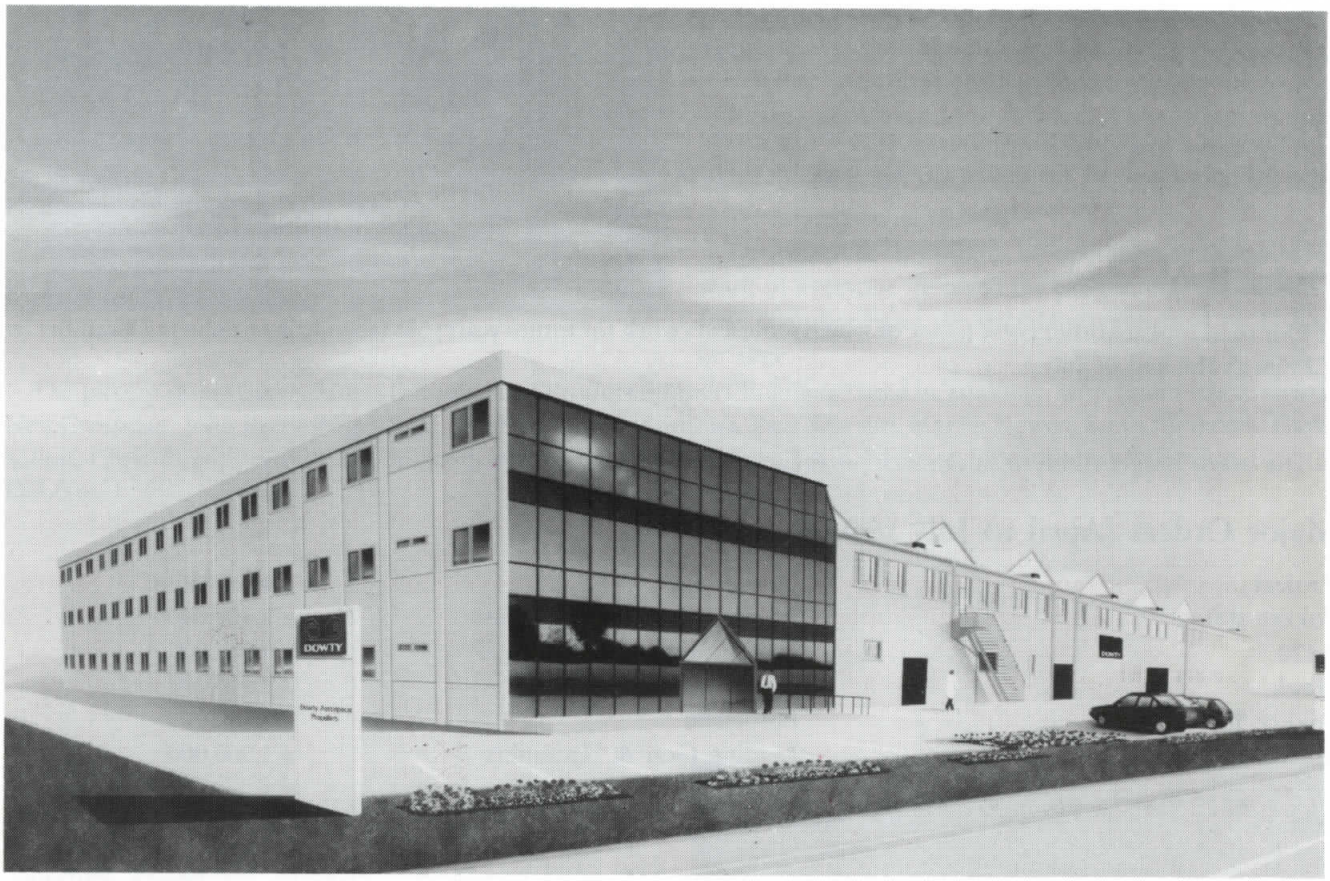
The Dowty Aerospace Gloucester
Newsletter

September 1991 Issue 19



Artists impression of DAP at Anson Business Park

Props Away

In October Dowty Aerospace Propellers (DAP) will commence trading as a separate organisation.

All 350 people selected for DAP have now been notified and received a briefing from their designate manager. An initial meeting of DAP employees has also been held so that people can get to know each other and hear about future plans for the business.

DAP will be based at the Anson Business Park (no 25 site). Preparation of the new facilities has involved refurbishing existing buildings and erecting a three storey office block at the Cheltenham end of the main building. Every effort is being made to create an efficient and modern working environment. The site will cover approximately 85,000 square feet and will be supported by the existing Metal Blade Shop and Propeller Spin Rig which will remain in their present locations.

The movement of people to the new premises will be progressive. Starting in September it will be completed during November.

DAP has been created at a particularly challenging time. The market for propellers is still substantial and they are increasingly being used on larger, more sophisticated aircraft. However, the competition to win business has never been stronger. The only way to succeed in today's environment is to provide a dedicated team effort focused on a single product. This will lead to faster response to market changes, improved customer service and reduced costs and leadtimes.

DAP's management team is confident that the benefits of restructuring into a focused business unit will enable it to meet the challenges ahead.

Recession Hits Order Book

Sales Turnover

The figures below show our sales for the first 4 months of this financial year compared to our targets.

Period	Target	Achieved
April 1991	£10,200,000	£9,200,000
May 1991	£12,300,000	£11,100,000
June 1991	£11,900,000	£12,300,000
July 1991	£11,600,000	£8,800,000
April to July 1991	£46,000,000	£41,400,000

Following a good month in June our sales for July were nearly £3 million behind target. This was caused by a shortage of work as a result of customers cutting back on their programme requirements.

Order Book

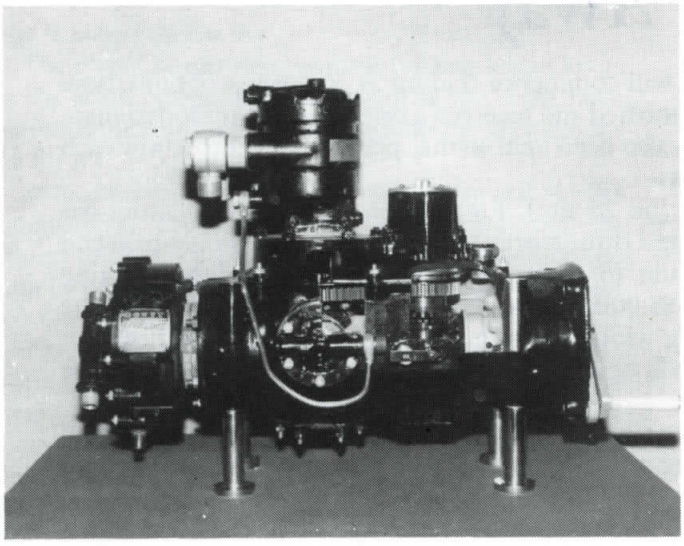
Our total forward order book (some of which represents work for future years) has fallen from £282m in December to £250m at the end of July.

The major orders received in the current financial year are as follows:—

Major Orders (April to July 1991)

Project	Equipment	Order Value
Fokker 100	Landing Gear & Hydraulics	£5,300,000
A320	Landing Gear & RAT	£4,800,000
Hawk	Hydraulics	£2,800,000
Fokker 50	Propellers	£2,300,000
Tornado	Landing Gear & Hydraulics	£1,900,000

Gearbox Restored



The picture shows a secondary gearbox, from a Meteor T7 aircraft, which was originally made by Rotol Airscrews Ltd.

After its service life, the gearbox spent 25 years standing outside RAF Locking, Weston-Super-Mare. Recently, a group of our 2nd year apprentices restored the gearbox to pristine condition for the Gloucester Aircraft Collection which will be based at Brockworth.

Despite being made before 1960, the gearbox was in remarkably good condition when it was dismantled — proof that quality does last.

At the Midnight Hour

At midnight on the 23rd of July a team from our Development, Electrical, Technical, No 5 Shop and Service Departments met at Aerospatiale in Toulouse.

Their aim was to undertake a modification programme to the main landing gears which were already fitted to the first A340 aircraft. Our team had only 72 hours to complete their task before vibration testing was due to begin.

Working around the clock and under the scrutinising eyes of Airbus and British Aerospace, our team battled to complete their job. Despite considerable pre-planning, a number of snap decisions had to be made to overcome unforseen problems. Due to a lack of adequate lifting equipment, there were difficulties when refitting the sliding member. However, a touch of innovative fork-lift truck driving saved the day.

Thanks to the enthusiasm, co-operation and sheer hard work of everyone involved the programme was successfully completed and the aircraft was returned to Airbus on time.

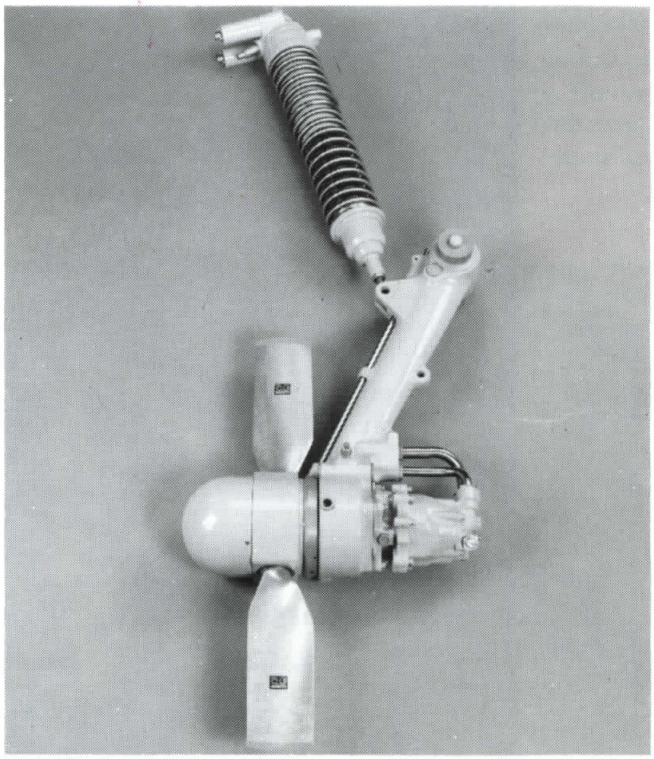
The picture shows Steve Barnes (far left), our Product Support Engineer based in Toulouse, with (from left to right) Neil Crossman, John Parry, Nigel Ford, Jim Harris, Pete Andrews, Paul Worgan, Martin Bowen, Steve Meredith, Dave Tallon, Chris Pugh, Tony Miller, Richard Jeffries, Ian Millar, Nigel Trott, Maurice Jones, Bernard Finch and Brian Dobbins.

R.A.T. Race

At 4.00 am on the morning of the 9th August Peter Woolfrey, Programme Manager, travelled to Deutsch Airbus in Hamburg to hand deliver our bid for the Airbus A321 Ram Air Turbine.

The A321 is a stretched version of the A320. It has been designed to fill a gap in the Airbus family between the A320, which carries 150 passengers, and the 218 seater A310. The A321 will be made approximately seven metres longer than the A320 by adding two fuselage plugs in front of and behind the wing. The extra space will enable the A321 to carry 36 more passengers in a typical two-class cabin than the A320. The first A321 will be ready for airline service in early 1994.

Our proposed equipment for the A321 RAT is a development of our A320 RAT. It is a twin-bladed RAT made of composite materials and controlled by hydraulics. We had only three weeks in which to prepare our bid. Thanks to our concerted efforts this was successfully achieved.



A320 RAT

Show of Strength

Number 6 Hanger is where all the Fatigue and Strength Tests for our Undercarriage components are carried out. By far the biggest and most challenging of these so far is the Strength Test that is now being performed on the A330/340 Main Landing Gear.

The Landing Gear is the largest ever to be manufactured in the world. The test rig, designed by Norman Hunt, is equally impressive. It reaches to 28 feet in height, weighs 165 tons and is our first fully automated strength test to be controlled by servo hydraulics and computers.

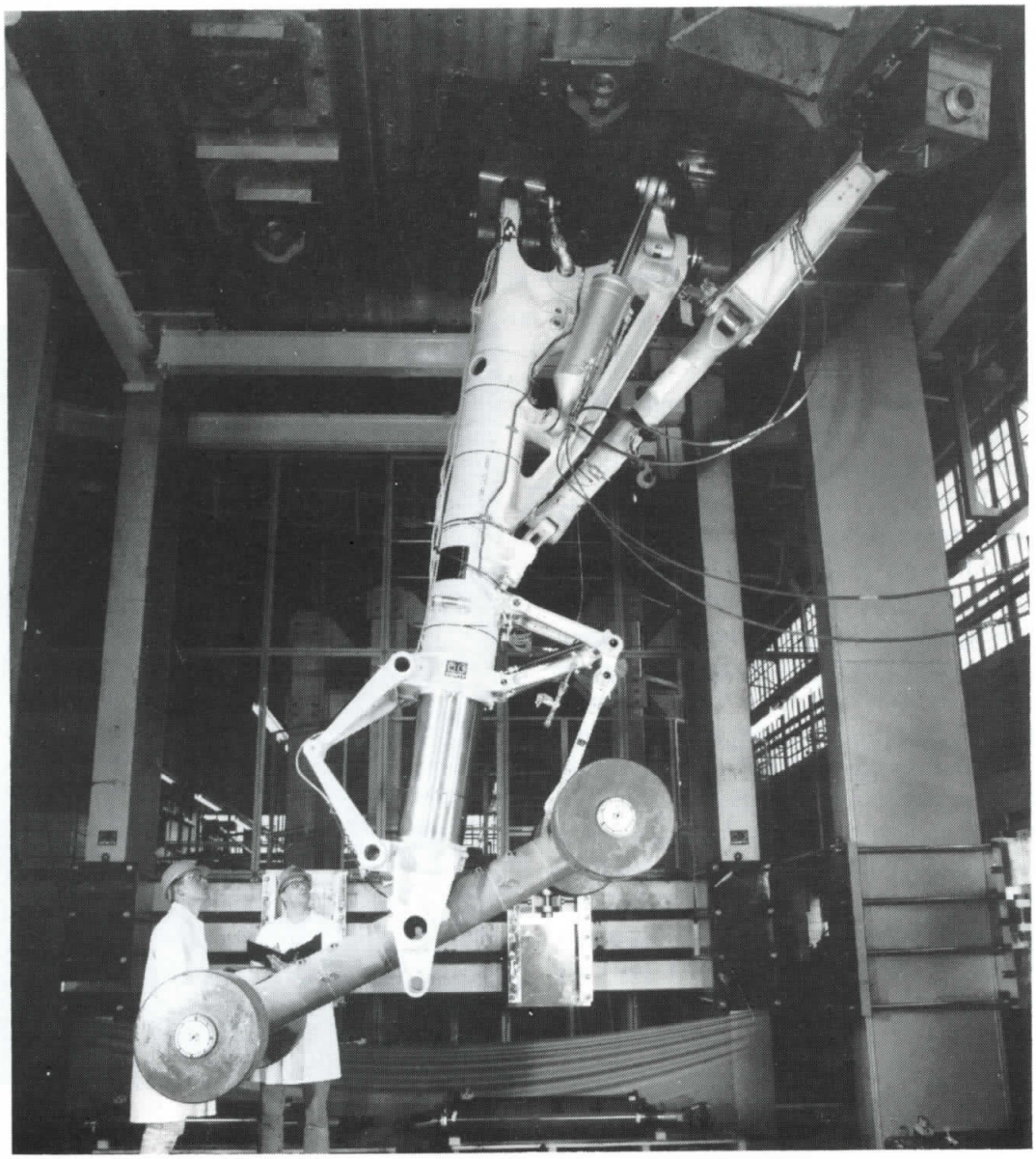
The 13 independently controlled hydraulic loading jacks have had to be specially made to exert the loads needed for this test. They have the capcity to exert a combined load of over 1200 tons, which is about one and a half times the weight of all the cars in our car parks. They also produce enough energy to throw one of the cars a distance of more than a mile.

Peter Heffer, Senior Development Engineer, and Tim Baker, Development Engineer, have been responsible for designing the computer and control systems to manage all this power. With the high cost of replacing the Landing Gear and the first flight due in October, every step is being taken to minimise any risks.

The computer system is the largest our Control Section has ever produced. Peter explains, "By automating as much as possible we only need one operator sitting in front of a computer terminal. This has greatly improved the safety aspect".

Ian Smith, Senior Engineer, is responsible for directing the computers to apply loads. He monitors the progress and examines the results throughout the test. The computers are checking everything 25 times per second so Ian is a very busy man.

Brian Birch, Assistant Chief Engineer — Development, sums up, "The building of this rig has been the result of many team efforts. The combined teamwork of the Test Equipment, Electrical and Control Sections has ensured that the installation of the rig and all the control systems has been successfully completed to target".



Retraction Testing of the A330/340 Main Landing Gear

Tripping Down Memory Lane

As part of the sixtieth anniversary celebrations of the formation of the Dowty Group, the first grand reunion for all those ex-employees who had worked on the Staverton site was held at the Club House on July 26th. Together with their wives, husbands and friends, well over 250 people enjoyed a pleasant day in company with former colleagues, reliving the old days at British Messier, Rotol and Dowty Rotol. Although the majority were from the immediate neighbourhood, many had travelled a considerable distance. Ted Hughes probably came the furthest — he had made the journey from Belfast in order to be there.

A display of company products past and present which had been set up in the lounge received a great deal of attention. There was also a large number of photographs and other memorabilia brought along by those who attended. As the day progressed many decided to sit outside on the sports field to take advantage of the fine sunny weather, playing the game that comes to us all as the years pass by — "Name That Face"! The general reaction seemed to be that the reunion had been a great success, summed up by one of the wives as she and her husband departed, "What a smashing atmosphere — we've really enjoyed ourselves. Thanks for a wonderful afternoon".

The picture shows pensioners Bruce Stait and Ian Golesworthy who had undertaken the task of organising the event. They were well pleased with the many favourable comments they received and have promised to look into the possibility of repeating it again in two years time.

We Win Again

The picture shows Her Majesty's Lord Lieutenant of Gloucestershire, Colonel Sir Martin St. J. V. Gibbs presenting the Queen's Award for Technological Achievement 1991 to Managing Director, Graham Lockyer.

The award is for the technological innovation we have shown in the production of our advanced composite propellers.

As Graham Lockyer pointed out in his speech of thanks, "This is the 17th Queen's Award for Dowty. D.A.G. has won six of these — in 1965, 1974, 1980, 1984, 1989 and now 1991". He went on to pay tribute to everyone involved in achieving the award.

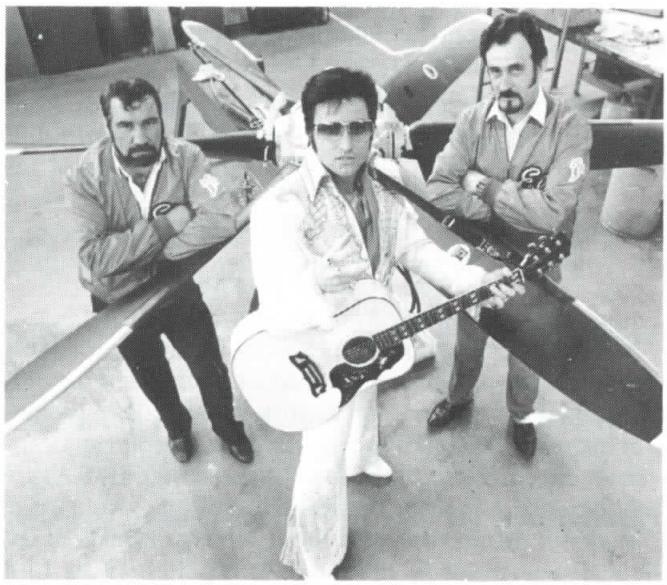
Is The King Dead?

August 16th was the anniversary of the death of Elvis Presley, but the memory of him lives on in Clayton Mark, Departmental Progress Chaser for DAAS.

Clayton, who bears a remarkable resemblance to the late King of Rock 'n' Roll, is making a name for himself impersonating famous singers. He can mimic the likes of Tom Jones and Johnny Mathis but is best known for his impression of Elvis.

Recently, his talents took him to Germany to entertain the British Armed Forces. Clayton teamed up with 'the Blues Brothers' and 'the Prime Minister' to put on a show for the troops. The trip was particularly special to Clayton because the real Elvis served in Germany during his time with the American Army.

Clayton has now organised a local concert in Cheltenham Town Hall on 14th September. He will be joined by Blues Brothers impersonators and backed by local Stroud band 'Spies in the Sugar' to commemorate the death of Elvis.



Clayton with workmate roadies Gerry Wickens (left) and Pete Smithers (right)

Suggestions Success

Last November, we reported that John Sims, a machinist in DAAS, won a Suggestion of the Month prize. John's idea was to design and manufacture a set of collapsible dollies which enables the removal of bushes from components without damaging the details.

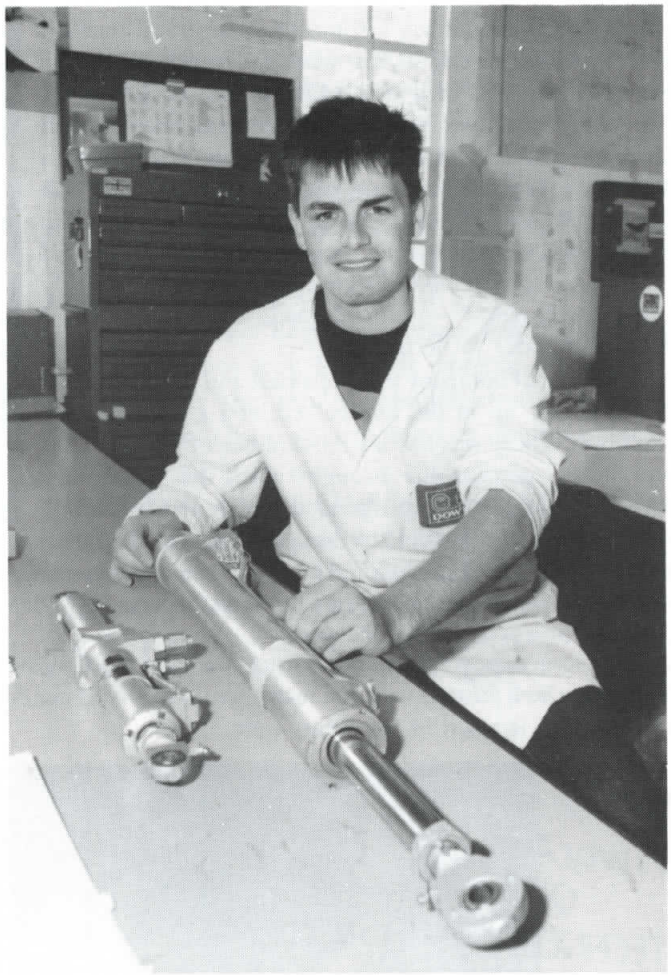
We now congratulate John again on winning a prize of £250 as runner-up in this year's Group Suggestion of the Year Award.

Congratulations also go to Maureen Worsfold of the Methods Drawing Stores, and to Paul Dembenski who works in the Warranty Department.

Maureen won £600 for her idea. She suggested that we microfilm our own drawings instead of using a sub-contractor. Maureen's idea saves the Company over £2000 a year.

Paul suggested a modified method of assembly for Fokker 50 Jacks to ensure that bearings are properly greased. This idea has reduced the number of jacks returned under warranty because of seized bearings by 72 jacks a year, and has won Paul a cheque for £425.

Maureen hard at work



Paul shows us a Fokker 50 Jack

Continuing to Learn

Congratulations to the following for their recent success in obtaining the N.E.B.S.M. Certificate.

Margaret Adams (Programmes & Performance)
Christopher Evans (Programmes & Performance)
John Archer (Tool Room)
Dave Baldwin (Tool Room)
Steve Beard (No 1 Machine Shop)
Gerry Bird (Inspection)
Paul Stevens (Inspection)
Mike Lander (Design Support)
Bob Tucker (CBS)
Robert Stephens (DAAS)
Andrew Thomas (DAAS)

N.E.B.S.M. is a national supervisory management course run through the School of Mechanical and Manufacturing Engineering at Gloscat and the Business Unit of the Royal Forest of Dean College. The course assessment is by means of work based assignments and a work based project tackling real company issues.

Some of the projects undertaken were as follows:—

Steve Beard examined the costs of extra work for RATs, P.C.U. and valve bodies for the NC and Burr-bench sections. Rob Stephens examined the feasibility of introducing group working into D.A.A.S.

Margaret Adams compared the reporting of financial statistics by the Programmes and Performance Department to the statistics currently produced by S.O.P.S. (Sales Order Processing System). Eventually SOPS will take over Programme and Performance's Statistics producing role. Margaret's project recommends that some new programmes will have to be added to the SOP system to enable this change to take place effectively.

Army Honours

Congratulations go to Andy Baker, No 1 Shop machinist, who has become a Commissioned Officer with the Terratorial Army.

Andy joined The Light Infantry (Volunteers) five years ago. He rose to the rank of Corporal before accepting an invitation to train as an Officer Cadet in September last year.

Over the next nine months, Andy faced a barrage of tests. He sat general knowledge tests, scrambled over assault courses and spent weekends on exercise in the remote Brecon Beacons and the more welcoming Salisbury Plain.

Finally, Andy attended a two-week course at The Royal Military Academy Sandhurst. His mental and physical stamina were tested to the limit. The course ended with a four-day exercise, during which the trainees had no chance to sleep, immediately followed by the final exam.

Not surprisingly, only a small handful of the trainees successfully reached the passing out parade which was held at Sandhurst on the 22nd June.

Why would anyone want to put themselves through this gruelling trial? In addition to the personal challenge it is an honour to be invited to attempt the training. Andy was one of only three from his unit to be asked to take part this year. He also has a background of family connections with the forces.

The most important memory to Andy is the great sense of achievement he feels having successfully completed the training. As he explains, "I'm not really a very tall person and I wanted to prove that I could do as well as anyone else. I was the smallest guy on the course, but at the passing out parade I felt like the tallest".

Andy in action

All Change for Quality Assessment

In August, we were re-assessed for Ministry of Defence approval to AQAP.1. Approval means that we are able to stay on the Defence Contractors List and receive Military contracts.

The result of the re-assessment is that we will be recommended for registration to AQAP.1 for a period of three years. Mike Blanch, Quality Manager, said, "This is the result of a collective effort over recent months. You can be assured, the effort was worthwhile and will contribute to retaining, and hopefully increasing, our share of contracting military business. — Thanks to all of you".

The Assessors decided that there are some areas where we need to pay greater attention to quality to continue matching the standard wanted by the MOD. As Mike points out, we have the opportunity to maintain and improve our standard both at DAG and in the new business units.

The AQAP.1 MOD standard is being replaced by an international standard, ISO9001, which will apply to both Military and Civil quality systems.

What are the main differences between ISO9001 and AQAP.1?

Firstly, assessments will no longer be every three years. Assessment teams will visit two or three times every year without notice. This means we will no longer have the opportunity to prepare for assessments. Standards will have to be maintained at all times.

Secondly, we will have to prove that everyone has received suitable training to carry out their job. All our training needs will have to be regularly evaluated.

Finally, AQAP.1 assessments have been free, but we have to pay a high price for assessments to ISO9001. If we fail future assessments, we will have to pay again for re-assessment in addition to the serious setback of being an unregistered company.

'DAAS' FUN!

The prized shield, donated by Gerry Tucker, Spares Liaison Clerk, (left) displayed by Paul Brown, Strip Salvage Operator, of "The Giants".

Dowty Aerospace Aviation Services held its first Fun Day on Saturday 13th July to coincide with Dowty's 60th Anniversary. It proved an interlude of relaxation and light-hearted pastimes for personnel and their families. Set beside the magnificent Arle Court sports field were tents, stalls, skittles, barbecues and a day-long programme of events.

Children enjoyed pony and train rides, worked off their energies on the bouncing castle then relaxed to watch the magician do his tricks. Wives and girlfriends took part in races before watching their muscular men folk team up for tug of war contests. Incidentally Team 5 of DAAS-G Manufacturing — calling themselves the Giants — won and they have put their hard earned Gerry Tucker Tug of War shield up for challenge.

There were numerous other prize winners. Seventeen lucky people won prizes in the raffle, ranging from baskets of fruit to bottles of wine and whisky. The lucky programme holder was better off by £25 and there were yet more prizes for skittles, Computer Golf and guessing the number of jelly beans in a large jar.

The Sue Ryder charity stall gained £140.80 and Bettridge School raised £130 through the raffle to add to the proceeds of their stall.

Thanks go to all those who organised and took part in the Fun Day helping to make it an enjoyable day for all. Many have already asked if the Fun Day can become an annual event — a request that will be hard to refuse judging by this year's success.

Inter-Departmental Sport

A total of 22 teams entered this year's Inter-Departmental Cricket Competition. In the final of the Main Competition the Tool Room scored 79 for 2 to beat No. 2 Shop's 78 for 9.

The Plate Competition, which is for first round losers in the main competition, was won by the team from Maintenance who scored 85 for 8 against the Tech Block's 74 for 8.

18 teams competed in the Inter-Departmental Skittles Competition. The Undertakers (Experimental) beat the Platers to win the premier Division. The 1st Division was won by the Old Timers (No 1 Shop Grinders) who beat the Quickslips (Despatch).

The Undertakers scored a double victory by also winning the Front Pin Competition when they beat Crazy's Crew (Tool Room). The winner of the Averages Competition was Darrel Phelps with Phil Payne as runner up. The Highest Scorers this year were Steve Mansell and Cliff Parker who both achieved an impressive score of 86.

Double victory for the Undertakers. (from left to right) Mike Willis, Steve Richards, Dave Rutherford, Clive Hopkins, Steve Mansell and Dave Tyas. (absent: Ian McAllan, Tony Hibberd, Nigel Philips, Gerry Preston and Allan Bennett).

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