Transport

CLIENTS

ABB Signal
Civil Aviation Authority
Maritime & Coastguard Agency
Department of Transport Local
Government and the Regions
Driving Standards Agency
Highways Agency
London Underground Limited
Office of the Rail Regulator
Office of Passenger Rail Franchising
Welsh Office
Westinghouse Brakes Limited
Westinghouse Signals Limited
RAC

TRANSPORT CHALLENGES

The predicted growth in all forms of transport poses a major challenge to governments across the world. Together with these growth predictions are the attendant problems of a human and an environmental nature. As a consequence the priorities of central and local governments need to increasingly focus on factors such as safety, pollution and service levels in making transportation more sustainable.

The increase in road traffic is causing congestion at many points on the road network. Investment is needed to address these problems and to ensure that the road infrastructure can cope with future demands.

On the railways the volumes of both passenger and freight transport need to be set against investment plans in upgrading the network infrastructure and the efficiency of the services. Increasingly the rail service will need to compete with road transport as an alternative on the one hand and as a means of providing integrated transport on the other.

In the air, demand for seats is increasing on both scheduled and charter flights and there are increasing volumes of freight traffic. In addition, the challenges associated with the increased volume of air traffic are compounded throughout Europe by the use of a number of largely incompatible air traffic control systems.

Across all forms of public and private transport technological solutions are playing an increasingly vital role. Innovations with respect to the mode of transport together with its associated infrastructure continue to be made. The provision of accurate and up-to-date information is another area where technology should assist the traveller in terms of optimum route selection.

IPL'S COMMITMENT TO TRANSPORT

Within the transport industry over the past decade, IPL has provided a consistently high level of service to its clients, which include some of the largest organisations in the industry. In addition to significant consultancy effort, software development based on IPL's fundamental commitment to assured quality has delivered reliable systems on time and within budget.



ROAD

The resolution of road traffic and travel problems continues as one of the top priorities for European, Central and Local Governments. Universities, consultancies, manufacturers and R & D bodies are all increasingly involved with employing the latest advances in technology to deliver Intelligent Transport Systems. The EC is seeking to integrate advances in information and communication technology and use these to provide a common European transport environment.

These advances in Telematics are typified by technologies such as traffic management systems, electronic road pricing, in-car navigation, on-board radar and satellite navigation. In addition, a number of advances are being made in the provision of road traffic and travel information on the Internet.

IPL has been actively involved in road traffic solutions since 1983. Typical project areas undertaken include:

- Managing new generation National Motorway Communications System (NMCS2)
- Message Sign trial programme management and the specification and procurement of an interim controller
- Message Sign specifications for NMCS2 integration
- Controlled Motorway and MIDAS overall design and management through its lifecycle development
- Ramp Metering pilot scheme systems design
- Next generation architecture definition for all telematic systems.



RAIL

On-going investment into the rail infrastructure and rolling stock will be essential in establishing the railway as a viable option to the car. The newly structured rail authorities and the franchising of services had major implications on the management and operational characteristics of the services.

However, regularity, reliability and quality of service remain a goal yet to be universally achieved. Technological advances continue to play an important role in the upgrading of the services.



IPL has been involved in a wide range of rail systems and has developed applications covering:

- Automatic Train Protection & Operation
- Prediction and Regulation
- Signalling and Control
- Interlocking and Movements Simulation
- On-board Monitoring and Control
- Passenger Information, Timetable and Ticketing Systems.

At a more strategic level IPL has provided consultancy support on the following projects:

- Customer complaints systems
- Integrated financial systems
- Customer correspondence handling
- Franchise management and control.

SEA

Shipping has been and always will be important to the UK in defence of our island and to the extent that maritime exports and imports contribute to our economy. Moreover, the potential of shipping on coastal and shortsea routes to relieve pollution and congestion on the roads is an obvious consideration for future transportation strategies.

IPL has completed a number of consultancy assignments for Marine Safety Agency (MSA) and the Coastguard Agency (CA), (now combined as the Maritime and Coastguard Agency) over a number of years. IPL has also worked for the Registry of Shipping and Seamen (RS & S), the Marine Accident Investigation Branch (MAIB), the Shipping Policy Unit of the DETR as well as several private sector companies.

IPL has worked on projects that include:

- Development of an IT Strategy for the MSA
- Formulation of a report on staffing resources for the CA
- Enhancements to the operational support systems of the MAIB
- Development of a WWI/WWII database of shipwrecks
- Production of a specification of the Fleet Management System for the RS & S
- Consultancy advice on the architectural approach to a large distributed command and weapons control system.



AIR

Increasing congestion presents new challenges to Air Traffic Management schemes. More precise information is required on the movement of aircraft within terminal manoeuvring areas and en-route airspace.

The problems anticipated from the continued growth in air transport are being addressed by significant investment in the UK and abroad.

In Europe, the problems of coordinating the various Air Traffic Control (ATC) systems and the long term objectives of modernising and increasing air traffic capacity are also being addressed.

IPL has a wide range of experience with aviation systems both military and civil applications.



IPL project areas include:

- Central Flow Management Unit Software Engineering Standards
- Future ATC Systems Architecture Consultancy
- Air Traffic Movements Database
- VHF Autotriangulation Unit
- Satcoms Terminal for Automatic Dependence Surveillance Trials
- Airline Reservation
- Air Traffic Control Simulators.

FURTHER INFORMATION

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