

City of Cape Town Intelligent Transport Systems

fact sheet

Metropolitan Area Traffic Control System

Background

- Total investment of in excess of R50M, replacement costs are about R80M.
- Project commissioned in 1998, expansion and enhancement is ongoing
- Plessey/ Tellumat were the main contractors
- Almost 700 sites connected to two central computers
- Central computers upgraded in 2000 and now located at the Tygerberg Disaster Management Centre

Features include

- Detailed fault and event monitoring
- Lamp monitoring
- Detector monitoring
- Traffic counting
- Local clock set remotely
- 50 timing plans
- Remote down loading of signal plans

Operation modes include

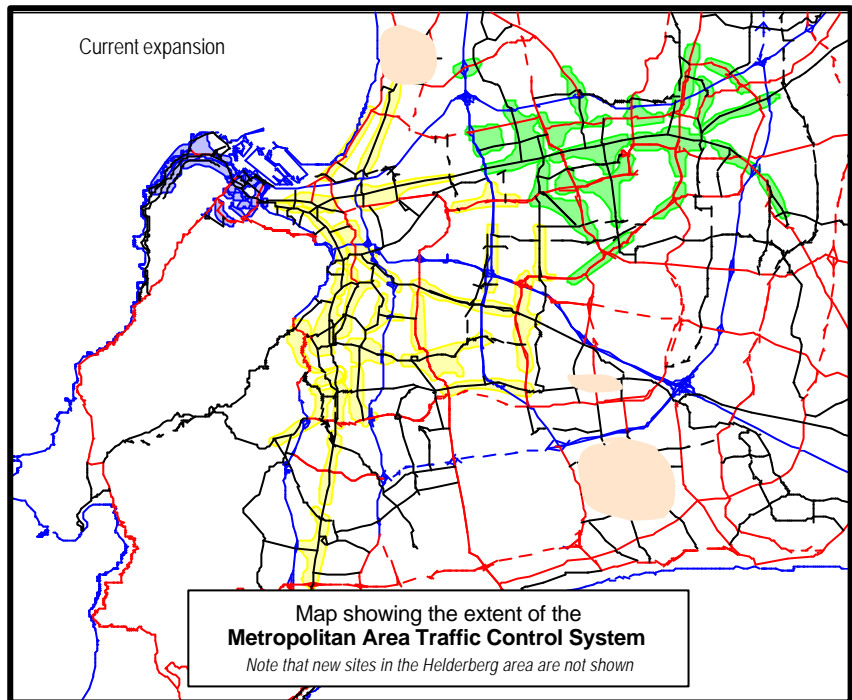
- Local control
 - ◆ full-VA
 - ◆ semi-VA [coordination with local clock]
 - ◆ fixed-time[coordination with local clock]
- Computer control
 - ◆ fixed time
 - ◆ traffic responsive plan selection
 - ◆ critical intersection control
 - ◆ SCOOT

System Benefits

- Regular updates of signal plans
- Coordinated operation
- Automatic selection of plans
- Adaptive control
- Traffic information
- Intersection monitoring - rapid fault response

What this means to the road user:

- Time and operating cost savings [about R5 Million per month]
- Better utilization of the existing corridors: traffic management tool
- Effective use of road space: increase usable capacity
- Fewer and shorter disruptions due to faulty signals
- Improved safety
- Improved management of traffic flows generated by special events
- Does not provide solution for totally saturated road corridors



Intelligent Transport Systems [ITS] in the City of Cape Town

- **Intelligent Transport Systems** apply computer and communications technology to assist in solving transport problems.
- The development of an integrated **ITS** strategy for the City of Cape Town is currently in progress.
- The aim is to develop and implement systems that will improve service to travellers in the City of Cape Town.
- **ITS** provides improvements in terms of:
 - ◆ An increase in the capability of existing infrastructure and resources,
 - ◆ A reduction of the environmental impact of transport,
 - ◆ A reduction in the effects of congestion,
 - ◆ A reduction in the number and severity of collisions,
 - ◆ A reduction in user costs, and
 - ◆ An improvement in public transport service.
- **ITS** projects implemented by the City of Cape Town:
 - ◆ Metropolitan Area Traffic Control System
 - ◆ Advance Transport Monitoring System [on going]
 - ◆ Metro-Trans-Info call centre
 - ◆ CCTV public area surveillance systems on the road network [on going]
- **ITS** project in planning and design:
 - ◆ Automated incident detection in combination with the CCTV systems
 - ◆ Improved public transport safety in combination with the CCTV systems
 - ◆ Automated speed enforcement system for freeways
 - ◆ Advanced public transport system for the CBD
 - ◆ Red-light and speed violation monitoring systems for local roads
 - ◆ Expansion of existing CCTV and Area Traffic Control Systems

Report Traffic Signal Faults on tollfree 0800 00 1948