Emergency Service Vehicles

Emergency Service vehicles such as fire and ambulance can communicate their intended route to the Traffic Management Centre. Operations staff at the Traffic Management Centre enter the intended route into SCATS®. Special routes are stored in SCATS® to facilitate a ‘green-wave’ corridor for fast and safe movement.

Cost-Effective

Using SCATS® can reduce operational costs because it is self-calibrating, and does not require on-going traffic surveys and manual creation of plans to ensure optimum traffic flow.

Windows Operating Environment

The SCATS® system employs Client-Server technology under the Windows® Server 2003, 2K or XP environment. Each SCATS® server (called a Region) can manage up to 250 traffic signal controllers. Up to 64 Regions controlling 16,000 intersections can be networked together. Operator workstations use client programs which connect via LAN, WAN, telephone, or GSM cellular. Note: For smaller installations, it is possible to run the servers and the client on the same computer.

Environmentally and Driver Friendly

With over twenty-five years of operation, SCATS® is a proven system that delivers real, measurable results. Recent independent studies in a new SCATS® equipped European city showed reductions in travel times and delays of 44% during the AM peak period and 42% during PM periods.
SCATS® uses a real time traffic adaptive approach to urban traffic control by measuring current traffic conditions and then adjusting Cycle Lengths, Splits and Offsets.

Its real-time response to changing traffic conditions ensures the most appropriate traffic signal phasing to safely direct traffic through intersections.

Using in-road and/or above road sensors, and by sending instructions to traffic signal controllers to manage signal timings, SCATS® automatically maximises traffic throughput, minimises delays and minimises the number of stops.

SCATS® does not require operator intervention for its day-to-day operation. However, operators have instant access to traffic flow information, system status and faults, right down to the level of a single failed lamp.

Developed and owned by the Roads and Traffic Authority of New South Wales (RTA) in Australia, this Windows® based solution employs a very sophisticated and easy-to-use interface.

Tyco Traffic & Transportation has secured rights from the RTA to install SCATS® around the world and our expert staff can implement the system, as well as provide comprehensive training.

**Adaptive**

SCATS® adapts itself to the demands of changing traffic flows. For instance, it can adopt a strategy to clear sudden and unpredictable traffic loads such as sports and concert event audiences. It also monitors rapidly changing traffic conditions that can occur in normal traffic or especially when there is a breakdown, accident, roadworks or bad weather. It continuously adjusts traffic signal controllers to optimise flow by measuring the density of vehicles in each lane.

One of the principal purposes of SCATS® is to provide coordination between traffic signals, thus ensuring minimum overall stops and delays for road users. At a typical Traffic Management Centre, operations staff are responsible for monitoring the overall system. They observe traffic flow using SCATS® and under exceptional circumstances can manually override traffic signal operation.

**Flexible**

SCATS® is flexible in many ways:

- Its design allows for easy expansion - whether that be modular or incremental
- Other Intelligent Transport Systems (ITS) systems can be integrated via SCATS® ITS port
- Allows for part or all of the system to operate on fixed time plans, while a larger or smaller part of the system can operate under an adaptive control plan
- Range of communications options including leased line, fibre, broadband IP, GPRS and GSM

Many systems in one:

SCATS® can be supplied and is available in various capabilities with pricing to suit the end-user based on their needs and budget.

- Full Real Time Traffic Adaptive
- Non-adaptive / responsive operation
- Fixed Time Plans
- RMS (Remote Monitoring System) operation
- Dial In Dial Out

**System Sizes**

The SCATS® software suite is extremely scalable and can be supplied for just a small number of intersections right through to large metropolitan areas containing thousands of intersections. Users can at any time upgrade from any size or version. Each SCATS® regional computer can collect data for 4,000 system detectors (for Degree of Saturation purposes).

SCATS® systems use the identical software, so upgrading to larger system sizes or upgrading from a non-adaptive / responsive system to a fully adaptive system is very simply achieved by entering a new coded licence string supplied by Tyco Traffic & Transportation.

With such flexibility and modularity SCATS® keeps up with the ever changing traffic requirements of a town or city.

**Support**

SCATS® is owned and maintained by the RTA and regular updates are available. All SCATS® systems are backwards compatible. The latest SCATS® system is still compatible with late ’70’s SCATS® controllers.

**Fail-safe**

Should communications be lost between SCATS® and a traffic signal controller, comprehensive fail back plans ensure the coordinated control of surrounding intersections.

SCATS® is installed in over 115 cities around the world, controlling more than 26,000 intersections.