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EB Communications and STK of Norway and SRA of Sweden.

EB and STK are major sub-contractors to Racal, and when the equipment construction program is under way will provide a proportion of the major hardware items and the system control software. The main switch is a STK project.

Software development for the Australian environment will be done under sub-contract by the Thorn subsidiary Software Sciences of Australia.

As with Raven, Discon and Austacces the Australians require maximum domestic work content in Parakeet and the present contract, which is for detailed equipment definition, is awarded to Racal Electronics Pty of Sydney. Its value is A\$6.5m and about two-thirds of the work has to be done in Australia.

Racal will be preferred equipment supplier for the follow-on procurement programme which should be worth about A\$200m, of which two-thirds has to be procured in Australia.

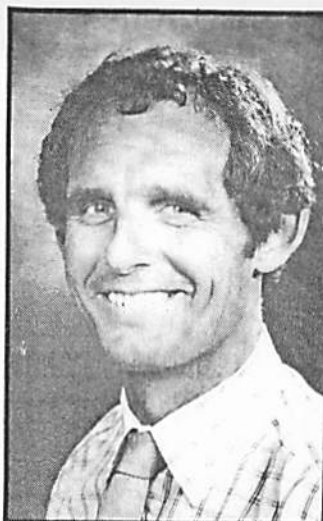
Plessey and the Australian company AWA also competed, the latter offering American equipment. Plessey's offering will have included Ptarmigan technology and failure to win Parakeet makes success in the American competition for the Mobile Subscriber Equipment, also based on Ptarmigan technology, all the more important to maintain long-term employment at Plessey's Christchurch plant.

## standards

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thin film head technology as the latest 5GByte double capacity magnetic disk drive, and a new coating formulation based on a chrome dioxide coat manufactured by Du Pont and BASF.

A string of 3480 drives uses 60 per cent less floor space than its 3420 predecessor, costs slightly less to buy, and up to 55 per cent less to maintain. The cartridge unit for which IBM has such high hopes measures approximately 4 1/4 in. by 4 3/4 in. compared with the 10 1/2 in. tape diameter tape reel of the 3420 yet offers 20 per cent greater capacity on average.



Macfarlane: new MD for Lex.

## Macfarlane steps up at Lex

ANDREW Macfarlane has replaced Peter Smitham as managing director of Lex Electronics in Europe. Smitham is leaving Lex to become a partner in Schroder Ventures, a leading merchant bank venture fund.

Macfarlane's appointment should encourage any ambitious personnel within the Lex Group. He joined Jermyn Distribution in 1963 to head up Mogul, became managing director of Jermyn Distribution, until moving to his previous post, managing director of Lex Electronics UK.

He now takes responsibility for a £105m business which boasts eight companies in the UK, France and West Germany. Macfarlane does not envisage any major changes in Lex strategy in Europe. His successor as managing director of Lex Electronics UK is yet to be named.

If Lex policy is followed, it is likely that the job will be filled from within the Lex organisation. A Lex spokesman regretted Smitham's decision, but added, "... we are fortunate to have someone like Andrew Macfarlane to assume overall responsibility."

Peter Smitham has experience in venture capital through his directorship at Murray Ventures. "I have had a satisfying 12 years with Jermyn, and then Lex, and achieved practically all my ambitions."

"My interest is helping small companies grow, and that is what I will be doing at Schroder Ventures."

He added: "I will be looking for growth opportunities to fund in technology companies."

## Chip Rack makes first appearance

CHIP RACK, the first three-dimensional racking system for the interconnection of VLSI chips, made its debut at the Royal Society last week. A working prototype, carrying the Z80 chip, was shown to the Institute of Radio and Electrical Engineers.

Further production-sized prototypes will be available for viewing at the Internepcon exhibition in Brighton next month, and the systems should be in volume production at Dowty Electronics early next year.

### UPSURGE

Dowty Interconnect sales and marketing manager, Ray Willis, said that patents had been granted in both the UK and US, and applications have been made in the EEC and Japan. Willis said that there has been an upsurge in interest in the racking systems as the future alternative to printed circuit boards, particularly for multi-processor systems.

Primary applications would be in the computer and military fields, he said, although some unexpected uses for the product are turning up in the consumer electronics arena.

"We're in there first, no one else has a truly 3-D approach to the interconnection problem," Willis told EW. "The only remaining difficulty will be making sure we have the semiconductor houses with us. They are interested but they

need to see the dollar signs shining before they show heavy commitment."

Chip Rack designer, Mike Anstey, claims that the system is far superior to the traditional printed circuit board for connecting advanced VLSI circuitry. Once designers become used to designing on to silicon, much of the complexity of interconnection will be incorporated into the circuitry itself, opening up the way for regular, simple interconnection systems which are cheaper to produce and much more suited to automated assembly than the PCB.

PCBs, he points out, have to be customised for each application, which restricts the use of automatic assembly, are inefficient in terms of heat dissipation and give rise to high reject rates due to solder fractures and distortion of leads or misalignment of components.

### PACKAGES

With the Chip Rack, interconnection between leadless chip carrier type packages is achieved using a standard 3-D skeletal racking structure which, coupled with the carrier, enables interconnection of PCB complexity to be achieved cheaply. Anstey stresses that the rack doesn't rely on a through bus structure, and adds that because the structure is constant for each component, assembly equipment need not be software controlled.

## Insurance fear faces satellite operators

FEWER satellites may be ordered if insurance premiums go through the roof as a result of the loss of two communications satellites last Thursday. They were blown apart during launch when controllers destroyed the Ariane rocket because of a fault in the third stage.

Insurance can already amount to one fifth of the cost of a satellite and rumours that insurance could become more expensive or even impossible to obtain have worried some operators.

But it's very unlikely that satellites would become impossible to insure according to Terry Atkins, a spokesman for Lloyd's of London. And the Lloyd's man who master-

mind the rescue of two other wayward satellites to recoup insurance losses, Stephen Merret, doesn't think that premiums will change. "It's impossible to say at this stage, it depends on the launch vehicle, the type of satellite and other things. But I doubt if premiums will rise," he said.

However, he did point out that when comparing the relative risks of the space shuttle to Ariane, every loss that occurs to one will affect the other.

"Communications satellites are very economical and return a healthy profit. Insurance increases would be second-order effects," said John Humby, a spokesman for British Aerospace.