

Telecom Australia It is the policy of this Commission that a safe and healthy place in which to work.

Pictured is Miss Beverly Pinder, Australia's entrant in the 1978 Miss Universe contest, who is modelling Telecom's new safety helmet. This helmet, which is being introduced throughout the service, has several design improvements over previous issues. They include ventilation holes, more suspension points, stronger moulding, a rain gutter on the shell and a better head harness which allows easier adjustment with greater comfort. A number of accessories are available for use with this helmet to suit the wide range of climatic conditions found throughout Australia. These include, chin strap, neck flap and extended sun visor, sweat band etc.



"Telecom WA's attitude towards safety is admirable. As with many commercial organisations, you are becoming increasingly aware of the savings involved in promoting accident prevention."

That was the comment of the safety consultant with the Industrial Foundation for Accident Prevention, Mr Pat Foley, at the recent presentation of Telecom WA Accident Prevention Awards.

The 1977/78 awards were presented by Telecom WA State Manager Harold Shaw, to the Metropolitan Exchange Installation Section, the North West/Geraldton

District and the State Workshops Section, in the presence of 150 staff.

Mr Shaw reminded the gathering that two years ago Telecom's accident prevention policy called for a 50 per cent reduction in the accident rate within

five years. "We were aiming at a 20 per cent cut in the first two years and we have not yet achieved this," Mr Shaw said. "The overall result has been disappointing.

"It is pleasing to note that within the whole gamut of the organisation there are groups that have achieved a significant reduction already. "However there is no room for complacency even within the sections that

# Safety Attitude 'Admirable' — **Results** 'Disapp

have won these awards," Mr Shaw said.

This year's winners were selected on a different basis to last year in that an assessment of an area's general approach to accident control, as well as the accident rate, was taken into consideration.

Receiving the award behalf of on Metropolitan Exchange Installation, Supervising Engineer Bob Kirkman complimented his section members on their hard work and effort.

Geraldton West District, Peter Best, at-tributed his district's gaining of the award to consistent and considerable effort of staff members.

The Supervising Engineer of the Workshops Section where the function was held. Graham Malcolm, warned: "I'll be back again in 1978/79 making it three years in a row.

Chairman of the State Committee for Occupational Safety and Health, Len Caudle, said that because the required results were not achieved this year, we would face an even harder job in the current 12 months.

Involvement of managers, supervisors and staff would need to be greater than last vear



Metropolitan Exchange Installation Supervising Engineer Bob Kirkman receives Telecom Accident Prevention Award from State Manager Harold Shaw.



The 1977/78 Accident Prevention Award presentations this year included a tour Internal Plant The 1977/78 Accident Prevention Award presentations this year included a tour Manager for the North of the Workshops section. Pictured are some of the 100 staffers who took advantage of the guided tour.

# **Records** Topple

Customer demand for new Telecom services outstripped all forecasts in 1977/78 and had been well matched by record connections of new services.

Announcing this, Managing Director, Mr J.H. Curtis, said that each week on average Telecom staff had installed -

8,650 new telephone services

220 STD public telephones and red phones

105 new telex services

140 new data modems

7.750 additions and modifications to existing telephone services

The year's demand for new services was

Telephones 423,300 (+12.5% on last year) Telex 5.366 (+22.2% on last year)

Data Modems 7,541 (+27.1% on last year)

The installation of 432,700 new telephone services (all requiring new lines and equipment) was an all-time record. It was over 15% higher than the previous year and brought the total of new telephone connections in Telecom's first three years to 1,219,400.

The record connections reflected Telecom's capital investment of \$930 million in the past financial year. This investment covered new customer and exchange equipment, cables and trunk lines and an expenditure of nearly \$60 million on new buildings.

A pleasing feature of the year was that on average new telephone services were being installed within 17 working days of being ordered. There were still some places, Mr Curtis said, such as hobby farm developments, redeveloping inner city areas and tourist and retirement centres, where it took a good deal longer because considerable new work was involved. At the close of business on 30th June, 1978, the number of applications for telephones held up until new cables or exchange installations are completed was only 8,400. This was quite a small figure when compared with total connections, and was 1,200 lower than at 30/6/77

# Telecom searchers find 4 dead in Bellenden Ker Plane Disaster

For the staff of the Mt Bellenden Ker Ropeway (Qld.), Friday July 14 was just another day — that is until 1.50 p.m. It was then that Graham Bennett, STO in charge received a call from two CSIRO officers conducting a field study near the ropeway top station.

At 1.21 p.m. while working on a north west slope in heavy fog and rain they thought they heard an aeroplane engine followed by a loud crash coming from a south easterly direction.

They made their way back to the top station to investigate. It was there that they could smell aviation fuel and fearing the worst notified the bottom station.

Graham Bennett immediately contacted the Dept. of Transport search master in Townsville for confirmation of the loss. He then organised his staff into a ground search party to rendezvous with the CSIRO officers at the top.

### GROUND

Stan Montague (Snr. fitter), who has lived in the area all his life, and Bill Hill (rigger), who has been with the ropeway since its construction, formed the ground party and travelled to the top with Chris Brose (rigger), acting as car driver, and Leon Scroop who was to maintain a communication link with the search party and the bottom station by 2-way radio.

Steve Boulter (T.O.I.T) was stationed at the bottom station helipad to maintain communication between the helicopter pilots and police



STO Graham Bennett holds the emergency automatic distress beacon he recovered from the plane.

and the bottom station where Graham Bennett was directing the operation.

The CSIRO officers were returned to the bottom station. Stan, Bill and Leon were dropped off at tower 2, a distance of 750 metres from the top station and sited on the edge of the range at a height of 1400 metres.

Meanwhile at the bottom station police inspector George Mackay from Innisfail had arrived to take command of the search locally. The first helicopter from Cairns landed at 2.30 at the bottom station and was standing by as the cloud base over the mountains was at 600 metres thus making flying hazardous.

Two planes pinpointed the location of the automatic distress beacon. This information was then passed on to the ground party which had already started through The four bodies were still strapped to their seats just forward of the wreck.

The two week old privately owned plane was piloted by Dr P. Goy who, with three colleagues, was on his way to a radiologist seminar in Cairns. It came down only 100 metres from the cableway and 200 metres from the television tower on top of the mountain.

#### RESCUE GEAR AND FOOD

Meanwhile at the bottom station two more helicopters had arrived, one civilian to stand by and one RAAF from Townsville with extra rescue equipment and food supplies for the rescue parties.

At 4.35 Steve, together with Inspector Mackay and another police officer, left to inspect and photograph the scene in the absence of the police photographer. Because of the presence of a

### **By STEVE BOULTER** TOIT BUILDINGS BR. BRISBANE

the thick jungle on a south eastern slope in from tower 2.

Their job was hampered by the thick vine and fern undergrowth over the steep and rough terrain.

Visibility was reduced to barely 25 metres through the thick mist which shrouds the mountain for most of the year.

As they got closer they could occasionally smell the aviation fuel fumes which finally led them to the wreck. Then at 4.00 they stumbled across the twisted wreckage of the twin engined 'Cessna 310' scattered along a 5 metre wide path for some 20 metres. number of pigs in the area and the ready availability of personnel it was decided to recover the bodies as soon as possible. So at 6.30 p.m. a party of four Telecom staff and three police officers was organized at the top station.

This job had to be done by torchlight alone because of the risk of explosion from the fuel fumes.

### DIFFICULT

Handling the stretchers up the mountainside was made particularly difficult by the wet, slippery and rugged terrain.

By 9.00, after the arrival



Wrecked fuselage with cleared path in upper left background.



Ropeway staff lift one of the recovered bodies into the cable car for lowering to the bottom station - from left Graham Bennett, Emergency Services Worker and Telecom Rigger Bill Hill.

of the State Emergency Service from Babinda, they had returned with two bodies. At 11.20 the first car left for the bottom station with some of the 19 strong rescue party.

A police officer was stationed at the top when the final party left at 12.15 a.m.

During the days that fol-

lowed the cablecar was used to transport D.O.T. air safety investigators, Commonwealth police, television camera crews and insurance personnel to the scene.

Thanks to the quick and efficient action of Telecom staff, what could have been a long and very expensive operation, was over in a relatively short time.



This dramatic shot shows havoc in forest canopy caused by the crashing plane. Bill Hill is in the picture.



Author Steve Boulter indicates propellers impaled in ground.

# **Underwater Cable Laying Costs** Slashed By \$40,000 Qld. Idea



The device costing about \$40,000 to build ploughs in cable as it is dragged across river beds by winch. Using this method, the plough can bury cable at depths of up to 2.7 metres (9 feet). This prevents telephone cable moving about and being damaged during flooding.

Senior engineer with Primary Works No 2 Section Geoff Battersby heads the team which has developed the invention. He began working on a design for the plough seven years ago. Since then, it has been used in various forms on 10 major crossriver cable jobs in Queensland.

An early prototype was lent to Telecom in Victoria where it was used to install a cable across a lake bed. It was estimated that the cost saving on this job alone was \$100,000.

Before development of the plough, cable to be buried underwater was placed in a trench ex-cavated by a dragline. This expensive operation was uneconomical for most jobs and cables were simp-

Telecom engineers in Queensland have developed a device which has quality of work con-tributed by staff using it. already saved several hundred thousand dollars in underwater telephone cable installation costs. Called a skid plough, it resembles a catamaran in shape and was constructed in the Brisbane Mechanical Aids' workshop at Bulimba.

ly laid on top of the river bed.

The plough is made up of mild steel skids with fabricated steel beams. It is 7.3 metres (24 feet) long, 4.0 metres (13 feet) wide and weighs about one tonne.

When the plough is operating, three tonnes of cast iron ballast is fixed to the rear section to give it underwater stability in swift river currents and soft mud.

The device excavates a 20 centimetre (8 inches) wide trench in river beds by using high pressure water spray from jets fixed to an adjustable boom projecting below the main plough structure into the river bottom.

River water is pumped through these jets at a pressure of 826.8 k Pa (120 psi) and can gouge a path through silt, mud, sand or gravel. Telephone cable is fed through the hollow

boom and is buried as the plough moves forward.

Pumps are powered by a six cylinder petrol engine and were obtained, secondhand, from the Queensland fire brigade. It is planned to double water pressure by replacing the motor with a V8 power unit. This should enable the plough to bury cable in hard clay river beds.

Plough sections are bolted together and can easily be dismantled for transportation from one job to the next.

When on the job, the plough is first winched across a river without telephone cable to test for snags and major potholes. When this "dummy run" is completed to the satisfaction of operators, the device is dragged back for the cable-laying run.

Geoff Battersby said developmental work on the plough was still being car-ried out. "We're working on a better cable feed

precisely

Most of the linemen and line inspectors working with the plough are very experienced and have used the device since its initial trial runs. "They are extremely

competent and are system and jet genuinely interested in en-modifications," he said. suring the plough is "The success of the plough is due to the high



Popular Len Garrioch with a 30-year engineering history in Automotive Plant and Workshops has retired. He was a member of the APO Engineering Metrication and Safety steering committees and made significant contributions to both. His hobbies included Sea Scouts and movie photography. Above Wal O'Grady, Superintending Engineer Support Services NSW (L) makes one of several presentations to Len at his farewell function.

### On the last stroke

VETERAN ABC radio announcer Len Grice will have the unusual honor of telling Australians the correct time probably for the next 50 years.

Len, who has been with the ABC for 16 years and reads most of the State news bulletins, last month.

From next January it'll be Len Grice's voice you'li hear when you dial 1194 to get the correct time.

Len's recordings will replace those done by actor Norman Gow about 30 years ago.

Although the time will be given in the same way, the technique of producing the new recordings was very different to those used by Gow.

He took 24 hours to record the time as it happened.

But Len Grice, who did the job as a normal staff duty, took only 15 minutes to complete the task.

He had the assistance of a computer for which he

recorded four different tapes. In the first one be said: "On the third stroke it will be precisely one o'clock." He repeated this up to 12 o'clock.

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Part two was again calling the numbers one to 12

without the word precisely. Then he made a tape calling one to 59 in minutes. And part four was calling 10, 20, 30, 40 and 50 seconds.

The computer will link all these tapes to bring out an announcement such as, "On the third stroke it will be 10.46 and 20 seconds."

Len was told that his tapes would be used for at least 50 years.

He said: "As I'm now 60, I guess I'll be telling the time long after I've had my time.

### **DIAL TONE**

Telephone Switching Construction Branch is considering proposals for introduction of new dial tone. Two courses of action being examined are the provision of a complete solid state ring and tone equipment for new exchanges and as a replacement for worn out rotary machines, and the provi-sion of special cards for dial tone generation, to be added to exchanges using existing rotary ringers The National Tone Plan Working Party see 1980 as a target for introduction of the new dial tone.



Telecom Adelaide Workshops staff was recently presented with a Certificate of Merit for its support of handicapped Darryl Newell over the past ten vears.

Presenting the cer-tificate, Mr R. Barter of the Spastic Centre,

Woodville, particularly thanked Sue Ward and the Telecom Workshops Social Club for their special support

over the years. He said that without the voluntary support received from groups like these from Telecom, his organisation could not exist. **Donations have been** collected regularly on paydays and forwarded to the Centre.

Darryl is now sixteen and although severely handicapped, he has shown enough deter-mination to be considered for a special

electrically driven wheelchair to be manufactured in Melbourne for \$1,000.

**Eight other staff** groups in Telecom in South Australia each support a spastic child.

In our photographs (top), workshop staff assemble to witness the

certificate presenta-tion, (left) Darryl Newell and right, **Ralph Barter presents** the Certificate of Merit Production to Superintendent Ted Coomans (left) and Les Turner, President of the Telecom Workshops Social Club.





### 35 **Reunion**



Earlier this year, a 20 year reunion of the NSW Technician-In-Training intake was held in Sydney. One hundred and thirty five ex-trainees attended a very enjoyable evening. Many are no longer in the employ of Telecom Australia and it was gratifying to see them come along. The distances travelled to attend varied considerably from Interstate (Melbourne, Brisbane) to Northern, Southern and Western regions of NSW country areas and local Sydney residents. A great night was had by all and much enthusiasm was expressed in organising a 25 year reunion in 1983. Above some of the happy reunionists.

# Who's w

The Personnel Department at Headquarters, under the General Manager (Personnel) — Jack Ahern — is comprised at the

senior executive level of:-Harvey Parker Manager (Organisation) Ken Loughnan Manager (General Personnel Services)

John Bailey Manager (Training & Developmont)

Bob O'Halloran A/g Manager (Recruitment & Selection) Bruce Hocking Occupational Health Adviser

Neville Betts Chief Accident Prevention Of. ficer

Jack White A/g Chief Security Officer The secretarial staff to the General Manager are Mrs Margaret Kicaj and Miss **Jack White** Lolene Cotter.

#### YOUR SUPERANNUATION

As explained on the next page Telecom will invest some of its contribution for superannuation liability in this year's capital works programme.

- This will not affect the individual. • There will be NO change in your super contribu-
- tions. • Your contributions will be sent to the Super Fund
- for investment in the normal way. • There will be NO change in your super entitlement.
- Part of Telecom's contribution as an employer
   will be invested in our network instead of being applied to other areas of Government activity.

# Telebriefs

#### LIGHTWEIGHT HEADSET

#### A trial is being conducted of several new designs of lightweight operators headsets. About 100 each of three designs are being tried by several groups of operators. The three different designs were selected as representing design trends, and the sole purpose of the trial is to get a reaction from operators to ergonomic features of the different designs. Two of the three designs use a nipple which plugs into the ear, as in modern hearing aids, while the third follows the traditional "over the ear" approach. Two of the designs use voice switching to cut the gain of the send amplifier by 10dB when no voice is present to reduce noise while the other uses a noise cancelling electret microphone. Information from the trial will be used in selecting a new standard operators headset for Telecom.

### MANHOLE COVER LOCK

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A manhole cover lock designed to deter unauthorised entry into manholes has been designed and samples manufactured. The lock has been made rugged and corrosion resistant to withstand the environment, but is simple to operate. Opening the lock requires a series of vertical and rotational movements with a manhole key and has been designed so that the cover cannot be replaced without being locked. A number of units are undergoing field evaluation in Victoria and initial results will be available shortly.

#### \* \* \* RURAL SERVICES

At June 1978, there were approximately 100,000 manual services in a network of 4.2m. The capital works programs for the period 1978/79 to 1980/81 include provision to reduce this figure to approximately 60,000 by June 1981, which represents only 4% of country services, compared with over 7% at June 1978. It is planned to have only 9,000 non-continuous services by June 1979, out of approximately 1.5m country services.



#### Emergency 3: Your Tyre Bursts



If it is a front tyre there will be a strong pull towards the side with the blow out; if a rear tyre, the rear end will tend to weave.

Action 1 Keep a firm grip on the steering wheel and do not oversteer to correct any swerve or pull.

Action 2 Brake gently and smoothly and stop off the road if possible. Harsh braking will only make the car harder to control.

### HIGHER DUTIES: SPECIAL LEAVE

New conditions have recently been promulgated regarding the payment of higher duties on all paid leave. As long as a person is receiving higher duties allowance at the time of going on leave and it is certified that the person would have continued to act in the higher position if he had not gone on leave, higher duties shall continue to be paid. Separate conditions apply for Long Service Leave. (Industrial Relations Department Employment Conditions Memorandum 1978/5 has been issued to outline the details of this change.)

In addition, Industrial Relations Department General Notice 1978/26 has been issued and this contains information on the procedures and entitlements of a person who is prevented from going to work by a natural or civil disaster (e.g. flood, bushfire, bridge collapse, etc.) and of a person who is called out in an emergency by a volunteer organisation such as a firefighting unit, etc.

Your staff clerk can advise you on the matters contained in either the Employment Conditions Memorandum or the General Notice.

# Our sunpower in the national spotlight



Telecom in W.A. entered the sunpower era recently with the installation of two transportable solar power plants, the first of 18 to be incorporated at various locations around Australia over the next few months. W.A. had a press launching for the plants and gained national publicity. The picture shows Supervising Engineer Telepower Section, Hank Hemerik, "in the spotlight" of an ABC Television News film crew. He was also interviewed by journalist George Blazevic from "The West Australian", Perth's morning newspaper and figured in other extensive coverage.

### THEY MET TO UPDATE MSA



Recently an all States Conference was conducted at NSW Information Systems Branch in North Sydney to discuss maintenance and future development of the Main Stores Accounting computer application. MSA is used to account for all goods coming into and issued from the main store in each State. The system has now been in use for eight years, and has served felecom well in that time.

The Conference was held in order that continued maintenance and future development of NISA would be provided for the rest of the life of the system. Currently a new system called SUPPORT is being designed to replace MSA and further computerize the functions of Supply Branch.

ABOVE The Conference in progress. It was attended by Mike Robertson (Supply Qld), Counce Robertson (Supply NSW), Fay Miller (ISB NSW), Tony Harden (Supply Qld), Laurie Dewar (Supply WA), Tom Perrett (ISB Vic), Mary Bourke (Supply NSW), Geoff Lang (Supply SA), Bruce Stockwell (ISB NSW), Rene Sluyters (Supply Tas), Michel Antoine (ISB WA), Isa Meeny (Supply HO), Dr Rollyn Graham (Supply HQ Chairman), Graham Watson (ISB HO): Duve Roscoe (ISB NSW), Jan Graham (ISD HQ), Chris Fletcher (Supply WA), Dennis Yorm Supply Vic), Graham Wong (ISB Vic), Joe Kubik (Supply Vic), Chris Johnson (ISB NGW): Gilliam Squire (ISB NSW), Bob Gluth (ISD HQ)

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# SERVICE & BUSINESS OUTLOOK - 1978-79

In a foreword to Telecom Australia's Service and Business Outlook for 1978-79, the Chairman, Mr Bob Somervaille, said:

### Chairman sees 8% real growth

Telecom looks forward confidently to 1978/79 following a year of high achievement when demand for a wide range of telecommunications services reached record levels. Business is expected to follow this trend in 1978/79 with a real growth of 8%. This will come largely from an increase in trunk telephone calls of 12% and local calls of 6.8% and from a 7% increase in telephone services in operation. Demand fact the other activity of the service of the serv

from a 7% increase in telephone services in operation. De-mand for telex, data and special and miscellaneous services is expected to be strong also. The Commission's objective for 1978/79 is to meet de-mand for services and facilities within current or improved standards and time scales. Constraints on resources availability which apply to Telecom as a Commonwealth authority may, however, lead to difficulties in some areas. Current industrial problems, should these remain un-resolved for any length of time, will also impact on the Com-mission's canacity to provide service.

resolved for any length of time, will also impact on the Com-mission's capacity to provide service. Stable or reduced charges for basic services are a notable feature of plans for 1978/79. Rental for basic business and residential telephone services, together with the local call charge, all of which have remained unchanged since 1975, will continue at present levels right through to June 1979 at least. least.

least. Connection fees for new services will be unchanged but those for "in place" service currently \$30, \$15 and \$10 depending on circumstances will be reduced to \$10, a reduction of up to \$20. The once only special charge for the provision of a Touchfone on an exchange service of \$50 will be cut to \$20 but the premium rental will continue. Reductions in a range of STD and trunk call charges where STD is not available to apply from November next, have been announced recently, together with the introduction of Economy STD at 40% of the day rate to apply in the hours 9 p.m. to 8 a.m. The 10,000 or so subscribers connected to non continuous

p.m. to 8 a.m. The 10,000 or so subscribers connected to non continuous exchanges have little or in some cases, no access to off-peak rates and special arrangements are being introduced to give every exchange some access to each of the off-peak rates — Sunday, night and economy. Most telex call charges were cut from the 1st July and a

new charging system for data services was introduced from same day.

However, in a number of areas it has been necessary to inrease charges to reflect rises in costs. These include a number of labour and cost intensive services include a number of labour and cost intensive services including telegrams, manual assistance calls when STD is available, credit cards, rentals for PABSs and extension and inter-communication units.

In the case of our small office system which is one of the few items almost fully imported, it has been necessary to take account of increased costs resulting from a 38% decline in the value of the Australian dollar relative to the D Mark since 1975

Since 19/5. Despite the increased services to be provided, the capital expenditure programme on fixed assets for 1978/79 of \$949M is about 2% lower in real terms than that of the previous year. Of the \$949M, \$620M will be provided from retained trading surplus and provisions for depreciation and long convice laye long service leave.

long service leave. A major aim of the Commission since 1975 has been to increase the effectiveness of its capital expenditure program by reviewing priorities and increasing overall efficiency. For 1978/79, the Commission plans to add some 60% more services than in 1974/75 (the year immediately preceding the establishment of the Commission) at an average cost at con-stant prices almost 40% below that achieved in 1974/75. The special efforts being made to improve rural services will be continued through 1978/79. In most areas a good standard of service is currently being provided to customers and it will be a prime aim to maintain that standard and to make improvements as necessary.

that standard and to make improvements as necessary. Productivity in both capital and operating activities is planned to improve by at least 4%.

This year, Telecom faces the challenge of meeting high customer demand with limited resources. Our response is to accelerate where possible initiatives designed to improve our efficiency and to deploy available resources to the best possible advantage to i provide a good standard of service; ii. obtain the maximum benefit from our capital invest-ment.

ment;

iii, hold down on-going costs; and iv. freeze or cut prices for the major revenue producting services.

# \$949m. to be invested

For 1978/79 the level of funds to be direct maintenance and raised on the public loan market has been set at \$190m. In addition, Telecom will utilise \$122m from its employer contributions towards the accruing liability for staff superannuation entitlements.

There will be no change to existing arrangements for superannuation contributions by staff which are paid into the Commonwealth Superannuation Fund and managed by the Superannuation fund Investment Trust.

Telecom meets each year the accruing liability for staff superannuation entitlements as assessed by the Australian Government Actuary and determined by the Minister for Finance from time to time.

#### ACTUARIAL SHARE

In the past, the liability has been covered by the Commonwealth acting as a notional insurer and Telecom making payments in the nature of annual premiums. In 1978/79 Telecom will retain \$122m of these payments and assume an actuarially assessed share of the accruing superannuation liabil-

ity. These arrangements provide an important new source of long term funding for telecom-munications. They do not involve the use of staff superannuation contributions and they in no way reduce staff superannuation entitlements as set out in the Superannuation Act 1976.

The two sources of long term funds will be supplemented, as necessary, by short term funds. These amounts together with a trading surplus and retained depreciation and long service leave

provisions will enable capital investment in fixed assets of \$949m to be undertaken.

#### DEMAND

It is expected that the very buoyant demand for new services and growth in traffic will continue. Even with high demand pressures, an important target is to further reduce connection times for telephone, telex and data services.

#### STAFF

To meet the various targets for 1978/79 average staff levels similar to those in 1977/78 will be required.

#### INPUTS

It is planned to contain the growth in operating costs. measured at constant prices, to within 1%, while expenditure on fixed assets is constrained to a level approximately 2% lower than in 1977/78.

#### OUTPUTS

It is expected to achieve an overall business growth of 8%. The telephone network is planned to grow by 289,000 services in 1978/79, an increase of 11% over growth in 1977/78.

#### PRODUCTIVITY

There will be a continuation of the efforts by the Commission to achieve substantial productivity improvements during the year. This is evident from the planned growth of out-puts of 8% compared with the little growth in current inputs. When capital inputs are taken into consideration there is an overall inbuilt productivity gain of about 4%.



Telecom has set the following basic service objectives for 1978/79:

- To maintain a high standard of service to all its customers
- To provide capacity within the telecommunications network to accommodate nearly 340m additional telephone calls from existing and new customers.
- To provide the maximum resources possible towards meeting more than 460,000 expected applications for new telephone services and the continuing high growth in demand for other services.
- To take advantage of new technologies which can both reduce the cost and extend the range of services which Telecom can provide to its customers.

The above basic objectives have regard also to the first Corporate Plan adopted by the Commission which covers the period to 1986/87. The plan sets out the strategic aims of Telecom, looks to the future and prepares the organisation for change.

It has four main thrusts — the quality of service; efficiency; staff relations and development; and technological improvement.

It sets targets such as having a telephone in 9 out of 10 Australian homes by 1987 and ensuring that the real cost of telecommunications services to the customer continues to decline.



# SERVICE & BUSINESS OUTLOOK – 1978-79

#### HIGH CAPACITY RADIO PAGING

Demand continues to be high for the Telefinder radio paging service now in operation in all capital cities and Canberra. A national plan for further expansion of the service has been completed and the service will be extended to Newcastle, Wollongong, the Gold Coast, Morwell and Launceston during 1978/79. A schedule was issued in June 1978 seeking tenders for equipment to meet the increasing demand in the larger capital cities, to enable extension of the service to additional provincial centres and to provide an improved range of customer service options. The introduction of Regional and National Services is being planned to supplement the present local services.

#### AUTOMATIC MOBILE RADIO TELEPHONE

World-wide tenders for the provision of a Public Automatic Mobile Telephone service in Australia closed in September 1977. The tenders are currently being evaluated and a system decision is expected to be announced in late 1978.

The service will provide automatic telephone service to mobile subscribers with facilities similar to those of fixed land telephone subscribers.

It is planned to introduce the service intially in Melbourne and Sydney in 1980/81.

#### PUSH BUTTON TELEPHONES

Telecom Australia introduced Touchfone 10 (decadic push-button signalling) telephones in 1977/78. Touchfone 10 demand is expected to continue to grow in 1978/79. Introduction in 1978/79 of ARE 11 exchanges which are equipped for VF signalling on subscribers' lines will allow use of Touchfone 12 telephones in appropriate areas.

#### AUTOMATIC MESSAGE ACCOUNTING

Automatic Message Accounting (AMA) charging for International Subscriber Dialled (ISD) calls is planned for introduction in 1979/80. This method of charging will enable ISD call details to be automatically recorded and for the details to be subsequently available to customers.

New facilities are being provided in terminal exchanges for calling line identification; in stored program controlled trunk switching exchanges for recording the ISD call details; and for the computer (ADP) system to process the call records for accounting and billing.

Testing of the overall system is scheduled to commence in 1978/79 so that the service can be available to customers in 1979/80.

#### SWITCHING EQUIPMENT — ARE 11

ARE 11 exchanges are in operation at Salisbury, South Australia and Elsternwick, Victoria. Work is in progress in each State on additional ARE 11 exchanges and it is expected that a further 13 exchanges will be completed in 1978/79. The new system will give additional operating efficiencies, permit the provision of a range of new facilities and is the most cost effective method of introducing into the Australian telephone network Automatic Message Accounting for International Subscriber Dialled calls.

### **CONSULTANCY CONFERENCE**

Delegates from all States gathered at HQ recently to discuss Telecom's function in providing consultancy and advice to PABX, telegraph and data customers. At the 'king' table were top: Ian van Hemert (Asst G.M. Sales and Operations), Bruce Wilkinson (Manager Major Consultancy), and Roy House (Manager Sales Br.)

# DEVELOPMENTS

#### COIN TELEPHONE REPLACEMENT

The Public Coin Telephone Replacement Program (COTERP) has now been under way for two years and in that period the Coin Telephone No. 3 instruments (CT3's) which have been installed have provided increased service to customers and a reduction in coin telephone maintenance costs. At 30 june 1978 there were some 8600 CT3's in service.

Approximately 6000 coin telephones are scheduled for replacement with CT3's in 1978/79.

Wooden public telephone cabinets are also being replaced with aluminium cabinets.

The replacement of existing leased coin telephones is also included in the COTERP program and the installation of leased CT3's is scheduled to commence on a limited scale, from September.

#### ELECTRONIC LOCAL EXCHANGES

The stored program controlled (SPC) local telephone switching system, AXE, has been adopted as a standard for Telecom. The first exchange to be supplied by L. M. Ericcson will be commissioned in an outer suburb of Melbourne in 1980. In the following years installation of AXE equipment will be extended to all States to meet expected growth in the network. AXE will provide substantial operating benefits and improved facilities at lower costs.

#### TELEX SYSTEM

Telex services are provided by an automatic national switching network which currently employs crossbar exchanges. Steps are being taken towards its expansion using a stored program controlled system to take advantage of expected operating benefits. Over a 14 year study period, savings of over \$21m are expected when compared with a similar level of expansion using crossbar equipment. Additional benefits include provision of new facilities such as Abbreviated Calling, Interception, Call Duration Advice and automatic Conference-Broadcast Telex calls. A contract is expected to be let in late 1978/79.



Above: Paul Carius, John England, Ian Shallcross (Qld), John Miller, Bob Slater, Jim Quilliam, Tom McNamara (SA), Geoff Elphick, Doug Machin (WA).

Below: Kerry Purcell, Bob Baker, Geoff Reynolds, Harry Spargo (Vic), Luke Bozza, Jack Rudd, Jack Entriken (NSW), Alan Arndt (HQ).



Page 9 — Telecom

# SERVICE & BUSINESS OUTLOOK - 1978-79

The ability to hold basic telephone charges constant since September 1975 at a time when prices for goods and services in general have climbed steeply reflects the effectiveness of Telecom's cost containment policies.

However, increases are necessary for some services which are particularly cost sensitive. These increases are designed to prevent the present gap between profitable and unprofitable services from widening. In particular, the Public Telegraph Service continues to incur heavy losses despite a major cost contain-ment effort; in order to lessen or at least hold the subsidy from profitable services constant some increases are warranted.

The variations in charges for most of the services affected are outlined below.

Major changes to trunk call charges to take effect on the 26th November 1978 have already been announced. They follow cuts in daytime Sunday Subscriber Trunk Dialled (STD) call charges of 20% in January 1978.

The lower STD charges, which will also apply to manually connected trunk calls in all instances where STD is not available, will benefit people right across Australia and be a boon to many decentralised industries.

#### REDUCED STD RATES

The new reduced rates for daytime STD calls in the 50-85 Kilometre and 85-165 Kilometre distance categories cover 40% of all trunk calls. There are new reduced rates for night time STD calls in the 485-645 Kilometre and over 645 Kilometre distance categories from 6 p.m. to 9

p.m. New equipment has enabled the introduction of an economy rate to apply from 9 p.m. to 8 a.m. Monday to Sunday. The new economy rates are 40% of the equivalent day rate and reduce the charges for STD calls in all distance categories.

The new call structure will promote a spread of traffic and facilitate the more effective utilisation of the network. This in turn will hold down capital requirements and produce further cost benefits.

The new trunk call tariff structure in the various distance categories for STD calls and manual calls where STD is not available will be related to the following time periods:-

Day rate (8 a.m.-6 p.m.

Monday to Saturday). — Night rate (6 p.m.-9 p.m. Monday to Sunday).

- Economy rate (9 p.m.-8 a.m. Monday to Sunday). - Sunday rate (8 a.m.-

6 p.m. Sunday). In keeping with the Commission's policy of

passing on to its customers the savings resulting from the introduction of new technology, charges for automatically connected telex calls have been reduced (from 1 July). All telex customers will benefit and not only those equipped with the new generation machines.

The reduction of up to 25% for automatic daytime calls made over more than 165 km should be of significant benefit to business organizations who are the main users of the telex service.

Reductions of up to 50% apply to all off peak automatic calls. At the same time, the little used concession for connecting manual calls after 6 p.m. has been discontinued.

While there are reductions in many charges, the public telegram service continues in a loss situa-tion, still subsidised by the telephone subscriber. Efforts are continuing to be made to contain the loss and redevelop the service along viable lines.

#### 'SUBSIDISED' TELEGRAMS

In 1977/78, after allow-ing for tariff increases and cost reductions, the public telegram service will only recover 50% of its costs from telegram users. The subsidy paid by telephone customers to maintain the telegram service is \$9/telephone service.

Had telegram charges remained at 1974/75 levels, this subsidy would approximate now \$12/telephone service.

To reduce this subsidy situation in 1978/79 further tariff increases will be introduced. The word rate remains unaltered at 15c. However, the new charges introduce a fixed charge of \$1.50 per telegram to reflect the underlying costs incurred in handling each telegram, independent of word length.

Discounts will be offered to users who select lower cost options such as telephone or mail delivery. In order that they more

accurately reflect the cost involved in providing

operator assisted calls, in the following areas: night rate trunk calls where STD could have been used; fixed time and particular persons calls; credit card calls and charge connect calls.

A new system of charging wake up and reminder calls is proposed which has regard to the progressive automation of this service. Under the proposed tariffs, the charge for three or more regular calls covered by the one book-ing will be reduced but charges for single bookings will be increased.

The restructuring of private line rentals which began in 1976 is being con-tinued in 1978/79. Short distance private line ren-tals will be raised whilst rentals for longer distance services will be reduced.

The adjustments bring the charges more into line with the cost of providing and maintaining the ser-

# ACCENT ON LOWER CHARGES

vices for the various charging distances.

In addition, it is proposed to make some changes to the discounts applying for the bulk lease long distance private telegraph channels and discounts will be in-troduced for the bulk lease of private telephone lines.

#### UNALTERED **SINCE 1950**

The annual rentals for mobile radio telephone services have remained unaltered since the service was introduced in the early 1950's. The proposed new charges will make some contribution towards the cost escalations which have occurred since then in the provisioning and maintenance of the service.

Several reductions are

proposed in the service connection fee area A flat. rate charge of \$10 for taking over a telex or telephone service on an "in place" basis will replace the current three charges of \$30, \$15 and \$10. The fee for connection of a temporary service required periodically at the same location is to be reduced to \$30.

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The introduction of flat rate fees for installing small PMBX and intercom units on 1 September 1977, has been well received by customers and it is proposed to extend this method of charging to cover the installation and removal of larger PMBX's

and telex services. Increases will be in-troduced for a number of rental items. For example, the rental for extension telephones will increase by \$3 to \$18.

WORK

The telephone network is expected to grow by the net addition of over 1000 telephone services on average every working day. Network growth will also be needed to handle additional telex and datel customers and a general increase in traffic.

#### Major Projects

This overall growth is reflected in over 100 major projects which are either in progress or to commence during the year. These cover the installation of. equipment in large exchanges, coaxial cable and micro-wave radio trunk systems and large junction cables linking suburban exchanges. They range in investment from \$500,000 to \$23m.

#### Buildings

Additionally, there will be about 200 building projects each costing over \$250,000 either in progress or to be started. The planned

expenditure includes an amount of \$52m, to be expended by the Department of Construction for Telecom.

#### Materials

Purchases of telecommunications material for the network development will amount to approximately \$315m during 1978/79.

#### New Demand

The estimated demand for new services includes a record for telephone services of 460,700. This represents an increase of 9% over the previous record demand in 1977/78.

#### NETWORK GROWTH

Telephone	1977/78	1978/79
Total Telephone services % incr	ease 6.6	6.9
Telephone traffic - local % increase 6.5		6.8
- trunk % increase	12.0	12.0
- international % increase	33.0	29.0
New service demand No.	423,286	460,700
Connection of new services No.	432,701	464,900
Telex and Data	1977/78	1978/79
Telex — services in operation		
% increase	15.9	16.0
Datel - data modems in		
operation % increase	39.8	40.0
Telegrams		

The number of internal telegrams fell by 13% in 1977/78, and a further reduction is forecast for 1978/79.

During the year to June 30, four of our staff died of injuries received while on duty and eight died while to your travelling to or from friends.

work. Think Accident Prevention - don't become just a memory

to your family and

+

# The telephone

Unlike the Stock Exchanges, there are no public trading floors for the money market where borrowers and lenders or buyers and sellers of securities can come together to transact business. The telephone is the point of contact between dealing parties.

The Australian money market is spread geographically in business centres throughout the continent with the heaviest concentration of volume in Sydney and Melbourne.

In this market, in which hundreds of millions of dollars change hands each day, quick and frustration-free communication with the market is a key to success for a dealer.

It is a competitive, high turnover market in which dealers are continually seeking the best market rates or security deals and seconds lost waiting for telephone connections can mean the loss of dealing opportunities.

The faster connections can be made, the more clients a dealer

can cover in the relatively short trading periods each day.

Wider market coverage enables a dealer to keep right up to date with the trends and pressures developing in the market and this is vital information for profitable dealing.

Against this through background, Capel numbers. Court Corporation

system, the L. M. Ericsson AVE 100 Communication System.

Its main advantage is to enable access between clients and Capel Court's dealers to be as direct as possible, eliminating frustrating and time-consuming intermediate steps in telephone communication.

Dealers can now contact a wide area of the market in much less time than it would take using conventional equipment through switchboards and even through private

trading banks and some other clients, but the installation of this latest technology considerably expands the scope for wider direct access to the market. Each dealer has in

front of him an Ericsson's console of 80 lines activated by push button, together with a push button dialler.

Connected to these consoles are either direct lines linking Capel Court to a handset or multiphone on clients' desks or tie lines from Capel Court to the internal switchboards of client companies.

There is also a number of exchange lines and incoming calls may be taken by any one of a team of eight dealers.

This means that clients can be answered Australia is following immediately and not

future without scrapping and starting again or even without expensive modification.

There is also flexibility to vary the mixture of direct and exchange lines, if required at any time.

There are two sets of rotary exchange lines in each console, a set for Capel Court Securities Limited, the official money market sub-sidiary of the Group, and a set for the Corporation itself

by pressing the required line button. This is the only action required on direct lines. **On Exchange and PABX lines** the press button dial on the dealers unit ensures quick and accurate dialling.

Incoming and outgoing calls may be held and transferred between dealers. Equipment specifically designed to meet Capel Court requirements has been installed to provide this feature

The transfer information is keyed into the system using the press button dial and the relevant information is displayed on numeric displays on the required dealers console.

An audible signal is provided to draw the attention of this dealer to the transferred call.

The AVE100 central control equipment is electronic printed circuit boards which are provided as required for the particular installation. The system employs transistorised control and relay switching of speech wires.

The design of the system ensures that individual failures cause minimum disruption to service. This combined with the use of high reliability components means the system will give years of almost trouble free service.

Maintenance on the central equipment involves the location and replacement of the faulty printed circuit board. The faulty board will then be returned to Ericssons for repair. Spare printed circuit boards and spare parts for the consoles are held on site.

Maintenance of the systems is carried out by Telecom Australia staff with Ericssons providing a substantial back up service.

Limited, a leading Australian merchant bank and money market dealer, has just completed the installation into its dealing rooms in Melbourne and Sydney of a com-pletely new telephone

the London and North American trend towards direct telephone lines between active participants in the money market. Capel Court has had

since 1969 direct lines with official dealers,

subjected to frustrating busy signals. Incoming calls are indicated by a flashing light emitting diode above each push button.

The system is flexible in that more lines can be added to it in the



Melbourne Dealing Room of Capel Court Corporation where money is bought and sold like any other commodity. Photo shows the newly installed communications system in operation.

The dealers positions consist of three matching console units each about the size of a standard telephone. The first console contains the telephone circuit, dial, transfer displays and control buttons.

The other two consoles each contain 40 line buttons for connecting the dealer to the required line and associated signal lights.

The management units are attractive, slim plinths containing 10 buttons for line access and control. The associated telephone may be any Telecom approved type and is situated on the plinth.

The whole unit then occupies little more area than a standard telephone.

The management units have two direct lines to the senior dealers and two lines shared with the dealers.

One of these is used for an inter-office tie line between Capel Court Melbourne and Sydney offices and the other is connected to the Reserve Bank. Three private lines are provided for connection to exchange or switchboard lines.

Incoming calls are indicated on all consoles, visually by a flashing light signal and audibly by the sounding of an adjustable tone signal. The audible signal can be disconnected on any position by operation of a key.

Outgoing calls are made



Close-up of a dealer's console, showing pressbutton telephone and 80 line buttons connecting dealer to the required line and associated signal lights.

operating in the unofficial money markets.

All lines are common to each dealer's console, enabling any dealer to answer all incoming calls.

If required, calls can be simply transferred with little fuss to specialist stations on the dealing desk. However, usually the specialist himself answers the call.

Before deciding on the type of installation which would be most suitable to Capel Court's specialised needs as a large money market dealer, there were months of research, assisted by Telecom Australia, on the nature of telephone traffic experienced by Capel Court and its expectations for the future.

The company put a high priority on obtainthe latest ing technology to minimise the problem of early obsolescence and to ob-taining a system which would be readily adaptable to growth in the money market area.

Much of this growth they would expect to flow from the increased operating efficiencies from the system itself.

There are not many manufacturers of this type of telephone equipment and the choice of the Ericsson system was made after consideration of a few alternatives.

L. M. Ericsson is a leading manufacturer of telecommunication equipment throughout the world. They claim that the system installed at Capel Court is the first of its kind in daily operational use in Australia and incorporates recent electronic switching technology. This installation

further increases Capel Court's already substantial use of Telecom Australia's facilities which includes an Australia-wide telex network, a Melbourne/ Sydney direct line, data transmission and direct lines with Capel Court clients

# Safety in Ivanhoe made living topic

Ivanhoe District in gearing up for its accident prevention campaign staged a one day seminar at La Trobe University recently and it introduced the theme of the Accident Prevention Section — Victoria: "In Safe Hands" to 120 people from the Ivanhoe District and other sections interested in accident prevention.

The idea arose from a proposal to run an accident prevention campaign within the Ivanhoe District, as a contribution to reducing the lost time accident rate by 50 per cent over 5 years in Telecom.

In the early stages a letter was sent to the home address of each person in the Ivanhoe District, to introduce the campaign to the family unit and to seek their support. This letter was followed by a circular addressed to the staff member through the OIC of the station concerned.

Each supervisor was asked to form an Accident Prevention Committee or where Consultative Groups are operating, to hold regular meetings where safety is the only agenda item. The staff were directed to hold an initial safety meeting

The meeting was asked

before April 14, 1978.

to appoint a Field Safety



Capital works totalling \$424,000 will be undertaken over the next nine months to provide automatic telephone facilities in the Junee (NSW) area.

The work which includes the establishment of the automatic exchanges at Junee and Marrar together with the provision of telephone cables to upgrade and extend existing services, will result in the closure of three manual exchanges at Junee, Marrar and Old Junee.

The Junee exchange will be installed in Lorne Street and will have an initial capacity for 1000 subscribers. The Swedish designed Crossbar equipment will allow connection of subscribers to the nationwide subscriber trunk dialling network (STD).

Public telephone instruments will also be replaced with modern STD units which will allow calls throughout Australia with economies identical to those which apply to private subscribers.

The cut over of the new exchange in early 1979 will mark the end of an era of manual telephone service in the area. History records that the telephone exchange at Junee under the control of Postmaster Mr W. J. Holahan, was first opened on 13th October, 1906 with continuous service being provided in February, 1907.

The present manual exchange operates on a 24 hour basis every day of the week and approximately 3000 calls are connected every day. The exchange is staffed by a supervisor and telephonists who throughout the years have provided an excellent standard of telephone service for the townspeople. As a result of the closure, permanent staff will be offered employment at other centres.

Co-ordinator for the area, who would assist the OIC in safety matters.

A steering committee was set up to generate ideas for the accident prevention campaign, and to make arrangements for the seminar.

La Trobe University provided a most suitable venue, with first class theatre facilities for the plenary sessions, and excellent seminar rooms for the syndicates.

The seminar was opened by Mr Frank Waters, Chief Operations Manager, Victoria, followed by guest speaker Dr Bruce Hocking, HQ Occupational Health Adviser. Dr Hocking highlighted the factors contributing to heart disease, including the

hazards of cigarette smoking,

Fourteen people were selected from the field for coaching by the Training and Development Section in group discussion techniques. Eight of these people were finally selected to lead the syndicates at the seminar.

The seminar concluded with a panel discussion chaired by Mr Leo Brock, the District Telecom Manager. The Panel comprised Mr Max Smith, State Manager, Mr Bill Worley, Chief Accident Prevention Officer (Victoria), Mr Neville Betts, Chief Accident Prevention Officer, Headquarters, Mr Kevin Smith, Engineering Sectional Manager and the Ivanhoe District Plant Managers.



Service Adviser Elaine Cornwell (Cost Services Ivanhoe) addresses one of eight syndicates which covered control of back injuries, home safety, running an accident prevention campaign etc.

#### Telecom - Page 12

On reporting myself on my return to Darwin in 1888, I received an exceedingly cold reception. When enquiring what was to be my fate as regards locality, I was informed that I would be advised in due course. This was not encouraging, but there it was. It was not for long, however, for a good angel appeared in the person of Mr Charles Millar, the senior member of the firm of contractors, who were building the Darwin to Pine Creek railway line.

He applied to the Overland Telegraph Department to have a telegraph operator allotted to the firm, who had sufficient business transactions to keep one constantly engaged; his business being chiefly with the head of the line and to move with it from time to time as the construction progressed, and I being for a time, at least, a blot on the official mind, was passed on to the firm.

The head of the works was at that time at the Adelaide River, some 76 miles from Darwin and roughly half way to Pine Creek. I arrived at the the River by rail, there were no rail coaches as yet, so we perforce had to ride in trucks. The only thing I had in connection with my duties, was a small telegraph field instrument, about three and a half inches square, used by a travelling operator, in a leather case with a strap, so that it could be carried slung over the shoulder.

#### **GIN CASE** TABLE

I had, for the moment, to put up at the pub. I was provided with a tent, which was erected close to the telegraph line and here I set up my office, with a gin case for an instrument table, a brandy case for a seat, and an empty meat tin for a sounding board for the field instru-ment. The ticking needed some such assistance, which was not much louder than the ticking of a watch.

Thus was opened the first Post and Telegraph Office on the Adelaide River. I should add that I was also to act as Post and Telegraph Master. This was an easy job, with only one mail per week from the goldfields to Darwin, until more permanent arrangements could be made.

Next morning I took a seat at the breakfast table, and almost directly heard a word shot at me by the waitress, which sounded something like, "asheramoreggs"? It seemed somewhat familiar, but puzzled me for a moment, and my hesitation brought another shot of the same calibre. A young man near me kindly interpreted, "Sarah wants to know which you will have -- "ash or am or eggs". I decided on the latter; they could not be tampered with, but I did the Q.C.E.

Hotel an injustice. If it had one value it was in the excellence of the food and the service connected therewith.

The young man who had helped looked like Dickens' character, Jerry Cruncher, the honest tradesman, who had been fishing all night and was spotted and stained with clay, but the similarity ended there. This man had been fishing for gold, whereas Jerry had been fishing for dead bodies.

Puzzled for a long time by the name of the bush pub, the Q.C.E. Hotel, I made enquiries but could get no satisfaction; even the landlord seemed rather embarrassed by the question. But sometime later whilst talking to an old timer who mentioned the hotel, I asked him, and he knew. The letters meant, "Quiet, Comfortable, Easy Well, the man who named

it must have been a humourist, and no wonder the present occupier was a bit shy on being asked to explain. Had the prefix 'un' been attached to each word, they would have gained in reality what they lost in sarcusm, and the advent of the Bridge Gang, just at this time, did nothing to lessen the sarcasm.

#### BRIDGE GANG

The Bridge Gang was a band of experts and they knew their job - the job in this case being the building of the Adelaide River Bridge. They were a tough crowd, but they were good men, and the firm cast a tolerant eve on their little lapses, which mostly occurred once a fortnight and directly after payday, and there was, for a few days, no lack of entertainment to any who were not too fastidious in their tastes for amusement.

As the work advanced it was necessary to provide some means of getting con-struction material over the Adelaide River. For this purpose a temporary bridge was built. The permanent bridge, when completed would, of course, be level with the top of the earth banks. But the deviation bridge, as it v as called, was low down near the summer level of the water, and looked a very shaky and primitive affair. Two rows of piles were driven down in the bed of the river. wide enough

# **NEVER-NEVER** TELEGRAPHIST

The previously unpublished memoirs of Telegraphist Frederick Goss who served for 24 years in the Northern Territory from 1878 to 1902.

#### 8: WORKING ON PART for a railway track. The oppos-RAILWAY THE ing piles were strapped and bolted together to prevent swaying, then baulks of one gold robbery in the

timber were laid along the Northern Territory and that tops of each row. The rails occurred at the Post Office at were fastened to these baulks Southport, as I have already and the bridge was complete. described. This escort The method of the driver of business was not a comforthe construction trains was table one for me. The mail simple. His not to reason why, with the escort would arrive so when within a mile or so of towards sundown, drive up to the river, speed was increased the Post Office, throw off the and the train came thundermail bags, take a receipt from ing down the bank, staggered

me for them. Then the pair of them would go off to the pub for tea, spend a comfortable evening and night, whilst I dragged those bags - I could not carry the one containing the gold — into my office cum bedroom, dumped them down on the middle of the floor, making them a part of my bed with the gold bag for a pillow.

A fully loaded revolver was kept handy. I had full responsibility until the mailman and escort turned up after breakfast next morning. They relieved me after giving a receipt for the mails.

#### SHOOT FIRST

I quite intended, should anything suspicious happen during the night or whilst the mails were in my charge, to shoot first and express regrets afterwards. No doubt, the fact of my being quartered at the Police Station would provide some measure of protection but might not wholly so. Later, when the Darwin Pine Creek Railway was completed, the mails were carried by rail. The road mails were cut out. Southport was bypassed and it reverted to its original jungle. Possibly no sign of it, except perhaps the old jetty, remains today.

As the work of construction of the railway line progressed, the need for housing accommodation for the railway staff became apparent. The contractor therefore had several cottages erected for the engineers and other personnel, one of which was allotted to me. These cottages, mostly two rooms, were built in sections so as to facilitate removal and re-erection. They were constructed of

galvanised iron on a framework of angle iron. Considering the places where they were required and other adverse circumstances, they were quite comfortable.

I was indeed very glad to have one, especially as it permitted me sending for my wife to join me. That, however, took some little time to arrange. In the meantime I was permitted to join the Railway Officers' Mess. This was a great convenience because the mess tent was placed near the Police Station.

As the carriage of our stores from Darwin cost us nothing, we could run a very good table for a reasonable charge. All meals were charged at 'per meal' rate, so that railway employees travelling to and fro, could have a meal and go on. My weekly bill amounted to about 14/-. In the evening, police, railway employees, myself and occasional guests would assemble in the Court Room of the Police Station and put on an entertainment of some sort; a very good institution, but one not appreciated by the Q.C.E.

It sometimes happened, of course, that some interruption to the Telegraph Line occurred, and in that case, it was understood, that if the fault was on my section of the line. I was to drop everything else and get after the fault. I was supplied by the



a room in that building, which was to serve as Post and Telegraph Office, as well as my bedroom, and as the firm's staff increased, I was entitled to join the mess and things were becoming more comfortable. **ESCORT** About this time it was decided to provide police protection, called the 'Gold Escort' for the mailman and his weekly trail from the goldfields to Southport. The escort was a uniformed constable,

across the quivering bridge,

trusting to speed and impetus

to help him up the opposite bank. Also he had the as-

sistance of the fireman, who

on the boiler platform outside

the cab, was holding down

the safety valve of the boiler

to conserve steam; even then

it was generally a touch and

The Police Station was a

roomy building and I was soon accommodated by

mutual agreement between

the respective departments,

that I should be provided with

came down each week, quite

a nice packet for an enterpris-

ing bushranger. The popula-

tion was scanty and scattered,

and although a robber might elude the police in that country for an indefinite

period, he could not live on

gold, he would have to show

up somewhere to obtain

food. There was little chance

of him getting safely away to

In four years, I knew of only

other states.

go job to get across.

GOLD

with a loaded carbine between his knees, sitting alongside the driver of the coach, a distance of about 140 miles, a two days trip, the night being spent at the River. Of course a lot of gold

Department with a horse, as he was called by courtesy, named Parsons. One evening after a heavy thunderstorm and rain, the line failed. I gathered in Parsons, who was no longer young, and started out about 6 p.m. My objective for that night was no. 1. Depot, a railway camp 12 miles distant. The first five miles was fairly good going and from there on across the Adelaide Plains, it was all slush and bog.

Parsons went on strike at the end of the five miles, so I put the saddle up in a tree and turned him loose, and tackled the rest of the night's journey on foot. It was not an enviable job. I lost my boots in the bog for a start, and left them there, because had I recovered them, I should have had to carry them and I had enough to carry already.

The night was clear, but dark and sultry with millions of frogs from far and near, quart-potting and hotwatering in all tones of voice. No other sound was to be heard, which made the night seem very desolate. I felt as if I were alone in the N.T., and with a small sapling with which I could feel if the telegraph line was in its usual place or off the pole, I stumbled and plodded on until I reached the Shackle, five miles across the so-called plain, where I cut in and spoke to Darwin who in-formed me the fault was still south of me and I could go on.

#### BLEEDING FEET

I should like to have changed places for a time with the owner of the voice. However, I went on until I reached the railway camp, wet, tired and with bleeding feet and legs. I threw myself down on bags of horse feed to get what rest I could until daylight. The object of tackling this job at night was to save time; if I passed the fault during the night, I was no worse off than if I had waited until morning, but if the fault was still ahead of me then I had gained twelve miles.

In the morning the ganger lent me a horse to go on with. I found the trouble a couple



of miles further on, fixed it up and returned to the railway camp, where I arranged to hire this horse to carry me back to the River.

Now having a house at my disposal, I sent for my wife from Adelaide with the baby whom I had not yet seen. I. arranged to meet her in Darwin when the steamer arrived. She was shocked to see me. I had had a rather bad attack of malaria, and was just able to get about. I could not carry the baby up from the steamer to the Club Hotel, where I was staying. Of course everything was new and strange to the wife. She had no time to analyse her feelings, as we were off the next morning for the River. A coach was attached to the mixed train by this time, so we had a comfortable journey home.

#### 7FT X 7FT ROOM

For some reason, which I have forgotten, I had now to give up the room in the Police Station, so the Company built me a room about seven feet by seven feet of galvanised iron, for an Office. It was just large enough to contain a table for the instruments, some letter pigeon holes and a seat for me. One of its chief virtues, however, was that when the time came for me to go further towards the head of the line, a gang could put the office on a truck and take it where it was needed.

That need arose soon after my wife's arrival, and I and my office were shifted to Howley, a goldfield twenty miles further south. The Howley township was represented by the Hotel and nothing else. The township proper being some distance away, and there being no railway buildings there as yet, I had to leave the wife at the River, but I went down there by railway tri-cycle on Saturday nights and returned on Monday mornings. This arrangement did not continue long, however.

The Company erected more cottages and I was given one. The construction work had meanwhile gone fast ahead and after a few months, I was again shifted, this time to the terminus at Pine Creek, 146 miles from Darwin. My connection with the railway contractors was here ended.

#### PINE CRFFK

In 1889 I rejoined the O.T. as assistant to the Postmaster at Pine Creek. Pine Creek was a town of about thirty houses, including the Railway Station and Post Office. There were two houses for the staff, of which I had one, a Police Station, Pub, Store and out scat-

Fred Goss would have been well acquainted with this gear of his era - a surveyor's chain and a spiked stirrup for pole climbing, now in the Adelaide Post-Tel museum.



Telegraph operator's positions of Fred Goss' time.

tered about was a fairly numerous population and many Chinese stores and more Chinese. But all were so spread over a large area that it would be difficult to assess the number.

The Railway Station had no platform and the train ran up on the level ground. When the railway was completed and taken over by the Government, three trains per week were put on, later reduced to two, and ultimately to one. Gold was, of course, the motive power of Pine Creek, but other minerals were found; tin, copper and silver. The goldfields were extensive and much of the precious metal, both alluvial and reef, was obtained here.

The Royal Standard Mine, owned by Mr. Olaf Jensen, made a fortune for him, and I have heard it said by those who would know, that alluvial and reef workings had been very haphazard and that under scientific treatment should yield much better results. But working expenses were heavy, the living hard, the climate trying and the country too far from the seat of Government, so that Pine Creek and most of the N.T. was facing adverse odds.

#### **ONLY ONE** DIAMOND

The only diamond ever found in the N.T. was picked up in the Cullen Creek, fifteen miles from Pine Creek. Mr. Walter Griffiths, who was our Parliamentary member for the N.T., had the diamond cut and mounted in a ring, which he showed me, and the stone when cut was worth forty pound.

The yarn about the finding of that diamond is perhaps worth repeating. An old prospector, down on his uppers, hunted about in the bed of the Cullen to see if he could find any agates or peb-bles that would bring in a few shillings. He got a small bag of them. Then he went to a Chinese store at Pine Creek, aw the proprietor and showed him the stones. The Chinaman, with a pair of chopsticks, turned the stones over, separated one from the others and said, "I give you two pounds for this one, but I don't want the others"

This part of the story sounds a bit fishy to me. It was not indicative of the Chinese business man. Had he offered the old prospector two shillings for the lot, he would

most likely have got them. On January 26th, 1890, Ernest (the "Little Lad" of "We of the Never Never")

was born at Burundie. Shortly after that, what I had been fearing, happened. I was to go to Daly Waters as assistant. There was nothing for it but to send the wife and two boys South, I thought, and wait and see what the future held.

When I returned to Darwin in 1891 with my wife and two sons, I quite expected to go at once to Daly Waters. The S. & I.O. (Senior and Inspecting Officer - such was his title) had his own reasons, at least I presume so, for doing something different, so I went on duty in the Darwin Office. We were fortunate enough to secure a comfortable home, "Giles Cottage", just out of town. It was 1893 before I got to have my own station. Quarters for married officers were not provided in Darwin.

I did not like the regular duties, and although we only worked six hours, it was often a gruelling duty, particularly if the old iron line was in a bad temper. All of the business was hand repeated at Alice Springs, a good long stretch even then, approximately 1,000 miles. In addition to that we had to make four copies of all cable business received. All pencil work and 99% of it in code.

#### **OPERATING** PROCEDURE

The procedure at the operating table was as follows:- About ten blocks of telegraph receiving forms, each with three carbons, were placed at the operator's right hand. On commencing to receive, he took the top block, wrote the message on it, then threw it on his left followed by another block from his right side for the next message, and so on. Then the messenger boy came along, stripped off the four copies from the written blocks, replaced the carbons and placed the block underneath the remainder of the pile on the operator's right. By this arrangement the blocks were worked evenly.

The stripped off messages were handed to the entering clerk, who entered the details, then placed the top copy and a duplicate in the glass opening that divided the two offices. The B.A.T. man kept the original, initialled the duplicate and returned it to our man for filing. The third copy went to Adelaide for filing, and the fourth, a spare, would not be of much use for any purpose. We all wore two piece

white drill suits (Java) and a singlet, but as we were not in view of the public, this was

discarded when on duty. There were billiards in the

quarters, also a piano. The latter article was apparently prehistoric or predeluge. The mess had long wanted to get rid of it, but unfortunately it was too well known. Fate stepped in, however in our avour. One of our men, Fred Price, who was somewhat of a musical genius, was very anxious to get rid of this piano. There was little chance of doing so; then came notice of a sale of furniture, etc., by auction. A representative of the mess interviewed the auctioneer - Mr. "Dad" Brown, and induced him to shove the piano in at the back of the sale, with doubts as to the results, but you never know.

#### **OLDTIMER'S** NATIVE WIFE

Just before the day of the sale, there came an oldtimer from somewhere at the back of the Never-Never, Queensland way, bringing his better half with him. His better half was a native woman, whom he had discovered somewhere in the bush. He took her to the nearest clergyman and married her. She had never been away from her own locality before. It would be interesting if one could take a peep into her brain and see what she thought of everything - the train, the town of Darwin, the sea, the ships and heaps of other things that she had no idea of previously. Well, her worse half at-

tended this furniture sale. At the end when it came to the piano, Dad had no need to expatiate on the merits of the instrument, but just put it up and said, "Now, who will give me a bid for this beautiful and well known instrument"?

#### DROPPED HAMMER

'Twenty five pounds"! yelled the woman's other half as if afraid some one might get in front of him. Dad goggled and gasped but had presence of mind to drop the hammer. There was jubilation in the O.T. mess that night. I should like to know the subsequent fate of the woman's worse half and the piano!

There was a large scale Chinese laundry in Darwin. All business was done by contract. When I was in the mess and had a room to myself, some years earlier, the proprietor contracted to 'do' me for 6/- per month.

Copyright (To be continued)

Telecom — Page 14 Training Papua New Guineans in the operation and maintenance of radio has become second nature to Colin Schulz, a South Australian seconded from Telecom Australia, to PNG. He first got to know the radio technicians in Rabaul where he arrived in May 1965 to work as a senior technician.

In Madang, Lae and Goroka he taught trainees about radio work while he maintained the existing systems, and began working on troposcatter systems as well as the latest microwave system.

#### Supervised all stations

Colin has actually held a supervisory position in all of Papua New Guinea's radio stations, many of which have reverted to being part of the 11 main stations now operating.

While training Papua New Guineans on radio work, Colin was himself trained in the new microwave communications system by the Italian firm Telettra which was installing the system.

system. "The Telettra IR20 Repeater system was unique in that it was the first of its kind installed anywhere in the world," Colin pointed out.

L N

For him it was training on the job while the Italians built a system of

### COLIN'S 13 BUSY YEARS IN PNG RADIOCOMMS

repeater stations linking all the major centres on the New Guinea mainland: Lae to Goroka to Mount Hagen to Madang back to Port Moresby.

The new microwave system means that Papua New Guinea has 960 channel capacity between all main centres except Mount Hagen-Wewak, Lae-Rabaul and Port Moresby-Alotau.

These last three links will also be installed by Telettra as well as another system emanating from Mount Lawes and Boroko in the Central Province which will have an 1800 channel capacity.

The company is still installing spur links to the established system to include smaller places like Wabag, Ambunti, Tari, Wkikila, Kandrian, Bialla and Open Bay.

#### Troposcatter Systems

Troposcatter systems on which Colin has worked since the first one was commissioned in 1971, now operate from the Finschhafen peninsula on the mainland north to the Talasea peninsula on New Britain Island and on to Kavieng on New Ireland Island and Rabaul.

Another troposcatter system connects Tomavatur near Rabaul to Torokina on Bougainville.



#### COLIN SCHULZ

Postal and Telecommunication Services plan to build at least two new troposcatter systems in the near future. One will connect Cupola (near Kerema) to Daru across the Papuan Gulf, and the other will connect Madang to Lorengau on Manus Island.

"The main difference between the Telettra microwave system and other systems is the low power drain on the repeater stations," Colin explained. "In Papua New Guinea this is important as the repeater stations are usually accessible only by helicopter."

#### 4000M

#### high

The repeater station being built to connect Mount Hagen to Wewak for instance, is 4000 metres high (12,500 ft) on Mount Burgess, a mountain in the middle of



Colin Schulz (centre) checks over new repeater system equipment with PNG P and T engineer Kevin Maitave (left) and Telettra engineer Dino Romano.

Seconded Telecom Australia staff have been making significant contribution to better telecommunications in developing countries, mainly in Pacific and South-East Asian areas.

There are, for example, some 80 staff detached for duty in Papua New Guinea. Experts in several telecommunications fields, they have been a vital factor in the amazing transformation of PNG's telephone and radio communications network.

Beginning this month, Telecom takes a look serially at four outposted collecyues, their achievements and difficulties. We begin with STO 3 (Unattached) Colin Schulz who hails from South Australia.

mountains with no road or nearby airstrip.

The temperature  $\vartheta t$ this station is often 2 degrees centigrade and there is very little air, not a welcome place to live or to which to supply fuel for power.

fuel for power. Colin's learning on the new systems being introduced into Papua New Guinea is passed on to the Papua New Guineans on the job while Colin oversights general maintenance on radio equipment, helps with the acceptance of commissioned stations and still manages to deal with staff problems. He also works in con-

junction with the

Tele - communication Training Centre in Lae to provide courses for radio technicians.

Somewhere during his 13 years in Papua New Guinea Colin has found time to become an expert on radio faults as well.

This knowledge has helped him in producing small radio networks like the one he did for a Papua New Guinean airrecently: line he designed and installed a new communication system which connected the airline's furthest ports of call in the mountains to the main centres, giving the airline communications with all its airstrips.

(NEXT MONTH - TO1 TONY DEREN)



ERF is a computer Data Base — a collection of information about all telephone exchanges in Australia. Some 250 items of data are gathered for every exchange in the country. The information is constantly updated reflecting the latest changes in the network.

The type of information collected covers a range of areas such as Capacity, Working Services, Forecasting, Deferred Application etc. The information stored is used for different purposes by various users. The main aim of the project is to provide some basic information for the planners in both States and Headquarters, but other areas can also benefit from it.

The large amount of information stored may be accessed by various means:

- copies of reports on microfilm
- hard copies of reports
  ad-hoc enquiries via
- CDA terminals, Telex and on-line terminals

Easy access to the large amount of important information makes ERF a powerful management tool for efficient running of the organisation.

The project was developed and is run by Planning Mechanisation and Techniques section in Planning Services Branch, Headquarters. It has been operating in its present form for 4 years, but it is currently being re-developed.

[What does ERF stand for? We wondered if you'd ever ask—Exchange Reference File.]

#### **NEW TRANSMITTERS**

A contract has been let for the development of a new standard transmitter for 800 series telephones. The transmitter should make a significant improvement in the transmission performance and reliability of the telephone, with considerable cost savings. It will use a dynamic (moving coil) microphone and a specially developed integrated circuit (IC). The IC will have unusual characteristics, for example it must operate down to very low dc voltages, to ensure operation under all situations. The contract allows for a trial quantity of 10,000.

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### LEFT TELECOM TOOK ON PUB: LEFT PUB-TOOK ON TELECOM



Subscriber maintenance tech Frank Ousley who retired recently from Swan Hill (Vic.) Exchange achieved an ambition very dear to the hearts of many Telecom people . . . he resigned and took on a pub. But Frank had an even more surprising trick up his sleeve, after a few years, he chucked in the pub and went back to Telecom. Some 90 Telecom colleagues and others heard the story when Frank was farewelled at a Commercial Hotel dinner at which Chief Operations Manager for Victoria Frank Waters presented him with a reclining chair.

Frank joined in 1929, and was one of the first trainee telephone mechanics. The Depression interrupted his training and he was transferred as a telephonist to Central Exchange, Melbourne. He completed his training with the department in 1936. He worked in Melbourne until 1941, mainly in installation of telephone exchanges, before transfer to Nyah West. He was at Nyah West from 1941 until 1959. For some of this period he was supervising technician of the Nyah West district. He transferred to Melbourne for two years before resigning to take over the Hotel. He returned to the Commission and the Swan Hill area in 1965, and became well known throughout the area, working at subscriber maintenance.

### Wendouree village lucky for our Helen

On the 2nd May, 1978, the people of Ballarat witnessed the opening of a \$12 million shopping complex known as the Wendouree Village Shopping

During the opening week a vast advertising campaign was mounted to attract people to the complex. To "cash-in" on this campaign Mr Leo Rennie, Sales Advisory Officer for the District Telecom Manager, Ballarat, arranged with the developers for a shop to be provided free of charge for the opening week to promote touchfones and STD as Mother's Day was just around the corner.

The shop was furnished with various Telecom displays, diarama and pot plants as well as working touchfones.

On the opening day, 40,000 people visited the shopping complex and the interest shown in the Telecom promotion during the week was so great that arrangements were made for the temporary shop to remain open on the Friday night and Saturday morning.

Miss Helen Kennedy, Telecom Sales Officer, assisted in staffing and promoting the temporary shop.

It was obviously Helen's lucky day as she received news that she had won a 36 day tour to Europe to the value of \$5000 in a raffle which she had entered. Here you see at right a Telecom man who's no carping critic of the European carp which some anglers claim has ruined their sport ... rather Dave Piper thinks they're a bit of a plus for South Australians whose reservoirs are out of bounds and fishing streams few and far between.

Dave's opinion must carry some weight . . . he's currently SA's Fishing Champion (for the second occasion), four times champion of the Elizabeth Angling Club and has been a member of the SA fishing team at the last three Australian championships.

In the photo here, Dave is exhibiting a 9 Ib mirror carp he grassed on the Murray at Swan Reach SA after a game fight by the fish.

And that's the key to his toleration of carp... they provide inland fishing sport naturally lacking in South Australia waters.

In a recent article in the SA Angler, Dave



Piper says: "Carp has been referred to as a menace but it is a boon to the amateur angler in SA. The there for some very creditable captures." Among "creditable captures", he cites a 22 pounder caught

# No carp on carp

average family man can take the wife and kids out for the day and be reasonably confident of tangling with a large fish, while for the light line angler, the potential is last November and a club event that resulted in 220 fish for a total weight of 780 kg.

Dave Piper is a clerk in the Finance Branch, Adelaide.

## SQUEAKER SHIPWRECKED!



They saw off some hard-doers at a retirement function a while back at the Belfield (NSW) RSL Club, namely from left Harry Curby — 29 years service, known throughout NSW District Stores as the Happy Semi-Driver; Frank Hansen 50 years service, commenced as a motor cycle rider and progressed through all driving duties to semi driver and eventually equipment officer; Ron Blunden (a celebrant of the occasion), Neville Jackoman, 23 years service and unfortunate to have had driving career terminated through a serious accident finished his service in clerical capacity and Alan Mazoudier known as Squeaker who had the distinction of being the only semi driver to have a ship jump out of the Clarence River and push him off the road. 22 years service.

### Telecom - Page 16 BIRDMAN JOHN'S TAILLESS WONDER



Nine days out of every fortnight, John Norman of the Perth suburb of Morley is a Telecom technical officer. On those other five days, John dons a pair of wings and floats free as the proverbial "bird" way above the Perth countryside.

Jobn bas been bang gliding for some two years, but not content with the everyday version of the bang glider, bis ambition is armchair, long distance flying.

He bopes to achieve it with a do-it-yourself "tail-less wonder" which, pushed along by a 12 bp motor, should be able to make cross country flights of up to 300 km.

Jobn bas spent 340 bours building bis craft. A Catto CA 14, it was supplied in kit form from the United States. The first of its kind in

Western Australia, the glider substitutes twist grip - controlled wingtip airbrakes for tail controls and is designed

She went overseas last year and decided she wanted to see more of the world. She resigned to take up a position in a Survey Drawing office in London. Their gain was our G.A. Jones loss.

I would like to tender the name of Mrs Lynne Dokonivalu (nee Smith) as the first female drafting trainee graduate.

Taduate. Lynne Smith commenced as a Trainee Draftsman in NSW in March 1970. She had previously completed over 4 years service as a Drafting As-sistant and was well advanced in the Lord and Engineering in the Land and Engineering Survey Drafting Certificate

Survey Drafting Certificate prior to commencement of her traineeship. She graduated as Draftsman Grade 1 on 1.1.71. Admittedly she can not claim to be "Telecom's" first female trainee graduate as we were then part of the Post-master General's Department. Mrs Dokonivalu in fact resigned in June 1973 before Telecom came into existence Telecom came into existence so that she could take on the

so that she could take on the duties of motherhood. To my knowledge Lynne was the first female Trainee Draftsman to graduate under the new Traineeship Scheme which commenced in 1969. Colin D Hine, Chief Draftsman (Survey)

Chief Draftsman (Survey), NSW

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to gain height with or without an engine. With a span of nine

metres, it weighs only 31 kg with the engine mounted. It is capable of speed from 20 to 100 km/b.

"Hang gliding is great fun — but it is somewbat frustrated by Transport regulations" according to John.

"These stipulate that bang gliders must not fly bigber than 100 metres, which makes it virtually impossible to achieve long-distance flights. "With an engine to

assist it between updraughts which permit soaring, I hope my new mount will overcome this problem." The Catto does not

quite achieve armchair status — the pilot reclines in a deckchairtype seat with his feet on

type seat with his feet on a nose bar. "Even so, it should be a good deal more comfortable than a bang gliding barness," says John.

"After jogging along the ground to take off, it will be rather nice to put my feet up." John planned to make

the maiden flight this month, bowever powered flight will have to wait a little longer. After spending \$1,000 on the craft, he is still saving for \$500 engine. John has worked for Telecom for the past six years and is currently in the Perth Central

Maintenance Group. The closest association between bis hang gliding and Telecom is that John once carried a CB Radio from a bang glider so that be could communicate with a car

on the ground.

Senior management at Credit Union dinner



Telecom commissioners and senior management recently attended a special dinner arranged by the Telecom Credit Union to foster greater understanding of the operations and ideals of the co-operative which gives so much help to

Commission employees. Chairman Bob Somervaille congratulated Telecom Credit Union on its accomplishments and added: . you are very close to us and very much part and parcel of the Commission's

Telecom

Australia activities".

> Photo: Mr. Somervaille and Chief General Manager Bill Pollock with Telecom Credit Union General Manager David Sandground at the Windsor Hotel Dinner.

Metro Mapping & Survey, Drafting Section Adelaide 5001

The Editor, "TELECOM"

Public Relations. Issue 30 of "TELECOM" at page 6 asked for challengers as TELECOM's first Drafting trainee graduate of the

feminine gender. We put forward Lorraine Matthews as South Australia's condidate for the honour.

Lorraine commenced with Telecom 23.7.73 after three years with SA Lands Titles and Adelaide City Council drawing offices. She was appointed draftsman Grade 1 in January 1975.

A bright and popular person she excells both academically and on the sporting field. During her Survey Technician Cer-tificate studies she obtained 4 distinctions and 3 credits. She played A grade Netball and Squash and won the women's squash title at the 1976 Interstate P.I. carnival.