



Reply to:

M.L. James - 860 2070  
ITE Editor  
RCA-RPD  
60 Denmark Street  
Kew 3101.

NEWSLETTER 2 1984

The Institute of Transportation Engineers Australian Section publishes a newsletter several times each year. The newsletter compliments the I.T.E. Journal published in Washington, by reporting on local interests of I.T.E. Members. Subscription for 1984 is \$4.00 payable in advance to 'I.T.E. Australian Section', A.P. O'Brien, 20 Dominic Street, Camberwell 3124 (See form at back of this Newsletter).

PRESIDENT'S MESSAGE

As incoming President I am keen to promote the activities of the ITE towards providing the opportunity for managers, practicing traffic engineers and technicians working in the field of traffic management and transportation engineering to come together and share views, experiences and technical information on a regular basis.

TONY FRY  
PRESIDENT

801 Glenferrie Road  
Hawthorn 3122.  
AUSTRALIA

*Institute of Transportation Engineers  
525 School Street SW, Suite 410  
Washington D.C. 20024  
U.S.A.*



Reply to:

Matthew James  
RCA - RPD  
60 Denmark St  
Kew 3101  
(860 2070)

**We invite you to attend our 1984 President's Night**

**BUFFET MEETING**

**at the Kingston Heath Golf Club**

**from 6.00 p.m on Tuesday, November 13, 1984**

This will be an informal evening for dialogue and exchange between engineers and technicians, and prominent transportation identities including:

**Consultants:**

David Singleton	-	Ove Arup
Glen Holdsworth	-	Holdsworth
Russ Symons	-	Pak Poy
Nelson English	-	Nelson English

**Signal Manufacturers:**

Peter Van Ross	-	Philips Electronics Systems
David Shaw	-	Aldridge Traffic Systems
Robin Trebilcock	-	AWA Limited

**Researchers:**

David Bennett	-	Melbourne University
Ken Ogden	-	Monash University
Tony Richardson	-	Ministry of Transport

**Sign Manufacturers:**

Bill Getson	-	Artcraft
Ken Golding	-	3M

Non-members and members of ITE are welcome to attend this special event. Please confirm your attendance to Matthew James at the above address by November 9, with a cheque for \$15 per person which includes drinks and dinner, made payable to the 'ITE Australian Section'.

TONY FRY	PRESIDENT
TED BARTON	IMMEDIATE PAST PRESIDENT
MATTHEW JAMES	NEWSLETTER EDITOR
CHRIS FOX	COMMITTEE MEMBER
DAVID O'SULLIVAN	COMMITTEE MEMBER
MIKE TAYLOR	COMMITTEE MEMBER
ANDREW O'BRIEN	SECRETARY AND TREASURER

### August Meeting of ITE

Several Local Government approaches to improving urban amenity were presented at the Institute's Victorian Division August meeting. Noel Edgar from Footscray City Council spoke on the development and densification of the Footscray business centre, which has led to the planning of a ring road and a transit mall at the centre. However, implementation of these proposals has proceeded slowly due to the property acquisition and staged development involved. Bill Thompson from Melbourne City Council discussed the different types of community bus services operating in Australia. These include Perth's City Clipper loop service, the St. Kilda community bus and the Melbourne Shopper bus service. From Knox City Council came Bruce McCartney to discuss the Council's extensive bikeway network. As a heavily used recreational facility, the network has received substantial funding from State government. Finally, David O'Sullivan of Prahran City Council spoke on an interview survey of pedestrian accident victims. By examining the causes of their plight, it is hoped to be able to provide engineering and educative remedial measures.

Following a question period to discuss the various initiatives presented, attendees adjourned to the reception room to enjoy refreshments kindly provided by the City of Doncaster and Templestowe staff.

### ARRB Conference Summary

The 12th ARRB Conference held in Hobart in August attracted significant attendance from each state, particularly traffic engineers, to hear local and overseas guests. The ITE luncheon included an address by ITE Technical Council Chairman James H. Kell who has been involved in rewriting the U.S. Highway Capacity Manual. The ITE luncheon was sponsored by Aldridge Traffic Systems. Another guest, Dr. George Banjo of Nigeria, gave insights into transport issues and management in less developed nations.

Many papers included the use of micro and mini computer systems in traffic management. Both in-house or proprietary software packages are applied to traffic network simulation and control, and to traffic information data bases. Data bases of area wide disaggregated accident statistics are under development. Vehicle identification systems will soon be operational. A traffic signal design workshop marked the release of the SIDRA computer program for signal design.

The local area traffic management workshop highlighted the needs for acceptable public participation in and evaluation of management programs. Effectiveness standards need to be devised to evaluate safety and operational aspects. The roles of the public, consultants and councils need to be defined, especially since each party has different perceptions of LATM success.

There were several papers concerning driver perception. One addressed the problem of stopping drivers at signals by varying signal settings. Others presented a survey of roaduser perceptions of traffic control devices, and a study on the use of speed advisory signs.

#### Secretary at Annual Meeting

Australian Section Secretary, Andrew O'Brien, is attending the 1984 ITE Annual Meeting in San Francisco and meeting with ITE Officials. In these meetings, he shall be particularly raising the need for greater return of member fees for Australian activities. He shall also be examining the membership status of transport technicians to encourage their involvement in the ITE.

#### Survey Sheets still required!!!

Members! Please hurry up and return the short survey from the last newsletter to Mike Taylor as soon as possible. Do it now! Help us to help you.

#### Newsletter Contributions

Please send us any news of your activities, promotions, transport engineering work, comment or suggestions.

Your assistance will help keep the newsletter as a truly worthwhile publication.

## New Publications

### 1. 'Guidelines for Urban Major Street Design'

This report is a recommended practice of the Institute of Transportation Engineers. It presents general geometric design standards for use on urban major streets. This publication does not include freeway, expressway, rural highways or local urban street geometric design standards.

The guidelines are intended to provide a foundation for rational engineering design decisions on urban major streets. A critical review of the benefits and trade-offs of a design accompanies the dimensions given in the various chapters. Chapters include Lane Widths, Curves, Tapers, Curbing and Clearances, Grades, Medians, Lane Control, Intersection Design and Channelisation, Transit, Parking, Driveways, Sidewalks, Bikeways, Lighting, Border Areas and Rights of Way, Location of Underground Utilities and Speed Control.

Price: \$25 members, \$40 non-members, plus 10% handling.

### 2. 'Recommended Guidelines for Subdivision Streets'

This newly revised recommended practice of the Institute of Transportation Engineers recommends guidelines for the design, layout, and traffic control of subdivision streets. The guidelines address the questions of maximum livability and safe and efficient access.

A review of existing local specifications, national recommendations, current practice and experience was used to develop these guidelines. They are directed at "conventional" subdivisions and are intended for adoption as specific elements within local ordinances.

The first part of the report cites the factors to be considered in subdivision street systems planning, while the second part establishes the individual design elements of the street and pedestrian systems.

Price: \$10 members, \$15 non-members plus \$2.50 handling.

These publications are available from the Institute of Transportation Engineers; 525 School Street S.W.; Washington, D.C. 20024 U.S.A.  
Telephone: (202) 554-8050. Payment must be in United States dollars.

### Software packages for Transportation Engineering

In late August, a range of consultants were invited to provide details of computer software packages that they offer. The software includes programs in transport planning, traffic engineering and management. Descriptions are given below for consultants who responded to our deadline of September 30. In the long term, the ITE Australian Section may consider publication of a directory of the software. The ITE Australian Section takes no responsibility for the claims of software promoters in this listing.

1. Carlisle & Company Pty. Ltd.                      Mr. John Carlisle  
    Consulting Engineers & Planners                      Principal  
    6 Young Crescent    02-452-1037  
    Frenchs Forest 2086.

**SATURN** (Simulation and Assignment of Traffic Urban Road Networks) is a computer model developed at the University of Leeds for the analysis and evaluation of traffic management schemes over relatively localised (100 - 150) node networks. Essentially a sophisticated traffic assignment model, it is based upon highly detailed simulation of intersection delays. The model can handle bus routes, traffic signal co-ordination, lane use, and traffic queuing, and output includes network plots, fuel consumption figures and traffic conditions. A related routine can determine trip matrices from traffic counts. SATURN permits interactive analysis of results. SATURN is written in FORTRAN suitable for ICL, VAX, AMDAHL (IBM), PRIME, UNIVAC and CYBER systems. The program fee is \$400, with an applications fee of up to \$800 per year or a purchase price of up to \$4,000 depending on the user's corporate status. Updates can be supplied for \$400 per year.

2. Denis Johnston & Associates                      Mr. Denis Johnston  
    Pty. Ltd.    Mr. Matthew Ford  
    Transport Consultants,  
    Software Products,    03-429-1133  
    Computer Services,  
    116 Murphy Street  
    Richmond 3121

**TRAFFICQ** is a simulation package developed by MVA Systematica for the evaluation of vehicle and pedestrian movements in complex, small to medium size, road networks with different traffic management schemes. Considering time varying and random aspects of traffic flow, TRAFFICQ outputs distributions of queue lengths, link travel times, delays and fuel consumptions. TRAFFICQ is written in FORTRAN suitable for most mainframes (\$4500) and micros with CP/M-80, CP/M-86 or MSDOS (\$2900). Leasing is available at 1/24th of the purchase price per month.

**TRIPS** (Transport Improvements Programming System) is a flexible suite of programs from MVA Systematica for highway and public transport system analysis, travel forecasting and evaluation, survey analysis and matrix manipulation. It parallels the UTPS package with the addition of junction delay modelling, tree or vine building and interactive selective link manipulation. Written in FORTRAN, TRIPS is suitable for all mainframe systems, costing \$20,000 complete, or less for sub-modules, with leasing options available.

**MICROTRIPS** is a FORTRAN version of TRIPS that is menu-driven or command controlled, suitable for CP/M, PCDOS or MSDOS microcomputers. It has many UTPS features, and can be interfaced with UTPS and Database Management programs. MICROTRIPS costs \$7700 complete, or less for sub-modules with leasing options available.

**MICROSURVEY** is a fully interactive, advanced survey analysis program suite developed by MVA Systematica. It allows data editing, range and logic checks, record manipulation and appending, look-up tables, cross tabulations, multiple linear regression, with input of various record formats. A related routine TTY can enable large volume data transfer to allow the microcomputer to act as an intelligent terminal. Written in FORTRAN, MICROSURVEY is suitable for CP/M, PCDOS or MSDOS microcomputers at a cost of \$2,900.

**MICROPLAN** is an interactive graphics package from MVA Systematica designed for planning, architectural, transportation and geographical applications. It can produce plans, maps, charts, multi-dimensional diagrams with perspective, scaling and rotation, annotate letters and symbols; and measure parts, areas and volumes, enlarging or reducing. Written in BASIC, it is suitable for MSDOS microcomputers, Sirius and IBMPC, and costs \$1500.

**SMIS** (Survey Management Information System) Also available.  
**AMP** (Address Matching Program) Also available.

3.	R.J. Nairn & Partners Pty. Ltd. Engineers, Economists, Planners and Computing System Consultants Suite 207, M.T.I.A. House 214 Northbourne Avenue Braddon 2601	Mr. Bob Nairn Mr. Pat Cotterill Mr. Stephen Harvie Mr. Mark Stanilewicz  062-49-7644
----	---	---

**CARDED** is a general purpose data entry routine that cases entry of card image input data with a simple split screen editor. Written in PASCAL for PDP-11 and IBMPC, it costs \$500.

**CARTS** (Costing and Assessment of Rural Transport Systems) is suitable for the forecasting of traffic demand, and estimation of costs and economic evaluation of rural 10 year transport improvement programs in developing countries. It establishes a multi-mode transport network and base and test trip matrices using demographic forecasts. The matrices are loaded onto the network to estimate traffic volumes, travel benefits, construction and maintenance costs, and overall discounted costs. A FORTRAN IV program suitable for PDP-11 and Univac 1100, CARTS is priced at \$5000.

**FLOWINS** inserts stopline and turning movement flows on the TRANSYT type 32 records. Written in PASCAL for PDP-11, IBMPC, etc, it costs \$1000.

**ICOUNTS** (Intersection Counts Recording and Analysis) is a suite that records intersection vehicle and pedestrian counts and provides graphic reports for analysis. The graphic hardcopy depicts intersection orientation, and turning volumes based on any time period. ICOUNTS features data, editing and archiving routines and is written in PASCAL for HP-3000, PDP-11, IBM PC, etc. It costs \$9,500 with the source code, or \$5,000 on an IBM PC-XT without source.

**PKSQZ** is suitable for the planning and evaluation of parking supply in metropolitan centres or sub-centres with mixed land use. Using a multi-land use data file for up to 99 zones, it computes zonal employee and visitor rates for four different time periods of the week. It calculates the resultant parking demand, car-occupancy and modal split, considering parking supply constraints based on a parking accessibility measure. Written in FORTRAN for Apple II, PDP 11, and IBM PC, it is priced at \$2,000.

**PLOT2D** allows two-dimensional plotting on a line printer, for several independent data sets on the one graph. Titles, scaling, discrete or continuous plots may be specified. A FORTRAN IV program, it costs \$500.

**SCRED** is a general purpose screen text editor that allows full data and screen shifts, text insertion and deletion, text searching, wordprocessing features, and the creation of command lists. Written in PASCAL or C for a wide variety of computers, it is provided without source for \$500, or with source for \$5,000.

**STRUCTURED DATA SYSTEM** general purpose data entry suite of programs provides a flexible method of describing information. The language is permanently defined for any particular computing application by the establishment of a syntax table, which prompts users to interactively supply data. The system provides for ease of data entry and inspection, error checking and validation. Written in PASCAL for PDP-11, VAX and IBMPC, it costs \$2,500 including source code.



**TCOUNTS** records traffic flow counts along roadways from different counter types and provides a variety of analytical reports and error checking routines. Suitable for HP-3000, PDP 11, IBMPC, or any Pascal system, it costs \$9,500 with source code, or \$5,000 without.

**SIDRA-2** is the Signalised Intersection Design and Research Aid written by ARRB. Its features include allowance for the effects of randomness and oversaturation, determination of signal timings for complex phasings and co-ordinated signal systems, estimation of measures of effectiveness, and extensive outputting of traffic and signal timing data. Written in FORTRAN -77 for IBMPC (min 512 kb) it costs \$1,000.

**TIMDIS** automatically draws time distance diagrams for co-ordinated road traffic signal systems. The program has consistency and logic checks for the input of 20 intersections and system data. It has defaults and option menus to minimise the amount of input, and draws diagrams in six alternative styles. A FORTRAN IV program for PDP-11, Prime, Burroughs and IBMPC, it costs \$2,500.

**TRANSTEP** (Transport Strategic Evaluation Package) analyses a variety of urban land-use/transport system planning issues at either the strategic or detailed planning level. It contains an activity patterns model for trip generation and distribution, a highway and public transport network build and skin module, a land-use updating module, and a module for matrix manipulation. The mode split model performs binary logic mode split. The assignment modules permits capacity-restrained equilibrium assignment for highways, and multi-path iteratively loaded assignment of public transport passengers. A contour plot module is included. Suitable for IBM (DOS, MVS, VM), PDP-11, IBMPC (min 256 kb), this FORTRAN 77 or IV program costs \$5,000.

**VTERM** enables communication between computers by transforming one into an intelligent terminal, to allow data storage and preparation. Written in Pascal for PDP-11 and ICL PERQ, it costs \$1,000.

SUBSCRIPTION FOR 1985

If box is ticked your subscription is DUE NOW

Subscription for 1985 : \$4.00 Please make your cheque  
payable to:  
ITE (Australian Section)

NAME: \_\_\_\_\_ STREET & NO \_\_\_\_\_

CORRECTION OR CHANGE OF ADDRESS: SUBURB & CODE \_\_\_\_\_

ITEMS OF INTEREST FOR NEWSLETTER

New appointment or position:

New methods or innovations:

Technical projects of interest:

Comments, praise or criticism:

Thank you for your support:

Forward to: MR. ANDREW O'BRIEN  
20 DOMINIC STREET  
CAMBERWELL 3124

ENGINEERS  
18/12/84  
NOV 11 33 AM '84