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# M.A.D Times

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January 1997

Issue 2

## BUSINESS NEWS

### Airborne Computers Group

Head-Up Displays (HUDs) and Air Data Computers (ADCs) are the two main product lines of Airborne Computers Group (ACG). The HUDs are manufactured at Edinburgh and Rochester, while the ADCs manufacture is restricted to Rochester.

So what's happened recently in ACG? Well, one of the key measures of a business group is sales, and this year ACG sales are forecast to exceed £26M. To-date the sales performance has been below budget. The good news is that last month (September) saw a significant improvement, F-16 HUD, F-5 Indonesia HUD & SCADC, C-17 HUD, Metis HUD, A-6 (DSDC), F-14 SCADC, Civil HUD and C-160 ADC all matched or exceeded their budgeted sales. Well done!

The single largest contributor to ACG sales is the F-16 HUD project (35%). The current version of the F-16 HUD having been in continuous production since the 1980s. The last contracted deliveries will be in April 1999, but already we are bidding for additional units worth several £M that will extend the programme into the next millennium.

The delivery shortfall on F-16 which had adversely affected ACG's sales (due to a component obsolescence problem), has been completely recovered two months ahead of schedule. I would like to thank all those who have assisted in the schedule recovery of this important programme.

The recovery plan involved all disciplines within GMAv including: Manufacturing, Procurement, QA, F-16 Project team, electrical design, mechanical design/drawing office, components engineering and configuration. I apologise if I missed anyone, all your efforts were greatly appreciated.

Now onto future business. Lockheed-Martin are targeting the UAE as the launch customer for the new Block 60 F-16. ACG is bidding the Color Display Suite (CDS) which comprises one Color Display Processor (CDP) per aircraft and three Color Display Units (CDUs) per seat. The CDP takes in a number of video channels and after processing them drives the CDUs with colour digital video data. The CDP will be designed, developed and manufactured at Rochester, while the CDU will be managed by the Mission and Display Group (MDG) based in Edinburgh.

The Map option if exercised would be an MDG product. Following a recent visit to Lockheed, we now expect them to select the winner within the next few days. The value of this programme plus other F-16 HUD work is expected to exceed £11M this year, so keep your fingers crossed!

But ACG is not just about F-16, there are many other programmes within ACG and they are all important. In particular the future business opportunities for our ADC's are particularly promising. McDonnell Douglas are here this month to finalise various issues prior to awarding the full contract value for the Longbow Apache (AH-64D) Helicopter Air Data System (HADS).

We have already commenced work after receiving an "Authorisation to Proceed" earlier this year. There have been a number of unexpected opportunities for Air Data Computers on aircraft such as the VC-10 and KC-130T this month and bids for these are in preparation.

*Simon Beastall*

### EF2000 Business Group

1997 is an important year for the EF2000 Group with a number of Projects at a critical stage. Proposals are being produced or have been submitted for Production Investment and Series Production.

The group will be supported by Manufacturing Group who have appointed an Operations Manager for EF2000 equipment production.

Five of the seven equipments developed by the Group are active on aircraft with the other two being fitted to systems rigs.

The Engine Monitoring Unit (EMU) is fitted to DA3 onwards as these aircraft are fitted with EJ200 engines. A modification program is underway at the request of the Customer, to meet operational requirements in-service. Production are involved with the modification of existing hardware and in the build of a new Module.

Six aircraft sets (24 units) of Air Data Transducers (ADT) have been delivered to support the aircraft programme. Initial flight trials of the ADT have commenced and the ADT has performed well.

The Head Up Display (HUD) is fitted to DAI to DA7. DA6 the dual seat aircraft flew at CASA in August 1996. The second dual seat aircraft has yet to fly. The development programme is due to complete in 1997.

Four B Model Wing Pylon Station Units (WPSU) are operating successfully on system rigs at Alenia and BAe. C Models are in build ready for start of Qualification and final hardware/software integration.

The Defensive Aids Sub-System (DASS) Power Supply is the heart of the DASS, converting aircraft power to high voltage DC at varying power levels and driving 8 other units within the DASS. The DASS PSU is successfully operating in system rigs at GMRDS Stanmore and BAe.

The Computer Symbol Generator (CSG) is fitted to 7 aircraft, DAI to DA7. An enhanced version of CSG, ECSG, is in development and initial deliveries have been made to GFSA for system rig work.

*Mike Small*

### **Helmet Displays Group**

Over the last few months Helmet Displays Business Group has seen very high levels of activity in both achieving our current commitments and securing new business. Significant progress has been made on the Knighthelm Integrated Helmet System for the German Tiger Attack Helicopter programme with the delivery in November to Eurocopter of an enhanced performance system for the continuation of system integration work. Although we still have some way to go to achieve performance levels which meets our customer expectations this delivery represented a major milestone and demonstrated our commitment to delivering a quality product. In order to support flight trials scheduled for late 1997 an upgraded system is due to be delivered in March. Again this will require a concerted effort by everyone involved however achievement of this goal is essential in progressing the programme to the production phase.

Development activities on both the USN Technology Demonstrator and the Company funded F-16 Helmet Drive Electronics programmes are proceeding to plan. Flight Test of both these systems on the TAV-8B and on F-16 MLU aircraft respectively is scheduled for this summer. These demonstrations, along with the IHAVS programme which successfully flew the VIPER II system, will further demonstrate to the world MAD's leading position in Helmet Display Technology for fixed wing aircraft.

Production deliveries of Nite-Op, Night-Bird, Cats Eyes and Ground Owl Night Vision Systems have continued to contribute a substantial proportion of the groups sales. Further orders have been received for Nite-Op and Night-Bird and for a Rifle Sight capability for the Ground Owl modular system.

As mentioned at the start a significant level of resource has also been deployed in securing new business for the Group. After many months of detailed negotiation the full scale development contract for the Eurofighter Helmet Equipment Assembly (HEA) was signed between BAe and GEC. Although one of the last Eurofighter development contracts to be placed the HEA is key to Eurofighters operational performance providing both day and night capability. In order that Eurofighter meets its planned in service date it is essential that MAD along with their Italian workshare partner GFSA and subcontractors perform against this technically challenging programme. I am sure I can depend on your support in achieving the goal.

Another significant achievement was the selection of the 'Alphasight' for the UK Jaguar Helmet Sighting System requirement. The 'Alphasight' selected in competition benefited from the close links established with the DRA at Farnborough over many years. The 'Alphasight' system will provide the RAF with a capability to acquire Off Bore-Sight targets for launching the next generation of Air to Air Missiles. Although less technically challenging than EF HEA performance to schedule is essential to secure production orders within twelve months.

On the personnel front two senior appointments have recently been made; Mark Hiseman has joined the group as Programme Director of EF HEA and Fintan Scanlon (Ex RAF) has been appointed as Business Development Manager. The EF HEA team continues to grow both by internal and external appointments and although too many to list individually, I welcome all to the team.

*RFA Gee*

### **Tornado Aircraft Group**

Issue 1 of the MAD Times announced the formation of the Tornado Aircraft Group (TAG for short). TAG is about 45 people strong and located both at Rochester and Edinburgh.

Contrary to popular belief the Tornado Aircraft is very much alive and well. With over 600 of them in-service, it will form the backbone of the UK, German and Italian front-line aircraft fleet well into the 2010's. The customer wants to continue to upgrade it, so that it can meet any operational challenge on equal terms. MoD UK has already embarked on a major mid life upgrade for the ground attack variant and the aircraft will enter service in 1998. TAG are very much involved in helping British Aerospace (BAe) to achieve this.

BAe are a major part of MAD's customer base. TAG was set up to achieve the best possible Customer/Supplier relationship with them.

TAG has three major areas of interest:

- Development, certification and production of the Tornado Mid Life Update (MLU) equipments.
- Provision of a logistics support package for the Tornado GR4, which includes a "hole in the wall" repair service for all MLU equipments during the early in-service years of the "new" Tornado.
- Continuing upgrades for the Tornado Aircraft. In this respect our customer wants a number of major changes which will enhance the Tornado performance further.

Our group is new and will take some time to settle down. The Tornado Aircraft is going to be in operational service for a long time yet and our group will be there to support it. It is my intention that we provide the Customer with the highest possible quality of service.

*Geoff Richmond*

### **Mission and Displays Group**

Mission and Displays Group at Rochester has spent the first few months of its existence establishing effective methods of operating under management situated at Edinburgh. MDG's Business Manager, Stuart Forsyth has acquired air miles at an alarming rate in his efforts to bring together the two halves of the group, efforts which are now beginning to yield positive results.

THACLCS which, as well as being the subject of the Project Management Improvement Initiative, is entering the critical phase of integration. Other business areas such as tactical systems, guidance systems and digital maps continue to perform well.

Future business prospects continue to look good. Most of MDG's business areas attract follow-on orders and there are indications of significant future business on Hawk, HACLCS, the Nimrod Central Tactical System and Guidance Systems. Tenders have also been prepared for the Argos 2000 Tactical Processing System and the Stores Management System for Super 7. The Business Development team has been expanded and interviewing is on-going to continue this expansion.

MDG enters the next financial year in good shape and with excellent prospects for the future.

*Tony Fordham*

## CONTINUOUS IMPROVEMENT

In the previous article on C.I. I concluded by saying that we would look at practical methods of implementation in this issue. One of my personal beliefs is that the quality of results you get from any activity is dependent upon the quality of questions asked along the way. For example writing this article I could ask:- "Where on earth am I going to start?" I would then struggle to write the article because I had predisposed myself to thinking it would be hard, or indeed I may not even start it at all?

On the other hand if I ask myself the question:- "What am I trying to communicate to the readers of this article?" then I have asked a positive question and pre-disposed myself to a straightforward communication exercise.

So how does this relate to C.I? Consider for a moment what Continuous Improvement is - a way of life that assesses how things currently are and how we might make them better. So you can see the quality of questions is vitally important for achieving the best practise (this principle includes all aspects of our life). May be a practical example would help to clarify the point: You are in a hurry to get a quotation out to your customer and the photocopier jams, you ask:- "Why does this photocopier always go wrong when I am in a hurry".

Do you think this will improve matters? No of course not. But how many times have you or I asked questions like this.

Now taking the same scenario suppose you ask the question "Where is the nearest photocopier so I can solve my immediate problem and who do I need to talk to get this machine changed because it's always going wrong?"

When we start asking these types of questions things very quickly start to be put right but may well need other good quality questions on the way. Often you will encounter resistance to change because other people are comfortable with things as they are. This needs further self-questioning as to how you might best persuade that person that things must change if we are to survive.

What I have described above is the basis of how we change for the better. We do of course have formal plans and major projects relating to continuous improvement but these have all been arrived at by a process of questions and answers. In the next issue I will list a number of the major C.I. activities to indicate the magnitude of change we are undertaking.

Finally to reinforce the message about questions, here is a quote from Rudy and Kipling:-

I kept six honest serving men,  
they taught me all I know:  
their names are What and Why and When  
and How and Where and Who.

*Paul Davis*

Business Efficiency Manager

### liP Questionnaires

Firstly I would like to take this opportunity to thank everyone for their responses to the first liP questionnaire.

We received 440 responses from the various functional and business groups and this data has now been processed in order that we can present to you the results.

It has taken some time to develop a system so that the data from the questionnaires could be analysed and presented in a suitable way, but we are now able to present the results to the first liP questionnaire. In the future this process will be much accelerated as now we have the templates to input and interpret information.

The data was collected approximately three months ago, and this will be our baseline for measuring improved systems and communications links. It will also help us to understand the individual requirements of each team/business group and therefore focus the "remedies" if required.

Attached to this summary, you should find a copy of the questionnaire that we asked you to fill in previously. Detailed below is an explanation of the reasoning behind each question and what we hoped to achieve from the results.

### **Investors In People Questionnaire Explanation**

**In section 1**, (General Information) we asked you to give details of your business group and department. This was so that we could identify specific problems and strengths within a much smaller area of the division.

**In section 2**, (Team Briefs) we asked specific questions about the team brief system and how you felt about them. This was to ensure that the communications links within the division are beginning to form and that teams are familiar with their business objectives on a more focused level.

**Sections 3 and 4** (Appraisals and Training) were simply to determine that everyone was receiving regular appraisals and therefore identifying their personal training requirements and goals for the future.

**Section 5** (Notice Boards) was to ascertain whether this was a good method of making information visible to everyone within the division.

**Section 6** (Computers) This section was to determine whether the majority of people were familiar with PCs or Macs, whether they had access to a computer if required and whether they had the packages available to perform day to day tasks efficiently. It was also used to find out whether using the internet was an effective communications method. And finally, were the e-mail facilities used as an alternative to paper communication.

**Section 7** (Communications) was aimed at gaining an overall appreciation of the different communications links and what was the best method of flowing information to everyone.

**Section 8** (Employees Charter) was simply to check that everyone had received a copy of the employees charter.

And **section 9** was to give everyone a chance to have their say about absolutely anything they wanted!

### **Results**

The results from the questionnaires have now been consolidated and a summary of the results is attached.

*Fran Simpson*

### **Last Social Function Write Up**

The Continuing Trend Towards Professionalism in Sport

There is hardly any type of sport, nowadays, which has not been touched by the perpetual march towards professionalism. So it was on 29th November when the all-conquering Star Inn Quiz League Team, led by Ann Pywell, swept to victory in the MAD Beer'n'Brains Evening. (For readers not familiar with the event, it is called this because it is definitely a down-market version of Wine'n'Wisdom)

The rules are very simple and are (in descending order)

- Consume large quantities of alcohol.
  - Try to drive the question master mad by asking him to repeat every question an infinite number of times.
  - Think about answering a question when somebody is waiting to collect your answer sheet,
- and new rules are being contemplated every year. For example, in view of November's event, first prize may have to go to the second placed team if any member of the winning team is unable to stand. For those readers that missed the event, here are a few spare questions:
- Why do Steve Williams and Mike Kitcher play for the same team?
  - They never agree on anything and by the end of the evening the other team members must have succumbed to permanent aural damage.
  - Why did people think that crawling under the table would make them less conspicuous when using

mobile phones?

- Why is Brian Glenn such an expert on soap operas?
- What new depths will the Bower family team sink to to avail themselves a free packet of Smarties?

Hopefully you will all try to answer these questions and support the next Beer 'n' and Brains which should be before the end of winter. Many thanks to all the helpers: The EFA Babes (Caryn Gillan and Jane Tompkins), the bar staff (Rob "help yourself Lindsay and Si Randall), Phil "Anagrams" Liddiard, Sue "Phoebe" Sunnucks, and Jax Wardle.

*Ian Bull.*

### **M.A.D Xmas 1996 party.**

Well didn't it go with a bang! Most everybody tells me that they had a great time.

Approximately 300 mad staff congregated in the works canteen for the party of the year, the mad social club Xmax party 1996. Dancing to the Chris Gage disco until the early hours of Friday morning.

The canteen looked lovely, with all the Christmas decorations, fairy light and helium filled balloons rising up from the tables, a real picture.

Everybody had half a bottle of wine on entry to the dance, just to get them into the Christmas spirit.

Each table had a bag of party games, noisy things to blow into, party hats to wear and party poppers by the handful.

There was food galore, sausage rolls, sandwiches of all kinds, a range of cooked meats, chicken nuggets/pieces, crab stick, prawns, bread sticks, rolls, cheese and pineapple on sticks, onions, pakoras, onion bhajis, samosas, dips of all kinds, fresh fruit and cream, and of course the traditional mince pies.

Fabulous raffle prizes:- 20" colour t.v, c.d.radio cassette player, microwave oven, electric drill/screwdriver, 2" colour pocket t.v, 11 blank videos, pack of cartoon videos, £100 cash, £50 cash, £25 various gift vouchers, wall clock, alarm clock, M&S hampers, cuddly toys, bottles of spirits, wine with a £5 gift voucher wrapped around them, Boots cafetiere set, ladies & gents perfumed gift sets, pen set and sweets, Asti & chocolates.

As the raffle number was drawn the winner had to sit on Santa's knee and have their photograph taken.

It was a night to remember all right. Those who never came are already asking if we are going to have one this year. Well all we can say is keep reading the notice boards, you never know.

The committee would like to thank the canteen staff, who worked behind the bar, keeping our glasses topped up so quickly, (the dears).

Not to forget the cleaners who had to clean the canteen in the morning for business as usual on the Friday. (We will try to book a Friday next year O.K. Sandra).

And last but not least our security guards for looking after our cars.

We the committee are already talking about our next Summer Bash. So do keep reading the notice boards.

*Ray Church* (Treasurer)

### **FORTHCOMING SOCIAL EVENTS**

Summer Bash - dates not yet decided.

For more information on forthcoming events please contact Fran Simpson x 3771

## **Software Process Improvement**

The most significant development since the previous newsletter is the issuing of the first five framework documents.

The documents are:-

### **MANDATORY FOR ALL SOFTWARE**

**NOT**

### **JUST THE SOFTWARE-PRODUCED BY**

### **THE SOFTWARE GROUP.**

The documents define generic process and the tailoring of these processes to cover all types of software produced within MAD. i.e. from safety critical systems through test and support software to "personal programs" and spreadsheet.

Copies are available from the WEB at the following address:

[http://www.rochstr.gmav.gecm.com/gmav\\_sei/gmav\\_spi\\_framework\\_docs.html](http://www.rochstr.gmav.gecm.com/gmav_sei/gmav_spi_framework_docs.html)

The documents are:-

SW 01/01	Software Management Process	Issue 02.01
SW 01/02	Software Types	Issue 02.01
SW 01/03	Software Characteristics	Issue 02.01
SW 01/04	Lifecycle Selection Process	Issue 02.01
SW 01/05	Software Attributes	Issue 02.01
SW 05/01	Standard S/W Process Maintenance	Issue 02.01

Any comments or concerns should be routed through P Thompson.

## **On the lighter side**

It has been noted by the management that far too much time is wasted by employees engaged in the practice of visiting the toilet during office hours. In future the following procedure will be adopted:

All personnel will go in alphabetical order, i.e. those with the surnames beginning with the letter 'A' will go from 9.30-9.45; 'B' from 9.45- 10.00 and so on.

Note: Those of you who are unable to attend at your appropriate time of day will have to wait until the following day when your turn comes round again.

## **ENTERTAINMENT**

### **GMAv Rochester Sports & Social Club Every Week**

Sunday - Bingo 7.30 pm

Monday - Stretch and Shape 7.30 pm

Tuesday - Karate Lessons 5.30 pm to 7.00 pm

Wednesday - Fitness 2000 7.30 pm - Sub Aqua 8 pm

Thursday - Ballroom Dancing 8 pm

### **February Events**

Friday 7th - Bar Entertainment 8 pm

Friday 14th - Valentines Meal - Hall Annexe

Saturday 15th - Valentines Dance

Thursday 27th - Tea Dance 1 pm - 5 pm Main Hall

### **March Events**

Saturday 1st - Children's Fun Night - Magician 6.30 - 7.30 pm Disco -11 pm

Saturday 15th - Parlour Derby 8 pm

Saturday 22nd Bar Entertainment 8 pm

## **BRAIN TEASER**

### **What? More connections?**

What connects a nominal oversize Yankee pippin, a cathedral in the North of England, a Royal air fighter, a difficult ball for a batsman to cope with, and an unboiled pudding eaten with beef?

There is a short word which connects all these things. What is it and what are the connections?

### **Connections**

Imaginary small workers, marvellous ancient structures, mortal crimes and what a 'heavy roller' likes to throw: they are all connected by an odd prime.

What is the connecting word and what are the references?

**Look out for the answer on the IIP noticeboards**

### **Any Ideas contact**

If you have any ideas for items in further issues of this newsletter please contact

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**Average Summary**  
**Average Percentage Response**

	Functional Group				Business Group			
	weekly	monthly	never	other	weekly	monthly	never	other
Management Team Briefs (%)	17.39	12.45	26.44	35.55	14.50	12.80	23.16	45.73
Team Team Briefs (%)	22.99	15.64	22.99	31.61	25.90	17.67	20.61	32.92
Appraisals (%)	3 months 48.76	6 months 15.34	12 months 21.45	None 15.33	3 months 45.56	6 months 10.81	12 months 22.06	None 21.44
Training Needs Identified (%)	80.90				79.11			
Notice Boards (%)	89.46				89.00			
liP Notice Boards (%)	67.99				63.35			
Access to PC/MAC (%)	83.31				81.34			
Training Req'd PC/MAC (%)	49.15				41.73			
Internet (%)	50.16				46.85			
GMAv Home Pages (%)	43.49				41.80			
E-Mail (%)	58.73				54.10			
UP Communicator (%)	41.79				37.95			
Read (%)	Topic 79.63	GMAv news 76.03			Topic 70.39	GMAv news 74.66		
Reporting Structure (%)	83.27				83.68			
Employees Charter (%)	89.81				91.10			
Comments (%)	15.31				20.56			
Total Questionnaires	57.06 Questionnaires				47.20 Questionnaires			