Imperial College London

Centre for Transport Studies

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December 2000

The Centre for Transport Studies has been awarded a contract from the DETR to develop new methods to integrate concepts of social exclusion into existing transport modelling and appraisal techniques. The research will entail a review of relevant UK and US practice leading to the development and demonstration of new methods to model and appraise the impact of transport policies on social exclusion. The project will be led by John Polak, with contributions from Bob Noland and Stephen Glaister and will also involve collaboration with Mott MacDonald, the Institute for Transport Studies University of Leeds and Dr Brian Morton.

John Polak and Bob Noland have been invited by the DETR to join the Advisory Group overseeing the research programme being undertaken by the DETR and the Highways Agency into the effects of variability in travel times. Polak and Noland are already contributing to this research programme through ongoing work being undertaken jointly with Mott MacDonald and the University of Leeds into the modelling of incidents and the introduction of variability concepts into traffic assignment models and through complementary work supported by the EPSRC.

John Polak has been invited by the DETR and the Office of National Statistics to join the Steering Group responsible for overseeing a Quality Assurance Review of Road Freight Surveys. This is one a series of reviews of major national statistical resources currently being carried out by the Office of National Statistics, in conjunction with relevant Departments. The Review will aim to identify the needs of users of road freight statistics and to determine to what degree these needs are adequately met by the current program of freight surveys and to make recommendations, as appropriate.

Washington Ochieng has been elected to the committee of the Satellite Navigation Group (SNG) of the Royal Institute of Navigation. The SNG aims to promote an overall awareness of satellite navigation systems and their uses and limitations. The group participates in the United State's Civil GPS Service Interface Committee (CGSIC) and its International Information Sub-Committee (IISC). Through this, the SNG is able to reflect the views of UK civil GPS users to the US government. Another major activity of the SNG is to facilitate the dissemination of information on satellite navigation primarily by means of one-day focused meetings and seminars.

November 2000

Dr. Robert Noland has been awarded an EPSRC fast-stream research grant to investigate the influence of transport infrastructure and medical technology on traffic fatalities. This research will investigate how various road infrastructure improvements, normally associated with improving the safety of the road network actually effect system-wide fatalities. This will be done while controlling for other factors, such as changes in demographic mix, vehicle design, and improved medical technology. The latter is hypothesized to have had a major impact on reducing total fatalities. An

analysis of these factors on pedestrian fatalities and injuries will also be conducted as well as the impact on fatalities and injuries to children.

Dr. Robert Noland has received a travel grant from the Royal Society to present four papers at the 80th Annual Meeting of the Transportation Research Board in Washington,

DC.

Dr Shoichiro Nakayama from the Department of Civil Engineering Systems at Kyoto University has jointed the Centre as an Honorary Research Fellow, to undertake research with John Polak into the development of models of network dynamics, focusing in particular on the characterisation and modelling of travellers' learning. Dr Nakayama will be based in CTS until May 2002.

October 2000

The Centre for Transport Studies has been commissioned by the Freight Transport Association to investigate the impact on the freight industry of the current proposals for road pricing in London. The work will involve a review of the existing model-based assessments and the development of a new framework to assess the economic impacts on the freight industry of savings in travel time. The work will be led by Dan Graham, with contributions from John Polak and Bob Noland.

The Transport Operations Research Group of the University of Newcastle and the Centre for Transport Studies at Imperial College London has been commissioned by Transport for London and the Commission for Integrated Transport to study the behavioural adaptation stemming from restrictions in car availability, in the wake of the fuel crisis of September. The research will employ focus groups and a telephone survey to explore the mechanisms, the barriers, the consequences, and the sustainability of the adaptations made to activities and travel behaviour in response to restrictions in car availability. The results of this research are intended to inform future policy toward multi-modal transport. The work at Imperial College will be led by John Polak with contributions also from Bob Noland.

September 2000

John Polak has been re-elected to serve a second 3 year term as a member of the Council of the Association for European Transport.

At the end of September, David Abraham retired as Lecturer in Highway Enginerring after over 9 years service at Imperial College. During his time at Imperial, David played a key role in both the Undergraduate and Postgraduate teaching programmes of the Department and was for many years the Organiser of the Intercollegiate MSc course in Transport. We wish David a long and happy retirement.

Bob Noland has been awarded a contract with DETR to review and assess methods for modelling High-Occupancy Vehicle lanes. This work will focus on reviewing current practice in the US and will go on to suggest techniques that may be applicable to the UK.

July 2000

A Foresight Vehicle LINK project has been awarded to a consortium including Imperial College, Sira Technologies Ltd and Saturn Technologies Ltd, to develop

a real time vehicle performance monitoring system (VPEMS). The VPEMS will be fitted within vehicles to monitor driver/vehicle performance and the level of emissions internal and external to the vehicle. Potential applications of VPEMS include; monitoring of environmental compliance, identification of polluters and effective management and maintenance of vehicles, provision of real-time pollution maps, promotion of the development of in-cabin anti-pollution measures, real-time route guidance and fleet management incorporating vehicle emission data. The principal investigator at Imperial College is Dr Washington Ochieng supported by co-investigators John Polak, Dr Bob Noland and Professor David Briggs of the Imperial College School of Medicine. For more information, please visit the VPEMS website.

John Polak has been elected a member of the EPSRC Peer Review College for the period 2000-2002.

In a second new LINK project, awarded under the DETR/EPRSC Future Integrated Transport programme, John Polak, Bob Noland and Xiaoliang Han will be developing new methods of characterising and predicting the reliability of multi-modal transport networks. This project involves collaboration with industrial partnres including AEA Technolgies, Railtrack, the Train Operating Companies and Trafficmaster and with the University of Westminster and Dr John Bates. The work will extend earlier work undertaken separately on the reliability of road and rail systems.

John Polak has been awarded a new Foresight LINK project entitled "Modelling Decision Making Processes in UK Container Transport". The project is jointly funded by DTI, EPSRC and a consortium of eight leading companies involved in the container business and involves collaboration between the Centre for Transport Studies, the Department of Computing, the Huxley School of the Environment and Napier University. The work will apply agent-based microsimulation technologies (of the sort previously applied by Polak to modelling passenger transport systems) to develop a model of assess stragetic infrastructure investment decisions in the UK container industry. Dr. Sheila Farrell, Honorary Research Fellow in the Centre, will be amongst those contributing to the work.

Washington Ochieng was, on 27 July 2000, elected Fellow of the Institute of Civil Engineering Surveyors. This is in recognition of his contribution to the design and application of space based navigation and positioning systems to civil engineering.