## Topic Sheet No. 7

# AMS AND... CONGESTION

THE NEED for mobility has created traffic on a large scale. Roads are overstretched - and increased traffic is a trend which will accelerate rather than abate in the coming decades.

Congestion (meaning clogged or overloaded) is the opposite to the free flow of traffic along the highway. The main causes of congestion are:

- ◆ Limited road capacity with high demand;
- Incidence of accidents and roadworks;
- Conflicting traffic streams;
- Roadside parking.
- The result is a concentration of stationary and slow-moving traffic, leading to loss of journey time, with increased costs and inefficient use of capital equipment for the traveller, and pollution, noise and dirt for those living and working in the vicinity.
- Congestion is commercial thrombosis -the cost to trade and industry is hundreds of millions of pounds per year.
- The UK government expects that if current trends continue, the number of vehicles on the road in 30 years' time will increase by 50%.

#### **REMEDIES**

Responsible authorities are urgently looking at ways of improving such situations. Solutions to these problems must not create further problems! Historic remedies are simple:

- ◆ Create more road space;
- Divert traffic away with bypasses;
- ◆ Ease the flow by complex traffic control measures (e.g. computer-aided traffic lights, one-way and gyratory systems);
- ◆ Restrict roadside parking.
- > All are widely implemented to try and cater for demand; the earlier palliative of road building and widening achieved great success, but also more traffic, which has come back to enlarge the original problem.
- Increased traffic means more trade, which causes further increased traffic.

#### **ALTERNATIVES**

A different remedy, less popular because it limits choice and incompatible with complete freedom of mobility, also follows - suppress the demand for road space - artificially.

- Road pricing;
- Permanent road closures;
- Punitive fuel taxation.
- > Some of these remedies have been tried sporadically, but often spelt political suicide. They have often been defeated by evasion, guile and popular outcry, often backed by economic deprivation.

#### **INNOVATION**

One solution, tried by large retail and warehouse concerns, is the out-oftown shopping mall or superstore. Encouraging car-based customers, these highly successful operations • Split-level crossings at pressure points; take traffic from crowded centres.



Frankfurt is a city which regards quality public transport as an important priority. There is no congestion here the level boarding at the platforms is illustrated in this view of U1 stock at Hauptwache.

### **VEHICLES CAUSE CONGESTION...** TRAMS RELIEVE CONGESTION.....

> However, the long-term effects on community life are gradually being realised- a city whose centre is moribund and semi-derelict is doomed as a community. Policy is now veering away from this

#### **TRAMWAYS**

Tramways, as part of a complete package, allow planners to move large numbers of people efficiently, safely and comfortably into city and town centres. They assist regeneration, making more attractive places for shoppers, workers and visitors.

- With their large carrying capacity, trams are efficient of users of limited road space.
- > Nevertheless, people are firmly wedded to their cars, and only desert them in the most attractive and compelling - or the most diabolical circumstances.
- > To woo motorists, public transport must offer an experience equal in quality and satisfaction, and compare in cost.
- > This is extremely difficult to achieve consistently, so the carrot of encouragement needs the stick of regulation to accompany it traffic restriction in centres.
- > The concept of a planned transport strategy follows naturally, and this is widely embraced in America and Europe. It is a concept strongly advocated by the Light Rail Transit Association.

#### **ON OFFER**

planners all these benefits:

- ◆ Large vehicles of high carrying capacity;
- ◆ Segregated tracks safe, fast, roomy;
- ◆ Traffic discipline for street-running;

- Penetration of pedestrian-only streets;
- Entry directly to city centres;
- ◆ Highly-efficient use of little road space;
- ◆ Planned solutions, not a free-for-all:
- ◆ A core to mould strategic aims around:
- Cuts in pollution, noise and fumes;
- Faster journey times.

#### **ACHIEVEMENT**

Tramways and Light Rail can break the vicious circle of increasing congestion and decline in public transport. To do this. they must be up-market, attractive, pleasurable and satisfying.

- Good planning and design should permeate the whole concept from the start.
- > In Manchester, Metrolink is reckoned to have taken two million car journeys per year off the roads, many of them choked.

#### **IDEALS**

#### These are public transport ideals:

- Swift, safe, reliable journeys;
- Minimum of delays and hold-ups;
- Pleasant, comfortable vehicles;
- ◆ Carefully planned and controlled traffic paths;
- ◆ Alight close to destination;
- Realistic affordable fares;
- Frequent and dependable services.

Tramways are a potent weapon in the Tramways, in practice, offer traffic armoury of the modern traffic planner.

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