

A. NATIONAL DATA SOURCES

A.1 Introduction

A.1.1 There are currently a number of data sources available, both nationally and specific to Scotland, which may be of use to planners during the appraisal of transport proposals. The most significant are summarised in this Appendix.

A.1.2 In general, all the UK data sources are held by the Department for Transport (DfT) and all the Scottish sources by the Scottish Executive.

A.2 United Kingdom Transport and Travel Databases

A.2.1 The DfT has a number of national data sources including:

- TEMPRO Planning Data - National Trip End Model (NTEM);
- National Travel Survey (NTS);
- Census Journey To Work (JTW) trip matrices;
- Rail Passenger Trip Matrices (station to station) from Computer Analysis of Passenger Revenue Information data (CAPRI);
- National Index and Depository of Roadside Interview Survey Data;
- Traffic counts (see SRTDb summary for details).

A.2.2 Summaries of these national data sources are included in this Appendix and further details are contained within Appendix D of GOMMMS.

A.3 Scottish Transport and Travel Databases

A.3.1 In addition to the national data sources outlined above, there are also a number of Scottish Executive data sources and other Scottish based data sources available. These can be categorised under the following headings:

- Network (Supply) Data;
- Travel (Demand) Data;
- Combined Network/Travel Data.

Network (Supply) Data

A.3.2 Network (Supply) Data includes:

- Road Network descriptions (links, junctions, tolls);
- Public Transport Services (routes, frequencies, capacities);
- Parking data (on/off street, short/long term, spaces by location);
- Zones – land-use areas (e.g. shopping/employment centres, residential estates).

A.3.3 Sources of Scottish Network (Supply) Data include:

- Route Action Plans (RAPs);
- Road Accidents Scotland & Scottish Executive's Road Accidents Statistical Database;
- TREAD - Trunk Road Economic Assessment Database;
- Public Transport timetables – Traveline Scotland.

Travel (Demand) Data

A.3.4 Travel (Demand) Data includes:

- Trip End data (based on car ownership/land-use planning data);
- Trip Distribution data (private/public transport origins to destinations);
- Traffic/Passenger Count data (traffic flows by vehicle type, public transport passenger volumes by service / location).

A.3.5 Sources of Scottish Travel (Demand) Data include:

- SRTDb - Scottish Road Traffic Database;
- Scottish Household Survey;
- Scottish Transport Statistics;
- Bus & Coach Statistics;
- Public Transport Survey & Ticket Data.

Network/Travel Data Combined

A.3.6 In addition to the above sources comprising Network or Travel Data, there are sources which contain both, including:

- CSTM3 – Central Scotland Transport Model;
- TMfS – Transport Model for Scotland (enhanced and extended version of CSTM3, operational from the end of 2003);
- SITM – Strathclyde Integrated Transport Model.

A.3.7 Summaries of these national data sources are also included in this Appendix.

A.4 Land Use and Services Databases

A.4.1 To allow transport supply and demand to be considered in relation to the spatial pattern of land uses and services, for example in the accessibility analysis, national and local data may be needed. These include:

- Locations where jobs, education and training are available;
- Locations where health services are provided;

- Locations of shops;
- Other opportunities which may be of local significance such as post offices, chemists, leisure opportunities, banks and building societies.

A.5 Summary

A.5.1 Table A.1 summarises the transport data contained within the various sources detailed in this Appendix.

Table A.1: Summary of Transport Data Sources

Data Source	See Section	Data Content		Network (Supply) Data				Travel (Demand) Data		Additional Data i.e. Costs, Economic
		National	Scottish	Highway	Public Transport	Accidents	Structures	Highway	Public Transport	
TEMPRO/NTEM	A6	X						X		X
National Travel Survey	A7	X						X	X	X
Census Journey to Work Trip Matrices	A8	X						X	X	X
Rail Passenger Trip Matrices (CAPRI)	A9	X			X				X	
National Rail Trends	A10	X			X			X		X
RSI Database	A111	X						X		X
Route Action Plans	A12		X	X		X	X			
Road Accidents Scotland	A13		X			X				X
TREAD	A14		X			X				X
Traveline	A15		X		X					X
SRTDb	A16		X					X		
Scottish Household Survey	A17		X					X	X	X
Scottish Transport Statistics	A18		X			X		X	X	
Transport Statistics GB	A18	X			X	X		X	X	
Bus & Coach Statistics	A19		X		X				X	
CSTM3	A20		X	X	X			X	X	X
TMfS	A21		X	X	X			X	X	X
SITM4	A22		X	X	X			X	X	X

A.6 TEMPRO and the National Trip End Model (NTEM)

Description

- A.6.1 TEMPRO is a computer program used to access the National Trip End Model forecasts of growth in all modes of surface transport, and the underlying car ownership and planning data projections. TEMPRO enables the user to retrieve data for any year from 1991 through to 2036, and calculate the growth rate between a selected base and future years.
- A.6.2 The 'NTEM zoning system' divides Great Britain into around 1200 zones. In Scotland (region) the zoning system is broken down into local authority areas and zones. Settlements under 10,000 population are generally not distinguished as separate zones but are included within the rural area (if any) of each Local Authority.

Sources

- A.6.3 The main sources of information contained within TEMPRO are:
- Census 1991;
 - Mid-year population estimate and Office for National Statistics (ONS) population projections;
 - Office of the Deputy Prime Minister (ODPM) housing projections;
 - Inter Departmental Business Register and Annual Business Inquiry (ABI) employment data.

Data Availability

- A.6.4 Data can be output from TEMPRO/NTEM at a Great Britain, local authority and zonal level. In addition, data can be output for a user defined study area, made up of one or more counties and/or zones.
- A.6.5 The following base and forecast data can be output:
- Total Trip Ends;
 - Trip Ends split by Purpose (Home based work, non-home based work, employer's business, personal business, education, shopping, recreational/social, visiting and holidays/day trips);
 - Trip Ends split by Time Period (weekday am peak, inter-peak, PM-peak, off-peak, Saturday, Sunday, average weekday and average day);
 - Trip Ends split by Mode (walking, cycling, car driver, car passenger, bus/coach, rail/underground);
 - Trip Ends split by Car Availability;
 - Number of Households with 0, 1, 2, 3+ cars;
 - Total Households;

- Total Cars;
- Population;
- Workforce;
- Jobs.

A.6.6 The format of trip end forecast data is available as:

- Growth Factors (= future year data/base year data)
- Future Year – Base Year (= growth expressed in terms of the absolute increase/decrease in the displayed data values)
- Base Year Data (= absolute data for the selected base year)
- Future Year Data (= absolute data for the selected future year)

Format of the data

A.6.7 TEMPRO is a WINDOWS based program. Exported data is in comma separated variable (csv) format.

Data Use

A.6.8 Detailed applications of TEMPRO and NTEM can be found in Section 5 of the TEMPRO guidance note, which can be downloaded from the TEMPRO website (see A.6.10).

Accessing Data

A.6.9 Full details of the TEMPRO program and the National Trip End Model are available in the TEMPRO guidance note which can be downloaded from the TEMPRO website.

A.6.10 The TEMPRO software and NTEM files, together with the TEMPRO guidance note, can be downloaded from: www.tempro.org.uk

Cost

A.6.11 Access to TEMPRO is free of charge.

Contacts

A.6.12 The main contact for TEMPRO and the NTEM is Frederic Oladeinde in ITEA Division within the DfT.

Telephone 020 7944 6058, Email tempro@df.t.gsi.gov.uk

A.7 National Travel Survey

Description

- A.7.1 The National Travel Survey (NTS) is a household survey of travel covering residents of Great Britain. Fieldwork was conducted by the Office for National Statistics (ONS) until the end of 2001, and from 2002 by the National Centre for Social Research (NatCen) on behalf of the DfT.
- A.7.2 Every household member in the sample is asked to keep a seven-day travel diary of all personal travel within Great Britain. Parents are asked to keep the diary for young children. Diary details include the purpose of each journey made, the modes of transport used, the timing of the journey, and the origin and destination.
- A.7.3 The household members are also interviewed (using CAPI- Computer Assisted Personal Interviewing) to provide background demographic data, such as age, sex, income and employment status, and other information relevant to travel such as ownership of cars and other vehicles, details of driving licences, the availability of local public transport, and disabilities affecting transport use.
- A.7.4 Only travel within Great Britain, by British residents living in private households is included. Most personal travel over 50 yards is included, including walking. Walking, cycling and other travel off the public highway are not included in the survey, although activities such as jogging and walking the dog along a road or cycling on cycleways are included.
- A.7.5 Travel in the course of work by people whose work is to travel (such as bus drivers, postmen and deliverymen) is excluded, but travel in the course of other work is included. For example, this includes a business person travelling to a meeting, a doctor or health visitor on their rounds, or a plumber fetching materials to complete a job.

Sources

- A.7.6 A sample of households is taken throughout Great Britain. In 1999/2001, the achieved sample included 9,924 'fully responding' households, made up of 23,004 people. From 2002, the sample size has been increased sufficiently to allow more single year statistics to be presented, rather than the combined 3-year average as previously used.

Data Availability

- A.7.7 Various data associated with people's travel patterns throughout Britain are available at a regional level, including:
- Distance travelled each year;
 - Time spent travelling;
 - Number of trips made;

- Mode of trips;
- Purpose of trips.

Format of the Data

- A.7.8 Data from the National Travel Survey is available as a series of tables and graphs which can be broken down to a regional level. Although it is possible to identify residents of a particular local authority area, results at this level are not necessarily representative, and sample sizes are too small to give more than minimal information about their travel. From 2002, the sample is representative at sub-regional level allowing some analysis at greater geographic detail.
- A.7.9 In addition to geographic information on administrative areas, such as Government Office Regions, the NTS can identify residents of urban (in different population bands) and rural regions.

Data Use

- A.7.10 The National Travel Survey is carried out in order to provide a better understanding of the use of transport facilities made by different sectors of the population, and trends in these patterns of demand.
- A.7.11 Extensive use was made of NTS data in the formulation of policies in the White Paper '*A New Deal for Transport*' (July 1998). Other important uses include monitoring national strategies, forecasting car ownership and traffic levels, and monitoring accident rates amongst different types of road user.

Accessing Data

- A.7.12 Output and results from the National Travel Survey can be accessed via the DfT web site at: www.transtat.dft.gov.uk/personal
- A.7.13 The main analysis of the 1998/2000 National Travel Survey is contained in *Focus on Personal Travel* available from the DfT's website at:
<http://www.transtat.dft.gov.uk/tables/2001/fperson/fpers01.htm>
and also from The Stationery Office Bookshop in hard copy.
- A.7.14 The main results are updated in the *Transport Statistics Bulletin - National Travel Survey: 1999/2001*. Update available from the DfT's web site at:
<http://www.transtat.dft.gov.uk/tables/2002/nts/nts02.htm>
and also from the DfT in hard copy.
- A.7.15 Thirteen Personal Travel Factsheets are also available on a number of topics such as Travel to School, Travel to Work, Car Use and Travel by Rail also from the DfT website at: <http://www.transtat.dft.gov.uk/personal/index.htm> and also from the DfT in hard copy.

A.7.16 Data is generally available by mode, sex, age group and other variables. Customised tables using unpublished NTS data may be obtained from the DfT.

Cost

A.7.17 Extracts and data from the National Travel Survey obtained from the DfT web page are free. The Transport Statistics Bulletin and Personal Travel Factsheets are available free from the DfT. There is a charge for *Focus on Personal Travel* obtained from The Stationery Office Bookshop. For customised tables, obtainable from the DfT, there may be a charge.

Contacts

A.7.18 The Department for Transport is responsible for the National Travel Survey. For all enquiries telephone 020 7944 3097 or Email national.travelsurvey@df.t.gsi.gov.uk.

A.8 Census Journey to Work Trip Matrices

Description

- A.8.1 The DfT has developed software to produce Census Journey-to-Work matrix extracts for use in base year matrix building. The software produces trips by mode in a production and attraction format suitable for transport modelling. The users define their zoning system, specifying each zone in terms of one or more 1991 Census regions, districts or wards. Appropriate factors are applied to convert from the 'usual journey to work' in the Census to an estimated number of trips by each mode in the selected year (1991-1997), split by household car ownership if required.

Sources

- A.8.2 The main source of data is currently the 1991 Census data, with factors to update to 1997. This will be updated to 2001 Census data when that becomes available later in 2003.

Accessing Data

- A.8.3 The Census Journey to Work Trip Matrices can be accessed from Peter Davidson Consultancy.

Cost

- A.8.4 The full software package costs about £450 (including telephone support). Price for small enquiries on application.

Contacts

- A.8.5 The DfT can be contacted regarding the Census Journey to Work Trip Matrices by email at itea@dft.gsi.gov.uk or via their web site at www.dft.gov.uk
- A.8.6 Peter Davidson Consultancy can be contacted by email at mail@peter-davidson.com

A.9 Rail Passenger Trip Matrix from CAPRI Data

Description

A.9.1 The DfT has commissioned the creation of rail passenger trip matrices based upon the railway ticketing data set CAPRI (Computer Analysis of Passenger Revenue Information).

Sources

A.9.2 Ticket sales at various stations.

Data Availability

A.9.3 The following data is available:

- Station to station trip matrices;
- Representation of full OD movements, taking account the location of trip end points relative to station;
- Profiles for observed stations have been developed and applied across the network;
- Segmentation by purpose and car availability;
- Peak and off-peak time period matrices.

A.9.4 It should be noted that CAPRI information has a number of limitations, which need to be considered carefully before a decision is taken to use this dataset:

- It does not cover tickets bought for travel on the major light rail systems;
- CAPRI cannot assign a point to point journey where a multi-modal ticket is bought (e.g. rail/bus/LRT travelcards);
- CAPRI cannot reflect travel without a ticket (e.g. free concessionary travel, PTE rail only travelcards) and has limitations with flat fare concessionary travel;
- CAPRI covers all days of the week (a limitation brought about by the lack of recorded data concerning the return leg of return tickets, and the timing of use of season tickets).

A.9.5 While CAPRI provides station-to-station movements, DfT supplies OD matrices, taking account of the location of trip end points (referenced to wards) relative to rail stations. This has been carried out using category analysis techniques on survey data for a limited number of stations.

A.9.6 Detailed analysis of the data for the study area in question is recommended prior to a decision to make use of this source. Further data processing has been conducted to segment by purpose and car availability.

Data Use

- A.9.7 The Rail Passenger Trip Matrices can be used as an initial source of rail passenger trip data but care needs to be taken given the limitations associated with the data.

Accessing Data

- A.9.8 Availability of this data is subject to commercial confidentiality. Those wishing to use the data should in the first instance contact: itea@dft.gsi.gov.uk.

Cost

- A.9.9 Price on application.

Contacts

- A.9.10 The DfT can be contacted regarding the CAPRI data by emailing: itea@dft.gsi.gov.uk.

A.10 National Rail Trends – Strategic Rail Authority

Description

A.10.1 The Strategic Rail Authority's National Rail Trends is published quarterly and brings together a wide range of information on the rail industry. It is split into sections covering:

- Rail usage;
- Rail performance;
- Fares;
- Freight;
- Government support, investment, infrastructure and rolling stock.

Sources

A.10.2 The main sources of information contained within the National Rail Trends are:

- The Train Operating Companies (TOCs);
- National Rail;
- Department for Transport.

A.10.3 In addition, use is made of the rail industry's central ticketing system, CAPRI, as the basis for passenger kilometres and journeys data (ref. Section A.9).

Data Availability

A.10.4 Various information and data are available from the National Rail Trends, including:

- Passenger kilometres;
- Passenger journeys;
- Passenger revenues;
- Timetable train kilometres;
- Public performance measure;
- Rail complaints;
- National Rail Enquiry System;
- Fares price index;
- Freight moved;
- Freight lifted;
- Government support;
- Investment;

- Infrastructure on National Railways;
- Average age of rolling stock.

Format of the Data

A.10.5 The National Rail Trends presents data in tabular and graphical format for each topic and includes summaries of key results. Where possible the information presented is broken down by ticket type, sector, or Train Operating Company etc. The analysis of trends in some cases dates back to 1948.

Data Use

A.10.6 The data from the National Rail Trends can help to provide information on sub-national rail statistics and can provide a more comprehensive picture of the service being provided. The data can be used for analytical purposes such as modelling. The data also provides a useful source of historic trends.

Accessing Data

A.10.7 The National Rail Trends can be accessed through the Strategic Rail Authority via their website at: www.sra.gov.uk

A.10.8 A more detailed breakdown of the information contained within the National Rail Trends can be obtained from the SRA. The SRA will consider each request and generally consult with the Association of Train Operating Companies (ATOC) to ensure that the request would involve no disclosure of commercially confidential information. As a rule, this is much less likely to be the case where requests are for journeys/passenger kilometres data than for revenue data.

A.10.9 Where detailed data is being sought for analytical purposes such as modelling, the SRA can offer advice and data subject to confidentiality agreements.

Cost

A.10.10 The National Rail Trends can be downloaded free from the SRA website. Detailed data requests to the SRA may incur a charge which should be discussed with them.

Contacts

A.10.11 The Strategic Rail Authority contact for rail data is:

- Anthony Craggs SRA. Tel. 020 7654 6174; Fax 020 7654 6010
Email anthony.craggs@sra.gov.uk

A.11 National Origin-Destination Transport Survey Databank

Description

- A.11.1 The National Origin-Destination Transport Survey Project has been developed by the DfT to assist organisations involved in the identification, selection and use of appropriate origin-destination transport data. Collection of this type of data is often expensive. For this reason, whenever possible, transport modellers should ensure that they make the best use of existing survey data. However, it is often time-consuming identifying potential sources of movement data and can cause duplication of effort.
- A.11.2 In recognition of the need for a consolidated source of information, the National Origin-Destination Transport Survey project was developed by the DfT in association with the Highways Agency. The project originally began in 1997 and has undergone a number of changes since then.

Sources

- A.11.3 The National Origin-Destination Databank now contains information about transport origin-destination surveys for:
- Roadside interviews
 - Public Transport
 - Home interviews
- A.11.4 The resultant database contains information collected from questionnaire returns sent to local authorities and consultants covering England, Scotland and Wales. The database contains information on the location and type of data available, including organisation central contact details.

Data Availability

- A.11.5 The database provides a list of site locations for existing RSI datasets held by UK public authorities, including summary data (contact name, telephone number, date of survey etc.).
- A.11.6 Public transport survey sites are represented in the mapping application as location-based, route-based or area-based, depending on the surveying methods.
- A.11.7 Home interview surveys are represented on an administrative boundary level so when a user selects an area they are presented with a listing of all surveys taken.

Format of the Data

- A.11.8 Outputs from the datasets can be spreadsheet listings, printouts of GIS maps, or a GIS point dataset. Detailed maps showing site locations are also available.

Data Use

A.11.9 The National Origin-Destination Databank contains details of what RSIs have been carried out to date, along with their locations and date of survey etc. The information can be used to augment local RSI survey data during matrix building.

Accessing Data

A.11.10 The Database File, Index Files and Survey questionnaires can be downloaded from the DfT website:

<http://www.roads.dft.gov.uk/roadnetwork/heta/datasource/databank/01.htm>

A.11.11 The mapping information can be viewed graphically at: www.ods.dft.gov.uk

Cost

A.11.12 Access to the data depository is free of charge.

Contacts

A.11.13 The ITEA division of DfT can be contacted for any further information regarding the National Databank by emailing odsatabank@dft.gsi.gov.uk

A.12 Route Action Plans (RAPs)

Description

- A.12.1 The Scottish trunk road network consists of approximately 3,500 kilometres of road, of which 2,500 kilometres (70%) is single carriageways, 500 kilometres (15%) is dual carriageway and a further 500 kilometres (15%) is motorway. On average, approximately 40 million vehicle kilometres are travelled on the network each day.
- A.12.2 Much of Scotland thus remains dependent on a strategic rural road network of predominantly long-distance single carriageway routes. The most important aspect of rural single carriageway operation is the provision of adequate overtaking to permit the dispersal of platoons of traffic and provide reliable journey times. Many of our long distance single carriageway trunk roads are historically aligned and feature constrained horizontal & vertical alignments that preclude overtaking. In addition, manoeuvres into and out-of sub-standard junctions causes hold-ups to through traffic. Characteristically, such routes feature long convoys of mixed traffic, higher than average accident and severity rates and high variations in journey times for all traffic.
- A.12.3 In recognition of the need to address the investment requirements of single carriageway trunk roads that had been identified as experiencing particular safety and operational problems, Route Action Plans (RAP's) were introduced in the early 1990's. A total of eleven trunk routes or part routes, subsequently became the subject of RAP's.
- A.12.4 A Route Action Plan is developed following an independent study of a road's existing safety and operational characteristics. The RAP generally comprises of three main components:-
- (i) a programme of *accident investigation and prevention* work based on the "3 E's" (Education, Enforcement & Engineering);
 - (ii) a programme of *mass action* designed to modernise junctions & accesses and to bring other sub-standard features up to contemporary standards. This includes traffic signs, road markings and other aids to driving;
 - (iii) the identification of a limited investment programme of *targeted small scheme improvements* that will secure the route's operational efficiency over the medium to longer term.
- A.12.5 The Methodology of a contemporary RAP Study normally includes all or most of the following study elements:-

Table A.2: Route Action Plan Study Methodology

RAP ELEMENT	INVESTIGATION	OUTPUT
AIP Study	<p>Accident History</p> <p>Accident Concentrations</p> <p>Accident Causation</p> <p>Remedial Measure Options</p>	<p>AIP Schemes</p> <p>Enforcement Measures</p> <p>Education Measures</p> <p>Encouragement Measures</p>
Route Standards Study	<p>Departures from Design Standard</p> <p>Relaxation in Design Standard</p> <p>Historical Deficiencies</p> <p>Ambiguities leading to High Risk/Driver Stress.</p> <p>Climatic Conditions.</p>	<p>Link Mass Action</p> <p>Junction & Access</p> <p>Mass Action</p> <p>Maintenance Actions</p> <p>Driver Information Enhancements</p>
Environment Study (SEA/ EA/ Scoping)	<p>Route development strategy in terms of trunk road network environmental policy. Local environmental appraisal of air, noise, water, ecology, landscape, heritage, agriculture, severance, etc.</p>	<p>Confirmation of Route Development Capability.</p> <p>Environmental Strategy for Route.</p> <p>Environmental design requirements. Environmental Improvement Schemes.</p> <p>Scheme Appraisal input data.</p>
Planning Study	<p>Land Use & Economic Development Policies, Proposals and Opportunities.</p>	<p>Current & likely future LU/ED requirements /allowances / contributions</p>
Integrated Transport Study	<p>Specific user and operator requirements including freight and public transport plans, policies and opportunities, local network interface proposals, traffic management etc.</p>	<p>Freight, Public Transport and LA/Operator route infrastructure requirements</p>
Route Operation Study	<p>Link & Node operational performance in terms of current & medium term network conditions & requirements.</p>	<p>Traffic Management, Junction & Linear Route Improvement Schemes</p>
RAP Strategy Study	<p>Interaction of AIP, Route Standards, Environmental, Planning, Integrated Transport and Route Operation Studies</p>	<p>RAP Firm Strategy Report.</p>

A.12.6 The main output of a Route Action Plan Study is usually the Firm Strategy Report which summarises and draws together all the findings and recommendations. The FSR will recommend an overall firm strategy for improvements along the route and identifies a programme of remedial measures and improvements such as accident remedial schemes; environmental improvement schemes; overtaking opportunities; and other appropriate improvements within an overall strategic framework. The FSR will also detail the costs and phased implementation for these improvements in the short, medium and long term.

Data Availability

A.12.7 The following RAP Studies are either complete or are in the process of being completed:

- A1 Edinburgh to Border;
- A7 Galashields to Border;
- A68 Edinburgh to Newtown St.Boswells;
- A75 Gretna to Stranaer;
- A76 Dumfries to Kilmarnock;
- A77 Ayr to Stranraer;
- A830 Loch nan Uamh to Kinsadel (no FSR but a Route Corridor Selection Report);
- A9 Perth to Inverness;
- A9 Dornoch to Wick;
- A90 Perth to Dundee (no FSR);
- A96 Aberdeen to Inverness.

A.12.8 In addition, the Executive's 2003 Review of Route Action Plans includes an appraisal of all the small improvement schemes (<£5m) included within the above Route Action Plans. The appraisals are set out in Small Scheme Appraisal Summary Tables (SSASTs) together with the appraisal methodology and an evaluation of the RAP approach based on a mature RAP.

Format of the Data

A.12.9 RAPs are usually available in the form of a number of reports including:

- Contextual Analysis Report;
- Inception Report;
- Baseline Conditions Report;
- Traffic Modelling Report;
- Strategic Assessment Report;
- Public Transport Report;

- Firm Strategy Report.

Data Use

A.12.10 The data contained within the RAPs (and FSRs) can be used to highlight the current conditions along the route i.e. base line conditions, together with the various options and proposals currently being considered. In addition, they provide details of the proposed implementation schedule.

Data Access

A.12.11 Copies of RAPs and FSRs (or more likely extracts/information from) are available from the Scottish Executive Development Department Route Managers.

Cost

A.12.12 There is no charge for this information to Local Authorities.

Contacts

A.12.13 The main contacts for information on RAPs and FSRs are the SEETLLD Route Managers.

A.13 Road Accidents Scotland & Scottish Executive's Road Accidents Statistical Database

Description

- A.13.1 Road Accidents Scotland is produced annually by the Scottish Executive, Analytical Services Division, Transport Statistics Branch. It presents statistics of the numbers of injury road accidents which were recorded by the police in Scotland. The data presented relates to the most recent year available (currently 2001). The more detailed tables provide data in the form of 5-year annual averages (for the years 1994- 1998) in line with the UK casualty reduction targets for 2010. They also present information over the last ten individual years. Some of the lesser detailed trend analysis goes back as far as 1953. Similar statistics are available on a Great Britain wide basis in the publication 'Road Accidents Great Britain'.
- A.13.2 The Scottish Executive's Road Accidents Statistical Database contains details of all injury accidents recorded by the police in Scotland and sent to the Scottish Executive.

Sources

- A.13.3 The main source of accident data is
- police STATS 19 Forms.
- A.13.4 STATS 19 forms are completed by the police for all injury accidents reported to them. They include details of:
- attendant circumstances – date, location (OSGRs), road conditions, weather;
 - vehicles involved;
 - casualties recorded.

All this information is coded into the Road Accidents Statistical Database.

Data Availability

- A.13.5 Road Accidents Scotland contains over 40 tables of information relating to injury accidents in Scotland. Examples of these tables include:
- accidents by road and junction type and area;
 - accidents rates and costs;
 - casualties and vehicles involved.
- A.13.6 The database of accidents contains details of all injury accidents recorded.

Format of the Data

- A.13.7 Road Accidents Scotland is produced annually as a stand-alone document/report. A summary bulletin giving provisional high level figures is also produced. Full accident details are held on the database.
- A.13.8 Accident data from the database can be extracted for specific roads throughout Scotland (both trunk and non-trunk).

Data Use

- A.13.9 The data from Road Accident Scotland and the Road Accidents Statistical Database can be used to determine the overall effects of scheme improvements i.e. the changes in accident rates and costs associated with different schemes. Data can also be extracted from the database to provide local historic accident rates and costs.

Data Access

- A.13.10 Copies of Road Accidents Scotland are available from The Stationery Office Bookshop.
- A.13.11 Extracts from the Road Accidents Statistical Database can be obtained from the SE Transport Statistics Branch and the SE Accident Investigation Unit (trunk road accidents only). Local information should however be obtained from the appropriate Police force or Local Authority.
- A.13.12 Road Accidents Great Britain can be accessed via the DfT website at:

www.transtat.dft.gov.uk

and may be purchased from The Stationery Office Bookshop.

Cost

- A.13.13 Road Accidents Scotland currently costs £10.
- A.13.14 Data from the Road Accidents Statistical Database is usually supplied free of charge to Local Authorities. However, a charge may be made depending upon the amount of staff time required.

Contacts

- A.13.15 Scottish Executive contacts for accident data are:
- Scott Brand, Transport Statistics Branch; Tel. 0131 244 7255; Fax. 0131 244 0888; email: transtat@scotland.gsi.gov.uk.
 - Charlie Lewis, Accident Investigation & Prevention Unit (Trunk Roads only) Tel: 0131 244 0455; Fax: 0131 244 0156; Email: charlie.lewis@scotland.gsi.gov.uk.

A.14 TREAD - Trunk Road Economic Assessment Database

Description

- A.14.1 The Trunk Road Economic Assessment Database (TREAD) contains details of trunk road scheme economic assessments at different stages of the assessment process. It contains links to all current Traffic and Economic Evaluation Report (TEER) forms which give detailed information associated with the economic assessment such as Net Present Values (NPVs) and Benefit Cost Ratios (BCRs).
- A.14.2 In addition, TREAD contains copies of the SEETLLD Design & Construction Division's Quarterly Scheme Progress Reports which detail the status and progress of all the schemes within DCD's trunk road programme. TREAD also contains summary details from DCD's Annual Before and After Monitoring Reports.

Sources

- A.14.3 The main sources of information contained within TREAD are:
- TEER forms;
 - Quarterly Scheme Progress Reports;
 - Annual Before and After Monitoring Reports.

Data Availability

- A.14.4 The following information and data is available from TREAD:
- Scheme details i.e. carriageway standard, length, construction start date & construction period etc.
 - Scheme economics including costs, NPV, BCR etc.;
 - Before and After Monitoring data including traffic flows, accident details, environmental mitigation measures, etc.

Format of the Data

- A.14.5 TREAD is a Microsoft Access 97 database. Extracts from the database are supplied either on paper or in electronic format suitable for input to spreadsheets.

Data Use

- A.14.6 The data from TREAD can be used to:
- Determine what trunk road schemes may be planned within an area of interest and their current status;
 - Examine the economic assessments of schemes at different stages i.e. pre-feasibility; pre-order publication; pre-tender; and post tender, including the current and previous quarter's total scheme costs;
 - Examine the accident savings associated with different schemes.

Data Access

A.14.7 TREAD can be accessed through TR-DCD Standards Traffic & Environment Branch.

Cost

A.14.8 There is no charge to Local Authorities for data extracted from TREAD.

Contacts

A.14.9 The SEETLLD contact for TREAD is:

- Gerard McPhillips, TR-DCD Standards Traffic & Environment Branch. Tel 0131 244 7210; Fax. 0131 244 7228; email gerard.mcphillips@scotland.gsi.gov.uk

A.15 Traveline Scotland

Description

- A.15.1 Traveline Scotland is one of 11 regional partnerships across the UK which together deliver the National Traveline traveller information service. Information is available by telephone (0870 608 2 608) and the internet (www.traveline.org) for journeys by all modes of public transport – bus, train, air, ferry, coach and underground, plus walking links.
- A.15.2 Traveline Scotland provides traveller information through a journey planner about all public transport services in Scotland and currently for trunk journeys in the UK. Future enhancements to regional planner communication protocols through Journey Web will allow complete journey details anywhere in the UK to be provided at one point of contact.
- A.15.3 Traveline Scotland holds a database of every bus stop and public transport access point within Scotland. This includes the name of that stop, its local authority identity code and its Ordnance Survey grid references (OSGRs - six digits each giving one metre resolution).

Sources

- A.15.4 Information is provided by bus and train operators and local authorities on these services. Information on other modes is collected by Traveline from a number of public sources for use within the journey planner.

Data Availability

- A.15.5 Base data about each mode is available in the form of timetables which typically contain:
- Service identifier;
 - Route description;
 - Service frequency or times;
 - Daily or holiday variations.

Format of the Data

- A.15.6 Data can be output in the form of a specific journey itinerary, a listing of departures for any given stop by operator, by service or by time, and a list of departures for any given stop by chronological time order. Bus stop geographical codes and names can be supplied on excel spreadsheets.

Data Use

- A.15.7 The data provides a central source of information about travel opportunities and can be used to investigate trends and possibilities for changes in public transport use and evolution. It may be used to help identify travel needs for new planning and development proposals. OSGRs of all stops, along with the listing of service provision from these stops, may be used to develop accessibility analysis routines.

Data Access

- A.15.8 Data can be requested from Traveline Scotland, and can be made available on CD.

Cost

- A.15.9 A small charge may be made for the time involved in extracting the required data, and details will be provided by Traveline Scotland at the time of request.

Contacts

- A.15.10 Enquiries should be made to the Chief Executive of Traveline Scotland, John Elliot. Tel. 07771 647034 or email jelliot@travelinescotland.com

A.16 SRTDb - Scottish Road Traffic Database

Description

- A.16.1 The Scottish Roads Traffic Database (SRTDb) is a system which collects, validates, stores and disseminates traffic count data for the trunk road network and limited parts of the non-trunk network. The SRTDb is operated and maintained by the Scottish Executive Development Department Road Network Maintenance and Management Division.

Sources

- A.16.2 There are over 1300 traffic count sites in the system at present, with more likely as additional non-trunk sites are brought into the system. Data is collected via manual classified counts and automatic traffic counters located (mainly) throughout the trunk road network.
- A.16.3 The manual classified counts tend to be made up of the Link Based Rotating Census sites where counts are carried out once every six years (every three years in England). Data for these sites tend to be a 12-hour profile of classified data for a single day. Automatic traffic counters are used to supply data at the majority of sites. Most automatic sites are continuously monitored but the extent of available data can vary depending upon the reliability of the count equipment and the data retrieval process. The more modern sites include power and telemetry and as a result data from these sites are in general the most comprehensive and reliable. Whenever a new trunk road scheme is constructed, or maintenance work is undertaken on an existing part of a route, the opportunity is taken to install or upgrade automatic counters as required.

Data Availability

- A.16.4 The earliest data available dates back to 1984. At the earlier automatic sites, data is downloaded and retrieved manually and sent to SRTDb on a monthly basis, whereas at the more modern automatic sites data is sent by telemetry on a daily basis to SRTDb. The available data includes:
- 12 hour manual counts classified by vehicle type for a single day;
 - automatic volumetric (i.e. no class) – on an hourly and daily basis;
 - automatic classified counts – on an hourly and daily basis;
 - local growth rates (can be calculated).

Format of the Data

- A.16.5 A variety of data formats are available including printouts and electronic files which can be imported into spreadsheets.

Data Use

A.16.6 The data available from SRTDb can be used to:

- validate modelled flows;
- update matrices;
- estimate local traffic growth;
- estimate local flow profile data;
- factor RSI data.

Data Access

A.16.7 Access to the data is via the SRTDb Intranet site. Whilst this Intranet site can be accessed remotely from outwith the Scottish Executive, there are restrictions on who can be accommodated. In the first instance users should contact SRTDb.

Cost

A.16.8 SRTDb supply traffic data free of charge for use on Local Authority or Scottish Executive projects/schemes. For other schemes such as private developments a charge is made. These charges vary depending upon the data required. Full details of any charges are available from SRTDb.

Contacts

A.16.9 Contacts at SRTDb are:

- Stuart Hay for automatic data.
Tel: 0131 244 0458, Fax: 0131 244 0156
Email: stuart.hay@scotland.gsi.gov.uk
- David Brown for manual count data.
Tel: 0131 244 0412, Fax: 0131 244 0156
Email: david.brown@scotland.gsi.gov.uk

Additional Information

A.16.10 The DfT has an extensive database of traffic counts similar to that held by SRTDb. In addition, the Highways Agency also has a large amount of traffic count data.

A.16.11 The DfT can be contacted regarding traffic count information by emailing:

roadtraff.autocou@dft.gsi.gov.uk and

roadtraff.manual@dft.gsi.gov.uk

A.17 Scottish Household Survey

Description

- A.17.1 The Scottish Household Survey provides the Scottish Executive with accurate information about the composition, characteristics and behaviour of Scottish households at both a national and local authority level.
- A.17.2 The survey is designed to provide up-to-date information about the characteristics, attitudes and behaviour of Scottish households on a range of issues. It focuses on the areas of transport and social inclusion issues such as housing, health and neighbourhood.

Sources

- A.17.3 The survey began in 1999 and is currently funded until 2006. Interviews are carried out in approximately 15,500 randomly selected households each year.

Data Availability

- A.17.4 The Scottish Household Survey contains details on the following topics/areas:

- Household composition including number of children;
- Property;
- Transport and amenities;
- Health, disabilities and care;
- Working status of highest income householder;
- Economic activity;
- Household income and expenditure inc. housing costs;
- Assets savings, credit and debt;
- Local area/community safety;
- Education;
- Services and local government;
- Internet access;
- Homelessness;
- Childcare;
- Recycling;
- Volunteering.

Format of the Data

- A.17.5 The results of the survey are available from SHS Annual Reports, and various Scottish Executive Statistical Bulletins. These can be obtained in either paper format or electronically via the internet.

Data Use

- A.17.6 The Scottish Household Survey will provide the Scottish Executive and other interested parties with accurate, up-to-date information on the impact on households and individuals of key services and policies which the Parliament is now responsible. This will assist in the effective evaluation of policy and the development of policy advice.

Data Access

- A.17.7 Copies of The Scottish Household Survey Annual and Technical Reports, Quarterly Bulletins and other related publications are available from The Stationery Office Bookshop and also on the survey's website at <http://www.scotland.gov.uk/shs>

Cost

- A.17.8 Survey bulletins are priced at between £5.00 and £20.00 whereas information via the internet is available free.

Contacts

- A.17.9 The main contact for the Scottish Household Survey is:
- The Project Manager, Tel 0131 244 8420; Fax. 0131 244 7573
Email: shs@scotland.gsi.gov.uk

A.18 Scottish Transport Statistics/Transport Statistics Great Britain**Description**

A.18.1 Scottish Transport Statistics contains numerous key statistics associated with transport in Scotland and is published annually by the Scottish Executive. Similar statistics are available on a Great Britain wide basis in the publication Transport Statistics Great Britain.

Sources

A.18.2 Various sources contribute to the Scottish Transport Statistics including:

- Bus & Coach Statistics – Statistical Bulletin;
- Travel by Scottish Residents: Some National Travel Survey Results – Statistical Bulletin;
- Road Accidents Scotland;
- Department for Transport Maritime Statistics.

Data Availability

A.18.3 Scottish Transport Statistics contains chapters on:

- Road transport vehicles;
- Bus and coach travel;
- Road freight;
- Toll bridges;
- Road network;
- Road traffic;
- Injury road accidents;
- Rail services;
- Air transport;
- Water transport;
- Finance;
- Personal and cross-modal travel.

A.18.4 In addition, there are tables which provide a summary of the trends in passenger and freight transport in Scotland since 1960. Transport Statistics GB contains similar data on a GB wide basis.

Format of the Data

- A.18.5 Scottish Transport Statistics presents data in tabular format for each topic together with commentary on points shown in the tables.

Data Use

- A.18.6 The data contained within the Scottish Transport Statistics (and Transport Statistics GB) can be used to examine and update travel demand. The data provides a useful source of historic trends.

Data Access

- A.18.7 Scottish Transport Statistics (together with all its source documents and bulletins) can be found on the Scottish Executive website: www.scotland.gov.uk

and may be purchased from The Stationery Office Bookshop.

- A.18.8 Transport Statistics Great Britain can be accessed via the DfT website on:

www.transtat.dft.gov.uk

and may be purchased from The Stationery Office Bookshop.

Cost

- A.18.9 Scottish Transport Statistics costs £10. Information obtained via the internet is available free of charge.

- A.18.10 Transport Statistics Great Britain costs £34, but is available via the internet free of charge.

Contacts

- A.18.11 The Scottish Executive contact for Scottish Transport Statistics is:

- Scott Brand Transport Statistics Branch; Tel. 0131 244 7255; Fax. 0131 244 0888; Email: transtat@scotland.gsi.gov.uk.

- A.18.12 The DfT can be contacted regarding Transport Statistics Great Britain by emailing publicationgeneral.eng@dft.gsi.gov.uk

A.19 Bus & Coach Statistics

Description

A.19.1 Bus and Coach Statistics is an annual Statistics Bulletin which describes the trends in Scottish bus and coach services over the past 10 years. The data focuses on the latest year and compares it with the previous year, and also with trends over the past ten years. Trends for Scotland are also compared with those for Great Britain as a whole (and for Great Britain outwith London).

Sources

A.19.2 The data is collected from Scottish operators.

A.19.3 Statistics for the Bus and Coach Statistics Bulletin are provided by the Department for Transport.

Data Availability

A.19.4 The bulletin provides estimates of the level of provision and trends in the provision of local bus services and patronage of such services for Scotland, and in some cases by local authority area. These include:

- Distance travelled;
- Passenger numbers;
- Number of buses, coaches & services;
- Fares & receipts;
- Public transport support & subsidies;
- Operating costs;
- Staff employed;
- Estimates of vehicle kilometres and passenger journeys;
- Long term trends.

Format of the Data

A.19.5 The statistics contained with the Bus and Coach Statistics Bulletin are presented in tabular format supported by textual commentary. The bulletin is available in paper format and electronically via the internet.

Data Use

A.19.6 The information and statistics contained within with the Bus and Coach Statistics bulletin can be used to examine the current and historic levels and trends in the provision and patronage of bus and coach services throughout Scotland. These can then be compared against similar data for Great Britain as a whole (with and without the inclusion of services in London).

Data Access

A.19.7 Copies of the Bus and Coach Statistics Bulletin is available from The Stationery Office Bookshop and on the Scottish Executive website at www.scotland.gov.uk.

Cost

A.19.8 The Bus and Coach Statistics Bulletin is priced at £2.00. Information obtained via the internet is available free of charge.

Contacts

A.19.9 The Scottish Executive contact for Bus and Coach statistics is:

- Scott Brand Transport Statistics Branch; Tel. 0131 244 7255; Fax. 0131 244 0888; email: transtat@scotland.gsi.gov.uk

A.19.10 The DfT can be contacted regarding national bus and coach statistics by emailing bus.statistics@dft.gsi.gov.uk

A.20 CSTM3 and CSTM3A - Central Scotland Transport Model

Description

- A.20.1 The Central Scotland Transport Model (CSTM3) is an enhanced four-stage multi-modal model with detailed link and junction assignments. The model is an enhanced version of the Central Scotland Traffic Model (Versions 1 and 2) and has a base year of 1997. CSTM3 covers the area from Perth and Dundee to the National Border. This area is covered by detailed road and public transport networks and travel demand is defined by mode, purpose and car availability.
- A.20.2 CSTM3A is a further enhancement of CSTM3 developed for use during the Central Scotland Transport Corridor Studies (CSTCS) and has a base year of 2000. Although CSTM3A covers the same geographical area as CSTM3, its calibration and validation is focused around the CSTCS study areas (namely A80, M74 and A8).
- A.20.3 Further information regarding CSTM3 and CSTM3A can be found in Appendix B.

Sources

- A.20.4 CSTM3 makes use of data from other such models as Strathclyde Integrated Transport Model (SITM - see section A.22), M8 Corridor Model and Forth Valley Traffic Model. The development process involved a programme of roadside interviews, traffic surveys and public transport surveys.

Data Availability

- A.20.5 CSTM3 can provide traffic forecasts on all Trunk Roads within the modelled area over a twenty-year period. Information from different modelling stages within CSTM3 can be extracted for use in more detailed scheme appraisal processes. Additionally, the highway network contains details of some 21,000 links and 1,600 modelled junctions whilst the public transport network contains details of some 1,000 bus and rail services. CSTM3A can provide similar data throughout the CSTCS study area.
- A.20.6 During the enhancement and updating of CSTM3, various data has been collected and input to the model. These include:
- Planning and Forecast data;
 - Roadside Interview data;
 - Public Transport data;
 - Journey Time data;
 - Junction Turning Count data.

Information from these various datasets is available.

Format of the Data

A.20.7 CSTM3 and CSTM3A are based on the TRIPS modelling suite (which requires a licence). Output from the model can however be produced in text or spreadsheet format.

Data Use

A.20.8 CSTM3 or 3A can be used to test different major road and public transport schemes or policy initiatives as well as local transport strategies. In addition, the relevant model can be used to analyse the transport demand consequences of different land-use and economic growth assumptions.

A.20.9 CSTM3 or 3A can be used at a strategic level feeding traffic data etc. into local area models for more detailed scheme appraisal.

Data Access

A.20.10 CSTM3 or 3A is available to Local Authorities from SEETLLD on CD-ROM. A TRIPS licence is required to be able to operate the software. The model can be operated by consultants on behalf of Local Authorities on a 'bureau service basis'.

Cost

A.20.11 CSTM3 or 3A is available free of charge to Local Authorities. A fee may be charged to private sector bodies. The Scottish Executive imposes a charge (based on their consultant's agreed rates) for the extraction of data from CSTM3 or 3A.

Future Updates

A.20.12 The Central Scotland Transport Model is currently undergoing various enhancements and is being extended to include Aberdeen and its hinterland. The enhanced and extended version of the model will be available at the end of 2003 and will be referred to as the Transport Model for Scotland (TMfS). Details of TMfS, which will supersede CSTM3 and 3A around the end of 2003, are included in section A.21 and in Appendix B.

Contacts

A.20.13 The SEETLLD contact for the CSTM3 or 3A is:

- Alan Clark Transport Division 1. Tel. 0131 244 7223; Fax. 0131 244 7281
Email alan.clark@scotland.gsi.gov.uk

A.21 TMfS – Transport Model for Scotland (operational from end of 2003)

Description

- A.21.1 The Transport Model for Scotland (TMfS) will be an enhanced four-stage multi-modal model with detailed link and junction assignments. The model will be an enhanced version of the Central Scotland Traffic Model (Version 3) and have a base year of 2002. TMfS will cover a geographical area similar to that of CSTM3 (namely from Dundee and Perth to the National Border) with the addition of Aberdeen and its hinterland. This area will be covered by detailed road and public transport networks and travel demand will be defined by mode, purpose and car availability.
- A.21.2 Further information regarding TMfS can be found in Appendix B. It should be understood that the model is currently under development. The data contained in both this section and Appendix B are estimates at the time of this document being completed.

Sources

- A.21.3 TMfS makes use of data from other such models as Strathclyde Integrated Transport Model (SITM – see section A.22), CSTM3 and CSTM3A. The development process involves a programme of roadside interviews, traffic surveys and public transport surveys.

Data Availability

- A.21.4 TMfS will be able to provide traffic forecasts on all Trunk Roads within the modelled area over a twenty-year period. Information from different modelling stages within TMfS can be extracted for use in more detailed scheme appraisal processes.
- A.21.5 During the development of TMfS, various data has been and will be collected and input to the model. These include:
- Planning and Forecast data;
 - Roadside Interview data;
 - Public Transport data;
 - Journey Time data;
 - Junction Turning Count data.

Information from these various datasets will be available.

Format of the Data

- A.21.6 TMfS will be based on the Citilabs TP+ modelling suite (which requires a licence). Output from the model can however be produced in text or spreadsheet format.

Data Use

- A.21.7 TMfS will be able to be used to test different major road and public transport schemes or policy initiatives as well as local transport strategies. In addition, the model will be able to be used to analyse the transport demand consequences of different land-use and economic growth assumptions.
- A.21.8 TMfS will be able to be used at a strategic level feeding traffic data etc. into local area models for more detailed scheme appraisal.

Data Access

- A.21.9 Once complete, TMfS will be available to Local Authorities from SEETLLD on CD-ROM. A Cube TP+ licence will be required to be able to operate the software. The model will be able to be operated by consultants on behalf of Local Authorities on a 'bureau service basis'.

Cost

- A.21.10 TMfS will be available free of charge to Local Authorities. A fee may be charged to private sector bodies. The Scottish Executive will impose a charge (based on their consultant's agreed rates) for the extraction of data from TMfS.

Contacts

- A.21.11 The SEETLLD contact for the TMfS is:
- Alan Clark Transport Division 1 Tel. 0131 244 7223; Fax. 0131 244 7281
Email alan.clark@scotland.gsi.gov.uk.

A.22 SITM - Strathclyde Integrated Transport Model

Description

- A.22.1 The Strathclyde Integrated Transport Model (SITM) is a four-stage multi-modal model with detailed link and junction assignments which has been developed over a number of years by Strathclyde Passenger Transport (SPT). The current version, SITM4 (available from September 2003), has been developed from earlier versions and has a base year of 2001. SITM4 covers the west central Scotland area encompassing East & West Dunbartonshire, North & South Lanarkshire, Glasgow, East Renfrewshire & Renfrewshire, Inverclyde, North, South and East Ayrshire and part of Argyle & Bute.
- A.22.2 SITM uses TUBA for economic evaluation of road and public transport scenarios having either fixed or variable matrices. The model encompasses the strategic road network and extensive public transport network, with all rail and most bus services represented. It has a comprehensive network of walk links associated with the transport network to ensure accurate modelling of modal split. Travel demand is defined by purpose and car availability, with park & ride and crowding effects via optional sub-modules. The effects of changes in land use and economic growth rates on transport demand can also be analysed through interaction with the DELTA model that has been developed by the David Simmonds Consultancy.

Sources

- A.22.3 SITM has been developed from an extensive database of survey material including origin/destination interviews, counts, household interviews and behavioural surveys, covering all transport modes and journey types. The zoning system and networks for SITM have been used as the basic building blocks for other models such as the Transport Model for Scotland (TMfS, see Section A.21) and for other local models, ensuring compatibility and easy transfer of information.

Data Availability

- A.22.4 SITM can provide traffic forecasts on all principal routes on the public transport network throughout the SPT area for a twenty year forecast period. Information from different modelling stages within SITM can be extracted for use in more detailed scheme appraisal processes. The model incorporates 1,059 zones, 20,000 links and 1,000 modelled junctions.
- A.22.5 Data sources utilised in development of the model include:
- Planning and Forecast data;
 - Roadside Interview data;
 - Public Transport data;
 - Journey Time data;
 - Junction Turning Count data.

A.22.6 Information from these various datasets is available.

Format of the Data

A.22.7 SITM is based on the SATURN suite for modelling the road network and the TRIPS suite for the public transport network. Output from the model can be produced in a variety of ways, including text or spreadsheet format.

Data Use

A.22.8 SITM has been developed primarily to assist the analysis and planning of developments in the Public Transport network. To enable this, however, a robust road network and modal split model are key elements of the model, together with modules to take account of parking, park & ride and crowding. SITM can be used to test different road and public transport schemes or policy initiatives as well as local transport strategies. In addition, the model can be used to analyse the transport demand consequences of different land-use and economic growth assumptions, particularly in combination with other modelling systems in SPT.

A.22.9 SITM can be used at a strategic level feeding traffic data etc. into local area models for more detailed scheme appraisal.

Data Access

A.22.10 SITM is operated by SPT and is primarily a transport planning tool. SPT, however, can provide data from the modelling process or commission specific tests for other organisations. Requests, however, have to be part of the managed process within SPT and any data requirements or modelling work required should be discussed with SPT at the earliest stage, in order that they can be scheduled into the work programme.

Cost

A.22.11 Modelling work or data provision will be costed on an individual basis. Exchange of data with other local authorities will normally be free of charge, but where staff time is required to undertake work for a specific local project, or provision of data or a service for a commercial company is requested, there will be a charge made. Charges may be discussed directly with SPT.

Contacts

A.22.12 The SPT contact for the Strathclyde Integrated Transport Model is:

- Neil Sturrock, Transport Planning & Integration Department, Strathclyde Passenger Transport, Tel. 0141 333 3745; Fax 0141 333 3284
Email neil.sturrock@spt.co.uk

A.23 Land uses and Services

A.23.1 There are many potential sources of data at a small area level. Most local authorities now hold spatially referenced local data on GIS systems. In the absence of these locally validated data sources national data sets can be used.

A.23.2 Some of the most useful land use data sets are summarised in Table A2.

Table A.3: Summary of Land Use and Service Data

Data Source	See Section	Data Content		Pop'n	Work	Training	Health	Shops	Other
		National	Scottish						
Census	A23.3		X	X					
YellowPages	A23.4	X			X	X	X	X	X
PointX	A23.5	X			X	X	X	X	X
NOMIS	A23.6	X			X				
IDBR	A23.8	X			X				
NHS Scotland	A23.11		X				X		
SEGIS	A23.12		X	X			X	X	X
OS Mastermap	A23.13	X				X	X	X	X

Census 2001 (www.scrol.gov.uk)

A.23.3 The 2001 census of population results can be obtained from the above web site at a ward level. The data are held by GRO down to output area level and within confidentiality restrictions it may be possible to obtain information on population groups at various spatial levels down to output area level. Most local authorities have access to this data at its most detailed level but other requests can be made directly to GRO via the web site.

YellowPages Business Database (www.yell.com)

A.23.4 A number of commercial datasets are potential sources for mapping local services by sector. These would need to be purchased but prices can be quite reasonable providing certain conditions of use are guaranteed. Yellow pages recommend use of their business database in combination with *YellowPoint* which uses Ordnance Survey data to locate records geographically with nothings and eastings for use with GIS, but assure that other map bases are also compatible.

PointX Location Based Database (www.pointx.co.uk)

A.23.5 This database is a new product that is very useful in identifying local services. It includes the names and address of all GPs and dentists, educational establishments and other public services that do not appear in the YellowPages Business Database. Locations are identified by combining the Thompson's Local Directory database with Ordnance Survey mapping data. The classification system has three levels. There are 18 data fields: record type, unique reference, supplier reference, common record number, topographic identifier (TOID), TOID version, name, address, address detail, street name, locality, postcode, PointX classification code, Easting, Northing, Name of data supplier, date of supply, Positional accuracy code, supplier link. Level 1 data has ten groups, e.g. accommodation,

commercial services, attractions, sport and entertainment, education and health, public infrastructure, manufacturing and production, wholesale, retail, transport. Level 2 then sub-divides into further 56 sub-categories e.g. hotel, bed and breakfasts, etc, Level 3 has 750 sub-divisions of these. The cost of obtaining this data can be considerable.

NOMIS (www.nomisweb.co.uk)

A.23.6 Nomis provides access to a wide range of national and local labour market statistics data free of charge:

- Labour Force Survey (LFS)
- New Earnings Survey
- Annual Business Inquiry (ABI)
- Claimant Count
- Job centre vacancies

A.23.7 All data sets available through Nomis are open access except for the Annual Business Inquiry series. To access these it is necessary to obtain authorisation from the Office for National Statistics.

Inter Departmental Business Register (IDBR)

A.23.8 Information on the location of business is recorded by the IDBR. New business start-ups and existing businesses are recorded by:

- SIC,
- number of employees (male and female full and part-time),
- turnover on an annual basis
- ward code
- ward name
- trading name and address
- full post-code (in most instances)

A.23.9 The data is only allowed to be shared by government departments. If local authorities want to use the data they would have to request why they want the data and what they are going to use it for. Contact the Office of National Statistics (ONS).

A.23.10 Previous experience of using IDBR for GIS mapping is that the post code information is sometimes inaccurate or incomplete and that considerable time is needed to geo-code.

NHS Scotland (www.show.scot.nhs.uk/isd)

A.23.11 The NHS ISD provides information on patient care delivered by the NHS in Scotland by location. This is used to provide wide ranging analysis for the NHS, Government and many other organisations and individuals who have an interest in health and healthcare administration. ISD publishes tables that can be downloaded free of charge from the web site. There can be confidentiality problems sourcing this data at a small area level but these issues can be resolved for accessibility modelling by contacting ISD.

Rural Services Data from the Scottish Executive GIS Unit

A.23.12 The Scottish Executive GIS unit (SEGIS) has developed a database of rural services including post offices, banks, chemists, petrol stations, shops, job centres and other facilities. Requests for data from this source should be made through transport division since SEGIS cannot respond to all direct requests from local authorities.

Ordnance Survey (OS) Mastermap data (www.ordnancesurvey.gov.uk)

A.23.13 OS data identifies existing land-uses in sufficient detail for the purposes of GIS mapping of key local services. All local authorities have free web based access to this GIS mapping data under the government' service level agreement. It identifies all land use development and identifies, hospitals, schools, colleges, supermarkets and other major buildings. It will not identify the activity use of smaller buildings e.g. in a row of local shops. The data is continuously updated and new developments and use changes should be recorded within 6 months in most instances. Authorities can overlay their own local data in GIS.

