Locations and technology

The six locations of the cycle counters; caveat as to mopeds/scooters; how the counters work; early validations

Keith Hamilton from Street Policy in Camden Council has given CCC the following information about cycle counters in Camden and has been supplying us with monthly data from these counters since September 2003. Six cycle counters were installed between February and June 2003. Another was edded in August 2004.

Their locations are:

- Cartwright Gardens, near the junction with Leigh Street
- Leigh Street, near the junction with Cartwright Gardens
- Guilford Street, near the junction with Lansdowne Terrace (damaged since May 20040
- Ossulston Street, near the junction with Euston Road
- Theobalds Road, near the junction with Jockey's Fields
- Southampton Row, near the junction with Bloomsbury Place
- St. Pancras Way cycle track (installed August 2004)

Caveat about mopeds/scooters

Mopeds and scooters will almost certainly be recorded by the machines as pedal cycles. This is because the detection equipment works on the critical mass of metal that passes over it. For instance, anything with a greater mass of metal than a cycle, ie. a car, motorcycle , lorry, bus will be categorised separately. But a moped or scooter, which nowadays has a larger amount of plastic than metal, will tend to have the same mass of metal as a cycle and will be included in the cycle data.

Keith doesn't think that this will necessarily be a problem though, as any increase in moped and scooter use will probably be matched by a similar increase in cycle use, so that they will on the whole balance each other out. In addition, from observation it would seem that the combined scooter and moped usage represents a very small percentage of the total cycle count.

How do the counters work?

The counters detect cyclists on both sides of the road. The way the system works is that magnetic loops are laid out across all lanes of a road. The equipment is then capable of differentiating between cycles and other vehicles, although it cannot diffferentiate between other types of vehicles, ie. it doesn't know whether the "other" vehicles are cars, buses, lorries etc. Therefore the equipment breaks down the total number of vehicles passing over the loops into two categories, pedal cycles and other vehicles.

The strip in the road is in fact a magnetic loop cable that is inserted into a precut slot in the road surface. The slot is then covered with bitumen so that the road surface is then completely level, and will not affect cyclists. It is the same type of slot that you will see on the approach to traffic lights, and which are used to detect approaching traffic.

Validations by comparison with manual counts

The first attempt to validate the counter data by comparing it with manual counts was made in the 8am - 9am peak on Wednesday 8th September 2004. This was carried out in Leigh Street and Cartwright Gardens with the following results:

Leigh Street

	Motor		Cycle	
	East	**West**	**East**	**West**
Counter	57	82	15	14
Manual	27	86	14	42
Discrepancy	+30	-4	+1	-28

Alan Logan, who made the site observations made the following remarks:

The Leigh St discrepancy for amount of vehicles may be due to the road is narrow and a car parked on one side of the road meant cars were over on the otherside of the road and crossing the East loop instead of the west loop or crossing over both loops (while travelling Westbound). The cycle discrepancy is undercounting owing to a gap in the middle of the road between the loops is not catching the majority of cycles observed going down the centre of the road and missing the loops altoghter.

Cartwright Gardens

	Motor		Cycle	
	East	**West**	**East**	**West**
Counter	96	95	56	14
Manual	42	94	121	16
Discrepancy	+54	+1	-65	-2

Alan Logan remarks:

The Cartwright Gardens discrepancy is the cycles southbound may have been recorded in part as vehicles, while on site several cycles would cross the loops at the same time or not far apart as the lights further up would release them into Mabledon place/ to Cartwright gardens at the same time, hence they were bunched up. They are also nearer the centre of the road owing to the parked cars and some missed the looped entirely while taxi unloading.

Alan Logan's Ideas

All we can suggest is the loops need to cover the entire road for Leigh St and differentiate by direction, while the Cartwright Gardens loops may need to factor in for this bunching of cycles or perhaps there is another means of differentiating better between bunches of cycles as opposed to counting cars.

Remarks

- The cycle counters are not exaggerating the number of cycles.
- There appears to be an explanation for the large loss of cycle numbers in the two cases where it occurs
- The problem due to bunching of cycles may be difficult to overcome