ISSUE NUMBER 10

DOWTY DEFENCE & AIR SYSTEMS

APRIL 1990

DOWTY'S BRAND NEW CORPORATE IDENTITY

Welcome to the first edition of Contact in our new corporate identity. Nicola Smith, Group Communications Manager, gives us her thoughts about how the new identity will help in customer relations, whether internal or external.

Well, now we know what the new identity looks like. More important, we know what it stands for: excellence in all our endeavours, but especially in the service of our customers.

The concept of internal and external customers is quite well

known among some of our companies already.

But the launch of the new identity throws down a new challenge for us all to re-assess our work and measure up to the Preferred Partner ideal.

Customer service is a very real asset and one certainly worth investing in.

It can win us new sales, as well as help us keep the customers we have, through thick and thin.

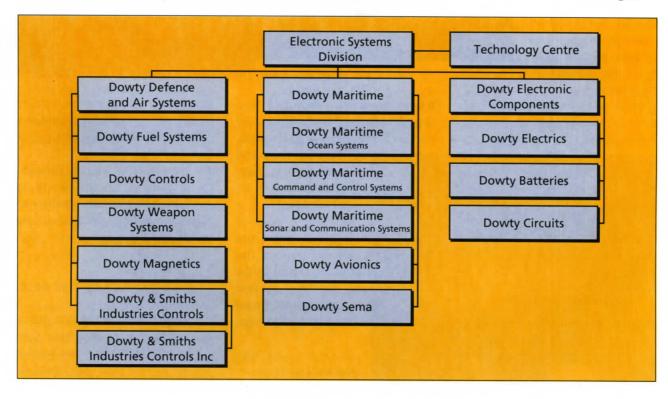
We all know how quickly a bad

reputation can spread, so we have to work hard to establish a good one and **keep it**.

The new logo, with its graphic representation of our goals, can only help us get there.

As part of this new philosophy, we are bringing all our company names into line, so that they focus on the Dowty name and reflect their specific business areas.

The family tree below outlines the companies which make up the Electronic Systems Division, some of which have changed.



OPEN RANGE ACCEPTANCE

Two Dowty Magnetics open sea magnetic measurement ranges are currently being put through their paces for the naval bases at Clyde A and Clyde B in Scotland.

This follows the award of a contract in March 1988 for the supply of the systems for five naval sites in the UK, together with a central archiving facility.

archiving facility.

The archiving system has been installed and accepted at Portsmouth, and factory acceptance tests for the sea-based ranges have been taking place during the first half of March.

The systems for Portland, Plymouth and Forth have been accepted.

Neill Yates, Project Manager and Martin Murray, Senior Development Engineer, together with a team from the Ministry of Defence, are carrying

out the work and as soon as this has been completed, site installation will start.

It is hoped calm water will give reasonable conditions for completion as quickly as possible.

The system consists of five, three axis magnetic sensors sited off-shore, at depths from 9 to 30 metres.

Information from these sensors is taken to shore by means of individual 20 millimetre diameter cables. The cables are buried in the sea bed so as to give some degree of protection.

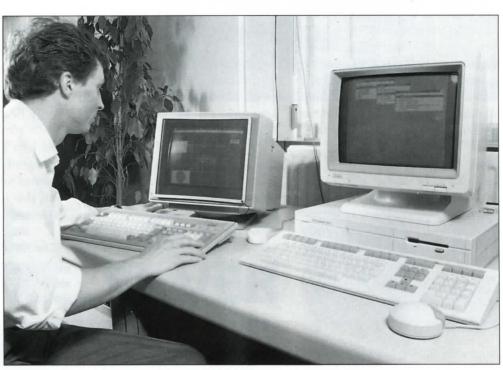
They are brought through the wave zone where the sea meets land by means of iron, concrete or high density polyethylene tubing, dependent upon the conditions at the point where the cable comes ashore.

essed, normalised and passed to an analysis computer, which has a library of information on ship's degaussing system characteristics.

The software package for this computer has been developed by Thomson Sintra ASM of Brest, France, one of the major subcontractors to the project.

The software combines all of the information necessary to reduce a ship's magnetic signature to as low a value as possible.

Information on the magnetic state of the ship, either de-



Neill Yates operating the system from the analysis computer.

Power supplies, protection and the electronics for data acquisition are housed in a console, whilst actual data is collected and controlled by Dowty Magnetic's software, operating in an Olivetti personal computer.

In addition to magnetic data from the sensors, information on the ship's track is given by an infrared automatic tracking system and depth is obtained from transducers external to the sensor housing.

All of this information is proc-

gaussed or undegaussed, can be supplied in tabular, graphic, contour or isometric form.

The new installations are thought to be the first in the world to combine three axis measurement, modelling, prediction and speed of analysis.

Editors note:

Degaussing is the process of reducing the magnetic field of a ship to as low a value as possible.

Hi-PPAG IN THE FAR EAST

erative with Jon during his travels to the country and provided many useful contacts for him to work with. Our picture shows Jon working hard at learning the language (we think! - see photo at end of article) and mastering

Countries which until recently have merely been a name on a world map, have now taken on a special meaning for the people of Dowty Weapons Systems.

One of these countries is South Korea, remembered by many for the 1951-53 Korean War and the stand made by the "Glorious

Above: Jon's Marriage to Sook

Glosters" Regiment against North Korean invaders.

Gloucestershire is once again in South Korea, but this time in the form of Hi-PPAG and the associated product support provided from home base at Staverton, Gloucester.

South Korea has undergone a remarkable transition from being a war torn country, separated from North Korea by the 38th parallel, to one of the most modern countries in the world,

with a thriving economy.

Due to its geographic and consequent political position, defence is of prime importance and there is now great emphasis on home designed and produced equipment.

A new class of navy frigate,

the Jupiter II class, is now being built to replace the US supplied destroyers, some dating back as far as World War II. These frigates displace 1,140 tonnes and carry a 76mm gun, Exocet missiles, torpedoes and depth charges.

To enable accurate target acquisition and aiming of the ship's armament, a Radamec Optical Infra Red Fire Control System is fitted.

This in turn employs the Hi-PPAG 100 to supply pure air cooling for the sensor.

Other South Korean projects include complete reequipping of the tank force with new main battle tanks,

for which Hi-PPAG is now undergoing trials with the

Army Department of Defence (ADD).

Jon White of Weapon Systems marketing department was a key player in securing this business and spent a good deal of time in South Korea.

The South Koreans proved very co-op-



Above: Jupiter II Class Frigate

the difficulties of working in a different country.

However, there is a quaint tradition that you should always return home with a pleasant memory of your stay.

Jon brought a permanent memory home with him - his wife Yong Sook, now honouring Cheltenham with her delightful and beautiful presence. Welcome Sook.

Below: Jon learning the language!







MORE GOOD NEWS FOR DFS

Dowty Fuel Systems has just received an initial long lead material order for 200 sets of variable stator vane actuator systems (VSVAS) from Rolls Royce, Derby.

The first production VSVAS will be delivered in February 1992 and DFS is expected to produce over 110 sets each year.

The VSVAS will be used on the

latest versions of the RB211 engine - the H3 and the Trent.

The H3 will be entering service in June 1992 on the Boeing 747 and 767 aircraft.

In March 1993 the McDonnell Douglas MD-11 will be the launch aircraft for the Trent engine, which will also be used later on the Airbus A330 and the Boeing 767X.

SAAB 2000 RCU CONTRACT

Dowty Controls has been awarded a contract by Saab to supply a state-of-the-art fly-by-wire rudder control system for the new Saab 2000 turboprop aircraft.

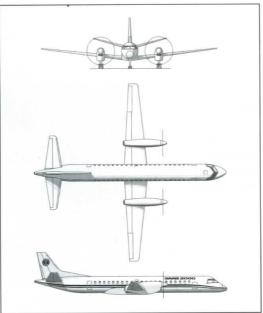
Dowty Controls was selected by another Dowty company, for-

merly Hydraulic Units Inc. (Prime Contractor), to design and build the rudder control units for the system.

This is the first commercial primary flight control system to be supplied by divisions of a single group of companies.

The electrically signalled rudder control system is a dual system consisting of two dual pedal linear variable differential transformers, two RCUs and two servo-actuators.

The Saab 2000 is a 50-seat, 360 knot cruise speed turboprop commuter aircraft. It is scheduled for roll-out in late 1991, with aircraft delivery beginning in mid-1993.



The next edition of

Contact

will be published
in July.
So why not
submit a
photograph or
article from the
activities you are
taking part in,
whether at work
or in your spare
time between
now and then and
we'll do our best
to include it in the
next edition.

FAMILY DAY AT DOWTY FUEL SYSTEMS

The official opening of Dowty Fuel Systems New Assembly Facility takes place at Arle Court on Friday 27 April, 1990.

The official ceremony will be carried out by Sir Richard Vincent, Vice Chief of Defence Staff, MOD, in the presence of invited guests and Dowty Group personnel.

DFS has invited many of its customers and suppliers to the day to see for themselves the advances that the company is making, not just in the provision of the purpose-built, energy efficient assembly facility, but through their TQM - Total Quality Management - initiative.

The company's most valuable asset is the team of 950 employees. The Management team is inviting them and their families to an 'Open Day' on 28 April 1990.

Everyone will have the chance to

see where mum or dad works. A buffet will be laid out in a marquee that will be erected in the car park.

"We hope that everyone will come and enjoy this special day", said Geoff Smith, Director and General Manager at DFS. youngsters with exciting prizes and rumours of hats and badges for the younger visitors too!

As well as employees from the Arle Court facility, those from Atworth will be transported to Cheltenham to join in the events of the day.

Human Resources Department is taking advantage of the event to invite along young people interested in the possibility of joining the apprenticeship scheme and local people are being invited to see what goes on behind the walls and windows of Arle Court, which they pass everyday.



As well as displays of the various processes and tasks undertaken by DFS, from computer-aided design stations to the Dixi bay, there will be a competition for

A feature will be included in the next edition covering the two days - no doubt with the odd photograph or two for good measure.

Open Day

at

DOWTY FUEL SYSTEMS

Arle Court • Cheltenham

Saturday 28th April 1990 10.30am - 3.30pm

Come and see the new DFS Assembly Hall Complex
Prize competition for children • 'Bouncing Castle' • Refreshments

THE 1990 SIDEWINDER GOLF TROPHY

The 3rd annual Sidewinder golf match will take place during 1990.

This is a golf match played between teams from various branches of the MOD, RAF and contractor companies who have a direct connection with the Sidewinder missile programme. The trophy was originally donated by Weapon Systems (Hednesford).

In its inaugural year, the trophy was won by the Royal Air Force Suppliers Management Branch SM32 who are based at Harrogate. SM32 also carried off the individual trophy, which went to Mick Dawes.

Dowty Weapon Systems top finisher was Bob Faulkner who took the runners-up spot.

Last year was not quite the needle

match expected between Guided Weapons and the previous year's winners, SM32, but there was a lot of determination evident in the locker room before the off. SM32 made all the arrangements of venue and participants, which is the privilege of the winning team. The Royal Air Force also fielded a team from Strike Command and Weapon Eng and the Ministry of Defence was represented by AGW11 of the Procurement Executive.

Representing Weapons Systems - Hednesford were Vic Birnie - Business Manager, Guided Weapons (captain) Peter Smith - Engineering Manager, Bob Faulkner and Tony O'Donnell. Representing the Gloucester chapter, the Hi-PPAG team was made up of Jim (Pancho) Masson, Director and General Manager of Weapon Systems (captain) "Mac"

MacDonald - Production and Planning Manager, Dave Robinson (Financial Controller) and Dick (10k Walk) Washbourne.

The match throughout was a very hard fought contest between the major protagonists and ended up with a very narrow victory for Guided Weapons, with SM32 one point behind as runners-up. The third place went to the Hole in the Wall gang - Hi-PPAG team! The individual trophy was won by Tony O'Donnell with Bob Faulkner and Jim Masson joint runners-up.

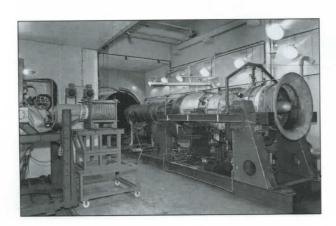
This year's event will be arranged by Weapons System - Hednesford and will take place in early September at one of the prestigious venues now under review.

As soon as the venue has been selected all prospective teams will be notified.

There are a few places left should anyone be interested in taking part, but the team must show a strong connection with the Sidewinder missile programme.

For further details contact Tony O'Donnell on Hednesford (05438) 78888.

DOWTY FUEL SYSTEMS WIN TEST BED CONTRACT



Fuel Systems has agreed a long term contract with GTC Gas Turbine Ltd, to test gas turbine engines at its Staverton Engine Test Bed Facility.

The contract provides the potential for testing up to sixty industrial Rolls Royce Avon & Pratt and Whitney GG4 engines per year.

The engines are used for power generation on oil rigs, primarily in the North Sea, and will be overhauled by GTC at their Dundee facility prior to transportation to Staverton for testing.

AN ORIGINAL WAVES GOODBYE TO MAGNETICS



Alf being presented with a carriage clock by Roy Brownridge, Manufacturing Manager.

On 23 February, Dowty Magnetics said goodbye to one of its original employees.

Alf Pedley joined the company in 1982, when it was Domain Micro-Systems which was housed in a suite of offices above Mothercare, two fashion shops and a hardware store in the middle of Stafford.

He moved with the company when it went to a "green field" site at Eccleshall and finally to its present location at Hednesford.

Alf has always been a master of improvisation and, therefore, invaluable where site installations were concerned.

His skills as a wireman/fitter are well respected and we wish him well as he moves to his new job at GEC Alsthom in Stafford.

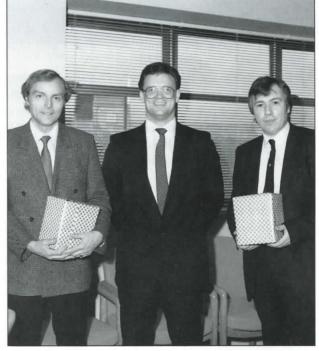
25 YEAR SERVICE AWARDS

A lunch was held on 19 December 1989 for Dave O'Brien and Alan Maybanks of Dowty Controls, to celebrate 25 years with the Company.

Dave joined the company on 28 September 1964 at the age of 15 as an Engineering Apprentice.

In 1970 Dave was based at Rolls Royce, Bristol where he worked for 12 years before returning to the product support department as a Marketing Support Engineer. He has since progressed to the

Andy Hamment, (centre), presenting 25 year awards to Dave O'Brien and Alan Maybanks



position of Project Manager.

Alan also joined the company on 28 September 1964 at the age of 18 as a Student Electrical Apprentice. Alan has always been based in the engineering department and has since progressed to the position of Group Leader - Engine Controls.

FIRST IN THE FIELD

In November 1989 a missile servicing facility to be jointly managed by BAe Dynamics Ltd and Dowty Defence & Air Systems Ltd became the first project to be approved by both the UK and Saudi Governments under the Al Yamamah Economic Offset Agreement.

Suitable Saudi Arabian partners are being identified, and then work will start in earnest on the feasibility study. If all goes to plan the facility will be open for business by the end of 1992.

Initially, the new Missile Engineering Facility (MEF) will repair and service the American manufactured Sidewinder short range air-to-air missile and BAe's Skyflash and Sea Eagle missiles currently in service with the Royal Saudi Air Force (RSAF).

Once it is fully established it is hoped to extend the facility to other guided weapons held by the RSAF, provided that the necessary manufacturers and governmental approvals are obtained, and to take on related work, such as incorporating improvements and modifications.

Sidewinder is currently repaired at a number of US approved depots around the world, including a special purpose facility built by Dowty at its site at Hednesford in Staffordshire.

In its original submission to the Saudi Economic Offset Committee (SEOC), Dowty proposed to maintain the RSAF's Sidewinders at Hednesford and progressively transfer this work to the MEF under the supervision of Dowty engineers. This proposal was

accepted in principle, but the committee requested Dowty and BAe to collaborate in extending the facility to cover Skyflash and Sea Eagle as well.

The revised proposal therefore includes an additional section which will house the latest diagnostic and test equipment supplied by BAe Dynamics for both missiles.

A third section will house the various administrative services and stores.

BAe Dynamics will supply essential logistical support to the MEF, drawing on its long standing experience gained with the UK Ministry of Defence.

Royal Ordnance, another BAe company, will monitor the safety and performance of the warheads and rocket motors as they do for MOD and other NATO nations.

Right now the immediate priority for Dowty, BAe and their Saudi partners is to complete the feasibility study - for which, incidentally, they must find the money themselves - and obtain approval to proceed from the SEOC.

It is at this stage that the initial proposals concerning technology transfer, capital investment, and the financial and strategic benefits of the project will be analysed and presented in detail.

Being first is both exciting and a challenge. No-one is minimising the difficulties and occasional sheer frustrations involved.

"It frankly took us longer than we expected to get to this stage", Enterprise Al Yamamah was told.

"We were not fully prepared for the delays we encountered in getting essential approvals for example.

But Saudi Arabia is potentially a very big market and the opportunities for growth and profitability are considerable. We consider our investment to be very worthwhile".

Dowty has been involved in Saudi Arabia since the early 1980s, when it established a joint venture with the Arabian Aircraft Servicing Company (Arabasco) to maintain general aviation aircraft and aircraft components at its plant in Jeddah.

Dowty Arabasco was one of the first companies to take advantage of the opportunities offered by the Offset agreement linked to the US Peace Shield Project inaugurated in 1985.

It took on new financial partners - the Boeing Industrial Technology Group, the Saudi National airline, Saudia, and the Saudi Advanced Industries Company - and became the technology transfer partner in a new offset venture known as the Aircraft Accessories and Components Company (AACC).

AACC will provide a component repair and overhaul service to the RSAF, initially from a base in Jeddah, but after 1992 from a new purpose built facility of some 3,000 square metres in the new technology park currently under construction at the King Khaled International Airport in Riyadh.

Other Dowty divisions also involved in Saudi Arabia include Case Communications, which recently won two contracts to supply data communications equipment to the RSAF; and Dowty Magnetics, currently in negotiations for the supply of magnetic sensing systems to the Royal Saudi Arabian Navy.

INTELLIGENT WEAPONS?

The current enthusiasm for Trivia Quiz Mania at Dowty Weapon Systems, reaped instant results when a scratch team recently won the Dowty Sports & Social Quiz Cup, and brought a whole new meaning to the term 'smart weapons'.

The competition, held at Arle Court Clubhouse and sponsored by Whitbread Flowers, was limited to 12 teams, including some well established sides.

The 'Lethal Weapons' surprised everyone, especially themselves, by answering such questions as:

Which king's wife was Matilda?
On which river does Leningrad stand?

What was Lonny Doneghan's (who?) first hit?

Captain Stefan Urbanowski is determined that his team do not get carried away with their success. "We were run very close by several teams and were fortunate the questions went our way." he said.

In particular, the team from DFS Stress Department deserve credit for doing so well despite having to select a different side in the final, to that which successfully negotiated the heats!"

Sadly the team pictured will not be able to defend their title, as Clive Forster has now left the company.

However, a replacement has been found and 'Lethal Weapons II' eagerly await their next challenge.

Answers: Henry I, The Neva, Cumberland Gap



Stefan Urbanowski, Dick Washbourne, Clive Forster and Simon Evans

BAEE 1990 UNDERWAY

Dowty Controls and Dowty Weapon Systems will be joining other Dowty companies to take part in the British Army Equipment Exhibition to be held at Aldershot, 3-8 June.

Dowty Controls will be promoting their capabilities in the control and condition monitoring of automotive systems for armoured fighting vehicles. The equipment on display will include the digital automatic system control unit (DASCU) and compact controller.

DASCU, developed for the MoD as part of an improvement package for the Challenger tank, is incorporated into the highly successful Challenger Armoured Repair and Recovery Vehicle, manufactured by Vickers Defence Systems. It is also incorporated into the Challenger 2 Main Battle Tank being developed by Vickers.

The compact controller, configured for a wide variety of armoured vehicle applications, is based on the latest integrated circuits technology to military standards, and the know-how gained in the development of DASCU.

Dowty Weapon Systems will be displaying its Hi-PPAG 100, as fitted to the British Army Lynx helicopter, as well as a version of this same product used on the Silentwatch Panel for the Warrior Artillery Observation Vehicle produced by GKN Defence.

A full report of BAEE will be in the next issue of Contact.

IN BRIEF

DOWTY CONTROLS FEELING 'BULLISH'

Dowty Controls recently placed an order with Bull HN Information Systems Limited, for a new planning and control system with integrated financial and sales order processing.

The order includes Bull's new DPS6000 hardware and proprietary HDMS plus MRP11 software.

The system is OSI compliant and is scheduled to allow UNIX based commodity applications to run alongside HV6 applications.

The system will be fully implemented by mid-1991 at Dowty Controls new location in Loudwater, Bucks.

Project Manager, John Davies, said "The Bull solution provides us with a properly integrated system based on a full understanding of our business and customer needs".

FAA REPAIR STATION APPROVAL

Dowty Controls has been recently assessed by the Federal Aviation Administration (FAA) and has now been awarded Repair Station Approval.

This authority allows the release of the company's products direct onto US registered aircraft.

Recent US legislation restricts aircraft repair work to FAA approved stations, hence the need to obtain this award.

The company's products in the USA include the master warning system and flaps ECU for the BAe 146, the master warning system for the Saab S340, the bleed valve control system for the Boeing 757 and the landing gear control and ignition relay box for the Airbus A320 aircraft.

NEW ARRIVALS AT DOWTY MAGNETICS!!

On 30 January, Keith Baskett, Project Manager in the range systems business unit, with a little help from his wife, became the proud father of a daughter, Rosalyn, who weighed in at 7lb 9oz.

Andrew Wilkinson's wife gave him a St Valentines present to end them all - a daughter Rosemary, weighing 5lb 6oz at birth.

Andrew is an Application Engineer in the engineering department.

DOWTY FUEL SYSTEMS ON TIME AGAIN!

The first twelve fuel control systems for the production version of the Pegasus 11-61 increased thrust engine have been delivered by Dowty Fuel Systems to Rolls Royce in Bristol.

The delivery of these units was made on time and will be followed by further batches over the next few months.

The system consists of a fuel metering valve, dump valve, inlet

guide vane actuator, and the digital electronic control unit mounting rails.

The engine - the F402-RR-408 is for the Harrier II "plus" aircraft destined for service with the US Marine Corps.

ELECTRONICS RECRUITMENT FAIR

Dowty Controls recently participated in the Electronics Recruitment Fair held at the Novotel Hotel in Hammersmith, London.

Around 26 companies were involved in the event which was held over two days at the beginning of February.

The show was highly successful with over 300 people visiting the Dowty stand.

ON SHOW DOWN BELOW

Dowty Magnetics and Dowty Fuel Systems featured prominately in the Underwater Defence Technology show at the Novotel, Hammersmith in February.

Fuel systems also presented a paper at the technical symposium on torpedo propulsion.

Throughout the show, there was a high calibre of attendance, a considerable number of overseas visitors and a constant hive of activity on the Dowty Stand.

Everyone is looking forward to UTD '91 - in April, in Paris!

DOWTY SPONSORSHIP OF SWIMMING CLUB

The Tewkesbury Swimming Club has had a successful six months since receiving Sposorship from Dowty.

In November, members achieved selection for 4 national events. Roland Lee made the Commonwealth Trials Mens 100m freestyle final, whilst mother of three, Cheryl Warner gained a bronze medal in her age group in the Master Swimmers National 400m freestyle.

Lorin Dalraine helped the 4 x 50 freestyle team to 2nd place at the national schools competition and Hadyn Robinson was 4th place in the 50m butterfly and 5th in the 200 intermediate races at the independent schools nationals.

Despite improvement in each gala, the club came 9th in the Speedo League, which finished in December.

During November and December the club championships were held and many records were broken, some of which had been standing for 14 years.

The year ended with a fun gala for the under 14's, where £100 was raised for two charities chosen by the swimmers.

The 1989 season presentation evening was held in January, at Bredon Village Hall.

Jim Masson, Director and General Manager at Dowty Weapon

Systems - Staverton, shared the evening's honours with the Mayor of Tewkesbury and a great time was had by all.

In March, three teams were entered in the Tewkesbury Swim Marathon and raised £602 for local charities. This was a high percentage of the total sum raised and is a credit to the members desire to support such events.

All this proves that Tewkesbury Swimming Club is living up to the reasons why Dowty sponsored them. Teamwork and a competitive spirit are part of the Dowty culture and the company is keen to support young people who are trying to achieve excellence by their hardwork and dedication.

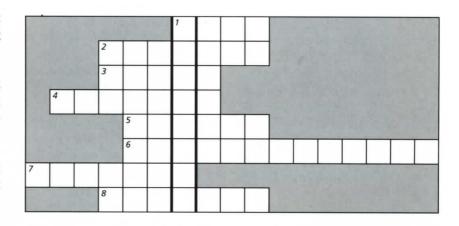
£25 TOKEN PRIZE WORD COMPETITION

To win, just identify the eight letter word at 1 down, by solving the clues across.

Your entry should be submitted no later than 30 April, to Sheila Green, Dowty Electronics Systems, Arle Court.

The first correct entry pulled from the hat will receive a £25 gift token.

- 1. Be sure to take this
- 2. Lesturs (anag.)
- 3. It's better than being second
- 4. An important part of TQM
- 5. The world is full of them



- 6. A meaning encapsulated in our new logo
- 7. We expect it and should give it
- 8. We strive to do this

Last quarter's winner was Mike Teakle from Dowty Weapon Systems, Pre-Assembly Department.

DOWTY FUEL SYSTEMS WINS EFA CONTRACT

Dowty Fuel Systems has been selected by Normalair-Garrett to develop the fuel control system for the auxiliary power unit on the European Fighter Aircraft (EFA).

The one million pound development contract will begin immediately, and Dowty Fuel Systems anticipates delivery of the first development units to the customer by February nineteen ninety-one.

"We're delighted to have been selected to provide the system" commented Phil Berrecloth the Project Manager on the European Fighter Aircraft contract.

"Apart from the pleasure that a new contract gives, we see this as further evidence of the suc-

cess for the efforts we have been making to offer our customers competitively priced systems in parallel with our commitment to TQM".



Above: The European Fighter Aircraft

JANE'S GOT Contact **BRONZE, SILVER AND NOW GOLD**

Jane Lowe, currently taking an industrial year in research at Hednesford, was presented with her Duke of Edinburgh's gold award by HRH The Prince Philip at St James' Palace in November last year.

With the bronze and silver awards under her belt, Jane chose to work voluntarily on the general wards at a local hospital as part of her endeavours towards obtaining the gold award.

She also studied for various courses in nursing, which eventually led to her joining the St John Ambulance Brigade.

To complete the tasks set for the gold award, a five day survival trek had to be undertaken.

This took place in the mountain ranges of the Auvergne in France and was successfully completed by Jane, despite a serious ankle injury whilst training in Snowdonia just five weeks before the trek took place.

Jane returns to university in October to complete her degree course and we wish her every success for the future.

We know you've got some interesting hobbies; help at charitable events; believe your job has that special something you'd like to share.Let us know about them and we'll do our best to include an article in future editions of Contact. Your divisional representatives are listed below, or you can call our new 'co-ordinator', Sheila Green at Arle Court. Her telephone number is 0242 533252, Ext 3252.

- · Bernard Gorman Controls, ext 204
- Don Matthews Magnetics, ext 205
- Steve Paddock Fuel Systems, ext 3512
- Vic Birnie (Hednesford) Weapon Systems, ext 204
- Trevor Toft (Staverton) Weapon Systems, ext 1602