Telecom
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THESE TECHS HAVE THE ROTTNEST LUCK

Telecom Technicians Grant Turnbull (left) and Ross Thomas of the Perth Central District Cottesloe team have what is generally regarded as a job with all the "perks" ... but, as our photograph shows, they had even more to smile about recently.

Ross and Grant are two of the technicians who maintain the telephone system on the sunny, holiday isle of Rottnest.

The Island boasts a carefree existence and our two smiling techs sometimes spend up to two days a week maintaining its 62 telephones.

Cars are all but totally banned from the island in a bid to preserve its delicate environment, featuring the small wallaby-like Quokkas.

The only cars allowed are for official business and although Telecom has a four-wheel-drive, it was decided — provided the technicians had no objection — to put Telecom workers on bicycles.

Now Ross and Grant, on their white and orange bikes, have joined the thousands of holiday-makers who pedal the length and breadth of Rottnest.

Besides being more in keeping with the lifestyle, the boys find it easier, with the heavy pedestrian and cycle traffic, to ride rather than drive from point to point.

The changeover attracted the attention of one of the Sunday papers and to accentuate the picture, it was arranged that Channel 7 Perth's beautiful weather girl, Ann Sanders, would adorn the handlebars of Ross's bike ... no wonder the boys are so happy in their work!

Putting pals in touch — after 34 years

A television programme sponsored by Telecom Australia has had a heartwarming, human interest spinoff ... it has brought together again two former City North (Sydney) exchange girls who had lost touch for more than 34 years.

Betty MacNicol and below left as she saw Aileen Joyce on Telecom's TV feature "This Fabulous Century".

Betty MacNicol, now of Willoughby Subs. Installation Depot was recently watching a jitterbugging scene in the opening credits of This Fabulous Century which is sponsored by Telecom when she recognised the girl dancer as workmate of long ago Aileen Joyce.

Betty contacted the producers of the programme who put her in touch with Aileen, now a housewife living at Warners Bay near Newcastle.

"I was thrilled to have Aileen ring me from Warners Bay. We rolled back the carpet of 34 years and hope to meet later to talk more about life at City North Exchange in those wartime years," Betty said.

"Aileen Joyce was one of the BOO girls. Affectionately known as Topsy, she was always the life of the party and very nimble on her feet."

Betty who worked on Fault Despatch and other clerical duties in those days said she felt it was amazing that two former exchange girls had been brought together by a programme sponsored by Telecom.

Technology, Telecom and you — pages 11-14

Ceremony marks completion of

Cable laying for Telecom Australia's Ceduna-Brisbane co-axial and radio system stretching 2500 km across inland Australia and costing more than $36 m. has been completed and telephone, telex, data and television traffic will begin flowing along it in mid-1980.

At a ceremony near Moree to mark the ploughing in of the final segment of the co-axial cable, Telecom Australia's Chairman, Bob Somervaille, said:

"This new communications link, in addition to enabling Telecom to connect remote communities to the national STD network, provides an alternative and completely independent second route from the capital cities to the OTC earth satellite stations at Moree and Ceduna, which in turn beam telephone calls across the world through the INTELSAT satellite communication system."

Among the 128 guests at the function which included an official luncheon were local civic and business leaders, senior State Telecom management from SA, NSW and Queensland, project engineers AND all 55 staff employed on the final phase.

The completion of such a large nationally important project attracted unusual media attention with some 50 representatives of newspapers, periodicals and the electronic media being present.

Work on the project started outside Moree in 1974 when the earth satellite station was linked through Moree to Coonabarabran with a coaxial cable. By 1976, with detailed planning completed and funds available, the major segments of the route were tackled.

A team of about 90 men set out in February of that year to lay the cable from Port Augusta via Broken Hill to Cobar. Because there were no towns along the route except for Port Augusta, Broken Hill and Cobar capable of providing accommodation for a work force of this size, the men were housed in caravans.

As the coaxial cable project progressed, it developed a tail at least 160km long. At the head were the ripping tractors, followed by the plough tractors laying the cable.

Further back were the manhole installers, then cable jointers, testing technicians and finally the clean-up team.

The rugged and varied terrain provided the planners with some unique design challenges.

The cable is usually buried about 1.2m below ground. But at Wilcannia the Darling River floods over a width of 14km. The floods rise and fall very slowly, and the plain can be covered by up to 2m of water for more than eight months at a time.

During dry weather the rich river silt cracks, forming two to three metre deep crevices up to 80cms wide. To overcome the problems posed by these extreme conditions, a one metre deep trench had to be gouged in the alluvium before the team could then bury the cable a further 1.5m down.

ARTIFICIAL ISLANDS

Artificial islands were built on the flood plain 1.5 km apart where the repeater manholes could be installed up to 3m above the floodplain to keep the repeating equipment clear of floodwater and allow ready access if maintenance was required.

In addition to the barrier of the Flinders Range, this team also had to contend with one of the wettest seasons on record while laying the cable across the Eyre Peninsula.

Once the cable laying on this section was completed at the end of 1977, the tractors and other equipment were moved back to Port Augusta to complete the link to Ceduna.

In the meantime, after the testing of the already laid cable and the installation of equipment, Broken Hill was linked up to the STD network.

When the team completed the cable laying for the Port Augusta-Ceduna link, the machinery was brought to Dubbo last November to begin the final sections of the overall project in the NSW section.

DUST AND QUAGMIRE

A separate team had already been busy since June, 1977, laying the vital cable from 40 km south of Goondiwindi to Ipswich, which then links through to Brisbane.

Working alternately in choking dust, followed by heavy rain which turned the hard baked earth into a quagmire, the Queensland team cut the estimated time for completing the job by 60 per cent.

After almost nine months of meticulous testing, the Goondiwindi-Toowoomba section of the route was brought into service. The benefits of this cable project have been experienced in Goondiwindi where telephone services have been cut-over to automatic.

The four-tube coaxial cable laid in this project can carry at least 5,400 simultaneous telephone conversations, but this capacity can be increased when needed in future years by the addition of repeaters in the existing repeater manholes.

AUSTRALIAN CABLE

All the cable used in the project was manufactured in Australia to precise Telecom specifications.

The entire route will be served by coaxial cable except for a 304km section between Cobar and Dubbo where there is a microwave radio system.

Microwave radio systems and coaxial cables are known as broadband systems because both transmit signals on a wide-band, or broadband of frequencies.

Replacing the former pole mounted aerial-wire systems by these broadband trunk systems has transformed Telecom's major trunk routes from relative "pony trails" to modern communication super-highways.

Telecom's new inland coaxial route should ensure continuous telephone, data, telex and television service between the eastern and southern States even when faults occur on the coastal system.

Thousands of telephone subscribers from townships along the coax-

Caught the gravy train

After 100 years of intermittent planning and construction, Sydney's Eastern Suburbs Railway was officially opened on June 23, 1979. Directories Branch NSW caught the early train in August 1978 by securing prime advertising space, in each of the new stations, for Yellow Pages promotion. The photograph shows a Yellow Pages 24 sheet poster at the Martin Place station.

$36m, 2500km Ceduna-Bris. Broadband

ial cable route will benefit by gaining automatic telephone services and access to the nationwide STD network, which interconnects telephone exchanges across Australia.

Spinoffs from the project will include the dismantling of many kilometres of aerial wire systems which parallel highways.

The removal of these familiar landmarks will not only be aesthetically appealing to many but will also ensure more reliability. Storms, high winds and fires will not affect a buried cable.

Above: With the last few metres of coaxial cable still on the final drum, the D9 tractor operated by Keith Crandell bursts through the banner marking the end of the cable laying on the 2,500 km Ceduna-Brisbane coaxial cable project.

Left: Four linemen provide a human anchor for the start of the laying of the final 1.5km section of the coaxial cable. Seen here providing the necessary "pull" while the laying gets started are: (from the front) John Hedges, Ken Bloomfield, Jock Edgar and Peter McCusker, all with Primary Works, Country Section.

LOST TIME ACCIDENTS ON DUTY
Progressive Totals: By States

	H.Q.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.
Last Year	53	1700	1151	887	408	345	100
This Year	37	1914	1276	847	459	307	108

Each month on this page, Telecom will give a summary of lost time accidents on duty, month by month and State by State. To begin this feature, we show above a full year's comparison for 1977/78 and 1978/79.

TRIALS OF COURIER-FAX BEGIN THIS MONTH

Telecom Australia will soon commence market trials of Courier-Fax, which in conjunction with Australia Post will provide an urgent interstate document transfer service.

The service on trial will combine the courier facilities of Australia Post with Telecom's ability to transmit a document facsimile (fax) over the public telephone network.

From July 30, documents may be lodged for transfer

- **At Australia Post Courier depots**
- **By pick-up by the Courier service**
- **Using an acoustically coupled portable facsimile machine delivered and collected by AP courier**
- **Using a customer's own private facsimile terminal**

Initially the courier services will be available in capital cities only. Messages lodged at depots or collected by courier will be transmitted between cities using a facsimile machine located in each depot. When not on hire, the portable machines will be used to supplement the depot machines.

Courier Fax is a Telecom service in which Australia Post will act as Telecom's agent and will undertake all operational activities and customer liaison.

Telecom's operational involvement in the trial is in the provision of telephone services and facsimile equipment, the oversighting of the service and operator assistance to users if there are difficulties and faults with telephone services.

The trial will use facsimile equipment rented from VOCA Communications Pty. Ltd. who will also service the machines.

The trial will benefit members of the public who want to transfer documents urgently. It will also benefit the growing number of customers who use private facsimile terminals. These customers will now be able to communicate with people who don't have a facsimile terminal.

The trial will allow Australia Post to offer an additional courier service. It will provide Telecom with information about the demand for facsimile services and will create an awareness of facsimile in the business community.

The initial trial period is one year. The trial results will be reviewed by both Commissions and decisions made regarding continuation or modification. The review would consider the possible extension of the service.

Charges for the trial services are:

Facsimile transmission between two Australia Post locations	**$5 per page**
Facsimile transmission from an Australia Post location to a privately owned or a leased portable facsimile machine	**$4 per page**
Facsimile transmission from a privately owned or a leased portable facsimile machine to an Australia Post location	**$2.50 per page**
Hire of portable facsimile machine	**$2 per half hour or part thereof**
Photocopy of a facsimile document	**20c per page**
Pick-up or deliver of documents	**$4**
Delivery and collection of portable facsimile machine during same visit	**$4**
Pick-up of portable facsimile machine during a subsequent visit	**$4**
Courier Waiting Time after first 5 minutes	**$1 per 5 mins. or part thereof**
Acknowledgement by post of delivery of the facsimile copy	**$1**

SENATORIAL PRAISE

Recently, while attending the Emerald Centenary Show, I noticed a Telecom exhibit which included closed circuit television and Telecom standard facilities. The display was able to show quite graphically how STD call metering worked. From my observation, it proved quite popular and as a PR exercise for Telecom it must have been of tremendous benefit, especially since Emerald has since "gone automatic". I understand that the idea was that of your staff in that area and they arranged a roster among themselves to keep the stand manned. I think they are to be commended for their efforts and it must be pleasing to you to know that sections of your staff are sufficiently interested in their job not only to identify with it, but to promote Telecom.

(Letter from Senator Stan Collard, Rockhampton, Q. to Telecom Managing Director Jack Curtis.)

Telecom men with time on their hands (or. . .our foofer valve didn't blow)

Max Bartlett (left) and Ken Bytheway with 'Old Faithful'.

Maybe it won't make the Guinness Book of Records but it could be a worldbeating effort just the same — a transmitting valve at Telecom Australia's high frequency radio station at Lyndhurst near Dandenong, Victoria has just been retired after 57,864 hours of service.

"It just succumbed to sheer old age," said Ken Bytheway, ST02 in charge of VNG Lyndhurst which is the Time and Frequency Standards Section of Telecom's Research Laboratories.

"And fair enough," added Ken. "It went into service on November 4, 1968 and was in continuous service without a blink for 10½ years, with a stack of five service history cards to prove it."

Ken said that the valve was a tetrode 4-250A of 250 watts made by Eimac in the USA. Average life was about 17,000 hours, though there are two other long service veterans at VNG each with 47,000 hours up.

"Of course, they still have a couple of years work to put in before they reach the other bloke's record," said Ken who added that the manufacturer's agent in Australia was unaware of any better performance anywhere than 57,864 hours.

The time signal service from VNG was instituted by the Australian Post Office in 1964. Its primary purpose is to provide accurate time signals and standard frequencies for use throughout Australia by navigators, organisations making seismic and other scientific measurements and by surveying and exploration teams.

The time signals are maintained to within 0.1 millisecond of Co-ordinated Universal Time (UTC). Occasional step adjustments of precisely one second as determined by the Bureau International de l'Heure are made to keep the time signals within about 0.9 second of astronomical time (UT1).

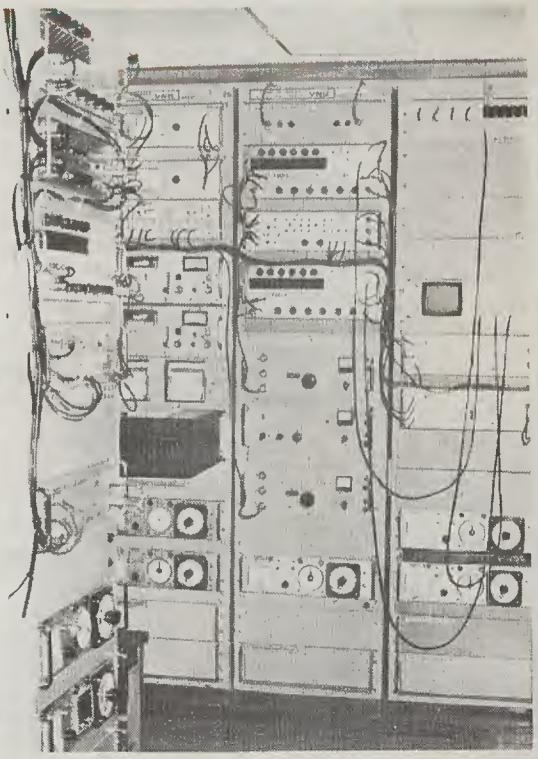
Carrier frequencies and time signals both originate from the same crystal frequency standard at Lyndhurst which is controlled by a caesium beam primary standard at the Telecom Australia Research Laboratories.

The carrier frequencies of the service are maintained such that average daily deviations do not exceed + 1 part in 10^{10}.

Today, as well as the time signal broadcasts for the Australian continent VNG Lyndhurst has recently commenced a similar service for the Southern Hemisphere, handles two Radio Australia broadcasts, two inland services for the ABC, carrying 3LO and 3AR programmes and a special transmission to Radio Australia at Carnarvon WA.

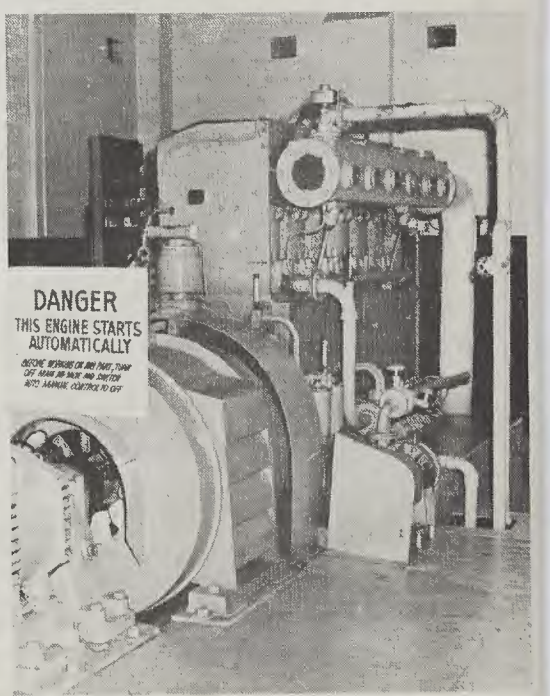
All of which keeps the station's thirteen transmitters and its multiplicity of aerial arrays pretty busy. The transmitters vary in power from 500W to 10kW and aerials can be slewed directionally to cover specific target areas.

VNG on the South Gippsland Highway about 37 km from Melbourne is on an 80-acre property. It has a staff of 21, mainly technicians who man the station 24 hours a day, two men per shift.



Just a part of the metal shielded standard time and frequency generator at VNG Lyndhurst.

Behind this modest facade is the facility to keep Australia and the Southern Hemisphere right on time.



This is "Croonin' Cookee" — the emergency power supply no doubt so called because it was brought from a biscuit factory for a song. It develops 283 BHP.

Tea and sympathy for the graduates

Telecom's high standing throughout the world was reflected in the calls for assistance in upgrading telecommunications in many countries, Queensland State Manager (Paul Dubois) said recently.

Mr Dubois was speaking at a morning tea at which he entertained recent graduates.

He said that the Telecom organisation was becoming more sophisticated in technology and in the administrative processes.

Telecom looked to the skills of its graduates to assist in the task of extending, upgrading and maintaining telecommunications across Australia.

Mr Dubois said an important reason why Telecom had such a high standing overseas was that it encouraged its officers to develop their talents with outside study and internal training.

Right: Queensland State Manager Paul Dubois had words of encouragement for recent graduates when he entertained them at morning tea in Brisbane. He is shown with (l to r) Louis Fenech (Diploma Buildings), Neil Doyle (Industrial Relations Manager) and Nik Avetisoff (Bachelor Economics).

INWATS — NEW STIMULUS TO BUSINESS INQUIRY

People in business will soon be able to offer their clients a new telephone cost saving initiative, Inward Wide Area Telephone Service (INWATS), announced recently by the Managing Director of Telecom Australia, Mr J.H. Curtis.

Mr Curtis said INWATS would provide a "new marketing vehicle for customers and give them the opportunity to expand operations". It would allow callers to make automatic trunk calls at the expense of the called party.

"A similar service is available in the United States and Canada and working successfully. Here the new product will allow people to make STD/trunk calls to selected numbers and be debited with only the local call fee for each call," he said.

SPECIAL CODE

Mr Curtis said the balance would be met by the called party and connection made by the caller dialling a specific code commencing with "008" to gain access to those organisations which have contracted to offer INWATS.

This would ensure the caller paid the local call rate — and no more — no matter what the distance.

He said INWATS would enable people in the travel industry, government departments, TAB's, banks, colleges and a whole range of suppliers of goods and services, including established telephone order services, to give clients immediate communication at minimum cost.

On present plans the service will begin in Tasmania about September this year and will be expanded progressively to other states.

Mr Curtis said depending on the type of INWATS service selected, customers would be able to call the appropriate INWATS number within their own State or from anywhere in Australia.

BENEFICIAL

"We believe that marketing organisations will find it particularly beneficial and another application will be for private use of particular clients of information services," Mr Curtis said.

It could make distant communications cheaper for many such as the "man on the land" by bringing the business community closer to him at no extra cost. It could also be used in conjunction with recorded message machines.

Company representatives "on the road" would be able to telephone daily or weekly order calls to their central office and the cost met at the business end. Mr Curtis said: "We see it as a parallel to Telecom's recent initiatives of bringing people together via the telephone — whether it be for community or business interests by cutting down the distance barrier and costs."

The following charges will apply: The charge rate for INWATS is calculated on the use per hour or part thereof and the cost based on the length of each call. Applicants will be required to lease one or more telephone exchange lines and it is proposed to apply an installation fee of $240 and annual rental of $750 for each line.

For temporary services the customer will be required to pay the prescribed rental for each week or part thereof for use of the service, plus a surcharge of 50% in accordance with normal procedure. Again, in line with normal procedure, the installation fee for each temporary service will be reduced by 50%

Incoming calls to an INWATS number will be timed. Each three months the time will be added up and the INWATS customer's account will reflect the total time of the calls measured against the hourly rates shown below.

INWATS CHARGE PER HOUR

TIME OF DAY	NATIONAL	STATE*	TASMANIA ONLY
	$	$	$
8 a.m.-6 p.m.	50	25	12.50
6 p.m.-9 p.m.	20	10	5.00
9 p.m.-8 a.m.	16	8	4.00
8 a.m.-6 p.m. (Sunday only)	32	16	10.00

* Victoria and Tasmania are to be treated as a single state.

VEHICLES FOR SALE

In June 1978, Telecom advised that the Commission would assist interested staff to purchase motor vehicles which have been declared for disposal by Telecom Australia.

Now agreement of the Department of Administrative Services has been given to the inclusion of the Telecom domestic vehicle numbers in sale catalogues to aid staff members to identify a particular vehicle of interest when it is listed for sale.

A contact point has been established in each State for staff enquiries regarding the date on which the vehicle is to be sold. Advice is limited to that information only. Enquiries can be directed to the following people in the State in which the vehicle is to be sold.

N.S.W. — Senior Works Clerk, Automotive Plant Section (Telephone 217 2737).

VIC. — Foreman, Final Inspection, Automotive Plant Section (Telephone 64 3131 ext. 223).

QLD. — Sales Clerk, Supply Branch (Telephone 225 6817).

S.A. — Sales Clerk, Supply Branch (Telephone 225 6946).

W.A. — Administrative Officer, Automotive Plant Section (Telephone 387 0850).

TAS. — Trade Repair Officer, Services Section (Telephone 20 8409).

For the information of staff, all vehicles removed from service are sold at public auctions arranged by the Department of Administrative Services.

Details on the type of vehicles being offered and the sale date are widely publicised through daily newspaper advertisements. In addition copies of sale catalogues are available on request from the local Disposal Division of DAS.

Last September, Telecom's Electrical Energy Management Programme — better known as the Watt Watchers Campaign — was launched by the Chief General Manager. In this interview with Bill Petrie, Telecom HQ journalist, Hugh Guthrie, Telecom's National Energy Co-ordinator, discusses progress and future development of the Programme.

Answers to the Energy Question

Question: There's a pretty widespread concern in the Australian community about energy conservation — how does Telecom fit into this picture?

Answer: Telecom has recognised the need for energy conservation for some years now. About two years ago it was becoming evident to people in Buildings Branch that energy consumption across our whole range of operations was beginning to soar. Increased community concern with energy consumption rates generally was obvious to us, so we began planning to cope with the problem of Telecom's ever-increasing consumption of electrical energy.

The Electrical Energy Management Programme is still in its early days, but how is it developing?

It's developing well in two directions. We feel we're doing well in keeping Telecom people in touch with developments in the energy management programme and what they themselves can do to help. Our main vehicle for this is our Watt Watchers Campaign, symbolised by that happy little light globe with its corsets — and the Watt Watcher Newsletters. The second direction is important too. This is our development of a technical programme related to energy conservation. This involves things like modifying existing plant to conserve energy, finding new ways of performing tasks to cut down electrical energy consumption, introducing new equipment — again with the aim of cutting consumption. What we are doing in our Watt Watching — or if you prefer the more formal title, our Electrical Energy Management Programme — is proving successful; we are making savings.

Savings, but how big are the savings — what's the general magnitude of the savings?

It's hard to be completely accurate at this early stage, but we've calculated that the programme has so far saved about $2 million, compared with no energy management programme at all. Just for comparative purposes, set that $2 million saving against the $18 million, approximately, that electrical energy cost us last year.

How fast has our electrical energy consumption been growing?

Growth has been rapid in the last couple of years — about 17% to 20% per year — that's measured in terms of the money we pay out for electricity. It amounts to doubling our electricity costs every four years. Making allowances for inflation, this represents a growth in our consumption of electricity of around 9% every year.

Just what degree of staff involvement are you getting, and what would you like to see?

The success of the programme depends more on staff involvement — staff participation — than any other factor. We've got some very good indications that energy conservation has caught the imagination of a lot of our people. We've had many interesting suggestions about means of limiting energy consumption from our people throughout Telecom. I could quote you many examples of OICs in various types of Telecom buildings who are implementing energy conservation principles with excellent results. How much staff involvement would we like to see? . . . let's have as much as possible. Let's have a continuous involvement of all staff, so that energy conservation becomes an integral part of all our day-to-day activities.

How do people in the field find out what to do to help energy conservation . . . what measures they can take which will help?

There are energy managers who are part of the Buildings Branch in every State. They have put together guidelines for energy management . . . guidelines relevant to the particular needs, perhaps the unique needs, of their own State. The energy managers have enlisted the co-operation of co-ordinators in most districts. These co-ordinators have experience of Telecom operations at the "grass-roots" level. Both the managers and co-ordinators are delighted to hear people's suggestions about problems that arise in making energy conservation work. If we're to continue to make savings we must have a two-way flow of ideas between our energy managers, co-ordinators, and Telecom people generally. I know that our managers and co-ordinators are keen to do all they can to help along this flow of ideas.

It sounds as though it's a good programme, but have you had any criticisms or reservations about it?

Yes, there have been some criticisms, minor ones, but we've had one major reservation — a major criticism.

What was that?

We're being criticised for concentrating too much on electricity conservation and not enough on oil conservation and people remind us that Australia has plenty of coal for electricity generation — but we're running short on oil.

Do you think this is a fair criticism?

In a sense, it's a fair criticism — but it's not correct. A few facts and figures will help put the case more clearly. Australia certainly does have restricted oil resources and our conservation programme aims to reduce Telecom's oil consumption wherever possible, but especially in the heating of buildings. Again, Australia does have very large coal reserves — thousands of millions of tons. On the other hand, electrical energy use is rising at about 8% per annum — which means it doubles about every 9 years. Doubling our electricity consumption every 9 years makes a big hole in our coal reserves. Australia-wide we mine around 120 million tons per year. So, to sustain this growth in electricity consumption, we'll need more and more electrical generating capacity, more and more power stations and more and more holes in the ground to get the coal out. This poses all sorts of environmental problems. But consumption of coal doesn't stop there. Our natural gas is forecast to run into short supply in the late 1980's — and so, coal will be used for making gas. Coal will also be used for making oil for transport and for the very important plastics industry. Adding up all these demands on our coal reserves — looking at the total picture — our coal reserves have a very real limit.

Does all this mean we're likely to run out of coal relatively soon?

Well, not tomorrow, but if we continue to consume at the present rate of growth, with all these additional uses of coal I mentioned being taken into account — that is , coal into gas and coal into oil — the forecasts are that we have only enough coal for, roughly, the next 50 years.

But one would have thought we had colossal reserves of coal — you spoke of thousands of millions of tons.

We do have big reserves. But if growth continues at around 8% per year — and this is par for the course for western societies these days — the demand for coal is also colossal. We'll need hundreds of millions of tons per year.

But what if we find more coal reserves?

It really doesn't help all that much if our consumption continues to grow exponentially — as the experts put it. A comparison is the way your money grows exponentially in the credit co-op. if you leave it there. So, if we suddenly find 10 times more coal than we have now, it would only add another 30-40 years to our reserves — if we continue at our present high rate of consumption increase.

Hugh Guthrie, National Energy Co-ordinator (left) talks with Bill Petrie.

Is there any solution? How can we, in Telecom, contribute to a solution?

There is a solution. We can extend our reserves by reducing consumption. For example, if we hold our consumption of coal at today's level, we would have reserves which would last over 300-400 years. In fact, Telecom has already responded to the problem with its Electrical Energy Management Programme. That represents a very real response to the need to hold down the level of consumption.

But some people might say the programme is really all about — and only about — saving Telecom money. Is that sort of attitude justified?

This is another criticism we've had of the programme. There is some truth in it, in that Telecom is a business and our operating costs are reflected in our charges to our customers. We must control costs to keep our charges down. However, we see the main emphasis in the programme in terms of the reduction of consumption of electrical energy. This saves resources — and, of course, also saves money.

Where does the programme go in the next year or so?

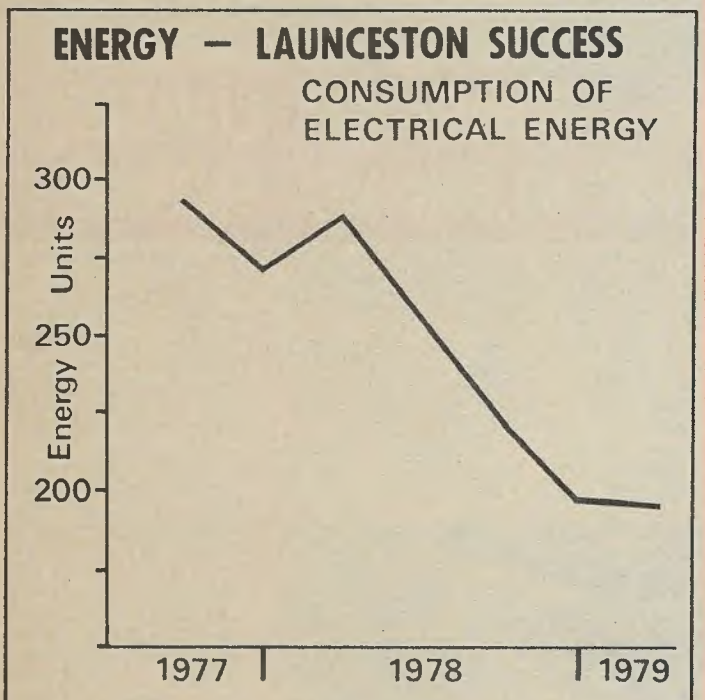
It's likely we'll see wider temperature limits for air-conditioning in our various buildings. By this I mean running our air-conditioning in buildings one or two degrees warmer in summer and a little cooler in winter. This is a world-wide trend now in energy conservation. It would offer us considerable savings in heating oil and savings of about $1 million per annum in electrical energy. But there are other aspects, too. New forms of lighting to improve performance and reduce electricity consumption. We'll be talking about these things in our next phase of the Watt Watcher campaign. And there will also be a number of technical innovations. We'll be introducing these into our operations and equipment. And while they'll be much less obvious to most of our staff, since they relate to particular items of plant, they'll nevertheless make for further real savings.

What's the target for savings in the future . . . the objective?

What we want to do is to hold our actual consumption of electricity, measured in kilowatt hours, to more or less present levels which, of course, would also represent a considerable saving in money.

Can people learn anything from the programme to help them cut electricity consumption at home?

Yes, I think that's an important consequence of what we're doing in Telecom. Much of our work is applicable to the home situation and our energy managers are passing this information on — mainly through the Watt Watcher Newsletters.



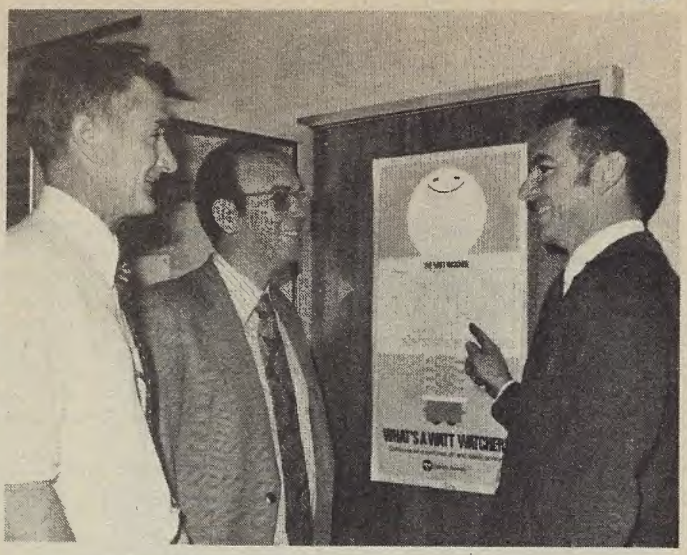
St John Exchange is a six storey building with a total floor area of 5430 square metres. It houses a variety of telephone and telegraph switching equipment including a long line terminal and a Manual Assistance Centre. It is mannad 24 hours per day. To cope with these requirements, it has a complex air conditioning plant.

St John Exchange is currently being used as a pilot project by Tasmania's Energy Management team and is being carefully monitored to provida a framework for energy management in other buildings in Tasmania.

Many of the technical innovations in the project, which aim at improved plant performance, have also resulted in more comfortable working conditions.

What are the results of all this effort? Electrical energy consumption has been reduced by 40% and — as an added bonus — there's been a 10% reduction in heating oil consumption. The graph shows the progress made.

The savings were achieved at little cost and are largely due to the efforts of the exchange staff in implementing the Watt Watchers Campaign and co-operating with the State Energy Management team.



Linsey Dowl, STTO 2, of St John Exchange, Launceston, Tas. indicates the latest achievement in the building energy reduction to Ken Manson, STTO 3, and Rae Batt, State Energy Manager.

Discrimination review committees

As a result of a decision taken by Telecom Consultative Council, staff members were invited to submit to the Secretary TCC details of alleged discrimination in their employment in Telecom Australia.

TCC subsequently decided that each case, if the staff member so desired, would be investigated by a Sub-Committee comprising a representative of the Staff Association concerned and a representative of Telecom Australia.

One hundred and twenty cases have been investigated and only one is yet to be resolved.

The Discrimination Review Committee is an on-going body and should any staff member wish to submit details of alleged discrimination in employment in Telecom Australia, a written submission should be forwarded to:

Mr C. J. Livingstone
Secretary
Telecom Consultative Council
11th Floor
199 William Street
MELBOURNE, VIC. 3000

You should outline your case and indicate your designation, work location, telephone number and union membership.

Discrimination in employment means denying a person equal treatment in employment on grounds other than those based on the inherent requirements of the job.

This denial of equal treatment may be on the grounds of sex, marital status, race, colour, religion, political opinion, national extraction or social origin.

It should be kept in mind that where appeal rights exist such as to Promotions Appeal Boards, Disciplinary Appeal Boards and Review Tribunals, the case is outside the jurisdiction of the Discrimination Review Committee.

Similarly, matters seeking variation of rates of pay and conditions of service are outside the charter of the Committee.

Don sold The Centre on new coin phones

"This is an excellent result. It will free the Alice Springs network of all obsolete leasec coin telephones, reduce significantly the load on manual operators, and generate increased revenue from STD calls."

We quote Eugene McCann, Chief Manager, Operations in South Australia commenting on the work of Don Menzies, a Coin Telephone Consultant with Adelaide-Central Operations District, who was recently made available to the DTM Darwin to undertake a special sales promotion campaign in Alice Springs for leased CT3 units.

The results, above all expectations, indicated that Don did not "quietly flow" — like his namesake river — he literally took the Alice by storm.

The CT3, the green-coloured multi-purpose coin telephone, is well known to most of us as a public telephone from which all types of calls, including STD, can be made.

It is planned to commence STD operation in Alice Springs later in 1979, and the campaign was designed to get leased CT3's into premises such as hotels, motels, clubs and the like in time for the introduction.

Following a briefing by Customer Services Department and a clearance from Headquarters for the project, Don visited within 11 days the existing 68 lessees (33 multi coin and 35 Red Coin Phones) and made a few "cold canvasses" to potential customers.

The results were extremely gratifying. All of the 33 multi coin type instruments will be replaced by 31 CT3's and 2 Red Coin Phones, 5 Red Coin Phones are to be replaced by CT3's, and 5 CT3 instruments will be leased by new customers, giving a sales total of 41 plus 2 possibles.

Eugene McCann said that, at cutover, it was also proposed to convert a significant number of public telephones to CT3 units, further reducing the load on the Manual Assistance Centre.

Successful salesman Don Menzies

'PILOT'

It must be emphasised that the exercise was actually a 'pilot' sales promotion campaign in a selected area. From it, the valuable experience gained will be applied to the planned leased CT3 promotional launch.

Don Menzies was the man who made it all happen, and his method and procedures are to be documented to provide a sales guide for general use.

TECH WED BY TECH MATE

Technician's Assistant Alfred Arndt who joined NSW Country Installations No. 3 in 1974 is a civil marriage celebrant who has solemnised many weddings in English, Spanish and German.

Recently, Alfred presided at a ceremony which gave him particular pleasure — he married colleague Robert Leslie Keene, a technician working at the time in Griffith.

The wedding between Mr. Keene and Carolyn Anne McKie took place in the Botanic Gardens, Albury, N.S.W. on May 5, 1979. Both are from Henty, N.S.W.

The witnesses were Mr. and Mr. Billingham from Henty (he is a technician with Telecom too).

Says Alfred: "It was the first ceremony I performed for a workmate and a quite enjoyable opportunity to associate with old mates at such a fine social event."

He added: "Since my arrival in Australia in September 1969 I have been interested and active in community matters, especially concerning South American migrants (I lived from 1939 — 1969 in Chile).

"Living in Sydney in an area densely populated by migrants (Liverpool, Cabramatta, Fairfield) and being in touch with their daily problems, it was my wish to be useful to them in still another way.

"In Novemeber 1977 I was appointed as a Marriage Celebrant."

KIDS PHONEBOOK CONTEST DREW 50,000 WA ENTRIES

Perth's favorite children's TV personalities Fat Cat and Percy Penguin helped promote the Western Australian section of Telecom's recent "Design a Phone Book Cover Contest."

They devoted more than 20 minutes of television "air" time on three of their programs and even went so far as to paint their very own entries.

Fat Cat invited ten primary school children into his "house" one morning to display their entries.

On another morning he showed examples of phone book covers designed by children of Sweden.

The competition in Western Australia attracted an estimated 50,000 entries, representing a third of the State's primary school children.

The judges had to choose from the final thousand entries which featured drawings of sheep, fish, swans by the hundreds and a myriad of scenes from the State's past and present.

Australia is only the second country in the world to have children design its telephone book covers. Sweden has been calling on the talents of its younger generation for four years.

HEY KIDS DON'T FORGET YOUR POSTER CONTEST CLOSES AUG. 31

TELECOM BALLOON GOES UP TO SURVEY OUTBACK PHONE NEEDS

Way outback in New South Wales, the leathery citizens thought for a moment that the little green men had come for them . . . there hovering in the sky above them was a large cigar shaped object which on closer scrutiny proved to have the friendly Telecom Australia logo stencilled on its side.

Yes, the balloon has gone up for Telecom in NSW . . . an 11 metre long blimp filled with helium and costing $4000 which is flown at about 80 metres altitude for survey purposes.

The balloon, together with a chartered helicopter carrying sophisticated radio testing equipment worth about $30,000, are the latest tools to be used by Telecom's Radio Engineering section to determine how people in the sparsely populated back-of-Bourke areas of NSW can best be connected to the national telephone network.

The area to be surveyed covers about 120,000 sq. kms. and is roughly triangular shaped. The Barrier Highway from Broken Hill to Wilcannia forms the base and the Sturt National Park on the Queensland border the apex.

This is the first time that Telecom has used a balloon to assist in determining where VHF concentrators should be positioned.

A VHF concentrator is a device which transmits phone calls by radio from remote areas, where it would be prohibitively expensive to use the conventional method of stringing telephone lines, to individual subscribers.

Once a telephone customer is linked to the national automatic telephone network through such a VHF concentrator, the quality of voice reception and its privacy is no different to that of someone connected in the conventional way to the network.

The current survey covers 12 potential VHF concentrator sites, which could provide a full automatic telephone service to about 250 subscribers who live within a 50km radius of each site.

Some of these potential subscribers are already linked to the network through a privately erected line but the remainder have no service. A further 12 are linked to Broken Hill through a high frequency radio service installed by Telecom about 20 years ago which is now costly to maintain and needs replacing.

Neither of these existing systems can be linked to the automatic network.

The remainder of the people living in these outback areas at present have to rely on the Royal Flying Doctor Service for their communications.

At five potential VHF concentrator sites the balloon, with an antenna and other sensitive radio monitoring equipment attached, has been sent aloft. The alternative to using the balloon was to erect a portable 80 metre mast at each site to enable the tests to be carried out.

Riding high in the sky over The Springs, a point west of Wilcannia along the Barrier Highway, the cigar-shaped balloon floats above an empty landscape on a crisp winter's day.

A solar panel has been constructed to supply the radio and monitoring equipment on the balloon. On a sunny day this panel will supply up to 40 watts power.

Once the helium filled balloon is in place, Stuart Wilson (28), a Technical Officer with the Radio Section of Telecom's Engineering Department, was taken by helicopter to all homesteads within a 50 km radius to carry out radio measurements with the sensitive equipment installed in the helicopter.

The helicopter chartered by Telecom lifts off from an isolated homestead near White Cliffs with Stuart Wilson, a Technical Officer with the Radio Section of the Engineering Department, aboard at the start of another round of radio measurements.

These measurements will enable Telecom's engineers to determine where there is a satisfactory radio path and also the height and type of antenna needed at individual homesteads.

Using this method of transport, it is expected that up to 15 homesteads a day will be visited.

The alternative method was to use four men in two four-wheel vehicles, each equipped at a cost of about $50,000. This method of transport would have resulted in the survey taking about 18 weeks and would not have provided any saving in costs.

At nights Stuart Wilson and the helicopter's pilot, Mr Paul Dobson, are accommodated at the property from which they are operating at the time.

Supplies of helium have already been trucked to the various sites, as well as fuel for the helicopter. After 100 hours flying time, the helicopter will need to be serviced, and this will be carried out at Tibooburra by an engineer flying out from Sydney.

Telecom's 11 metre long balloon being steadied by helicopter pilot Paul Dobson as final adjustments are made before the helium filled balloon is sent aloft on its maiden flight at MacCullochs Range, about 50 km south-east of Wilcannia. The balloon was used to lift an antenna to a height of 80 metres at five potential VHF concentrator sites to enable Telecom's Radio Engineering Section to determine satisfactory radio paths to remote homesteads in the surrounding area.

Rafters race for sick kids

Perched on top of a raft constructed with the aid of oil heating tanks are Barry Read, Phillip Adams and Lindsay White from Northcote Fault Dispatch, Victoria. The Telecom team participated in a raft race organised by the Lions' Club to raise funds for the Melbourne Royal Children's Hospital, performing very well to come 61st out-of-255 entrants.

Armidale becomes 28th NSW District

Armidale has become the 28th Telecom Operations District in New South Wales. Its establishment was announced by N.S.W. State Manager, Dr R. B. Cullen.

The formation of the new District will strengthen the business capability of the Commission to meet more effectively customer needs, to ensure that greater attention is given to customer problems and to increase overall operating efficiencies.

Dr Cullen also announced the appointment of Mr F. R. (Rod) Martin as District Telecommunications Manager for the new Armidale District. Mr Martin will be assisted by Mr Don Jurd, External Plant Manager, Mr Arthur Searl, Internal Plant Manager, Mr Graham Benton, Customer Services Manager, and Mr Arthur Phillips, Administration Manager.

The new District commenced full operation on June 21.

Rod Martin joined the then P.M.G. Department in Brisbane in 1941 and during the war served as aircrew with the R.A.A.F., during which time he spent 18 months on active duty in England. From 1946 to 1972, he occupied various managerial positions in the Telecommunications Division of the Department in Lismore, Sydney, Newcastle and Maitland.

Armidale's foundation DTM ROD MARTIN.

He was promoted as Telephone Manager, Armidale, in 1973, and transferred as Customer Services Manager, Armidale, on the establishment of the Tamworth Operations District in July, 1977, until his appointment to Armidale Operations District.

Rod has a keen interest in golf, having served for nine years as a member of the Board of Directors of the Muree Golf Club, Raymond Terrace, where he held various positions on the management team. He also served as a Council member of the Australian Postal Institute in Lismore and Newcastle from 1952 to 1971.

The new Armidale District covers an area from Nowendoc in the south to Tenterfield in the north, west to Mungindi on the Queensland border, southeast to Moree and then east to Armidale. It covers 12 Shires, 6 Country and Municipal Councils and also serves 40 Commonwealth and State Authorities.

There are 20,108 subscribers connected to 79 automatic exchanges and 46 manual exchanges of which 75 per cent of all services and 62 per cent of telephone exchanges are automatic. It is planned that within two years, 3575 subscribers at present connected to manual exchanges will be connected to automatic services.

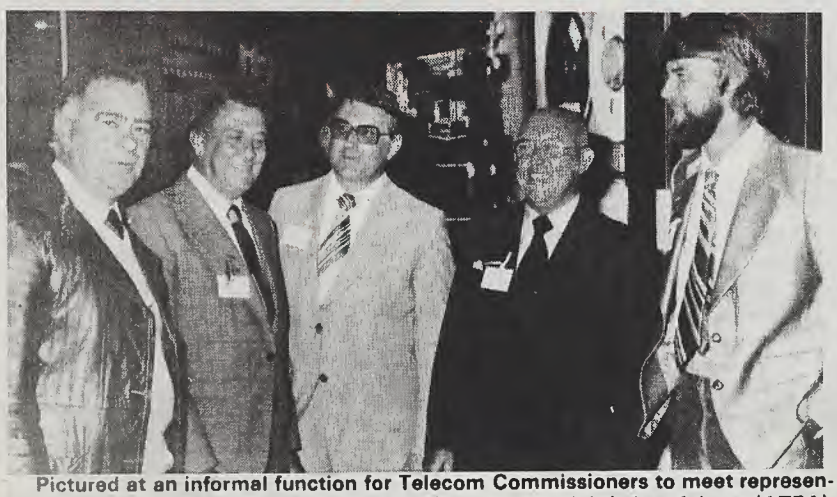
About 95 per cent (5.5 million) of all calls are dialled through the Subscriber Trunk Dialling network (S.T.D.). About 1.7 million calls are connected by operators.

For the first ten months of the 1978/79 financial year, demand for new telephone services in the Armidale District was 1598 — an increase of 23 per cent on the corresponding period for 1977/78. Over the same period, connections for new services totalled 1502 — an increase of 20 per cent on the previous year.

Work is also continuing to upgrade services to a remaining 1742 rural subscribers in the District.

To meet these demands and targets, a total of 425 Telecom staff are employed in the District in providing new services as well as operating and maintaining the telephone network.

COMMISSION, STAFF REPS MEET



Pictured at an informal function for Telecom Commissioners to meet representatives of Victorian staff associations are (from left to right): Lee Adams (ATEA), John McMahon (Chief Manager Personnel and Industrial Relations), Jim Jones (HDDBA), Ian Bull (TTOA), and Paul Felsbourg (TTOA).

ABOVE: Crew working in the old Emerald Exchange before the recent cutover to automatic. They are Bill Pedlar (seated), Lyall Walker, Nelson Barnes, Jeff Goltz and Brian Anderson.

$2.6M PROJECT BRINGS STD TO EMERALD

Telecom recently completed a $2.6 million project to give a wide area of inland Central Queensland modern telecommunications. Key to the project was the conversion of the Emerald exchange to automatic.

It gave more than 1000 Emerald and Gemfields subscribers access to STD and 3000 other exchanges around Australia.

Cost of internal plant, including a new exchange building, for the cutover of Emerald to automatic was about $1,500,000. External plant, including cable and conduit, cost another $500,000.

The new Emerald exchange has 1000 lines, with provision for an additional 400 lines.

Automation of the Gemfields area (Anakie, Rubyvale, Sapphire, Withersfield and Willows) took place on the same day as the Emerald cutover. This involved expenditure of $113,000 on internal plant and $489,000 on external plant.

Teams of Telecom staff had been in the district for up to 18 months installing equipment and laying cables. The exchange installations had been carried out over 18 months by specialist teams of 15 and 10.

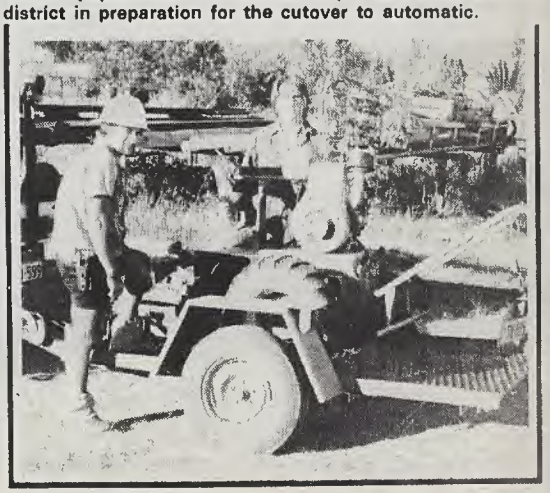
A highly mechanised construction team of 25 from Brisbane had been engaged for about four months in the Gemfields area. These were in addition to Emerald line staff and technicians.

The growth rate in the Gemfields area and mining activity presented problems for planners and construction staff, but these were overcome.

The project involved temporary and permanent communications for new mines in the area and new meatworks.

See Senator's letter P.3

BELOW: Line staff Tom Cottome (left) and Mike Jenkins check equipment for a start to the day's work in the Emerald district in preparation for the cutover to automatic.



Telecom has made a 100 page submission to the Government's "Committee of Inquiry into Technological Change in Australia." It covers such matters as:

- **Telecom's charter;**
- **Pressures for change in telecommunications technology;**
- **The effects of technological change on: society, customers, staff;**
- **The management of change in the long look, the mid-term look, the immediate perspective**
- **Technological change in hand or in prospect;**
- **Manpower planning in Telecom;**
- **The impact of technological change in Telecom on the telecommunications manufacturing industry.**

On these pages is a summary of the submission.

TECHNOLOGICAL CHANGE IN AUSTRALIAN TELECOMMUNICATIONS

"The long-term prospect is that of an increasingly information-based society, with the telecommunications network playing a central role in the transfer and exchange of information. The tools and techniques available for telecommunications are becoming increasingly powerful; the alternatives to telecommunications as methods of information transfer are becoming more costly; and the range of services offered by telecommunications can be expected to grow."

Science & Technology in Australia 1977-78
A report to the Prime Minister by the Australian Science & Technology Council.
Vol. 18 Para. 1.16.5

NEW TECHNOLOGY

Telecommunications is an essential part of the nation. Today's network is the result of many years demand for more, improved and new telecommunications services and the adoption of new technology to meet those demands.

New technology is introduced for one or more of the following reasons:-

- to provide new network facilities and services for which there is a marketable demand, or a demonstrable social need;
- to achieve a significant economic benefit in terms of capital expenditure or maintenance and operating costs; and
- to provide service improvements to the network.

This has resulted in the Australian telecommunications network being of world standard in performance and range of services and in a decline in the real costs of the major services to customers.

PROGRESS IN THE PAST TWENTY YEARS

For the past 20 years, technology has had both a social and an economic impact. The number of homes with the telephone rose from 35 per 100 in 1960 to over 75 per 100 in 1979 — a quite dramatic change. This reflects both the declining relative cost of the telephone and the affluence of society which has become dependent on the telephone. Telecom recognises that a household without the telephone is deprived of a major service and aims to make the telephone available to all who want one, by providing one in at least 90 per 100 homes by 1987. Price will be a key factor.

Technological changes have enabled the number of automatic services to increase from 76% to 98% — the remaining 100,000 manual services are in rural areas, and many are quite remote. Twenty years ago there was a manual trunk system with delays. Today's customers dial 95% of their trunk calls direct. There are telex, data and telefinder services and international subscriber dialling (ISD).

Television relays now extend to most significant centres. Together with OTC (Australia), TV coverage of events in all parts of the world can be viewed live by over 95% of Australians.

Replacement of open wire lines in country and city areas by cable and by radio links has improved the visual environment, despite an occasional unsightly tower. It has also meant a more secure system in times of cyclone, fire, flood and storm. Most major centres can be reached by more than one route so that individual failures have less effect and main cables in city networks are better protected against the entry of water.

Many services taken for granted today could not be provided with the technology of the sixties. This includes TV relays, STD, data, telefinder and modern telecommunications in remote mining areas.

PLANNED NEW SERVICES

Modern technology is making it practicable to provide up-to-date services in remote areas and the next decade should see good telecommunications available virtually anywhere in Australia.

Plans are well advanced to introduce new services based on changed technology e.g. public automatic mobile services, inward wide area dialling service (INWATS) and automatic message accounting for ISD. A new generation of private automatic branch exchanges will make important new facilities and new economies available to customers.

In the public network updated switching systems will provide a wide range of services while helping to contain the price of telephone services.

Further ahead there are plans for a digital data network and a whole new range of equipment particularly for business customers. For all telephone users there is the prospect of access to remotely stored information.

STAFF BENEFITS

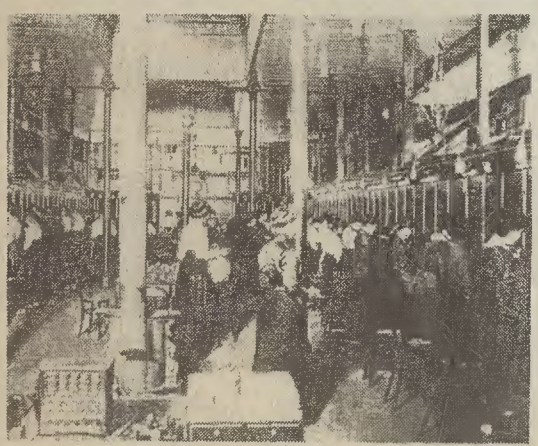
While this has been taking place there have also been direct staff benefits such as:-

- improved working conditions resulting from such things as improved accommodation, better tools and equipment, modern mechanical aids and better availability of vehicles,
- reduction of working hours for operative staff from 40 to 36 3/4 per week with a 9 day fortnight;
- an offer of permanent appointment to 23,000 temporary staff — an offer that has been accepted by 17,000.

CUSTOMER BENEFITS

It is not possible, or desirable, for Telecom to stand aside from technological changes that will reduce costs or improve the utility of services. To do so would be to disadvantage Australian business compared with overseas, and would deny service and

Continued Page 14



Less than 100 years ago, the technology of the time demanded that operators stand at their work

Today, it is push-button operation in seated air-conditioned comfort.

NEW TECHNOLOGY — CONSULTATIVE COUNCIL'S STATEMENT IN FULL

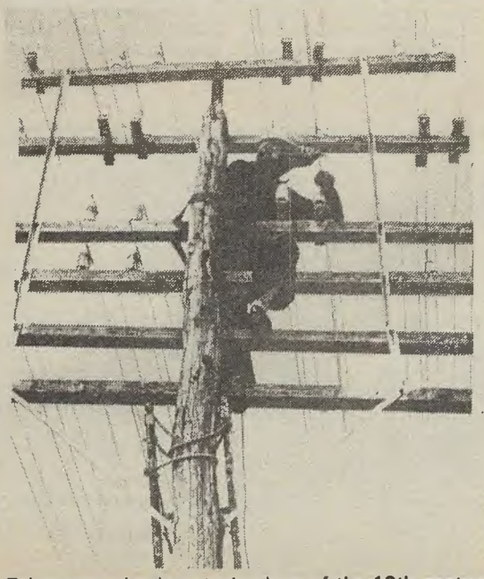
INTRODUCTION

Technological change is a broad concept involving changes in equipment, including machinery and computer-based equipment, which affects the efficiency and effectiveness of the operations of Telecom Australia and the way in which work is performed. It may also require the development of new or very different work methods of operation which in turn can lead to elimination of certain jobs or possibly occupations, and substantial changes for individuals involved in the work areas in question.

One of the major characteristics of the telecommunications industry is that changes have occurred almost continuously since its inception. Whilst Telecom employees and their Unions have accepted many of these changes in the past, there is now a serious concern among them and the community in general about the social and economic implications of new technology. Management also has given more recognition to the implications. This concern has mainly been brought about by the accelerating rates of innovation and the broadening impact of new technology in all areas of the workforce, together with the basic changes in the Australian economy over the past five years away from a situation of full employment and steady economic growth.

The reliability and performance of newly developed equipment or systems often results in a reduction in the number of staff and the skills required of some of these staff to install, operate and maintain the system whilst in some other areas the number of staff and skills is increased. Australia is a relatively small market and to a large extent adapts technology developed overseas. The complexity of a telecommunication system increases markedly with size and one of the ways in which demands on capital and other resources can be contained is by the application of new technology and techniques. Furthermore, there will be some facilities which it is practicable to provide only by the application of new technology. Technological change has had a widening impact on many aspects of Telecom Australia's activities and tends to link together the functions of groups of staff in various Departments, e.g. Telephone Switching, Accounting, Provisioning, Customer Services, etc.

Some beneficial aspects of new technology are that it can lead to improvements in the quality of services to customers, the containment of costs of services, increases in demand and the creation of some "new" employment opportunities and skills. However, new technology can also deskill some existing jobs, reduce job opportunities, cause manpower redeployment problems and produce significant alterations in the work environment.



Telecommunications technology of the 19th century (above) and (top right) 20th century microwave transmission.

In view of the social and industrial impact of technological change unions have come to seek more involvement in the process of change. They wish their views to be taken into account in arriving at decisions by Telecom involving commitment to change and they seek active participation in the decision-making processes.

Telecom Australia and the Unions both agree to participation in the processes leading to decisions on technological change.

However, the Unions indicate that their views on the introduction of a particular technological change are not prejudiced as a result of the participation process.

The processes set out in this document are to apply to Telecom Australia and the Unions, representing staff in the enterprise.

OBJECTIVE

Telecom Australia is charged with the planning, establishment, maintenance and operation of the telecommunication service within Australia and must perform its functions in such a manner as will best meet the social, industrial and commercial needs of the Australian people for telecommunication services. Its Act requires that Telecom take into account the desirability of improving services in the light of communications developments and operate efficiently and keep charges as low as practicable.

One of Telecom Australia's corporate objectives is to foster a well-trained and efficient staff sensitive to the requirements of the customer and the organisation, and a working environment which offers opportunity for development of staff; also to provide job satisfaction and security, good working conditions and appropriate rates of pay.

Telecom aims to adopt policies which lead to the creation of additional productive and economic jobs within Telecom Australia and the associated Australian industries, to assist in countering the Australian unemployment problem.

Members of unions employed in Telecom Australia are concerned that Telecom Australia should act as a socially responsible employer, providing vital communications services to the Australian community in line with its statutory charter. They believe that Telecom Australia, in fulfilling this role, should have certain staff objectives in addition to those outlined in its Corporate Plan.

Telecom employees believe they are entitled to participate in the benefits of the telecommunications industry along with the customers and community. Furthermore the Unions consider that Telecom Australia has a responsibility, as a major Australian employer in a growth industry, to expand employment opportunities within the enterprise and associated industries.

PRINCIPLES

Telecom and the Unions recognise that technological change should only be accepted where there is a demonstrable net benefit to the community. They agree that in considering the possibility of the introduction of new technology the principles set out hereunder shall be applied equally to an assessment of the maintenance or extension of existing technology, vis-a-vis the introduction of new technology.

Telecom Australia and the Unions agree that proposed changes in technology which could have important impact on staff will be jointly considered prior to any decisions being made to adopt such changes or to purchase equipment or systems employing the new technology.

Telecom will assist Unions by providing for familiarisation of the new technology in order that officials can understand the ramifications of the technology.

Assessment of technological innovations shall take into account such matters as effects on staff (both existing and prospective), job satisfaction, services to customers and the availability of qualified staff as well as technical and cost considerations.

It is accepted by the parties that joint consideration shall be given to these assessments and in particular the following issues:

Consultation with staff associations on technological change has been going on for many years. Reflecting changes in society and industrial conditions, the Telecommunications Consultative Council has produced a document "Consideration of the Introduction of Technological Change" which has been recommended for adoption to Telecom and the staff associations. This is a step forward in consultative and participative processes by setting out the principles underlying attitudes to technological change, the various phases of consultation and participation and matters involved. Here is the document in full.

- Cost and financing of services.
- Assessment of customer attitude and requirements.
- Retraining, redeployment, relocation of staff.
- Security and privacy of systems.
- Job creation programmes.

a. Information to Unions shall commence at the contemplative stage that is, at the stage the introduction of a new technology is considered to be required and their participation in the processes leading to a decision will continue up to but not including the tendering process. Union participation will also include the processes necessary to establish a timetable for introduction.

b. Union views will be taken into account in finalising the detailed specifications, and copies of these, and tender schedule documents will be made available to Unions.
When a decision to purchase a particular equipment or system has been approved further detailed information will be provided.

c. The timetable for introduction of new equipment or new systems shall be jointly considered.

d. Information from trials will be forwarded to Unions.

It is the responsibility of management to provide unions with all that information without which they would be impeded to a material extent in making accurate assessments of the ramifications of proposed changes for staff and in exercising proper judgements (subject to normal legal requirements regarding confidentiality of certain information).

In considering information which is provided, Unions will respond or comment within a reasonable time.

The Telecom Consultative Council Sub-committee discussed possible principles relating to the redeployment and retrenchment of staff as a result of the introduction of new technology. No agreement was reached between the Unions and Telecom.

The Unions put the view that:

- Redeployment will be voluntary and should provide for the transition of displaced workers to other suitable positions. Any necessary training/retraining to be at Telecom's expense including that of occupations outside of Telecom.
- All transfers within Telecom shall be without financial loss and will ensure that future career prospects are not diminished.
- The introduction of new technology will not result in the retrenchment of existing employees.

Telecom put the view that:

- Volunteers should be sought first in redeployment of staff to other suitable positions.
- Where there are not enough volunteers, staff to be redeployed will be chosen taking into account relevant personal circumstances and performance, and length of time at the particular work location.
- Special conditions regarding notice, training, income maintenance, removal assistance, and review provisions will assist the staff involved; whenever possible redeployment will be achieved without financial loss.
- Staff will not be retrenched as a result of new technology except where there is no alternative nearby job in Telecom and jobs in the nearest available location, which may involve a change of residence, are declined.

In order to offset labour displacement from new technologies, Telecom Australia will adopt policies which will lead to the creation of additional productive and economic jobs within Telecom Australia and associated Australian industries. Such policies would assist in achieving the Corporate Plan which shows an overall increase in future full-time staff levels.

There may be entrepreneurial situations where Telecom should move rapidly into the market using new customer equipment.

In such circumstances delays would react to the detriment of Telecom and its staff and by agreement between Telecom and the Union(s) concerned these procedures could be abbreviated to expedite marketing.

The parties agree to the principle of benefit sharing between customer, community and staff. This matter is to be the subject of subsequent consideration and report by a Sub-Committee of the Telecom Consultative Council.

The principles will apply for a period of three years. Near the end of the period there will be joint consideration between Telecom and the Unions to determine the principles and procedures to apply subsequently.

APPLICATION OF PRINCIPLES

Contemplative Stage:

Telecom Australia will inform the Unions if it considers that the introduction of new equipment or a system employing new technology is required. Telecom Australia will inform the Unions of the reasons and rationale for the desirability of such technological change. This information will provide only a broad indication of intent at this stage. The emphasis should be on the earliest possible notice of likely change.

Feasibility Stage:

The terms of reference of the Feasibility Study shall be considered jointly by Telecom and the Unions.

Telecom Australia as part of this stage shall supply the following information where available.

General Information:

a. General technical description of present equipment or system;

b. General description of organisation and staffing arrangements with present equipment or system;

c. Reason for change from existing equipment or system;

d. Availability of new equipment or system employing new technology;

e. General description of this application of new technology;

f. Impact on customers
i. Service standards;
ii. New facilities or service required or available including market surveys where these are appropriate;

g. Penalties for not making the change or delaying it;

h. Likely interfaces with other functional areas in Telecom;

i. Evidence of benefits of, and demand for, new services.

The Impact on Staff and the Community:

a. Broad organisational concepts and patterns based on current knowledge;

b. Proposed skill levels required in new organisation;

c. Possible change in staff structures and the number of staff required to install, maintain and operate the equipment or system;

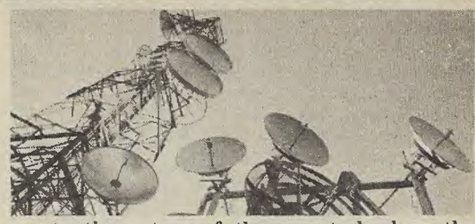
d. An assessment of the likely impact of the new equipment or system on the day-to-day working environments and health of staff;

e. The assessment and consideration of the impact on security and privacy of the new equipment or systems.

Economic Effects:

a. An economic analysis of capital and operating costs shall be prepared and shall include matters such as retraining, redeployment and relocation cost and an assessment of benefits such as additional revenue from new facilities.

b. The economic analysis shall be reviewed as part of the tender evaluation in which having regard



to the nature of the new technology the economic effects of the following matters may be considered:

i capital costs, including system adaptation and installation,
ii building or other accommodation costs;
iii air conditioning costs, both capital and operating;
iv total power costs, both capital and operating;
v software support costs where applicable;
vi maintenance costs, including training, documentation, etc;
vii redeployment and relocation;
viii other operational and system support costs;
ix network benefits (e.g. reduced network costs, additional revenue from new facilities offered, fewer complaints to be handled, etc.);
x expected trends in costs; and
xi costs or savings of associated developments (e.g. ADP billing system, etc.).

The general information on the reasons for change, and that relating to impact on staff and community, economics and likely timetable may be made available on a progressive basis and will become more detailed and firm as studies advance. Accurate assessments of some staff and timetable aspects can not be provided until the particular equipment or system is chosen.

Specifications Stage:

Union views will be taken into account in finalising the detailed specifications, and copies of these and tender schedule documents will be made available to the Unions.

Tender and Purchasing Stage:

In assessing a tender Telecom Australia will pay particular regard to the tenderer's response to those aspects of the specifications relating to the matters listed previously under the headings of "Principles" and "The Impact on Staff and the Community".

When purchase has been approved, or in the case of internal development where system design has been completed, Telecom Australia will provide Unions progressively and at the earliest opportunity with:

a. Technical explanations of the new equipment's or system's operations and capabilities. The only limitations which would be placed on the degree of detail disclosed to the Union would be as outlined in paragraph 3.5.

b. The ways in which the new equipment or system will be operated and associated organisational concepts;

c. Estimated number of staff foreseen as being required in any new organisational arrangements and the designation and classification of staff considered appropriate to install, maintain and operate the new equipment or system;

d. an outline plan of the proposed training and retraining;

e. the estimated numbers of staff who may be redeployed and the areas of work into which it is envisaged they may be redeployed;

f. proposed timetabling for the introduction of the new equipment or system; and

g. the results of overall economic analysis.

Further consultation should occur between Telecom and the Unions at the request of either party.

Trial and Operations Stages:

On the trials which may be conducted Telecom agrees to provide data and reports on the operation of the equipment progressively and the impact on staff.

At the conclusion of such trials the timetable for full introduction shall be considered jointly.

In those circumstances where a trial is not held Telecom will also consider jointly with Unions the timetable for introductions.

NEW TECHNOLOGY — FROM P.11

reliability advantages to government, semi-government and other users. The international nature of telecommunications requires that a national network be of comparable standard to other advanced countries if maximum advantage is to be obtained. The Australian network is of this standard.

Real costs of the telephone service have fallen substantially in the last few years. This has brought high levels of demand for a wide range of services when generally economic activity is low. There are excellent prospects of further substantial reductions in real cost.

Continuing technological advances will bring economic benefits, and before the 1990's, a telephone will be available to Australian house-holds and businesses irrespective of location or socio-economic circumstances.

MANAGEMENT OF TECHNOLOGICAL CHANGE

Technological change has been going on for years and Telecom has well developed and continually evolving procedures for the management of change.

Long range studies explore technical and social futures and try to discern society's needs for telecommunications to a 20-25 year horizon, the likely available technical developments and the resources of manpower, material and money involved. Such studies are carried on in a generally "open" manner allowing parties concerned to participate and/or to be aware of developments under consideration.

Staff implications are important in the evaluation process and planning of any staff changes is considered along with the technical and financial aspects. The relevant staff associations are informed and their views sought at various phases of the process.

ALLEVIATION OF ADVERSE EFFECTS OF CHANGES

Telecom believes that consideration and timely adoption of appropriate technological changes is inescapable in the discharging of its responsibilities. It is aware also that some changes do have an impact on the security, career prospects and life styles of some staff and it takes steps to alleviate adverse effects on individuals or groups of staff. Changes in work methods combined with other factors such as the decline of some country towns make it inevitable that some staff must shift their homes if they are to be usefully employed.

In government-type employment, concepts of permanency, security and clear-cut job roles are more embedded in the work culture than in most areas of private employment. Telecom's attitude has evolved with, and often in advance of, attitudes held generally in the community. There is now a much greater awareness and a willingness to accept responsibility to alleviate disadvantages than existed or was expected even ten years ago. It is aware also that the increasing rate of change is making it more difficult to avoid human problems with individuals who have difficulty in adapting to change and is sensitive to the need for careful planning of the introduction of change and the sympathetic consideration of the problems that arise. The solution of human problems associated with change is now an important consideration and can be the determining factor in timing the introduction of new technology.

If jobs become redundant either because of technological change or other reasons, Telecom accepts the responsibility of finding alternative positions within the enterprise, providing appropriate retraining and of compensating for additional costs that are incurred either in moving homes or in additional travelling.

With the exception of telephonists, no staff have ever been declared redundant although some have been required to move to other locations or to transfer to other types of work. Recently technical staff affected by developments in technology have been given a guarantee of no redundancy for 10 years and of no redundancy at all due to ARE II technology.

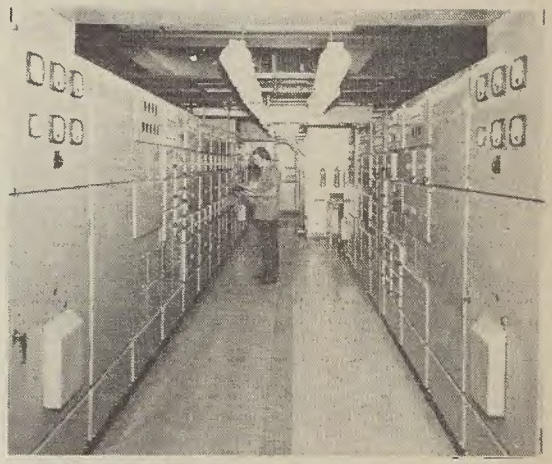
Redundancy has been a problem with telephonists where, in the last 6 years, only about 20% of the over 1700 telephonists made redundant in a total staff averaging about 10,000 have accepted alternative positions in Telecom. Redundancy provisions have applied to the remainder.

THE FUTURE

There are a number of technological changes under consideration within Telecom which will be introduced progressively over the next decade. In the future the rate of new development will increase and there will be a demand for improvements and new services at the reduced costs that will be possible. Similarly there will be improvements in the use of technology in administration and management and these will be adopted as appropriate to improve speed of response, efficiency, etc.

Innovations and changes in the balance of customers' needs will lead to changes in the composition of the workforce. It is expected that reduced cost and increased variety of services will lead to increases in present business and to new business. An objective is to develop products and services which will give rise to productive economic jobs in Telecom which could also reflect in the supporting industry. Although technical innovation will lead to change in the composition of the workforce, over the next decade Telecom expects that it will maintain and perhaps increase somewhat its staff of over 87,000. Such an expectation is dependent of course on the continuation of present financial policies and the availability of loan funds to permit capital programmes to meet demands.

Changes in the technologies used by Telecom will lead to changes in demands made on the local manufacturing industry. Telecom will continue to seek local competitive and innovative sources of supply.



Above: The technology of the 20's — an automatic step-by-step city exchange. Below: The latest in modern exchanges — the 10C Computerised Pitt Exchange in Sydney.

It is believed that Government policies relating to new technology should be based on the need to develop and maintain such competitive and innovative industries and on the need to provide basic services, such as telecommunications, of world standard and at economic rates. Such policies should provide for the sympathetic consideration of the needs of individuals who might be affected adversely by changes.

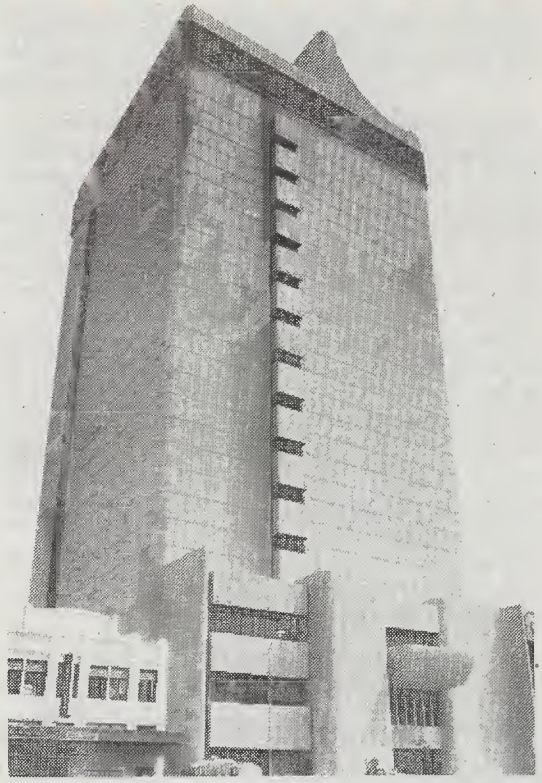
CONCLUSION

There is a great challenge in exploiting new technology in telecommunications for the benefit of Australia. New technology, by lowering costs and creating or making possible new personal, business, entertainment and educational services, will not only increase telecommunications business but also stimulate those other businesses which are part of the industrial, commercial and cultural life of the country. Introduction of new technology which has these beneficial long term effects must be managed in such a way as to avoid shorter term adverse effects. Telecom is confident that the principles it is establishing, and the procedures it is progressively developing with its well trained, highly motivated staff, will continue to bring these benefits to Australia in a well managed way.

The whole field is subject to continuous technological change and overall it has meant improved quality and diversity of services, universally available at reduced cost: the improvements in both the domestic and the business sectors has led to the record demands for services. Good quality telecommunications, including TV and radio, improve the amenity and security of life in both urban and country areas and facilitates the conduct of business and administration in all parts of Australia and with overseas countries.

Wellington wins design award

Perth's $21.5m Wellington Telecommunications Building has won an Architecture Design Award after being described by the judges as an asset to the Perth skyline. The award was presented by the Royal Australian Institute of Architects, WA Chapter.



State Director Commonwealth Department of Housing Frank Statham (left) presents a duplicate of the Institute of Architects Award to WA State Manager Len Caudle during a State Board meeting in Perth. Right: Wellington Exchange.

A jury comprising four architects and an independent member, deliberated over the 31 entries before deciding to make two awards, one in the residential category and the other in urban development.

The award is made in recognition of work of outstanding architectural merit. The jury's comment on the Wellington Exchange was:

It is considered to be a very competently designed high rise tower, resulting in a building of interesting silhouette that must be considered an asset to the urban skyline.

The Wellington Telecommunications Building was designed to accommodate the major part of the international, interstate and intrastate trunk and S.T.D. switching and to cater for the expansion of the Perth telephone network well into the next century.

CARDINAL FACILITY

It will become the most important Commission facility in Western Australia. It will be equipped with the latest generations of telecommunication equipment including, in some cases, the first Australian application of new technologies.

Capital investment at Wellington will probably exceed $150m in the coming years.

The exchange was designed and constructed by the Commonwealth Department of Housing and Construction and the award was presented to the State Director of the Department, Mr Frank Statham, by the Governor of Western Australia, Sir Wallace Kyle.

Mr Statham (at left) presented a duplicate of the award to Telecom's State Manager Len Caudle.

In paying tribute to the entire team, designers and workers alike, Mr Statham said the main credit was due to the architectural design team; however, the externally finished building that was judged was the result of the efforts and contributions of a tremendous number of individual Housing and Construction and PMG/Telecom staff members and contractors.

SEVERELY CRITICISED

During its construction, the building was severely criticised by the public and the media as being a 'windowless prison'. Commenting on this aspect, Mr Statham said:

We felt we had achieved a reasonably successful solution to a very difficult architectural problem. It is most gratifying to us to see that this opinion has been endorsed by the Architectural Professional Institute in WA.

LETTER

IN PRAISE OF BRIAN'S CUTTER

Your magazine has been an inspiration and a source of identification and at least, instills a corporate image and style amongst the readers. It has been apparent to me that our staff have become increasingly aware and more willing to contribute since the Commission became an identity. In this vein let me draw your attention to the activities of one of our staff.

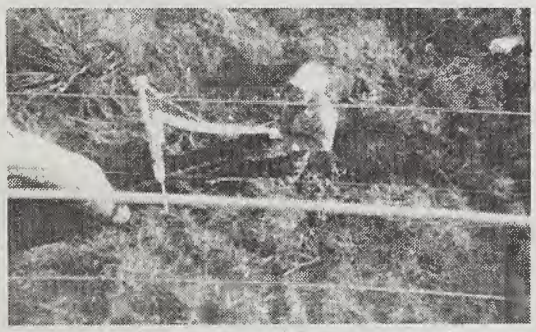
Brian Grundy, a Lines Supervisor 3, saw a need for a bigger better wire cutter for aerial dismantling in inaccessible areas. This work in general occupies a large work force in N.S.W. and cutting down wires in awkward situations is quite a problem.

In his own time at weekends and purchasing his own materials, he constructed a much more satisfactory tool.

Then, together with Bastel, a Sydney company, the idea was refined to where we are now completing a bulk purchase for these cutters.

Brian, for his part liaised with the company and Supply Branch to procure the tools completely on his own initiative. Without seeking reward, Brian said simply "he would be pleased if it helped Telecom and made the work easier."

S. Jarvie
Primary Works
Country.
Engineer Class II



Birdseye view of Lineman R. Hope using Brian Grundy's better wire cutter.

HONORS

These Telecom people were awarded the medal of the Order of Australia in last month's Queen's Birthday honors: Milton James Gooley, Engineer Class 4, Lines Practices and Protection of North Plympton SA. Henry Milton Scott, Lines Supervisor Grade 3 (retired) Katherine NT.

EXTRACTS FROM RESEARCH LABS'

The wide diversity of scientific investigations being undertaken within the Research Laboratories spring from the wide range of activities of Telecom Australia.

Hence, when it is realised that at any one time no fewer than around one hundred and fifty individual projects are in hand, it is understandable that Telecom scientists have at their disposal many items of highly specialised equipment to assist in their endeavours.

These items range through commercially available instruments such as chromatographs, infra-red ultra-violet and visual spectroscopes, thermal analysers, mass spectrometers, electron microscopes etc., to specially designed test assemblages or equipment to meet a special requirement, which in most cases are manufactured within the Laboratories.

Typical of this specially designed equipment is that used for recording the incidence and magnitude of lightning strikes on underground installations. This data, when available, will be used as a basis for the design and construction of protective equipment.

Assessment of the realiability of reed relays in processor controlled exchanges necessitated the design and construction of specialised test equipment. Currently, up to three hundred contacts may be operated at various rates from approximately 3 to 12.5 contact closures per second, generally with a duty cycle of 50 per cent, although this too may be varied.

Each contact under test is continuously monitored for operation and release, and measurements of contact resistance may be made at selectable intervals. An alternative mode of operation allows for progressive totals of the number of contacts falling within a number of preset contact resistance ranges to be accumulated during life testing.

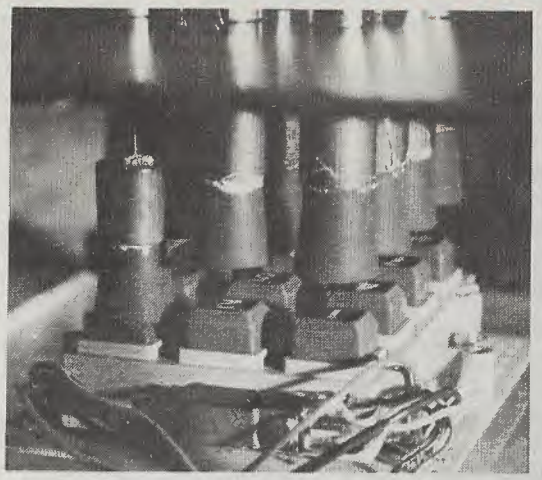
Plans are now in hand to update the facilities of the present relay test equipment by incorporating a microprocessor based central control unit. In conjunction with the minicomputer recently acquired by the Reliability Studies Sections this will allow future expansion of life testing to be effected by software changes instead of hardware additions.

The Research Laboratories are a Department at Headquarters. The Director, Research, heads the Laboratories' organisation. He is responsible to the Chief General Manager who in turn is responsible to the Managing Director of Telecom Australia.

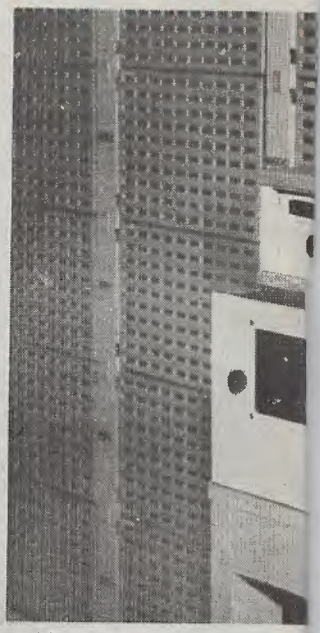
The Laboratories comprise 28 scientific and engineering sections, grouped into five branches, and an administrative section. The scientific and engineering sections comprise professional, technical and clerical support staff, with each section possessing expertise in particular areas of the engineering and scientific fields.

OVERALL OBJECTIVES OF THE LABORATORIES ARE TO:

- **Ensure that Telecom Australia has available the necessary advice in the relevant fields of advanced science and technology.**
- **Provide services to Telecom Australia in the solution of problems requiring the application of specialised scientific and technological skills and experience.**



An assessment of the expected useful life of the push button keyblocks used in the recently introduced Touchfone has shown that the most probable cause of eventual failure is breakage of a contact spring due to metal fatigue. Keyblocks are life tested by finger simulating plungers, operated either by solenoids or pneumatically. The tests have shown that the fatigue life of the suspect springs are critically influenced by the plating treatment and changes in that treatment should lead to satisfactory life expectancy.



Microprocessor metering system on trial in a suburban telephone exchange.

SUN TEST FOR PHONES

For the past fourteen years Telecom Australia has used ABS (a thermoplastic terpolymer of Acrylonitrile, Butadiene and Styrene) for the moulding material of coloured telephone hand-sets.

Whilst ABS has performed well, known shortcomings such as surface discolouration and dulling, susceptibility to staining and reduction in impact strength with age, led to an investigation of alternative thermoplastic materials.

Information available from overseas telecommunication organizations assisted the Research Laboratories in the selection of seventeen different grades of plastics derived from six polymer types.

In the preliminary stage of the project test specimens moulded from each material were aged for a period of two years under glass and tested at specific intervals.

In this way, the deleterious effect of solar radiation and thermal oxidation were continually assessed. As expected, no single polymer was superior in every property investigated.

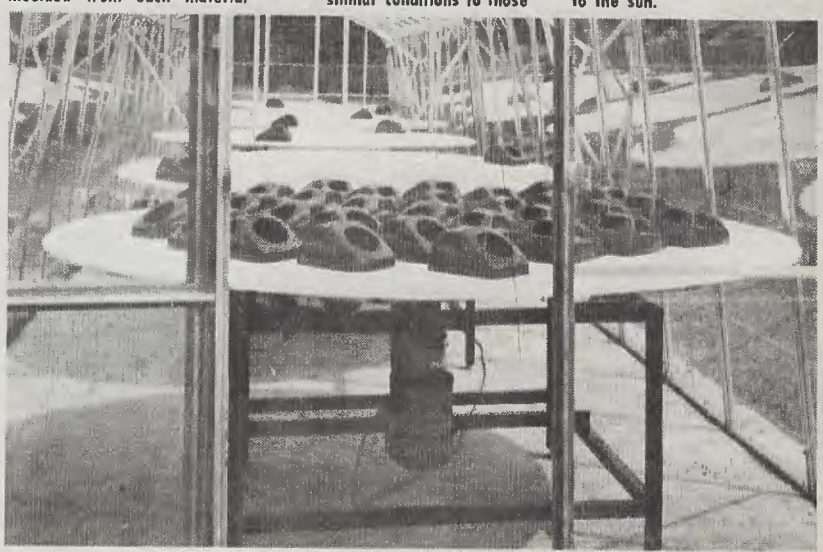
DESIGNED AND BUILT

The Standards and Laboratories Engineering Branch of the Research Laboratories was asked to design and build a sunlight exposure facility consistent with the following parameters:

- Telephone cases were to be housed under glass in similar conditions to those of earlier exposure trials.
- The exposure was to be evenly distributed over all faces of each case.
- It had to be simple, reliable and suited for at least one year's continuous operation in air temperatures of up to 60°C and shade temperatures of 48°C.

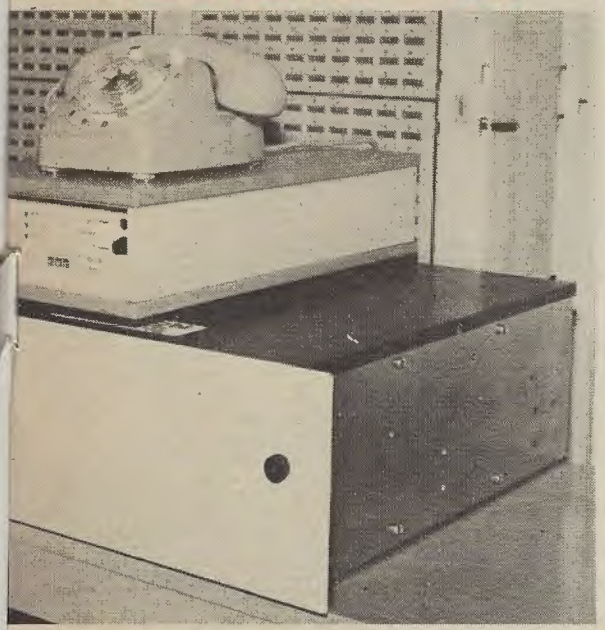
The final facility provided was a glasshouse at the Blackburn Road Laboratories housing six rotating tables each holding fifty telephone cases.

The 1.9m diameter tables are independently driven at 1 rpm during daylight hours and the drive system switches off automatically overnight. The orientation and spacing of telephone cases and their slow rotation ensures even exposure to the sun.



Phone cases undergoing sunlight tests on rotating tables in a "greenhouse" at Clayton.

REVIEW OF ACTIVITIES 1977-78



'Cool it' aim for PT booth

The public telephone cabinet, Model CW520, was designed to replace the older wooden cabinet with a more attractive unit having very much lower maintenance costs.

To achieve these aims and to make vandals and others misusing these cabinets more readily visible to people outside the cabinet, the CW520 cabinets were designed with large areas of glass.

Because so much of the door and wall area is glass, there is considerable solar heating of the cabinet, its interior surfaces and, hence, the air inside it.

The roof is a simple metal sheet which provides a significant surface area for conduction and secondary radiation to the interior of the cabinet. Air gaps at the floor and roof allow air to pass through the cabinet.

Complaints by the public have led to a study being conducted to explore means of reducing the heat and noise discomfort experienced on hot, sunny days as well as at noisy sites.

Seven cabinets have been erected in the Research Laboratories grounds at 770 Blackburn Road, Clayton.

One is a standard CW 520 cabinet. A second cabinet includes only one modification to the standard design. Each successive cabinet contains one more additional modification.

Modifications aimed at reducing heat discomfort include grey, body-tinted solar control glass, a photoswitch to disconnect the interior light during sunshine, a roof with horizontal air venting rather than the present one which requires hot air to descend before escaping, underceiling thermal insulation, an alternative acrylic roof and a thermostatically controlled exhaust fan in the roof.

REDUCE NOISE

Modifications which may reduce noise discomfort include the fitting of glass fibre insulation, covered with an open aluminium mesh, to the underside of the roof and shelf; the replacement of air gaps near the floor by mesh-covered louvres and a slitted rubber skirt fitted to the lower edge of the door.

The effect of these modifications is being assessed by continuous recording of temperature. Every cabinet is fitted with an upper and lower air temperature sensor screened from direct radiation.

Certain cabinets have sun temperature sensors and sensors monitoring the upper and underside surfaces of the roof. Relative humidity inside various modified cabinets will also be measured. Subjective assessments will also be included.

Analysis of these results, together with measurements of sound levels inside the cabinets relative to standard sound level generated outside, will enable the various modifications to be evaluated for effectiveness in reducing heat and noise discomfort in the CW520 cabinet.

The Research Laboratories' Computer Applications and Techniques Section is presently investigating methods of automating the billing process for telephone accounts for non-processor controlled exchanges.

AUTOMATIC BILLING SYSTEM SOUGHT

The Section has already developed a minicomputer based system for the automatic recording of the subscribers' meters, and the prototype of this system functions well.

The minicomputer in this system scans hardware pulse registers which are connected to the pulse input of the subscriber's meter.

Although this system works, and is reasonably cost-effective, it can be improved.

This system depends also on hardware for detection of meter pulses and is prone to slight error rates.

The Section is now examining a microprocessor based unit in which the interface to the subscribers' meters is minimal, and the pulse filtering and detection is performed by software.

The processor scans each meter line a number of times during a pulse-width period and makes a decision on the validity of any pulses arriving.

Once a meter pulse has been recognized by the processor, the internal meter reading, held in memory for that particular subscriber is updated by one.

These internal meter counts can then be transmitted to the accounting centre by two means; punching a tape locally at the exchange and sending the tape, or by having a larger central computer which collects all the readings from the exchange units via dial-up data links.

A prototype system has been built, and has been tested on both crossbar and step by step equipment, revealing no errors. Although a test in a live exchange has yet to be performed, the method of recognizing meter pulses electronically seems successful.

Experimental phone cabinet fitted with louvres, insulation, tinted glass, fan and monitoring instruments.

CORPORATE COLOUR

The Corporate Identity Programme, instituted when the Australian Telecommunications Commission was formed included the adoption of a new standard colour, "Telecom Gold", for use on logos, stationery, telephone cabinets, automotive plant, etc.

Colour tolerance sets for decorative and automotive paint, which show the required colour and also the maximum allowable deviation from that colour in terms of the MacAdams Laboratory System, are being produced by Research for use by paint manufacturers and others.

The tolerance sets have been designed with close tolerances for automotive paint, and broader ones for decorative paints.

Tolerance sets for "Telepost White" and "Signal Red" are being obtained also at the request of Australia Post.

LATEST SERVICE AWARDS ISSUE TO JUNE 1979

Here we publish the next list of eligible staff for whom a Telecom Service Award is to be made, covering the period to June 1979.

The inaugural Awards for the period 1 July 1975 to 30 June 1978 totalled about 2750 and most of these have already been presented.

It is expected that by September 1979 the Awards will be available in advance for presentation at retirement functions or in other appropriate arrangements.

In July each year we will publish in Telecom the names of the recipients during the previous year.

First Headquarters Awards were made last month by the Chairman of the Australian Telecommunications Commission — Mr Bob Somervaille — at a function. Recipients were: E. W. Corless MBE, N. M. Macdonald, F. R. Paice, A. H. Kaye MVO, K. F. Ellis, L. K. Manderson MBE, R. W. Turnbull MBE, S. Dossing.

Messrs. Dossing and Ellis, were unable to attend and will receive their Awards in another way.

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B. J. Fayle 48
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J. A. Frood 43
L. T. Garrioch 32
W. A. Hudson 32
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W. J. Kelly 42
W. M. Kirby 32
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M H. Murphy 32
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J.A.S. Cooper 42
W. S. Cooper 40
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R. D. Corr 41
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M. A. Coutts 39
F. D. Cratchley 30
J. Craven 29
R.W.R. Cravigan 30
J. W. Crichton 31
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A. J. Cumming 30
M. Cundy 28
E. J. Davies 30
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F. G. Dickman 38
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C. S. Hertz 26
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H. A. Hodges 31
H. H. Hoger 47
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D. F. Hollingsworth ..40
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O. G. Horton 42
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R. W. Hyman 29
G. Irvin 30
H. A. Jacobus 28
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C. B. Jones 27
E. M. Jones 27
F. M. Jones 30
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J. S. Kearney 31
W. D. Kelly 27
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R. G. Kerrison 28
W. E. Kilmister 32
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L. H. Knox 29
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ONE KNOCK ADMITS TO TORTOISE CLUB

When a five-metre wooden pike was accidentally pushed on to the head of Telecom lineman's assistant, Egbert (Eddie) De Vries, of Bald Hills, Brisbane, he did not even get a headache.

The fact that his safety helmet saved him from serious injury, or death entitled him to membership of the exclusive Tortoise Club.

So far only 17 Queenslanders have "joined" the club.

"I had a heavy head after the accident, but I didn't take the day off," he said.

It was not the first time Egbert had been struck on the head on the job.

He said a large flat rock fell on his unprotected head when he was working in a quarry for the Brisbane City Council 15 years ago.

He spent a few days in hospital after that accident.

Pictured: Eddie De Vries had reason to reflect as Metro South D.T.M. Ray Stringfellow presents him with his Tortoise Club helmet and certificate at the Water Street (Brisbane) depot recently.

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NSW's NEWEST (OR OLDEST) BUSINESS OFFICE

When the new Telecom Business Office in Parramatta was opened recently by NSW State Manager, Dr R. B. Cullen, there was a party to celebrate the opening of NSW's newest Telecom Business Office. In fact, the opening party was 99 years late because NSW's newest Business Office is also our oldest, located in the former Parramatta Post and Telegraph Office which first opened back in 1880. And 99 years ago when the office was opened for business, according to the Sydney Morning Herald of the time, there was no public celebration of any kind.

NSW's newest (and oldest) Telecom Business Office is housed in one of Parramatta's most important old civic buildings which was designed by Colonial Architect James Barnet in 1878. Barnet was NSW's foremost Colonial Architect and was responsible for designing many of Sydney's best public buildings — the G.P.O., the Customs House on Circular Quay, the Lands Department Building and many more.

James Barnet, by the way, was not only a fine architect, he was also a man of immense foresight — he is allegedly responsible for introducing the telephone system into NSW Government Offices last century.

The building in Parramatta was used as a Post and Telegraph Office from 1880 to 1966 when the Post Office moved to larger premises. In 1977 Telecom took control of ownership from Australia Post and decided to restore the building for a new function as a Telecom Business Office.

Apparently very little upgrading had been done to the building during its first lifetime as a Post and Telegraph Office and so it was a big restoration job for the Commonwealth Department of Housing and Construction who did the work.

The total cost for building restoration was $180,000, and this includes $25,000 which had to be spent on the exterior stone work — renewing, veneering and synthetic stone filling and redressing.

The city of Parramatta has gained a meticulously restored, historic civic building and Telecom NSW has opened its newest (and oldest) Business office.

THANKS 'MRS ALICE'

Maryborough DTM (Noel Ryan lands Mrs Cecelia Newman her Certificate of Merit.

For almost 53 years Mrs Cecelia Newman and her husband James operated the small telephone exchange at Alice Creek in the foothills of the Bunya Mountains in Queensland.

James received an OBE in the New Year's Honors list, but died soon after.

Cecelia was still on duty when the exchange closed in June to be absorbed in the automatic network. The husband and wife team had been known affectionately as Mr and Mrs Alice.

In recognition of their outstanding service State Manager (Paul Dubois) authorised the presentation of a Certificate of Merit to Cecelia.

It was presented by Maryborough DTM (Noel Ryan) at a function at Alice Creek attended by telephonists, linemen and technicians from the Kingaroy district and local residents.

Locals recalled that although the exchange was officially non-continuous, the Newmans provided a continuous service which helped save the lives of accident victims in the Bunya Mountains area.

Mr Ryan said the affection in which the Newmans was held was reflected in the number of Telecom staff and locals who travelled long distances to attend the presentation ceremony.

SERVICE FOR TRURO 'TECS

On the afternoon of Sunday, 29 April 1979, Telecom received from the South Australian Police an urgent request for the provision of two telephone services to their camp, which they had set up in connection with what has become known as the Truro bodies search.

The skeletons of four missing Adelaide girls had been discovered in a remote area some 20 kilometres east of the small town of Truro, about 80 kilometres northeast of Adelaide on the main highway from Adelaide to the Riverland and New South Wales, and a large contingent of police was searching the area for evidence and other skeletons (one more was subsequently found).

No subscribers line plant was in the vicinity of the search camp but, by tapping into the main AdelaideBerri trunk cable at an underground repeater adjacent to the Sturt Highway, and then laying 3.8 kilometres of two pair cable along the ground (traversing a number of road and gate crossings), two services were provided which connected the communications vans to the Nuriootpa automatic telephone exchange, 35 km from the search camp.

"A commendable performance by the Nuriootpa lines and technical staff", said Eugene McCann, Chief Manager Operations. "At 2.00 pm on Monday, 20 April, the service was operational — less than 24 hours after the first contact by the police."

Back in April, Yellow Pages again mounted a display at the Sydney Royal Easter Show of which a feature was a putting competition.

Over 30,000 people tried their style on the putting green and 2,431 succeeded in getting the hole in-one that entitled them to have a ticket in the barrel for a chance of a P & O cruise for two in the South Pacific.

The winner of the cruise was Mr P. Eggleton of Rodd Point. PGF supplied golf clubs as daily prizes as well as those that contestants used. The stand was manned by staff of Directories Branch NSW and Edward H. O'Brien Pty. Ltd.

Pictured: Phil Watts (Managing Director O'Briens) presents the winning tickets and a sourvenir P & O cruise bag to Mr and Mrs P. Eggleton. Rupert Brown Manager Directories NSW, looks on.

They're Jack of Jackhammer Accidents in Newtown — and they did something about it!

In New South Wales, during the period from January, 1977 to April, 1979, eighty-seven Lost Time Accidents occurred in direct association with the use of jackhammers, costing a total of nearly $251,000, based on an estimate of direct and indirect cost.

Out of eighty-seven injuries resulting from accidents causing strains, cuts and bruises, eye injuries and deafness, strains accounted for forty-eight cases.

Over the same period, the total number of Lost Time Accidents On Duty was 4108, of which accidents involving jackhammers account for 2.12% of the total.

In the Newtown Operations District, jackhammer accidents accounted for 24.4% of all jackhammer accidents in the Sydney metropolitan area.

Concerned by this information, Newtown District Telecommunications Manager, Mick Fardouly, decided to arrange a one-day Accident Prevention Course related to injuries caused by incorrect handling of jackhammers by conduit staff.

FIRST TIME

From investigations, it would appear that this is a first time ever for this type of exercise.

The course was designed by the Lines Training School staff following representation by the Accident Prevention Section from material supplied by Newtown Operations setting out the training required to necessitate the reduction in lost time injuries.

The major accident causes appeared to involve lifting jackhammers at the work site, lifting them on or off vehicles and jackhammers slipping whilst in use in trenches.

The Mechanical Aids Section indicated that the nature of repairs required on jackhammers was consistent with incorrect use and maintenance of the equipment.

With these points in mind, the course strongly emphasised the correct methods that must be applied when operating jackhammers so as to eliminate as many as possible sprains and strains injuries.

The course stressed the correct method of operating jackhammers, including care and lubrication requirements and the correct method of lifting and lowering the jackhammer.

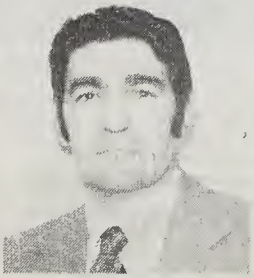
Carelessly stored tools can be a hazard, and further emphasis was placed on the correct storage of tools after use.

The course also covered the correct safety precautions that must be observed whilst working in trenches. The trainees were instructed on the correct method of loading gear onto and off the tray of a typical Line vehicle as well as the visual checking for wear and tear of working parts on all units.

Snapped on the jackhammer safety course L. Di-iorio (Lines Supervisor), A. Lees (Lines Officer), E. Giorgio (Lineman), D. Trimboli (Lines Supervisor 1), A. Genovese, S. Markowski, C. Bogoanowski (Linemen), D. Sukowski (Lines Supervisor).

The Course was conducted at the Undercliff Line Depot, Hurlstone Park, during May and was attended by approximately 130 personnel including Lines Officers. Attendance at the Course was limited to eight persons per day so as to allow for more individual tuition.

Was the Course worthwhile? Well, everybody concerned thinks it was but — only time will show the result.



Newtown DTM
MICK FARDOULY

Tech for a day — and for life?

"I think I want to be a telephone technician."

That was the conclusion that Greg Jones had come to as he neared the end of a ten-week experimental career education programme conducted by the Churchlands Senior High School in suburban Perth.

The aim of the course was for students to narrow their choice of careers down to a handful of fields. It was then up to each student to arrange a visit to a place of employment to observe workers actually involved in the day-to-day routine of that particular occupation.

"Many students have only a sketchy idea of what is involved in certain occupations and as teachers, we are not in a position to state what is done in industry and commerce," according to Youth Education Officer, Mr T. M. MacGill.

"Greg has indicated that he is very interested in becoming a Telecom Technician."

A telephone call later and Greg was teamed up with nomesake Bob Jones, a Technician in the Perth Central Telecommunications District.

After being fitted out with safety gloves and the tools of the trade, Greg and Bob then spent the day installing telephones.

Technician Bob Jones said, "Greg wanted to know exactly what we did each day, and as the job includes trench digging and the like, we couldn't hide that from him, so we put him to work."

When it was all over, Greg commented, "I really enjoyed the day with Mr Bob Jones. I think I have found just the job I would like to do when I leave school."

Technician Bob Jones reveals the mysteries of a telephone to young namesake Greg.

SHIPNEWS JOGGERS IN RUN TO SURF

Here they are: Telecom's Huff-Puff hopefuls. Back row: "Tiny" Dunn, Bob Carr, Peter Phillips, Steve Hush. Centre: Greg Chad, Bob Worthington, Peter Howe, Bob Cain, Adrian Ellero, Phil Barras (asst. coach), Allan Burrowes, "Chester" Morris. Front: Ian Frederickson (coach), Glenn Chance, John Roberts, John Reid, Don Beileiter, Paul Gilbert, Ross Bradley (team manager/author). Absent: Paul O'Bryan, Wally Horsburgh, Mike Job, Lewis Cody, Gary O'Neill, Gordon Tracey, Ross Patten, Alison Blyth. Below: Greg Chad and Glenn Chance on a lunchtime training run over 'their' bridge.

On Sunday, August 12, 22 runners from the "Shipnews Joggers" club at North Sydney, will take part in Sydney's annual "City to Surf" event.

The "Shipnews Joggers" are a group of runners from Telecom's staff at Shipnews House, 1 Elizabeth St., North Sydney. The team is predominantly made up of members of Transmission and Line Planning (Country), and Marketing Branch staff, and for this event will run under the banners of 'Pavement Pounders' and 'Telecom Marketers' respectively.

The run, organised by a Sydney newspaper is expected to draw a field of approx. 25,000 starters. (Last year's figures — 20,000, with 16,000 finishing under 150 mins.).

This much publicised event, which starts in the middle of the city, at historic Hyde Park, takes the monstrous field on a 14 kilometre journey to the Pacific Ocean.

The course takes the participants through Kings Cross, down Double Bay and up the tortuous 1.6 km Rose Bay Hill, before crossing the finishing line at Sydney's famous Bondi Beach.

The winner will probably break 42 minutes but I don't think that he will come from our contingent of Telecom entries. (Why not? — Ed.).

The "Shipnews Joggers Club" was formed to add some interest to the sometimes boring lunchtime jogging. A course was agreed on — across the Sydney Harbour Bridge and back. In all a 5.2 km run.

Each Friday lunch hour, runners set out, competing in a scratch and handicap event. A great deal of interest is created in individual times taken and big improvements have been noted.

This run is particularly interesting, taking in the changing scenes of Sydney's harbour foreshores, the Opera House, shipping movements, and the engineering feat of the bridge itself.

This event is an open run, and a general invitation is extended to all who work nearby.

An event called "Metrop. to Country" is held from time to time starting at Telecom House, (Metrop. Planning), crossing the bridge, and finishing at Shipnews House (Country Planning). This event (4.8 km) has been run in the exceptional time of 18.06 mins. by Peter Phillips of Marketing Branch. Peter will be one of our shining lights in the "City to Surf".

Ross Bradley,
Manager

WHYALLA TBO REFURBISHED

Telecom staff and customers are delighted with the facilities and services provided at the recently modernised Telecom Business Office at Whyalla. The upgrading was in parallel with Telecom policy guidelines relating to the uniform corporate image. The office was carpeted and completely refitted to provide interview/reception areas, waiting room for customers, cashier's counter, maximum display shelving, working equipment, full range of telephones and facilities. new generation Telex and a separate staff area. Furniture, fittings and colour scheme were based on similar offices at the Marion Shopping Centre, Adelaide and at Alice Springs.

CRUISE WINNER

A competition conducted by Telecom during a recent Yellow Pages/Touchfone promotion throughout Westfields Shoppingtowns within the Metropolitan Area of Sydney drew over 20,000 entries.

The prize, a cruise for two to Noumea, Lautoka, Suva, Auckland and the Bay of Islands aboard the P&O cruise ship "Sea Princess" was won by Mrs Yvonne Tyne of Austral Street, Penshurst.

Mrs Tyne, mother of six children, was ecstatic at her good fortune and said she will take her youngest child, Chris, aged 10 with her.

Mr David Smith, representing P&O cruises (left), in company with Mr Tom Riley, Manager, Sales Branch, Telecom, presented Mrs Tyne with her tickets and cabin bag at a small function in Telecom House, Sydney.

HELP OFFERS FLOOD FOR OUR TRIALLISTS

Repco Round-Australia Reliability Triallists Telecom draftsman Richard Reid and his driver former Telecom draftsman David Sheridan have discovered that their colleagues all over Australia have hearts of pure Telecom gold.

Since they announced their entry in the gruelling 14-day 20,000 km event in Telecom (April issue, No. 40) they say they have been swamped with offers of help, particularly in the outback stages where they need it most.

Says Richard Reid: "Initially we felt that it was virtually impossible to be competitive on our own resources ... now, with help from Telecom staff offered on every section of the route, we feel our chances are greatly improved."

Back up car driver Arthur Marsh (centre) with (left) driver David Sheridan and navigator Richard Reid and their doughty Datsun No. 146. Note Telecom logo strip on windscreen.

Among the first to rally was Arthur Marsh (draftsman, Structural Design HQ) who with friend Russell Walker will provide a back-up car for David and Richard for the entire journey.

We quote Arthur, a man whose previous experience very significantly includes 17 years in the welding and panel beating trade.

"Our support car will wherever possible travel on the service route with the trial car and we will be in radio contact.

"If anything goes wrong, we can get to the car quickly. We will help with mechanical repairs and checks and as our vehicle is also a 1600 Datsun, it can be cannibalised if necessary to keep David and Richard going."

"How can we ever thank all those Telecom blokes for all their wonderfully generous offers of help?" asks Arthur Marsh. "And their wives too who have offered to cook meals for us. Unfortunately there will be little time to enjoy their hospitality."

Among scores of Telecom people who will help are: Terry Pike, Senior Lines Officer Perth who as WA Co-ordinator has organised the whole of the West Coast.

John Hoole (Senior Tech, Radio Construction Branch, HQ) who is acting as HQ co-ordinator. His experience as a line supervisor (radio) in Darwin is providing valuable knowledge of the area for David and Richard. Offers of help to John (03) 630 6883. And in . . .

ADELAIDE: Bob Stokes (Mech. Workshops)
DARWIN: Bill Etchell (Plant Inspector)
BROKEN HILL: John Ruby (Mech. Officer)
MARREE: Kevin Branch (Tech.)
MOUNT GAMBIER: Steven Baine (Clerk)
BORDERTOWN: John Mortimer (Tech.)
KERSBROOK: Kerry Liddell (Lines Super)
NORSEMAN: Colin Miles (Lines) and Rod Thompson (Tech.)
KALGOORLIE: Eddie Rochester (Tech.)
MEEKATHARRA: Peter Stone (Lines) and Pat Duffy (Tech.)

Other offers were still coming in as this edition went to press. Now, here are sponsors helping in cash and/or kind:

Mole Engineering — financial assistance.
Hella — electrical fittings, lights.
Bantell Smash Repairs — body preparation, spray painting.
Radio Parts — CB radio.
Monroe Wylie — shock absorbers/struts.
Cadillac Plastics — acrylic windows.
Rejon Automotive Finishes — paint.
Nippondenso — special radiator.
Dow Corning — silastic.
Flexdrive — speedo, drives and couplings.
Prestlite — windscreen wiper motor/linkages.
Alcan — aluminium extrusions.
Hendersons Springs — suspension components.
3M — body deadener.
Cerebos — ration supplies.
Accurate Trenching — financial assistance.
Woodend Nursery — financial assistance.
Loctite — Fastening system.

Richard Reid and David Sheridan in car no. 146 will be competing against some 200 other starters who include 18 international entries and the cream of Australian rally drivers.

Watch for them and cheer them on their way.

Chris moots stamp swap

A few years ago Swedish-born Chris Ceballos put a small paragraph in the Australian Post Office News saying that he would swap Swedish stamps for others to help philatelist friends in Sweden to broaden their collections.

Weeks went by without acknowledgment and people who responded began to ask "Has Chris done a bunk with our stamps?" Fact was he was smothered under an avalanche of more than 300 letters and it was almost a year before he had it all sorted out and every swap honored. Now Chris Ceballos (Directory Assistance, Sydney) is back for more punishment. He writes: I decided a while ago to start collecting stamps but now I've found that I have a lot of catch up work to do so I wonder if your readers would assist me.

I am a penfriend "addict" and have penfriends all over the world who now send me stamps. I have this idea how I can help your readers to improve their collection and so that I can improve mine too. (Mine is poor at present).

Any person who has any number of stamps for swapping (up to 50 at one time) can send them to me and I will send them back the same number of stamps if an S.A.E. is enclosed.

When the person receives the stamps from me, he/she takes the stamps and replaces the same number of stamps with own swaps and returns them to me and so it goes on. Perhaps this system will attract 50 people which means really that everybody is swapping with everybody and I sit there as a middleman.

This is in no way a business proposition, but merely a suggestion among stamp collectors to help each other. The thanks I get for the work is the stamps I get out of it. No charges involved except for the S.A.E."

Chris Ceballos,
G.P.O. Box 2817,
Sydney, NSW, 2001.