know that we also make equipment for submarines, power stations, tanks and howitzers. In the case of equipment for tanks and howitzers, it is only development work at this stage although it could be a very good business if we obtain the contract. The power station equipment for which we have just received an order for £100,000 is business which dates back to 1977 when Stuart Russell identified an opportunity to use our expertise in blade manufacture in a non-aerospace industry. The original contract was won from Westinghouse Electrical Corporation who produce high speed variable pitch fans for the extraction of waste gases and ash from coal fired power stations. The fans, which each have 22 blades, have to work continuously in high temperatures and have to resist the corrosive effects of waste products. We won the contract to supply the fans' blades due to the efforts of our Sales and Commercial Departments and our success in resolving the corrosion problem. The market has not developed as we would have hoped but the project is an example of how we can use our skills and expertise in other industries and on other products.

Fokker visit — A day to remember

Report by Doug Grazier



Dowty Rotol visitors inspect Fokker 50 mock-up

Saturday, 8 February proved to be a memorable occasion for a group of 21 Dowty Rotol employees. In conjunction with colleagues from other Group companies and from Rolls-Royce, East Kilbride, we were invited to be the guests of Fokker bV, the famous Dutch aircraft manufacturer. Our party flew from Birmingham Airport in an NLM City Hopper F.28 aircraft to Schipol Airport in Amsterdam where Fokker's main factory is situated.

The invitation was made by Fokker to celebrate their long association with Dowty and Rolls-Royce. On arrival we were met by Alexander Nienther, Vice President — Materials Management, who reminded us that Fokker has been a customer of ours since before the second world war.

Our visit began with a presentation of the Fokker 50 and 100 aircraft. The climax to this was a magnificent use of special effects. We were watching the finale of a wide screen film on the Fokker 100 complete with stereophonic sound when suddenly the whole of the right hand side of the theatre opened up to reveal a large display area in which the Fokker 50 and 100 mock-ups were staged. On display also were a Rolls-Royce Tay engine, a Pratt and Whitney engine and a Dowty Rotol six-bladed propeller. We were then able to view the seating arrangements in the mock-ups, sit at

the flight deck controls and meet Fokker colleagues responsible for the design, assembly, procurement and testing of these new aircraft.

Following lunch we were given a tour of the Schipol plant which included seeing the Fokker 50 and 100 prototype aircraft, the F.28 assembly line and the last five F.27s under construction.

At the conclusion of the tour, Sandy MacFarlane of Rolls-Royce and myself were presented with twenty silk screen prints of aircraft old and modern which in the near future will be seen within the company.

All concerned found the visit to be an interesting and memorable one and our thanks go to Fokker for their wonderful hospitality; they gave a new and more favourable meaning to the phrase 'going Dutch'.

