

# Marconi

Data Systems

## Meet the risk-taking team

**BORN in August 1984, the Data Systems Division, known for sales promotion purposes as Marconi Data Systems, is the newest and, for the moment at least, the smallest of Marconi Radar's four trading Divisions.**

This lusty infant is in the hands of a group of people who preferred the excitement of a new and uncertain venture to the more comfortable option of secure jobs elsewhere in the Company when the old Data Systems Division was disbanded. Motivated by the knowledge that they would be

much nearer the point where the buck stops, this risk-taking team of 80 men and women have brought special qualities of confidence and enthusiasm to the new unit.

Marconi Data Systems was formed with the object of using our specialist skills to broaden the Company's trading base. At present, it is in the software engineering, simulation systems, consultancy and training markets. To these main selling lines, it is rapidly adding hardware and systems engineering.

The new division has first-rate genes! It is heir to unbroken ex-

perience that stretches back to FUR HAT, the first of a number of Marconi firsts in computer-based systems. So naturally its specialities are leading-edge software technologies.

It employs a number of people who are among the UK's experts in ADA, which is expected to take over from most other programming languages, and is taking an interest in Intelligent Knowledge Based Systems, and similar forward-loading techniques.

The manager of the new Division is Alan Greaves, a professional engineer who has been with Marconi's for 21 years. He has said: "A small trading

division generates the 'family business' ethos. Everyone is aware of his role in the team, and everyone can make his or her individual contribution. This has given rise to a flow of ideas and inspiration from people at all levels. Frankly, I had not realised what a tremendous help this esprit-de-corps and enthusiasm would be in getting the business off the ground.

"Even before the start of our first full trading year, we have bid for £10 million-worth of new business. Ten companies and organisations now use our software development tools — and more are in the pipe-line!"

### SOFTWARE ENGINEERING

THE Software Engineering Department is run by a man who has over 25 years' experience of computing, and who has worked on many and varied applications in commercial data processing, operational research and automatic control.

With his team of 20, a majority of whom are graduates, Patrick Pettit is responsible for creating a market for, and providing a range of, software engineering services. These cover a wide field.

In its consultative capacity, the department advises those who are themselves involved with software and who need

studies relating to any proposed, computer-based system. It provides training in software engineering and the management thereof. It develops software for specific applications and it is also building up a range of off-the-shelf software packages and software tools.

No man — or department — is an island, and in creating a vigorous outside market, the software engineering people are assured of the backing of the whole Division.

Patrick is keenly aware of the importance of advancing the state of the art of software engineering,

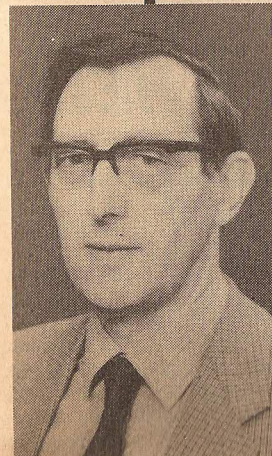
from a pencil and paper art form into a disciplined, scientific process. By so doing, it is ensuring that the shortest route is taken between the formulation of a problem and the economic realization of a solution.

"This subject is in its infancy," he says, "and there is tremendous scope for improving the whole business of software engineering."

He is strongly of the opinion that the future lies in automating the processes of software engineering, which is to say that computers will be used more and more as tools by software



Alan Greaves



Patrick Pettit

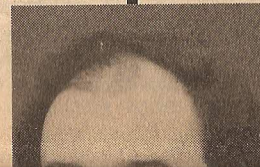
### TECHNICAL OPERATIONS

COLIN McRAE, formerly of Elliott Brothers and GEC Computers, came to Marconi Radar in 1973 and, as manager of the Technical Operations Department of Marconi Data Systems, is now responsible for the Division's application projects.

It is in this field, more than any other, that the difference between the Company's old and new data systems activities is evident. The 8-month old

engineering development, and rents commissioning areas, where the systems are assembled and factory commissioning tests are carried out.

Full advantage is taken of Marconi Data Systems' supporting facilities, and the ever-willing co-operation of the other departments. For example, the Division's Computer Bureau is used during the development of the system software and the Word





Patrick Pettit

capacity, the department advises those who are themselves involved with software and who need expert guidance; and it conducts feasibility studies of the importance of advancing the state of the art of software engineering, which is transforming software development

engineering, which is to say that computers will be used more and more as tools by software engineers.

## SIMULATION SALES

COMING to Marconi Radar from Elliott Automation at the time of the GEC/English Electric/Elliott mergers, Steve Bousfield has been involved with the Company's simulator activities since 1972. He is now responsible for the sale of the simulators which, at present, are the product base at the Division.

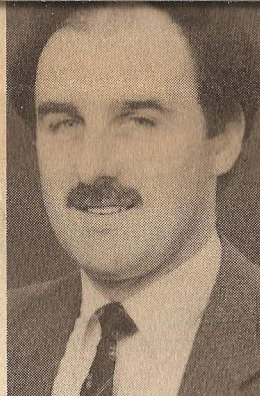
Steve sees a bright future in prospect. Increasing numbers of people are coming to realize the importance of effective training. As Opera-

tional Systems have more and more sophisticated functions, and represent a very large investment to the user, it is only sound economic sense to realize their full potential. This cannot be achieved by 'on the job' training which is ineffective both operationally, because of the difficulty and risk involved in reproducing some of the more hazardous situations and economically because it ties up scarce resources for purposes for which they were never intended, hence the growing interest in

simulation.

The Division's inherited expertise derives principally from the Air Defence Simulators which are in service in the Middle East, Far East, Africa, Australia and the UK. This expertise can, and will, be adapted to penetrate, among others, the Air Traffic Control and Naval markets.

The Division's first simulator contract — an Air Defence system for the Finnish Air Force — was signed at the end of March and is featured on page one of this issue.



Colin McRae

than any other, that the difference between the Company's old and new data systems activities is evident. The 8-month old Division is moving into a total system capability, covering both hardware and software.

The 23-strong team is a mixture of software, systems and development engineers and support staff, who are involved from the inception to the completion of a contract. They buy-in computers best suited for the purpose; design any special-purpose peripherals for development and manufacture either within or outside the Company; liaise closely with Patrick Pettit's department in the use of methods, tools, languages and operating systems, and finally take responsibility for the implementation and delivery of the system, within the contracted cost and time-scale.

The department has its own workshop for

For example, the Division's Computer Bureau is used during the development of the system software and the Word Processing Unit provides valuable assistance in the production of system documentation.

With the help of the central marketing organization, the Technical Operations Department is busily promoting its business interests with potential customers.

The department also relies heavily on the services of the Company's Technical Information Department for proposal and user documentation manuals, Design Office, and Support Division for spares and after-sales service.

While activities currently centre on simulators, Colin is planning for expansion to new areas, such as command and information systems for the army and civil authorities.



Steve Bousfield

## SERVICES-TASKS ARE MANIFOLD

THE tasks assigned to the new Division's Services are manifold and are performed under the aegis of Derek Watkins, who was responsible in the early 60s for designing Marconi's first computer, TAC, and who has been associated with on-line, real-time computers for almost 25 years.

Services is responsible for marketing and selling the general software sup-

port packages and software tools developed and produced by Patrick Pettit's team.

It is also responsible for administering some of Marconi Data System's principal assets — the Computer Bureau, the Documentation Control Office and the Word Processing Unit.

The facilities of the Computer Bureau are used throughout the whole

of the Company, though there is no reason why spare capacity should not be sold outside. The machines include: three large GEC 4000 series, which provide multi-access services via linked OS4000s. This complex is shortly to be linked into the GEC network, GECNET, through which access will also be available to British Telecom's packet swit-

ching network; an INTEL microprocessor development network, which provides a number of work stations; and Locus 16s, which may be used as 'stand alone' terminals or slaves to the 4000 complex.

The Documentation Control Office, like the Computer Bureau, provides the whole of Marconi Radar with a service. It handles and registers all

types of software material produced over the last 15 years, including documents of all kinds, paper and magnetic tapes, magnetic discs etc. And strict, formal control enables it to discharge the responsibility of storage, the archiving of insurance copies and the production of verified and inspected copies of any item held.

The Documentation Control Office also uses a number of programm-

ing machines for producing ROMs, which are needed in quantity by Marconi Radar's production areas.

The Word Processing Unit operates a number of screens into the Company's central WORDPLEX System, and while it provides a service that is used principally by the Division in connection with its documentation control activities, it could very well sell spare capacity.



Derek Watkins