TRL Makes History in Record Breaking Optical Fibre Link

This report on the installation of the new optical fibre link to Tasmania is from Rob Ayre.

Telstra's Bass Strait Optical Fibre Cable installation has finally been completed. The cable was brought ashore at Sandy Bay in Tasmania on 27 July 1995.

For some of us in (the old) Optical Networks, it's been a long job. Some four years ago, we set the technical agenda for the project, recommending that the cable use optical amplifiers at each end of a passive cable to achieve a span significantly longer than any in use or (known to be) planned world-wide. Then doing the detailed optical system design, specifying the fibre and optical amplifiers, and ensuring that a future capacity upgrade was possible.

We had to convince skeptics within Telstra that it could be done, and the bench demonstrations at TRL of 270km/622 Mbit/s (and later 240km/2.5 Gbit/s) achieved that.
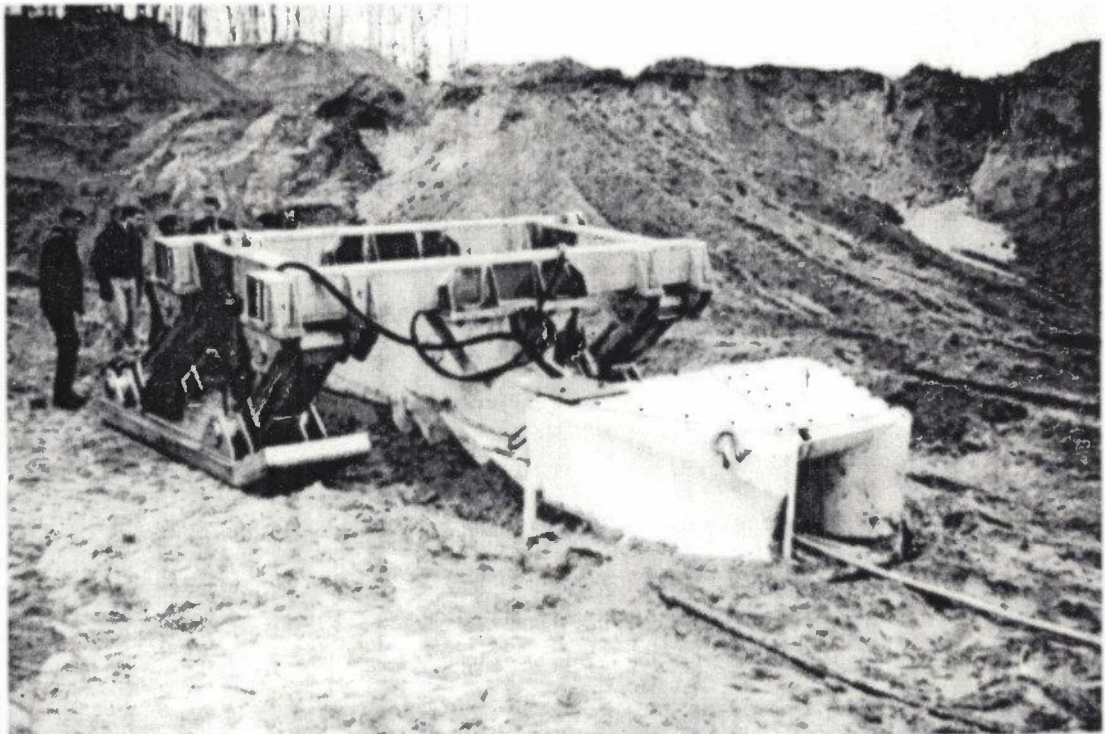
We had to convince the management, right up to Gerry Moriarty, that the project was technically sound, and in particular that we should use special low-loss fibre not previously used by Telstra (and rather more expensive than our standard fibre!).

And we had to make a last-minute assessment a year ago as to whether our equipment supplier's prototypes would be satisfactory and could be developed in time for our link service date.

Other events intervened to delay the installation, which started June 26. The weather was the worst possible for the job. Twice the cable had to be cut and the ship run for shelter.

But now the job has been completed.

Thanks to all of those in Cable Networks who have been involved!

Tasmanian Optical Fibre Cable Plough

FIFO
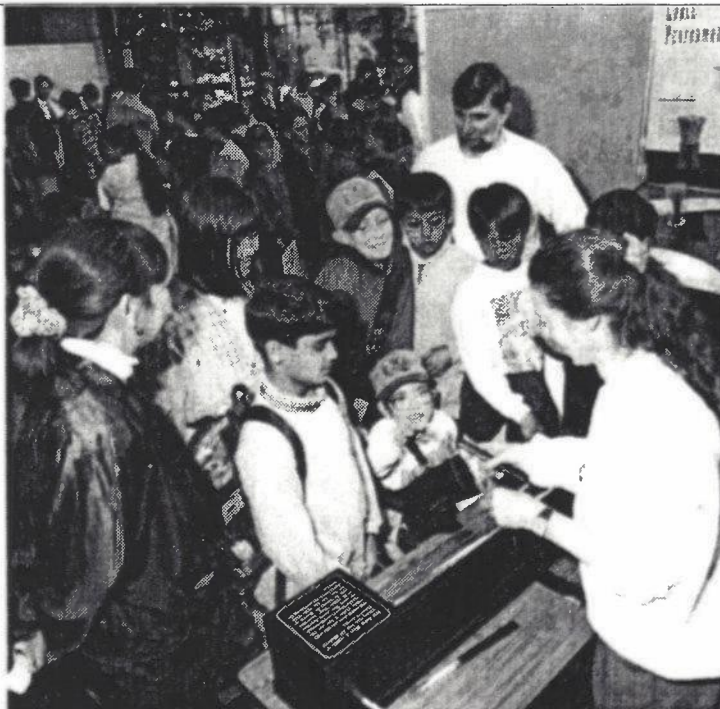
Telstra

School Kids Meet a Real Scientist

Dr Pam McNamara demonstrates the light carrying properties of optical fibre to students from Victorian State Primary schools. Colin Block looks on.

Colin Block, Events Manager in the Promotion and Communication Section reports on TRL's involvement in Science Week.

In the interests of promoting science to Australian school children, TRL was invited by the Science Teachers' Association of Victoria to participate in Science Week '95. The theme was Science on the Move.

The official opening of Science Week was held on 14 August 1995, at Wilson Hall - Melbourne University. The Hon. Philip Cleary (Member of the Prime Minister's Science, Industry and Technology Committee) launched the event at the opening ceremony.

Participating companies were asked to provide a science activity for students from local schools to experience, and the students moved from one activity to the next.

About 300 children from Grades 5 and 6 visited the TRL stand for a presentation on optical fibre technology.

The activities at the TRL stand centred around the promotion of Telstra's extensive optical fibre network and the technology of sending laser light signals through glass fibres.

Other companies involved in the Science Teachers' Association of Victoria Science Week activities were Kodak, Brashs, Kemcor, Science Works, the Melbourne Zoo and other government and semi-government organisations.

The Promotion & Communication Section had invited Dr Pam McNamara, a physicist from the Photonics and Reference Standards to come along to talk to the school kids. "We thought it would be great for the kids to meet a real scientist who worked with optical fibre, said Colin, who co-ordinated the event for TRL.

"I was really pleased with the behaviour and attention the children gave to our activities", Colin said.

"Being involved in this sort of activity is an efficient way of promoting Telstra and TRL to a large number of potential customers, and if you compare this with the same number of students visiting TRL, quite a cost saving", said Colin.

Pam McNamara had this to say, "Some of the children and some of the teachers in charge of them were very interested in what we had to say about optical fibres and telecommunications and asked good questions - others were not. Some kids just wanted to play with the polystyrene cup 'telephones', others wanted to take the displays apart. Some of the teachers just wanted to shoo their charges through the exhibition as fast as possible and get them back to their schools - often leaving Colin or me stranded in mid-sentence!

On the whole it was quite interesting and stimulating - though both Colin and I developed croaky voices from talking so much."

Restructure of the Telstra Research Laboratories

A message from the Director

Telstra Research Laboratories (TRL) works together with the various Telstra business units to build Telstra's competitive advantage and achieve company growth.

To better meet the needs of our business unit customers and to increase TRL's efficiency and effectiveness, the Laboratories have recently been restructured.

The new organisational structure at TRL aims to build stronger links to our business unit customers. We are involved in the exciting process of changing the culture at TRL to be more attuned to customer needs.

Through our technological expertise, our selective development of technology and our leadership in national and international standards activities, TRL is continuing to help drive Telstra's growth and build its competitive advantage in the marketplace.

Graham Shepherd
Director Telstra Research
Laboratories

Why restructure ?

The restructuring of TRL has been done to maximise the value that our work adds to Telstra's business.

We believe that our new organisation has a better customer focus, improved strategic focus and improved programme management.

What's new?

Five key roles have been identified for the new TRL .

1 Vision for the future

Be the principal source of technological input to Telstra decision making and strategic planning.

2 Technological leadership

Be the principal resource for management and conduct of technology research and innovation.

3 New and differentiated products and services

Turn ideas into timely, competitive and sustainable products.

4 Standards and Regulatory Strategies

Prioritise, lead, influence and communicate on standards and regulatory strategy.

5 Telstra Information Services

Be customer focussed, service oriented and cost effective.

New matrix structure

A new matrix structure has been designed with programmes operating across sections. Programmes are the "output delivery mechanism" providing total solutions to customers while sections maintain the depth of technical expertise.

All research work is now carried out in the 21 programmes which range in size from 5 to 72 staff years. Some programmes are focussed around a single customer while others support major business developments such as the introduction of broadband services and serve several customers. Programme leaders are expected to co-ordinate research across discipline boundaries, deliver results needed by the customer and provide vision for the programme that enhances Telstra's business opportunities.

Strategic programmes

Because of their importance to Telstra, four of the programmes have been identified as being strategic. The four strategic programmes are:

- Broadband Service Delivery
- Mobility Services
- Systems and Network Integration
- Occupational Health and Safety

and they account for about 40% of the research effort at TRL.

Stronger Customer Links

A new Business Development Group has been established as a seamless interface with our customers. Together with customers this unit will identify growth opportunities for Telstra. The Business Managers will work closely with business units to understand their R&D needs and ensure that the programmes achieve maximum benefit to the business units and Telstra.

TRL will also have a strengthened role in strategy and will have prime responsibility for providing Telstra with a vision for, and influencing the shape of, future telecommunications networks and services. This function will liaise closely with the Telstra R&D company.
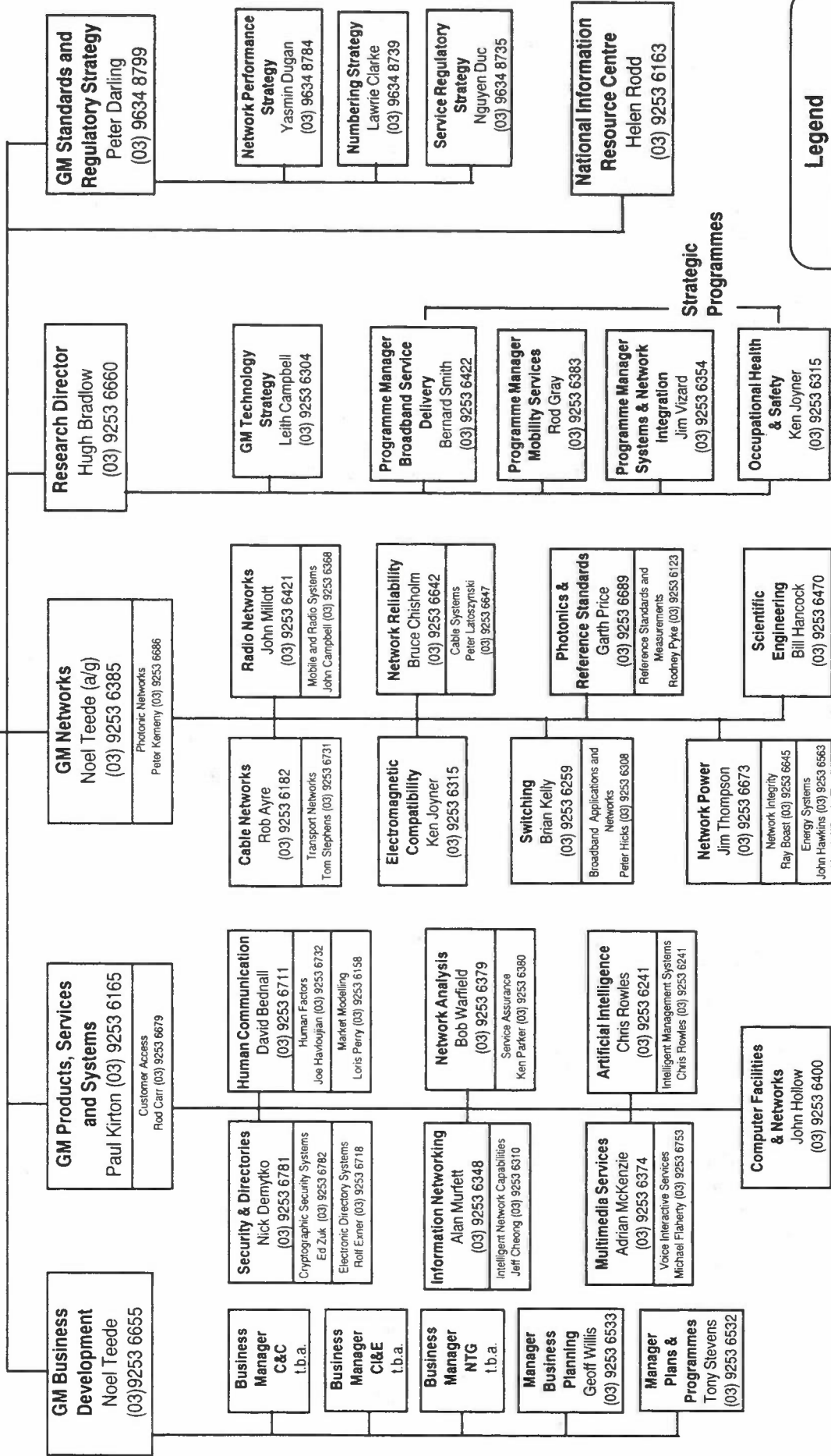
New Organisation Chart

A new organisation chart showing names, positions and phone numbers is given over the page.

Any Questions?

If you have any questions please contact Doug Kuhn, Transition Manager, Telstra Research Laboratories on (03) 9253 6655.

Director
Telstra Research Laboratories
Graham Shepherd (03) 9253 6500

GM Standards and Regulatory Strategy
Peter Darling
(03) 9634 8799

Network Performance Strategy
Yasmin Dugan
(03) 9634 8784

Numbering Strategy
Lawrie Clarke
(03) 9634 8739

Service Regulatory Strategy
Nguyen Duc
(03) 9634 8735

National Information Resource Centre
Helen Rodd
(03) 9253 6163

Research Director
Hugh Bradlow
(03) 9253 6660

GM Technology Strategy
Leith Campbell
(03) 9253 6304

Programme Manager Broadband Service Delivery
Bernard Smith
(03) 9253 6422

Programme Manager Mobility Services
Rod Gray
(03) 9253 6383

Programme Manager Systems & Network Integration
Jim Vizard
(03) 9253 6354

Occupational Health & Safety
Ken Joyner
(03) 9253 6315

Strategic Programmes

GM Networks
Noel Teede (a/g)
(03) 9253 6385

Photonic Networks
Peter Kemeny (03) 9253 6686

Radio Networks
John Millott
(03) 9253 6421

Mobile and Radio Systems
John Campbell (03) 9253 6368

Network Reliability
Bruce Chisholm
(03) 9253 6642

Cable Systems
Peter Latoszynski
(03) 9253 6647

Photonics & Reference Standards
Garth Price
(03) 9253 6689

Reference Standards and Measurements
Rodney Pyke (03) 9253 6123

Scientific Engineering
Bill Hancock
(03) 9253 6470

Cable Networks
Rob Ayre
(03) 9253 6182

Transport Networks
Tom Stephens (03) 9253 6731

Electromagnetic Compatibility
Ken Joyner
(03) 9253 6315

Switching
Brian Kelly
(03) 9253 6259

Broadband Applications and Networks
Peter Hicks (03) 9253 6308

Network Power
Jim Thompson
(03) 9253 6673

Network Integrity
Ray Boast (03) 9253 6645
Energy Systems
John Hawkins (03) 9253 6563

GM Products, Services and Systems
Paul Kirton (03) 9253 6165

Customer Access
Rod Carr (03) 9253 6679

Human Communication
David Bednall
(03) 9253 6711

Human Factors
Joe Havlovjian (03) 9253 6732
Market Modelling
Loris Perry (03) 9253 6158

Network Analysis
Bob Warfield
(03) 9253 6379

Service Assurance
Ken Parker (03) 9253 6380

Artificial Intelligence
Chris Rowles
(03) 9253 6241

Intelligent Management Systems
Chris Rowles (03) 9253 6241

Security & Directories
Nick Demytko
(03) 9253 6781

Cryptographic Security Systems
Ed Zuk (03) 9253 6782
Electronic Directory Systems
Rolf Exner (03) 9253 6718

Information Networking
Alan Murfett
(03) 9253 6348

Intelligent Network Capabilities
Jeff Cheong (03) 9253 6310

Multimedia Services
Adrian McKenzie
(03) 9253 6374

Voice Interactive Services
Michael Flaherty (03) 9253 6753

Computer Facilities & Networks
John Hollow
(03) 9253 6400

GM Business Development
Noel Teede
(03) 9253 6655

Business Manager C&C
t.b.a.

Business Manager CI&E
t.b.a.

Business Manager NTG
t.b.a.

Manager Business Planning
Geoff Willis
(03) 9253 6533

Manager Plans & Programmes
Tony Stevens
(03) 9253 6532

Legend

Branch or Section	
Branch Manager or Section Leader	
Programme (most operate across several sections)	Programme Leader

Revised 17/8/95

t.b.a = to be announced

Managing Family Responsibilities and a Career

The topic of the latest WIN Forum, held on Monday 14 August 1995, was Managing Family Responsibilities and a Career. Once again, the Forum was held in the Theatrette on the first floor at 242 Exhibition Street.

Just over 100 people (including a sprinkling of men) came along to the Forum to hear Ron Baskett, National Regional HR Manager for NTG talk about Telstra's Family Policies; and to listen to Robyn Frood talk about her company Nurturing Nannies.

The WIN Executive Committee had managed to get hold of a copy of the Telstra Work and Family Kit, and copies were made for all those who attended the forum. This kit covers such things as Work and Family Issues, Telstra's Policies and Guidelines, External Assistance for Dependant Care, and provides advice to managers in the Work and Family Handbook. If you would like a copy of this kit, please contact Carol Wilson on (03) 9253 6274.

Robyn Frood then spoke about her Nurturing Nannies service. This is a childcare service that specialises in looking after sick children. Yes - that's right, SICK CHILDREN!

When your children are sick, it usually means time off work. Childcare centres and family day care don't have to look after sick children, and if your child is infectious - with something like Chickenpox, then your child(ren) have to be excluded for a set quarantine period.

There were quite a few questions from the audience for Robyn about the service. The concensus of opinion in the audience was that this was a great idea. Information kits about the service were handed out to those interested. If you would like to find out more about this service WIN has a few more copies of this kit, please call Carol Wilson on (03) 9253 6274.

A video of the Forum, can be borrowed from Tanya Waterson-Clark on (03) 9253 6704.

Have Your Say

If you have a question or an issue you'd like to raise, send it in to FIFO.

There were no Have Your Say contributions for this issue of FIFO.

API - Free Wine and Cheese

Howard Anders has a message to all TRLers from the API.

Colleagues, a reminder, please don't forget the API AGM. Pleases note the following kind message of support from our Director:

"I have indicated to the committee of the API that I strongly support the activities of the API especially where they help bring the staff and families of TRL together on a social basis. I encourage you all to think about how you can best support the API yourselves, perhaps as a committee member, perhaps by suggesting activities and particularly by participating in activities.
I look forward to seeing you at the AGM."

Graham Shepherd

The 13th Annual General Meeting of the API RESEARCH BRANCH will be held
   on Wednesday, 23 August, 1995
   at 12.30 PM
   in the Function Room, Ground Floor, M8

The brief business meeting will be followed by the traditional

   WINE & CHEESE, LIGHT LUNCHEON

Howard Anders
Vice-President
API Research Branch

Who's been visiting TRL?

Here is a summary of the visits to TRL over the last fortnight. For further information on the visits program, please contact Karlene Matthews on (03) 9253 6452.

9/8/95 Telstra **Corporate Affairs** visited Optical Networks, Device Technology, Switching and Human Communications.

9/8/95 **Journalists from India** visited Electromagnetic Compatibility, Mobile Comms, Multimedia Services.

10/8/95 **Deutsche Bank** visited Optical Networks, Enterprise Networks, Switching, Interactive Voice Recognition, Multimedia Services, Security, Human Communication, Artificial Intelligence

11/8/95 **CSR** visited Multimedia Services, Artificial Intelligence, Switching, Intelligent Networks, Enterprise Networks, Directory Systems

14/8/95 **Prices Surveillance Authority**, Trade Practices Commission, Industry Commission visited Optical Networks, Wireless Comms, Enterprise Networks, Switching, Multimedia Services, Security, Artificial Intelligence

15/8/95 **Commonwealth Bank** visited Mobile Radio, Intelligent Networks, Smartphones, Security, Human Communications

15/8/95 **Herald Sun** visited Multimedia Services

16/8/95 Representatives of the **South African Government** visited Wireless Comms, Device Technology, Artificial Intelligence

17/8/95 **Shanghai Camera Crew** visited Switching, Device Technology

22/8/95 **AMP** visited Multimedia Services, Switching

22/8/95 **REAME Training Centre** visited Optical Networks, Switching, Security, Device Technology

The FIFO Newsletter

FIFO is a fortnightly newsletter for all TRL staff. It is produced by the Promotion & Communication Section. We welcome your feedback and contributions.

The editor of the newsletter is Tanya Waterson-Clark, Science Writer (03) 9253 6704. My office is on 1/M8.

Contributions and comments can be e-mailed or faxed on (03) 9253 6321.