ATE Division Newsletter

August 1989

THE BOSS'S BIT

This has been the summer that in years to come we shall be saying "do you remember that terrific summer we had in the late 1980's?" I hope you've all been able to take good advantage of it during your holidays and have returned ready for some really hard work!

You will have seen from the Notice that was posted around the Division recently that we are suffering from the delayed start up of several major programmes on which we anticipate having significant contracts. The European Fighter Aircraft contracts should have been let over 2 years ago; timescales for the Anglo-Italian EH101 helicopter keep moving to the right; the release of tenders for Mission Planning Systems and the Hawk Aircraft Support Systems has been delayed. These slips mean that the plans we had for the Division's workload have had to be revised and that, to maintain a profitable organisation, we're going to have to adjust our staffing levels, tighten our belts generally and use our available resources to find new areas of business.

A bright note on the order book front is that we have at long last received the production contract for TIRF adapters. This will provide a great deal of work for the production department in the coming months.

The areas where we are investing for the future include mission planning, automatic fuel accessories testing and a new 'standardised' ATE for airlines. In the Mission Planning area we are well prepared to respond to the tender that is now expected any day. For the past year or so we have been forming partnerships with other companies, talking to the potential users of Mission Planning Systems, evaluating hardware and software and actually writing drafts of our response. We've never been so well prepared and we anticipate being able to submit a winning proposal.

You can't have failed to have noticed, heard of or been a part of the tremendous effort that went into our proposal for the American Air Force's AFATS. John Basham, Doug Maxey and their team put in an enormous amount of hours over the 3 month period of proposal preparation and most of them gave up Easter and May Day Bank Holidays. The result of their labours was probably the best proposal ever to have left this Division and we are all indebted to them and their families for their dedication.

On the SMART front, we still have a team in Toulouse working with Aerospatiale on the software development and back at Rochester the ARINC 608 Switch is being developed under Bill Newberry's guiding hand. The joint development with Marconi Test Systems of the new Digital Test Unit should result in a unit being available to us by the end of the year.

Talking of Marconi Test Systems, together we put on a 'by invitation only' exhibition at the RAF Museum, Hendon last month. It was a great success in that we were able to show our guests that we had new developments in hand, the technical papers we presented were very well received and we were able to demonstrate to everyone the spirit of cooperation that we have with our 'cousins' from north of the border. This cooperation is a vital ingredient of our future competitiveness in world markets and I look forward to more opportunities as exciting as 'Hendon' to foster it. My thanks to all who contributed to the show and especially to David Carr and John Hemsley for the organisation behind the event and to Dick Patrick and Mark Stimson who prepared and presented their papers

So much for work. On the sports field the Division continues to shine; it continues to shine even when its not in first place but has enjoyed taking part! We won

the bowls competition, were runners up in the inter-divisional cricket competition (like England were to Australia this summer!), we were amongst the medals on the company Sports Day and our newly formed hockey eleven look forward to more success next season. Since the last Newsletter was published at Easter, our 'ATED personnel only'soccer team reached the semi-finals and lost by one goal to the eventual champions of very fit young Apprentices. Well done to you all, thanks to all those competitors for their efforts.

Arthur Colwell

HENDON SIDE LINES

What was that on the News???
"There will be a rail strike next Wednesday and subsequent Wednesdays".
Not a great deal of interest to us who do not make the daily pilgrimage to London but there was a certain consternation in the Marketing Department.
In not too many Wednesdays time it would be THE Wednesday, day one of our Symposium at the RAF Museum, Hendon.
After some 6 months of planning we had papers written, slides made, exhibition panels produced, 2 bays of MATE ATS ready to be shown - to who?
No trains .. No Guests! Perhaps it'll be settled!!!
No such luck. How do we minimise the effect?
Visitors from north of the Thames won't have too much trouble but others will.
Let's run a coach shuttle from a convenient point on the M25(south) to Hendon. At least guests won't have the aggrevation of driving and hopefully this will encourage them to still make the effort.
Is there anywhere near the M25 with parking for 50 cars?
The Royal Horticultural Society gardens at Wisley?
They couldn't oblige but knew a man who could.
And so we ended up with the offer of parking spaces on Fairoaks Airfield near Chobham.
Now to find a coach company - with coaches free on the day of a threatened rail strike !! Ron Cooke obliged and put us in touch with a company in Epsom.
Everything seemed to be going well. All that was left to do was to inform our guests of the arrangement. A quick mail shot was sent with details of timing and maps.
What was that on the news??
"Next weeks train strike is on Tuesday"

John Hemsley

TECHNICALLY SPEAKING

Computer-aided Acquisition &
Logistic Support (CALS)

Introduction

In 1986, the US DOD carried out an investigation into the acquisition and upkeep of technical documentation. Some pertinent factors emerged:

- The technical manuals for the B-1B bomber consist of 750,000 pages.
- Over 2 million drawings are stored in various DOD locations throughout the United States.
- The US Navy's 200,000 technical manuals require over 5,000,000 pages to be amended every year.
- The DOD spends approximately $5 billion every year in acquiring and maintaining technical documentation.

From these findings, William H. Taft, the then Deputy Secretary of State of Defense, announced

"We are in danger of drowning in paper - We need a fundamental change in the way we do business."

This was the start of the CALS concept.

What is CALS?

Computer-aided Acquisition & Logistic Support (CALS) is a US DOD and Industry joint initiative to invoke the automation of the generation and use of technical data including part descriptions, specifications and standards prepared during Design & Development plus the engineering drawings and product data produced during the manufacture of the equipment. The information will be used by military personnel in the operation, maintenance and training on the equipment in the field, as well as providing information for spares procurement, re-manufacture, modification and feed-back to Industry for future design aspects.

Objectives

The main objective of CALS (from an industry point of view) is to integrate the inputs from the various departments on a project onto a common database. The advantages of this will include:

- Project Management has immediate access to all data relevant to the project "at the touch of a button".
- Duplication of data can be minimised or, at best, completely eliminated.
- Integrated Logistics Support (R&M) can be more readily incorporated at the design stage of a project.
- Customer documentation (Tech. Pubs, IPL/IPC etc.) can be prepared more economically from the existing source engineering data already stored on the database.

The main objectives of CALS (from a Government point of view) are:

- Accelerate integration of Reliability and Maintainability design tools into the CAD and CAE Systems.
- Accelerate automation and integration of processes for generating technical data in digitised form.
- Assist DOD in improving their capabilities to receive, store, distribute and use technical data in digitised form to enhance the life cycle maintenance, training and spares procurement.

It is generally acknowledged that benefits can be gained by both Government and Industry.

CALS Programme

CALS is seen as a 2-Phase evolution:

I Delivery of data on magnetic medium such as compact disk, magnetic tape etc.

II Customer access to Industry computer network on the following assumed basis:
- Working Data: Read Only access.
- Deliverable Data: Read/Write access to allow for Government changes/comments without altering the original document (eg. permit annotations showing required changes as an addendum or complete separate revision to the document)
- Approved Data: Must be protected such that changes can only be initiated by agreement between Government and Contractor

Phase I is a current requirement, whereas Phase II is expected to become effective in the mid-90's.

Our first step has been to form a team within the Division to evaluate the implications of introducing CALS to achieve compliance with the requirements of Phase I. This evaluation is now under way and it is hoped to publish more information in future editions of the Newsletter.

Mick Mills

AFATS

AFATS: This acronym means, to the US Airforce, Automated Fuel Accessory Test System. Following the proposal production, in four months by about twelve people working three times the officially available hours, this acronym has become All Friday And Throughout Saturday (and Sunday and Bank Holidays).

The AFATS is effectively the complete fitment of a purpose built building - about the size of ATE Division dedicated to the test of Jet/ Turbine aircraft fuel control components.

The system is required to operate as a fully automated factory, controlled by a distributed computer system from goods-in to deliveries out.

In proposing, we teamed with two major companies; Data General Corporation for the new generation RISC architecture computing hardware and proprietary software and the Woodward Governor Company for the fuel test hardware. We will produce the test programs. The test programming is a major challenge in both technology and quantity, as there are 365 programs of all mixes of electro hydraulic/electrical technology to be produced in a three year period. If (when) we get this one no-ones feet will touch the ground for five years.

We had great difficulty getting the original four volumes proposal to fit the 500 page limit (print size defined). We succeeded so well that the customer asked us to re-write one 200 page section to conform to other paragraph sequencing - which resulted in the generation of over 1000 pages - between Tuesday and 7.30 am the following Saturday.

AFATS proposal writers can be recognised easily by a tendency to shout abuse when the message "Daily/Monthly back-up starting" appears and the habit of writing 'ize' where 'ise' normally appears.

Have a nice day now !!

Dave Edwards

CONTRIBUTED BY A VISITOR FROM AMERICA

Ya'll Hear This....

During the latter stages of the AFATS proposal writing stage we received two visitors from Texas who, after realising that their 'English' and ours was not the same, gave us this glimpse of some of their commonly used phrases!

"Good ole boy" he's a free spirited Texan most often found in his pick-up truck driving at a high rate of knots while throwing empty beer cans in the back. Answers to the name "Bubba". Not particularly mechanically minded and has been known to shoot machinery that malfunctioned. Votes consistently for Ronald Reagan and Margaret Thatcher, sometimes for as long as five years after being reported dead!

"Toad" A mostly happy troll, operating fairly successfully within the bureaucracy, who generally avoids controversy by the religious following of regulations or by offering the excuse..."I'm not the regular program manager/crew chief/...."

"Ya'll" A Texas term referring to a group or individual when the speaker can't remember your name or is in a hurry to finish a sentence.

"S.O.B" A term of endearment when pronounced "sumbitch"; when all three words are pronounced clearly it preceeds imminent violence by the speaker.

So there you are. If you're visiting Texas you will now be able to understand at least some of the language .. ya'll.

CASTLE'S COLUMN

Continuing the regular notes on Production Department Sections, this column provides some brief information about the Planning and Estimating offices.

The Planning office generates all the operational data for the Progress Cards (PC) that accompany each job through it's manufacturing cycle. They also have to incorporate the many change requests into documentation including the provision of marked up prints of drawings to allow stopped work to proceed.

The Chief Planning Engineer is Dave Phillips who is well supported by Doug Terry, Leigh Garton and John Paull. They are a very experienced bunch, with three claiming company long service medals, and

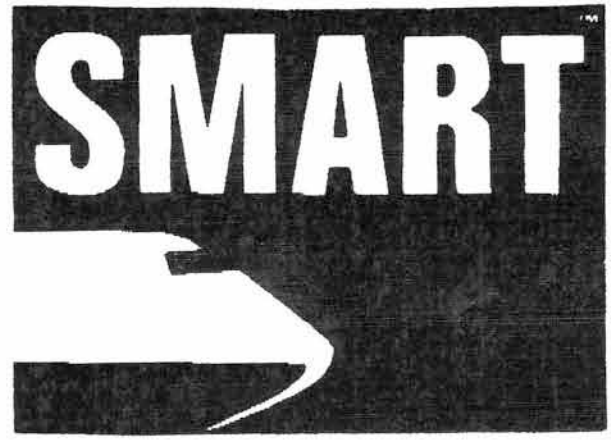
Doug having a mere 23 years under his belt. Doug and Leigh have been performing the planning function for many years. John joined the group more recently from the shop floor. During the last 12 months, between them, they have processed about 3200 P Cards, acted on some 1300 change requests and raised about 415 marked up prints. It is hoped that a much needed improvement later this year will be the introduction of the computerised P Card generation program.

Dave and John find time to play a lot of bowls although last year they temporarily fell out when Dave was able to win a competition playing alongside someone else rather than John who is his normal playing partner.

Turning to the Estimating Department, our Chief Estimator is Mick Hendry who has been with the Company 30 years, and assisting him is Dave Morgan with a mere 14 years experience.

Although the section has reduced in staff over recent years as the nature of the requirement has changed, it is an extremely important function which calls for the best and most accurate assessment of each task that information and time allows. Efforts to improve efficiency of the process have and are still being made by maximising the use of various computer programs. Mick and Dave have handled 150 estimating requests during the last 12 months.

Although Mick now leads a quiet life, Dave is very active in the sporting field. The Department only wishes he wouldn't keep getting in the way of various sporting implements which have caused the odd fracture and much bruising in recent years. We of course assume the bruising is due to his sporting activities.



For those who have forgotten, SMART stands for Standard Modular Avionics Repair and Test. But seeing as that's such a mouthful, I'll stick to using just SMART.

The idea behind SMART is simple. To make it cheaper to own and operate ATEs. Several groups have had this idea and are trying to make it a reality. The US Air Force took the idea, a few years ago, and their MATE standard from it. SMART is similar, but is the airline's version.

Most of you will have seen the MATEs, lurking in the commissioning area, but you won't yet have seen a complete SMART ATE.

This is about to change. Already, if you go hunting, you may be able to track down pieces of the new machine. You may find bits hiding, under piles of paper, on Bill Newberry's desk or, in a spaghetti of wire, in Dave Stone's lab. And over the coming months you'll be able to see our new SMART ATE taking shape.

But these are the products of over four years work. At the start, Norman Donnithorne and Jim Lewis helped the airlines produce a hardware spec. And for the last year we have been helping to prepare the software in France.

I know our 'front line troops' out in Toulouse often feel a bit forgotten. So I think they deserve a mention. They are Darren Cooper, Tony Fitzpatrick, Tracey Jackson and Simon Washbrook. Anyone remember them?

Don't feel too sorry for them, though. They have to endure a life of all-night parties and mixed rugby

matches! And the last SMART User's Group (or SMUG) meeting was held in Toulouse. So this was a chance for them to catch up on some gossip.
They'll be back with us soon, to help with our Beta-site activities. Which is where we prove the SMART concept works. But I'll save that for the next ATE news...

Andy Fogg

SPORTSDAY

This year the ATE sports team seemed to take the event seriously. Weeks before the event many of the athletes could be seen (posing) practicing their chosen events in the sweltering heat. The added incentive of a free T-shirt from the division seemed to increase this high state of motivation.
At last the magic day arrived, and as was to be expected the blazing sunshine we had all become accustomed to vanished.
The ground had many attractions, including a life size model of the GEC Cash mountain for the kids to climb. Unfortunately this turned out to be so high that the two kids that did make it to the top died of frost bite.
Despite a large entry in the swimming event it appears that only one competitor actually took the plunge. Trevor Wilkinson came second in the mens breast stroke, second in the back crawl and second again in the front crawl. This gave ATE a sixth place overall. We could have come higher if Trevor had worn a bikini and had entered the Womens events as well, but he declined.
Geoff Benfield seems to have entered everything, and qualified for nothing!. The long jump was his speciality where he jumped six foot five, fell backwards and ended up with a result of five inches. Still his professional approach to athletics was an inspiration. He would turn up to each event, a pint in one hand a cigar in the other. Many a youngster was seen afterwards trying to adopt this technique but most ended up spilling their beers when competing!
The male track events were well supported but there was a complete absence of female ATE stars. Eventually smooth talking John Evans seem to have got virtually every ATE's wife to enter (including his own).
We hoped Dale would walk into history in the 1500 m walk. He was beaten by several cheats who had put ferrets down their shorts giving them an unfair advantage and a smile on their faces. The RSPCA assures us that legal proceedings will take place shortly.
Rumour has it that Dale has bought two of these animals for next year, and is currently to be seen practising in ATE's corridors.
Our generous football team helped out their first opponents by lending them a man when they turned up short footed. Unfortunately the lent man, Steve (blackleg) Malone, took his duty too far and nearly knocked our team out!! In fact the team was sent packing after their second qualifier. Their excuse for this dismal effort was that the ref's guide dog had attacked them and any way the pitch was too small, wet, green, slippery, bloodstained and a variety of other adjectives that won't be repeated here.
ATE produced a heavy Tug-of-war team, coached by Bobby Mates. The team lined up, took the rope, the judge gave the thumbs up, and both teams pulled. Andy 'Muscles' Mugford held the opposition with just one hand but unfortunately the shock of a possibility of a win was too much for the rest of our team who fainted! Even though the marker didn't cross the line we were disqualified for 'sleeping on the job'. Again there were complaints after the event. Geoff Benfield claims that he was scared he would spill his pint, Dave Joel was a bit mixed up and was apparently pushing.
Meanwhile back on the track the Evans clan were entering every event due to apathy from the rest of ATE's personnel who are just not used to rushing anything.

Their only rival was speedo Jim Walmsley who in his red shifted shorts took on all and came 2nd in the 400m. Jim will now go down into ATE folklore. (Not for his achievement but for his bright red shorts. The rest of the competitors complained of being dazzled, except for the winner who wore welding goggles.)

Highest placed ATE person in the men's shot went to Mark Leedham, but the officials were not impressed by his cry of "Catch this" as he launched the 16 pound shot thro' the ether.

Dez Christon deserves his next pay rise as he ran in three Finals and came fifth in the Javelin.

John Evans for the first time sneaked into the 100m men's vet event, but he was at a disadvantage in the Final with the handicap system, and also as he was up against some stiff opposition. (geddit?). Never mind John you'll be 1 metre nearer the finishing line next year.

High hopes of a bronze medal in the men's 4X100m (J Walmsley, C Payne, J Evans, D Christon) relay disappeared as John Evans pulled the divisional muscle. Reports of John being limp for a week were denied by his wife.

Congratulations to the women's 4X100m team who came fifth in the Final. This being a scratch team coming together seconds before the start, consisting of anybody who was unfortunate enough to be standing around at the time.

Kevin Taylor leapt into third place in the high jump, clearing the bar at 1.55m. Keep going Kev the World Record is only! three foot higher.

Nobody won any points in the Discus but ATE claimed three spectators and a judge. (Bob Mates taking the judge's scalp home).

The netball was the main spectator sport despite the fact that it started off as water-polo. Doing well in the semi-final (leading the eventual winners by 4-2 at the half way point) before rough play upset our ladies who lost 4-7, but it was unanimously decided that we had the best legs of any team. Salmon Riddles photographs are eagerly awaited.

RESULTS

Men

D Christon	5th 100m F, 5th 200m F, 6th 4X100m F, 5th Javelin
J Walmsley	6th 100m F, 2nd 400m F, 6th 4X100m F, 3rd 200m H
C Payne	7th 100m H, 6th 4X100m F, 31st Long Jump, 1st sandcastles
J Evans	4th 100m VF, 7th 800m H, 6th 4X100m F
C Budge	11th 800m H, 6th 400m H
D Broadbent	6th 1500m Walk, 29th Shot, 19th Javelin
A Mugford	6th 200m H, 24th Shot
M Leedham	15th Shot, 26th Javelin
K Taylor	3rd High Jump, 6th Long Jump
S Malone	9th Javelin, 55th Long Jump
R Mates	15th Javelin
D Joel	37th Shot
D Evans	44th Long Jump
A Miles	52nd Long Jump
J Benfield	60th Long Jump

Women

Mrs Evans	2nd 100m VF, 6th 800m F, 5th 4X100m F
Mrs Kelly	5th 4X100m F
Mrs Joel	5th 4X100m F
Mrs Robertson	5th 4X100m F

Key

F = Final

H = Heats

VF = Veteran Final

And finally remember, its not the winning its the time in the beer tent that counts. The 1010 team won.

Andy Riddle
