

DOWTY ROTOL

NEWSLETTER

Issue 8
September 1987



Full scale 'mock-up' of the Eurofighter, one of the leading static displays at the show

Paris '87

The 37th International Air and Space Show took place in Paris in June, opened by the French President, Francois Mitterand.

This major event on the aerospace calendar was the wettest in recent history but still succeeded in increasing attendance figures above that of the previous show.

Dowty Rotol once again exhibited in conjunction with the main Dowty Group stand under the overall theme 'Challenging the Future'.

For the full story and photographs turn to the centre pages.

Current performance

Sales Turnover

Detailed below is the regular update on our sales turnover, showing the value of sales in the first 5 months of this financial year. These are compared with our targets for the same period.

Month	Target	Achieved
April 1987	£8,730,000	£8,740,000
May 1987	£9,201,000	£8,096,000
June 1987	£10,456,000	£10,542,000
July 1987	£9,716,000	£8,705,000
August 1987	£9,645,000	£8,321,000
5 months total	£47,748,000	£44,404,000

Our sales target for the current financial year is £118,416,000. The reason for us being behind our target sales at this stage is the low level of orders for off the shelf spares and the overtime ban.

Order Book

Month	Orders Received	Total Outstanding
April 1987	£6,733,000	£176,084,000
May 1987	£9,049,000	£177,037,000
June 1987	£8,653,000	£175,148,000
July 1987	£21,248,000	£187,691,000
August 1987	£12,385,000	£191,755,000

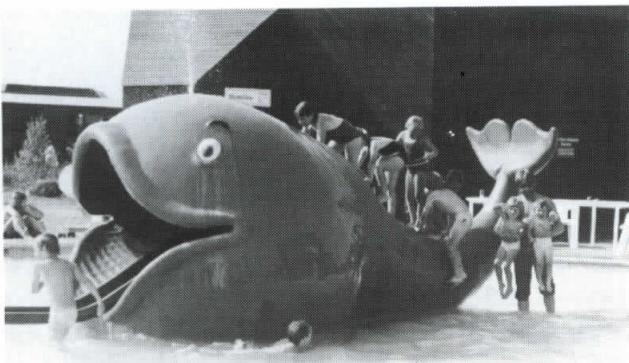
July was a good month for the receipt of orders although the work will be spread over several years.

Major Orders

The major orders received during the financial year to date are as follows:

Project	Equipment	Value of Order
AV8B	Landing Gear and Hydraulics	£9,952,341
BAe 146	Flap System, Landing Gear and Hydraulics	£7,233,282
Textron LCAC	Propellers	£3,304,426
Fokker 100	Landing Gear and Hydraulics	£2,927,720
Fokker 50	Landing Gear	£2,323,791
Sea Harrier	Hydraulics and Landing Gear	£2,150,065
Lockheed LCAC	Propellers	£1,931,220
Marine Trident	Hydraulics	£1,551,395
A320	Ram Air Turbine	£1,503,033
A310	Landing Gear and Hydraulics	£1,163,460
Panavia Tornado	Hydraulics	£1,133,249

Swimming Club annual outing



The picture above shows some younger members of the Club in Wally the Whale's pool at Sea World in Weymouth

The weather was perfect for this year's Swimming Club annual outing to Weymouth. Two coachloads of members made the journey and, on arrival, dispersed to savour the delights of the seaside.

Many headed for the beach where one enthusiastic member and his family hired a rowing boat. A mile out

they were turned back by a Beach Patrol launch, the occupants of which suggested that there were easier ways to get to France!

In addition to the annual outing the Club runs a number of excursions each year and an hours swimming is available each week at Pittville and Barton pools.

Wheel chair appeal

Dennis Neale, APEX Chairman, has asked us to publicise a fund raising appeal he is organising for a local boy suffering from a severe form of muscular dystrophy.

Martin is an intelligent 11 year old who needs an electric wheel chair to provide him with some degree of independence and give him something to look forward to. These chairs, however, are expensive and a further £1,250 has to be raised. Dennis is confident that the combined effort of all employees in Dowty Rotol can raise this amount.

A collection will be held in the near future and we would ask you to be as generous as possible. The Company has started off the collection with a donation of £250.

Help Desk



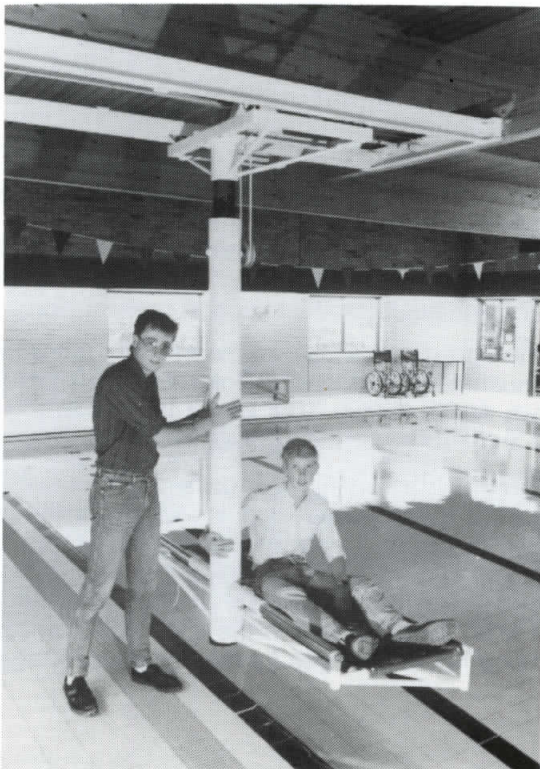
Computers now have an impact on all our lives whether at work, at home or during leisure pursuits. At Dowty Rotol we have decided that as the number of computers and terminals increase we should provide a special service to deal with the problems which inevitably occur.

This new service is called "Help Desk" and it started to operate on 1st June. The Help Desk acts as a focal point for any problems with computer equipment, systems or programs. This applies regardless of the size of the system. The Help Desk records reported problems

and makes requests for the necessary action to be taken to put them right.

The fact that problems and the remedial action taken are formally recorded means that we can more accurately predict similar difficulties occurring in other areas. This information is also used at meetings with suppliers to improve the quality of their service.

To Help Desk is "manned" by two friendly ladies, Irene Leeke and Jean Grainger, who are pictured in the photograph above. A call to them on 1514 is all that is needed to set the wheels in motion to resolve any problems with computer equipment.



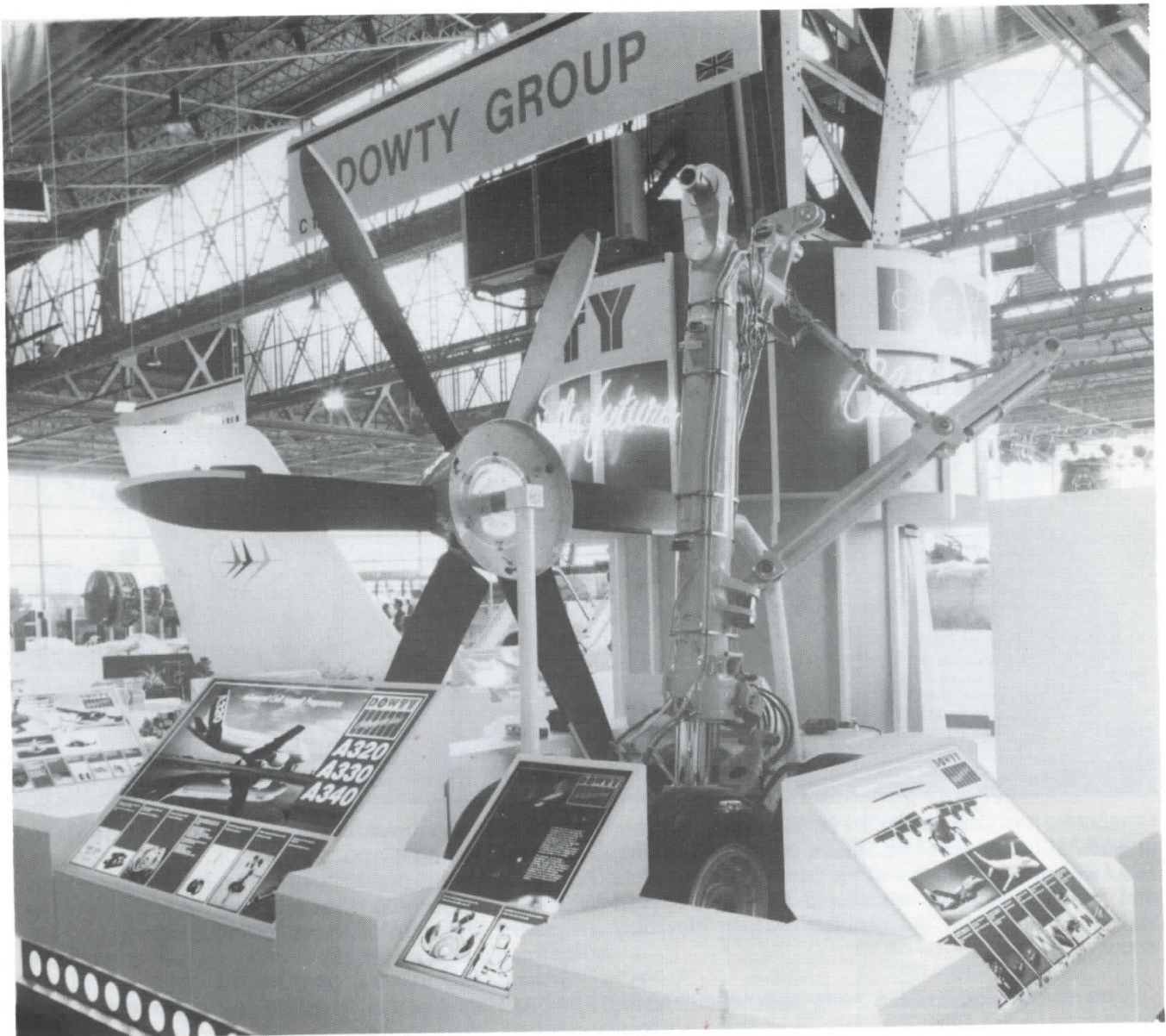
Apprentices aid disabled

Dowty apprentices based at Staverton have recently refurbished a hoist used in the swimming pool at the National Star Centre for Disabled Youth situated at Ullenwood Manor.

The stretcher unit of the hoist, which is used to lower disabled youngsters into the pool, had become badly corroded and needed replacing. It was decided to change the material on the new unit from high tensile steel to good quality stainless steel donated by Dowty Rotol.

Apprentices Nigel Trott and Steven Hodder, pictured left, carried out the construction work and David Sims of the Fabrication Shop did the final welding.

The hoist has now been returned to the National Star Centre and is fully operational.



The civil aircraft section of the Dowty Group stand showing Fokker 50 propeller and A320 bogie landing gear exhibits

Paris '87

Dowty Rotol displayed a number of key products from both civil and military markets. Exhibits included the full scale model of the Airbus A320 main landing gear — bogie version, A320 ram air turbine, Fokker 50 propeller, BAe EAP landing gear and EAP secondary power system gearbox.

Both landing gear exhibits, A320 and EAP are excellent examples of Dowty Rotol's experience of European collaboration, one of the key messages promoted at this year's Paris Show in view of the current trend towards international worksharing programmes.

Also featured on the stand was Dowty Rotol's first company video showing our product range, facilities and major programmes and markets.

The remainder of the stand was occupied by other Group Aerospace companies and the newly formed Electronic Systems Division with presentations focusing

on advanced military aircraft, advanced civil aircraft and advanced weapons and electronic systems.

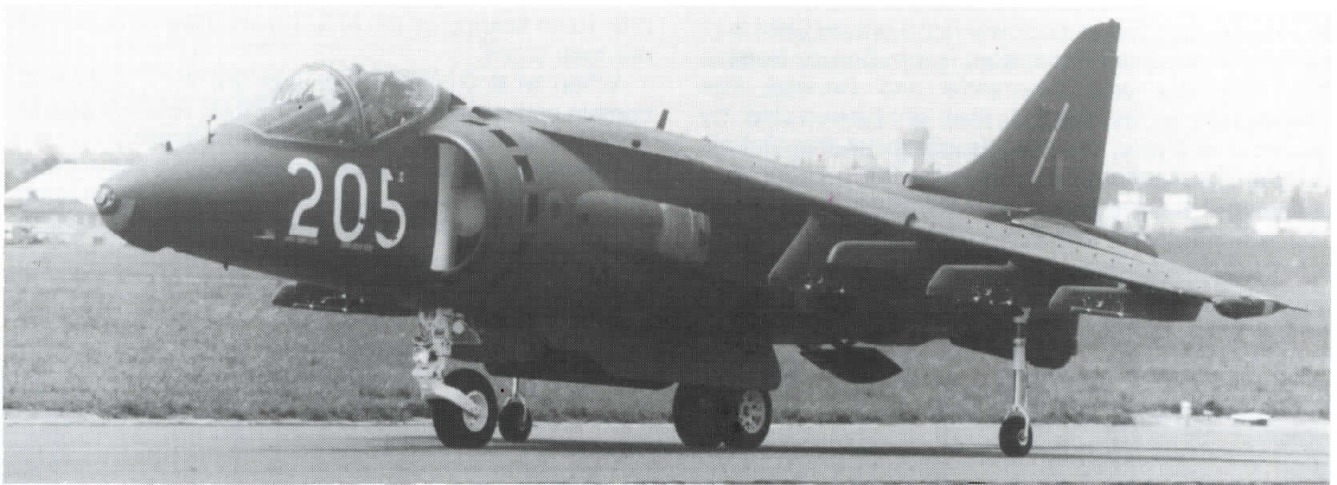
The Product Support Division of Dowty Rotol exhibited in the British Joint Venture section, as part of a Dowty Group worldwide product support presentation.

The flight displays featured the first Paris appearances of a number of aircraft using Rotol equipment including: Airbus A320; Fokker 100; BAe 146-300, EAP, Hawk 200 and Harrier GR5 and Piaggio Avanti.

The Dowty stand this year gained much praise from the many visitors interested in our capabilities. The benefit for us in taking part in such exhibitions is to reinforce and improve our image and forge relationships with potential customers and collaborative partners. This is an essential part in the continuous process of securing future business for the company.



'The Sales & Marketing Team' in front of the BAe Jetstream 31 Pictured left to right are: Alan Porter, Max Kelly and Richard Willcox



BAe Harrier GR5



Piaggio Avanti

Focus on Heat Treatment

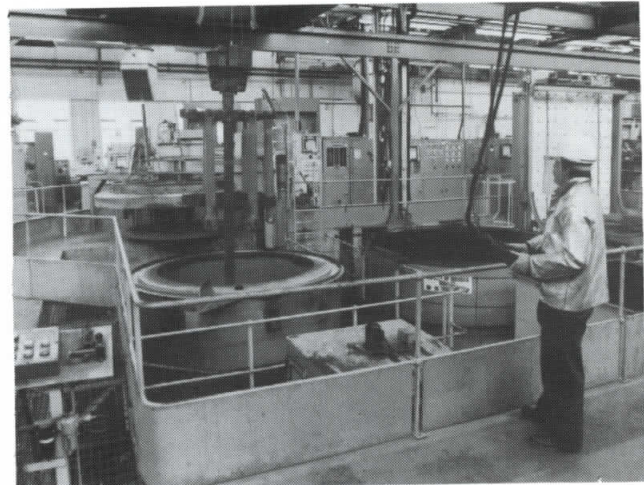
One of the warmest areas in the Company during the winter months is the Heat Treatment department where furnaces are run 24 hours a day, 7 days a week, treating the large variety of parts we manufacture.

An investment programme which began in the late 1960's has continued uninterrupted in order to meet our customers, and our own, increasingly stringent specifications. In 1980 a large pit installation was completed which greatly increased capacity and allows us to heat treat large undercarriage components.

The main reason for heat treatment is to transform the material from its as-supplied condition (usually softened for ease of machining) and to develop the mechanical properties required to withstand service conditions. For steels this involves rapid cooling from hardening temperatures of up to 950°C. Warm oil or air is used to carry out the cooling and some parts are deep frozen at -75°C to obtain the required properties. The final stage of the process is tempering at up to 600°C to produce the desired strength/toughness ratio.

The temperatures used to heat treat aluminium alloys are much lower than for steels but the treatments are usually for a longer period.

Accurate temperature control is vital in this area and the control and recording equipment is serviced every month.



Large pit furnace installation

Before parts are released from Heat Treatment they are subjected to hardness tests and the Materials Laboratory carries out a series of tests on the test samples which accompany each batch of work.

Unfortunately, all this generated heat has a cost. The annual energy bill for this Department is substantial. Remember that the next time your gas or electricity bill arrives and it may help to ease the pain!

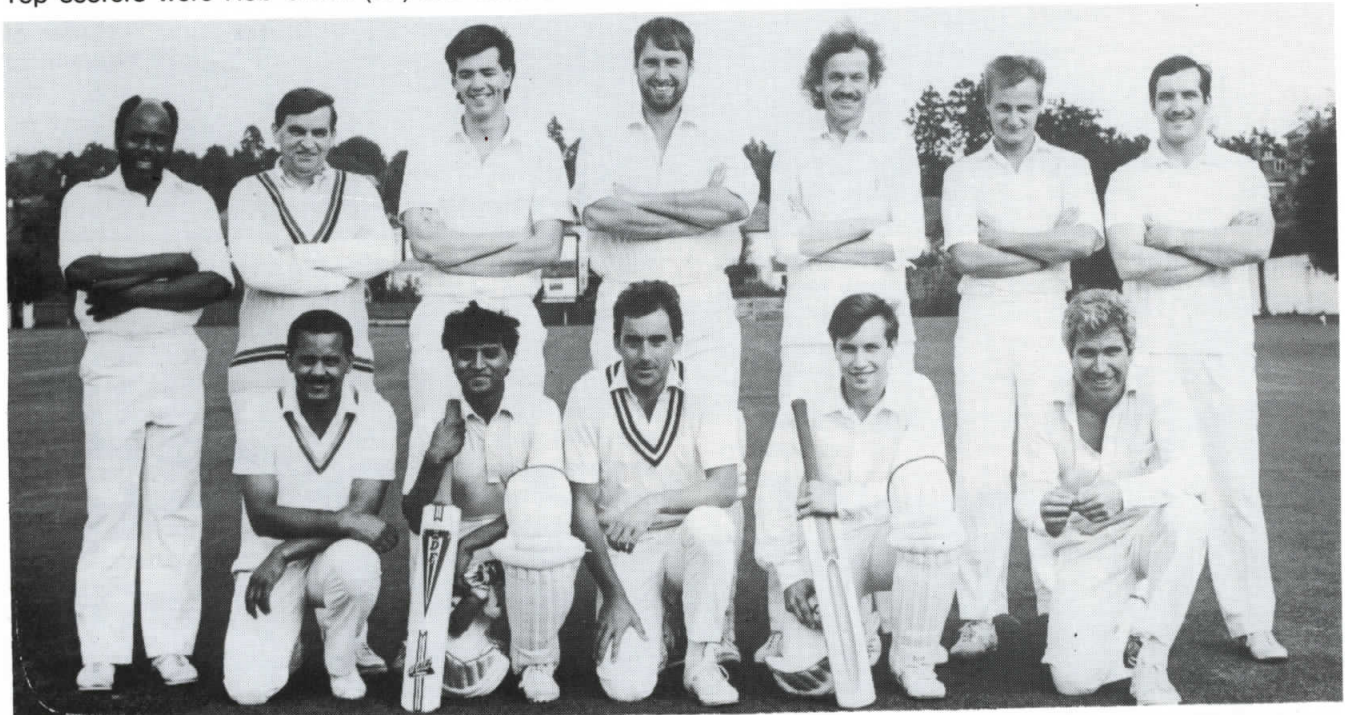
Cricket team fail in double attempt

In a keenly fought match, Dowty Rotal cricket team was defeated in the Coley Associates Trophy final by the side they beat last year, Mercantile and General. The competition, in its second year of sponsorship by Christopher Coley, reached its climax at the Victoria Ground, Cheltenham on 20th August. We batted first and scored 102 for 8 wickets in our 15 eight ball overs. Top scorers were Rob Smart (32) and Chandu Patel

(36). Keen fielding by the M & G team did a lot to restrict our total score.

When M & G batted, our bowlers were unable to contain some authoritative play by their openers and M & G scored 103 for 3 with 12 balls to spare.

Despite the result a large crowd enjoyed some good cricket on a fine summers evening. All credit to our team for an excellent effort and here's to victory in 1988!



The picture above shows the players who represented us in this year's final

Airbus launch goes ahead



In previous issues of the Newsletter we have explained our involvement in the Airbus Industrie A320 airliner and the progress to date on this project. In this issue we explain the background to the launch by Airbus of two further airliners, the A330 and A340.

The A340 is a four engined long range aircraft which is intended to be in service by mid 1992, followed a year later by the two engined medium to long range A330.

Airbus Industrie's decision to extend its range of airliners was made in June and follows the commitment by British, French and West German governments to provide launch aid. The Airbus consortium is composed of the following companies with the percentage work share shown in brackets:

- Britain — British Aerospace (20%)
- West Germany — Deutsche Airbus (37.9%)
- France — Aerospatiale (37.9%)
- Spain — CASA (4.2%)

It should be noted that it is these companies and not equipment suppliers like ourselves who receive the launch aid.

Later on this year Dowty Rotol expect to be in a position to bid for a number of systems on the A330/A340. Despite our involvement in previous Airbus projects there is no guarantee that these bids will be successful. Because of the large volume of potential orders we shall be facing a strong challenge from other companies who want the business and our prices will

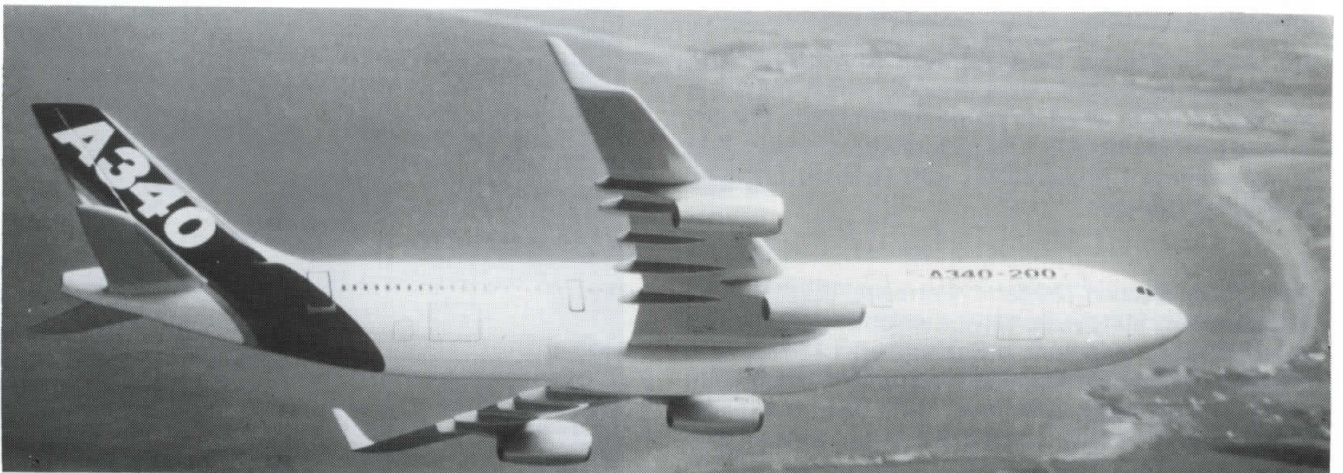
need to be very competitive.

As well as the landing gear systems we shall also be bidding for the flap and slat systems, the ram air turbine and perhaps the tailplane trim system and engine thrust reversers. Certain bids could be made in collaboration with other equipment suppliers, allowing us to offer a wider, stronger and more competitive package and so improve our chances of success.

The A330 and A340 are variations of the same basic aircraft with aerodynamic, structural and system features proven on the A300 and A310 and further developed for the A320. The aircraft may feature a new highly efficient adaptive wing which will give maximum lift and minimum drag under all conditions. This is achieved by the wing automatically adapting its profile during flight to match the changing conditions of weight, speed and altitude.

It is intended that both aircraft will have common wing mounted landing gear. The A340 will have a fuselage mounted centre gear to accommodate this four engined long range aircraft's extra weight and this may also be true of later stretched versions of the A330.

Airbus Industrie forecasts a potential market of around 1,000 aircraft over the next 20 years, split almost equally between the A330 and A340. In view of the importance of these projects to Dowty Rotol's future we shall give further information on the progress of our efforts to win a share of this business in later editions of the Newsletter.



Appointments



Richard Pryor — Stress Engineer

Richard Pryor joined Dowty Rotol in June. He commenced his career with British Aerospace in 1964 and during his employment with them he gained his engineering degree. He left in 1973 to gain further experience including a spell at Fairey Hydraulics and returned to British Aerospace as a Stress Engineer in 1985.

Richard is married with two children and lives in Cheltenham.



Richard Newley — Senior Materials Engineer

Dr. Richard Newley started with Dowty Rotol in June. He joined Rolls Royce in 1969 as an undergraduate apprentice. Following completion of his degree and PhD he was appointed to a number of positions in the Materials function. In 1984 he became Manager, Materials and Component Behaviour.

He is married with one child and lives in Bristol.

Retirements



Brin John, Inventory Controller, retired on 31st July, 1987, after forty-eight years service, which began in November, 1938, when he joined the Progress Department of Rotol Airscrews. The picture above shows Brin at his retirement presentation with Graham Lockyer, Production Director.

Stan Guest, Section Leader in Contracts (ELS), retired early after over thirty years service which began when he joined Dowty Equipment in September, 1954. Stan is pictured right at his lunchtime retirement celebration held on Wednesday, 29th June, 1987. The young lady on the left is not a new recruit to P.S.D. but a Kissogram girl arranged by Stan's colleagues to add spice to his send-off.

