SUMMARY

After police officers’ pay, transport is the largest item of police expenditure and typically accounts for over 20 per cent of the remaining costs - over £120 million per annum (Exhibit 1). Vehicles underpin the operational effectiveness of the police; it is vital that they are maintained to a high standard and are capable of performing in exacting conditions.

The study has shown that, despite the function’s importance to operations and the significant expenditure on it, senior police management has not generally given vehicle fleet management the high profile it warrants. This does not mean that either the safety of police vehicles or the operational effectiveness of the police have been jeopardised, but it does mean that there is scope in many forces for reducing the total cost of transport by up to 20 per cent.

One of the main problems is a lack of continuity in vehicle management, because police officers assigned to transport do not stay in post long enough. Other problems arise from a rather bureaucratic and uncommercial approach to fleet management.

The Commission makes a number of recommendations which will help forces achieve savings without affecting safety or operational effectiveness.

Firstly, management arrangements should be restructured so that responsibility for fleet management is delegated to a fully civilianised transport section that has professional
expertise and acts as a 'contractor' to the force. Senior police management should focus on setting the standards for the transport section and monitoring its performance, but not become embroiled in day-to-day management.

Secondly, repair and maintenance costs should be reduced by:
- eliminating overmanning of both fitters and support staff;
- cutting out unnecessary routine maintenance;
- reviewing or replacing outdated bonus schemes.

Thirdly, more attention should be paid to vehicle acquisition and replacement to ensure that:
- maximum discounts are achieved when buying new vehicles;
- the benefits of standardising on vehicle makes are obtained;
- vehicles are replaced at the correct time to minimise whole life costs.

Finally, forces should examine how their fleets are allocated between users and, by closely monitoring vehicle utilisation, identify the scope for redeploying vehicles or reducing the fleet size.

**INTRODUCTION**

1 In total, over 18,000 vehicles are operated by provincial forces in England and Wales, excluding the London Metropolitan Police. The annual cost of running these is over £120 million. After officers' pay, transport is the largest item of expenditure and typically accounts for over 20 per cent of the remaining cost.

2 A very wide range of vehicle types must be operated because of the diverse functions requiring transport, everything from personnel carriers through to high performance saloons and motorbikes (Exhibit 2).

3 A typical force has a fleet of 350 vehicles which cost £2.3 million per year to run including purchasing costs. Compared with many other fleets in the public sector, fuel and accident repairs account for a relatively high proportion of total expenditure (Exhibit 3).

4 Each force is responsible for its own fleet management arrangements. Until very recently, the Home Office had formal control over the number of vehicles each force was entitled to operate, but otherwise forces could decide the type of vehicles, their deployment and their maintenance arrangements. From time to time the Home Office provides advice on fleet management, but there is no central involvement or inter-force collaboration as there is, for example, in the forensic science service or, to some extent, in the fingerprint service.

5 There is no standard structure for the management of police fleets, but typically the provisioning and maintenance are in the hands of a fleet manager, usually a civilian. The fleet...
manager reports to a senior police officer, who often has a range of other responsibilities as well. In general, police fleets are managed and maintained independently of those of their parent authority.

6 A typical force has one central workshop and several smaller satellite workshops located around the force area. Most vehicles receive a set programme of safety checks and services. The repair and maintenance of police vehicles is specifically excluded from the competition requirements of the Local Government Act 1988.

7 ‘...A typical force has a fleet of 350 vehicles which cost £2.3 million per year to run...In the forces reviewed there were opportunities for reducing the total cost of transport by up to 20 per cent...’

8 Police patrol vehicles have an average working life of two to three years, while other vehicles may be retained for four years or longer. The police service as a whole purchases an estimated 6,000 vehicles a year.

9 In many forces fleet management needs to be given a higher profile than it currently receives. This Police Paper sets out the opportunities and suggests how many of the barriers that have traditionally prevented change can be overcome.

10 The paper is based on in-depth work carried out at five forces and shorter visits to another four forces, undertaken as part of the Commission's special study of police, plus information from some of the value for money reviews now being undertaken by the Commission's auditors in provincial police forces in England and Wales.

POTENTIAL FOR IMPROVEMENT

11 In the forces reviewed there were opportunities for reducing the total cost of transport by up to 20 per cent, while maintaining or improving the effectiveness of the service to users. If the forces reviewed in this study are representative of provincial forces as a whole, the potential exists to save up to £25 million a year. What should be done with such a saving is a matter for individual police authorities to decide but, for example, the money would more than meet the estimated £10 million required to increase the resources devoted to fingerprinting (see the Commission's Police Paper no. 2*).

12 Many of the practices used by the police are similar to those widespread in local authorities ten years ago, but which they have since increasingly abandoned or modified in response to the competitive pressures placed upon them, by, for example, the Local Government, Planning and Land Act 1980 and the Local Government Act 1988. The picture of police fleets painted by this study is not dissimilar to that of local authority fleets described in the Commission's 1984 report on vehicle fleet management† with wide variations in performance but examples of good practice in individual cases.

13 Savings will result from taking steps to:
   • restructure the management arrangements, in particular distinguishing between the ‘client’ and ‘contractor’ roles and centralising the contractor functions under a specialist, civilianised section;
   • minimise the repair and maintenance costs, without compromising service standards;
   • reduce other fleet costs, e.g. procurement;
   • improve the utilisation of vehicles.

The rest of this paper examines these opportunities in turn.

MANAGEMENT ARRANGEMENTS

14 The first priority for forces is to allocate responsibility for fleet management and utilisation in a way that gives the officers concerned both the incentive and the opportunity to adopt good practice. Unfortunately the existing arrangements in many forces are not conducive to this.

* Improving the performance of the fingerprint service
HMSO 1988 ISBN 011 7013994

† Improving vehicle fleet management in local government
HMSO 1984 ISBN 011 7010898
Generally, forces have one of two types of management arrangement: either
— a civilian transport manager responsible for the day-to-day running of the fleet;
or
— a civilian chief engineer who oversees the running of the workshops, and a police officer responsible for the non-maintenance functions.

In both cases, a senior police officer, often a superintendent or chief superintendent, is usually assigned overall responsibility for fleet management. In some forces other less senior officers, for example transport sergeants, have fleet management duties and they usually report to a senior police officer rather than the transport manager.

These traditional management approaches have several shortcomings. First, with one or two notable exceptions, the status of the transport manager tends to be low for someone running an operation that may have a £2 - £3 million turnover. In some cases the manager may be regarded more as an administrator than a 'professional' manager. In particular, the terms of employment are often not sufficient to attract the right calibre of manager from outside. Many local authorities have now recognised that because transport underpins so many of their services it is important to raise the status of the transport manager and, if need be, entice managers from the private sector.

Second, there tends to be a rapid turnover of the senior police officers who are assigned overall responsibility for fleet management, with the result that there is a lack of continuity in management. For example, one force had four superintendents (traffic) in post in an 18-month period. Another force has had eight superintendents (traffic) since 1980. There is a conflict between the career progression of the most able officers and getting things done. For an officer who is to remain in post for two years or less there may seem little incentive to become embroiled in tackling thorny issues, for example, trying to change an outdated bonus scheme in a workshop where there are industrial relations problems. The natural instinct is to keep the existing arrangements ticking over rather than make major changes.

Third, police officers assigned to transport do not have time to develop any great expertise in the topic, and do not generally receive any specific training. This, and the high turnover of police managers, would not represent such an obstacle to securing change if civilian transport managers had responsibility delegated to them. However, this tends not to be the case.

A NEW STRUCTURE

There are many functions undertaken by police forces which police officers are not trained to perform. The management of the vehicle fleet is one. It should be made the responsibility of civilian specialists who have the necessary skills and expertise, and police officers should concentrate on their primary role of managing operational police work, in which they are the experts.

It is obviously important that police officers continue to ensure that the standards of the fleet are upheld and that nothing is done which could impair operational efficiency, but this does not require their day-to-day involvement in running the fleet. The force, as represented by a nominated uniformed officer, should act as the client for transport and a wholly civilianised transport management organisation as the contractor to the

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**Exhibit 4**

**RECOMMENDED MANAGEMENT ARRANGEMENTS**

The roles of client and contractor need to be clearly distinguished

<table>
<thead>
<tr>
<th>Client</th>
<th>Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>The force</td>
<td>Civilianised transport management organisation</td>
</tr>
<tr>
<td>Responsible for:</td>
<td>Responsible for:</td>
</tr>
<tr>
<td>• Setting standards for the contractor and monitoring performance</td>
<td>• Running vehicle workshops and maintenance scheduling</td>
</tr>
<tr>
<td>• Drawing up the user specification for vehicles</td>
<td>• Technical specification of vehicles</td>
</tr>
<tr>
<td>• Evaluating new vehicle types</td>
<td>• Procurement</td>
</tr>
<tr>
<td>• Deciding how the fleet is allocated between users</td>
<td>• Replacement programme (within budget set by the client)</td>
</tr>
<tr>
<td></td>
<td>• Disposal</td>
</tr>
<tr>
<td></td>
<td>• Insurance</td>
</tr>
</tbody>
</table>
force (Exhibit 4). The contractor side should he a self-standing cost centre.

21 The 'model' proposed here is not new in that it has been operating in some local authorities, for example Berkshire and Lincolnshire county councils, for several years. It is becoming increasingly common now that a more formal distinction between the client and contractor roles is needed to comply with the compulsory tendering requirements of the Local Government Act 1988.

22 This is a very different division of responsibility from that which exists in many forces at present, and may be perceived by some police officers as leaving the force vulnerable because it is relinquishing some form of control. This should not be the case. The client should set the standards and targets for the transport management organisation and monitor them regularly. In this way the contractor, or transport manager, remains accountable to the force.

23 The Commission also considers it important that, to raise the status of fleet management and ensure that officers do not become involved in the day-to-day running of the fleet, the transport manager should report to an assistant chief constable or civilian equivalent. This is already done in some forces, e.g. directly in West Midlands and via the force's chief administration officer in Hampshire.

24 There is no reason for police officers to become involved in contractor duties. Police officers can cost the force twice as much as their civilian counterparts and generally have less expertise in vehicle management. The role of transport sergeants or constables in particular is no longer in keeping with the proposed split between client and contractor. In some forces they continue to be employed as routine administrators, for example workshop reception staff, and in others their duties overlap with those of the transport manager resulting in duplication of effort. In one force a transport sergeant reporting to the superintendent (traffic) was analysing the use of diesel vehicles at the same time that it was under review by the transport manager.

‘...There are many functions undertaken by police forces which police officers are not trained to perform. The management of the vehicle fleet is one...’

25 It is possible to take the split between client and contractor one stage further by requiring users such as territorial divisions to 'hire in' vehicles from the transport management organisation at an agreed fixed rate. A trading account between the contractor and the client should then be maintained. The full benefits of establishing a trading account will not be achieved unless some budget responsibility is delegated to users. If it is not possible to move immediately to delegated budgets, users should nevertheless be informed of the actual cost of their vehicles. Lincolnshire and Warwickshire police forces have already set up management information systems that would lend themselves to this kind of approach.

26 The use of hire rates has two main advantages. It gives users the incentive to identify and release vehicles that are surplus to requirements, especially if the savings can be vired to other budget heads, e.g. property maintenance. It also imposes a cost discipline on the contractor, whose hire rates can be compared with both long-term contract hire rates and short-term spot hire rates available from private firms.

27 One way of achieving the desired split between client and contractor is for the county council or lead district to undertake the contractor role for the police fleet. Only a few forces, for example Lincolnshire, Nottinghamshire and Warwickshire, are integrated with their respective county council operations in any major way. In Nottinghamshire the county council is responsible for the procurement and maintenance of the fleet and the force for determining vehicle requirements and for operational management. Some forces base their decision to operate independently on the assumption that they would receive a lower standard of service, for example not getting the required priority from the vehicle workshops. This concern can be allayed by having a formal contract between the parties defining standards of service.

28 Other forces have examined the CIPFA statistics on vehicle maintenance costs and been alarmed that the costs of county maintained police fleets appear higher than those maintained in-house. However, the CIPFA figures may give a distorted comparison because, while the county maintained fleets have had all their
costs declared, all the other forces visited by the Commission had unwittingly omitted some items of cost, most notably workshop overheads. The Commission's analyses indicate that counties can maintain police fleets at least as economically and effectively as in-house operations.

29 Forces may be reluctant to send vehicles to other workshops because of the perceived security implications, particularly for radio equipment. However, this equipment can be made inoperable by removing the radio power pack from a vehicle, a task that can be completed very quickly. Where vehicles are driven from base directly to an outside workshop this task may have to be carried out by a police officer.

30 Although police vehicle maintenance is specifically excluded from the compulsory competitive tendering requirements of the Local Government Act 1988, it is likely that police authority members and others will demand evidence that police fleet costs are as keen as they might be. There may be pressure brought to bear to consider cooperation between the police and the county or lead district. It is recognised that in the short term uncertainty about whether the work will be done in-house or by a private contractor may reduce the attractiveness of cooperation, but once this uncertainty is over, greater opportunities may present themselves.

31 There are many areas where a force may benefit from cooperating with local authorities short of giving them the whole police fleet contractor role. Examples include using local authority garages in remote areas, sharing workshop space and running a joint breakdown recovery service.

MANAGEMENT INFORMATION

32 No type of management structure can succeed unless it is supported by adequate, reliable and timely management information, whether provided manually or available on-line from computerised systems (Exhibit 5). This is not a matter of bureaucratic tidiness; if such information is not available, areas of high cost cannot be identified. The evidence from auditors' reports and forces visited is that 50 per cent of forces cannot produce on demand half of the items that should be regarded as essential, and much of the data that is available is seriously flawed because the cost information input to systems is inaccurate. For example, of all the forces visited in this study which operate their own workshops, none had identified the full cost of the repair and maintenance operation (Exhibit 6).

33 Without appropriate management information there can be no hard evidence brought to bear in examining issues such as:

— are all the workshops viable?
— when should vehicles be replaced?
— what are the costs of running different vehicle types?
— how much would be saved by using diesel vehicles?

34 Where cost data is produced, it is important that it should be complete. In practice the cost of many workshop resources is not being identified and included in maintenance costs, for example:

— managerial and supervisory staff such as chargehands and foremen who do not work directly on vehicles;
## Identifying Repair and Maintenance Costs

All the following workshop costs should be identified and recharged to vehicles:

<table>
<thead>
<tr>
<th>Labour</th>
<th>Labour overheads</th>
<th>Parts</th>
<th>Parts overheads</th>
<th>Other costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitters</td>
<td>Changehands and foremen (non-bookable)</td>
<td>Spares</td>
<td>Storekeepers</td>
<td>Contracted out and sub-contracted maintenance</td>
</tr>
<tr>
<td>Semi-skilled fitters</td>
<td>Workshop management</td>
<td>Tyres</td>
<td>Stores running costs</td>
<td></td>
</tr>
<tr>
<td>Chargehands and foremen (bookable)</td>
<td>Admin. staff</td>
<td>Lubricants</td>
<td>Stores transport</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General labourers</td>
<td></td>
<td>Premises debt charges</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premises debt charges and running costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Workshop tools and equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Central admin., e.g. payroll computer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Central establishment charges</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Divided by productive fitter hours to give hourly labour rate

As recorded on fitters’ timesheets

### 35
The Commission also found examples of forces underestimating the true cost of maintenance because they base their hourly rate on fitters’ attendance hours rather than their productive hours. Even in well-managed workshops productive time may be only 85 - 90 per cent of attendance time. This error is never brought to light because, unlike local authority workshops, few forces operate a trading account that aims to balance ‘income’ (or recharges to vehicles) with total expenditure.

### 36
It police workshops are to operate on a quasi-commercial basis, it is imperative that force accountants calculate a realistic hourly rate for fitters. This is particularly important for forces which maintain vehicles for ‘outside’ bodies such as regional driving schools. Two years ago one auditor reported that a non-metropolitan force was recharging maintenance work using an hourly rate of £5.75 when the actual rate was calculated to be £12.00. Another force is recharging the Regional Crime Squad at a rate per mile because it has insufficient data to calculate an hourly rate.

### 37
The lack of a computerised system is often cited as an excuse for failing to identify problems, e.g. a too high frequency of routine servicing. All the forces visited by the Commission had installed, or had access to, computerised systems covering selected areas, for example fuel monitoring, but only one had a comprehensive fleet management package that appeared to be working satisfactorily. Because of competing operational demands, requests for fleet management systems have received low priority from senior officers and members alike.

### 38
The National Association of Police Fleet Managers has discussed with the Home Office the shortcomings of existing management information. The Commission recommends the current Home Office initiative to examine the feasibility of a standard costing system and encourages all forces to cooperate fully in its work.
REDUCING MAINTENANCE COSTS

39 The Commission’s study has shown that the total cost of transport can be reduced by up to 20 per cent. However, the maintenance element of these costs could be cut even more dramatically. Nationally savings of about 25 per cent could be made and in one force there was scope to reduce costs by as much as 40 per cent without affecting the standard of service provided.

RANGE IN EFFICIENCY

40 The Commission has made comparisons between forces’ costs of repair and maintenance using the concept of the number of ‘weighted’ vehicles* maintained. For each of 12 different vehicle types a weight is given that reflects the relative maintenance effort required, taking into account the effect of annual mileage and the age of the vehicles. In making this comparison all forces’ workshop charge rates have been recalculated so that the inconsistencies discussed earlier are removed and maintenance costs can be compared on a consistent basis.

41 In 1987-88 the best forces achieved a cost per weighted vehicle of £750 or less (Exhibit 7). If all forces matched the good practice figure, savings nationally would be an estimated £10 million per annum. However, forces that achieve the target figure should not be complacent: a transport manager in one such force considered that its costs could be reduced further.

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* Full details of the maintenance weights are given in the Audit Guide Police Phase 1 available to police forces and local authorities from the Audit Commission, St Lawrence House, 29-31 Broad Street, Bristol, BS1 2EX

42 The improvements that forces can make are summarised at Exhibit 8. Attention should be focused on staffing levels, bonus schemes, frequency of planned maintenance, parts, and vehicle downtime.

STAFFING LEVELS

43 Staffing levels, both of bookable and non-bookable workers, are a major determinant of maintenance costs (Exhibit 9). One-third of forces are operating with manning levels of at least 35 weighted vehicles per fitter, and an analysis of auditors’ reports shows the range is from 23 to 42.

44 Typically forces have not carried out an establishment review for a long time and few can claim that their current staffing levels have been determined objectively. One exception is Nottinghamshire County Council’s workshops, which maintain the force’s vehicles and have an agreement based on the number of each vehicle type that can be supported by a skilled fitter in one year.

45 There is a danger that the amount of work done on vehicles is inflated artificially either by a bonus scheme that gives fitters the incentive to earn more by doing more work than may be necessary, or to justify the current workforce. A high frequency of scheduled visits is one sign of overmanning, in other cases there is more visible evidence; in one force visited it was not uncommon for fitters at satellite workshops to have completed their last job of the day by early afternoon.

46 In large workshops fitters should achieve a minimum of 1,550 productive hours per year excluding overtime. In smaller workshops having less than five employees, where there may be a
Exhibit 8

POTENTIAL IMPROVEMENTS IN MAINTENANCE

Forces should check their performance against these targets and consider the actions for improvement where appropriate.

<table>
<thead>
<tr>
<th>Action</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct costs</td>
<td></td>
</tr>
<tr>
<td>Review establishment of:</td>
<td></td>
</tr>
<tr>
<td>fitters</td>
<td>35 weighted vehicles per fitter</td>
</tr>
<tr>
<td>Small workshops: 1,400 productive hours per year per fitter</td>
<td></td>
</tr>
<tr>
<td>Large workshops: 1,550</td>
<td></td>
</tr>
<tr>
<td>other workshop employees</td>
<td></td>
</tr>
<tr>
<td>At least 3 fitters per other workshop employee</td>
<td></td>
</tr>
<tr>
<td>No full-time storekeepers in small workshops</td>
<td></td>
</tr>
<tr>
<td>Bonus schemes - replace traditional bonus schemes that are outdated and encourage over-maintenance</td>
<td></td>
</tr>
<tr>
<td>Vehicle availability schemes</td>
<td></td>
</tr>
<tr>
<td>No scheme where management control is tight</td>
<td></td>
</tr>
<tr>
<td>Planned maintenance - adjust safety check and servicing intervals to reflect changes in manufacturers’ recommendations</td>
<td></td>
</tr>
<tr>
<td>6,000 miles between services and 12-week intervals between safety checks (except high mileage cars)</td>
<td></td>
</tr>
<tr>
<td>Parts - review parts on-cost</td>
<td></td>
</tr>
<tr>
<td>20% on-cost on parts</td>
<td></td>
</tr>
<tr>
<td>&gt;66% acquired by contract or negotiated set of discounts</td>
<td></td>
</tr>
<tr>
<td>Indirect costs</td>
<td></td>
</tr>
<tr>
<td>Evaluate ferrying cost of vehicles</td>
<td>Use civilians where practical to ferry vehicles</td>
</tr>
<tr>
<td>Minimise downtime</td>
<td>Use private garages in rural areas</td>
</tr>
<tr>
<td></td>
<td>Mobile fitters</td>
</tr>
<tr>
<td></td>
<td>Emergency cover outside normal working hours</td>
</tr>
<tr>
<td></td>
<td>Flexible working hours of fitters</td>
</tr>
<tr>
<td></td>
<td>Vehicle availability bonus schemes</td>
</tr>
</tbody>
</table>

Exhibit 9

MANNING LEVELS AND MAINTENANCE COSTS

Good practice is at least 35 weighted vehicles per fitter and 3 fitters per non-manual employee.

Exhibit 9

MANNING LEVELS AND MAINTENANCE COSTS

Good practice is at least 35 weighted vehicles per fitter and 3 fitters per non-manual employee.

There is a very wide range in the ratio of fitters to other workshop staff (Exhibit 9). The latter include the workshop manager, foremen and chargehands' time when they are not working on vehicles, storekeepers and administrative staff. Forces with the lowest costs have a minimum of three fitters for each full-time equivalent support staff.

Forces should pay particular attention to the level of supervisory and stores staff in small satellite workshops, say with five or less employees. A workshop in one force visited during the study had two fitters, a foreman who worked on vehicles only half time and a full-time storekeeper. Such small workshops do not warrant full-time supervision or a storekeeper, and these duties can be assigned to a leading hand or chargehand. Forces with several satellite workshops may be better served by employing a travelling inspector to ensure consistency between workshops. In the case of stores, consideration should be given to operating some form of ‘open’ stores, especially for fast moving consumable items of low unit cost.

Although it is important that workshop management maintain standards, it should not be necessary to have a high level of pre- and post-inspection. Skilled fitters should be capable of diagnosing the vast majority of issues.

\* Excludes accident repairs
\* Assumes 39 hour week

Source: Audit Commission analysis of data obtained from study forces.
Whatever the technical merits of this debate, forces tend not to have responded to manufacturers' recommendations that the servicing intervals for many recent models can be extended.

62 While some forces specify and achieve a 6,000 mile servicing interval, others are servicing vehicles at twice, or in one force an average of four times, that frequency. In the latter case many vehicles in the fleet were being serviced every few hundred miles, a very expensive and unnecessary practice.

63 The following practices should be aimed for by forces:

- servicing intervals should be mileage-based, not time-based;
- vehicles should not be serviced automatically each time they are brought in for a safety check;
- servicing intervals should have been increased in recent years in line with (though not necessarily to the same level as) manufacturers' recommendations;
- a general 6,000 mile servicing interval should be specified, a level that is being achieved by some forces.

64 There may be practical problems in implementing mileage-based rather than time-based service intervals. It may be difficult to plan workshop schedules far in advance, and there may be communication problems between workshops and users given that a vehicle may have several different drivers in the same week. These problems can and have been surmounted. In one force visited the workshops control the servicing intervals/workshop schedules etc. by monitoring mileage reports submitted weekly by user departments. Those forces that still wish to retain time-based servicing should at the very least group their vehicles into categories routinely performing similar mileages, and use these mileages to determine the appropriate time interval for servicing.

PARTS

65 Parts and tyres constitute about 15 per cent of the costs of a police fleet. It is important for both probity and value for money that parts are purchased on a sound contractual basis, or at least that clearly understood discounts are negotiated with one or more local suppliers.

‘... While some forces specify and achieve a 6,000 mile servicing interval, others are servicing vehicles at twice that frequency and one force as often as four times...’

66 Many suppliers are now prepared to stock a workshop's stores at no initial expense to the authority, and replace items as they are used on a daily basis. Provided that forces can be satisfied that they are not receiving a lower level of discount such imprest systems are to be recommended.

67 In several of the forces visited, workshop managers were aware that they were carrying a high volume of obsolete stock. This is reflected in low stock turnover ratios and leads to higher costs because, for example, more storage space is used than is necessary. Efficient stores ought to achieve an annual stock turnover ratio of four. One problem in many forces is that management information that could be used, for example, to identify lines that have not moved for 12 months, is not available so progress in reducing obsolete stock is slow.

68 There is merit in comparing the in-house costs of a tyre fitting and replacement service with the private sector, which is able to offer a very rapid service at competitive prices.

69 The overall cost of the stores function can be expressed as an on-cost charged on parts. This should include staff costs, premises, transport, central overheads and stock written off. Unfortunately, none of the forces visited had calculated a stores on-cost and, at best, they included some of these elements as part of the hourly rate for fitters. The Commission found in its study of vehicle management in local authorities that in well managed stores the true on-cost was less than 20 per cent of the total cost of issues, excluding fuel.

VEHICLE DOWNTIME

70 Data obtained from a one-month survey in one force showed that downtime can be remarkably high; for over a third of all shifts at least one in five divisional vehicles were unavailable because they were at the workshop. Excessive vehicle downtime is a hidden cost of vehicle maintenance because it is nearly always borne by the user and is reflected in a higher than necessary level of spare vehicles.

71 Police forces need to monitor the effectiveness of their workshops in
keeping downtime to a minimum. However, data on vehicle off-the-road days is scarce; workshops tend not to keep reception diaries and job cards show (at best) only the time worked on a vehicle and not the length of stay at the workshop. Because of inadequate data it is not possible for the Commission to suggest what good practice levels might be. However, it is significant that of the forces visited those with the highest maintenance costs were also those criticised most by users for the level of downtime.

72 There can be many factors contributing to a high level of downtime, including:
— a high ferrying time, as discussed below;
— too few fitters, leading to a queue of vehicles awaiting work;
— poor communication between the workshop and users - for example, about when vehicles are ready for collection;
— workshop inefficiency - for example, because traditional bonus schemes can discourage fitters from turning vehicles round quickly.

73 Another factor is the opening hours of the workshop. Most workshops are closed from 1600 Friday afternoon to 0800 Monday morning, a time during which there is often intense police activity with many vehicles being taken off the road because they require attention.

FERRying VehiCLES
75 Unlike local authorities many police vehicles are not based at sites that have vehicle workshops. Therefore, ferrying vehicles from their bases to workshops can be an expensive and time consuming task adding significantly to vehicle downtime. This is exacerbated in those forces which use police officers for this duty. Often two officers and two vehicles are required to deliver one vehicle as well as ensuring that officers are not waiting at workshops.

77 Second, civilian drivers should be employed for ferrying duties in preference to police officers, provided there are sufficient duties to keep them employed throughout the working day (e.g. internal mail delivery). Both Northamptonshire and Northumbria use civilian drivers as a general rule.

78 Third, forces should consider making alternative arrangements for the maintenance of vehicles in outlying areas, for example, with local authorities or private garages. In doing so, the force may need to strike a balance between reductions in ferrying costs and any differences in servicing costs between police and outside facilities.

79 Fourth, consideration might be given to employing mobile fitters to carry out safety checks, front line servicing and minor unscheduled repairs on-site. The Commission's study team was told of several examples of vehicles undertaking long round trips to have nothing more than a bulb replaced. In the Fire Service it is usual practice to carry out routine services and most minor repairs at a vehicle's
station rather than bring it in to a workshop.

80 Fifth, where many vehicles are ferried long distances, e.g. over 20 miles, it may be worth reviewing the location of workshops. Non-metropolitan forces with a centralised workshop may benefit significantly from having one or more satellite workshops.

REDUCING NON-MAINTENANCE COSTS

81 The non-maintenance functions of running a fleet include specification, procurement, replacement and disposal, that is the 'birth to death' cycle of a vehicle, and insurance and fuel. These functions are generally managed better than the maintenance function, although attention needs to be focused on:

- ensuring that unnecessary commissioning work is not being carried out on new vehicles;
- streamlining purchasing procedures to make them less bureaucratic;
- undertaking more local research on the optimum time to replace vehicles, although this is presently inhibited by a lack of reliable maintenance cost data.

82 Exhibit 12 shows for each of the fleet management functions what the Commission considers to be good practice. Forces should pay particular attention to those where they are not achieving the guidelines.

SPECIFICATION

83 The specification of a vehicle can significantly affect its purchase cost. Forces should recognise that drawing up the specification for new vehicles is a joint effort and that potentially three types of officer have a contribution to make: police officers to set the user specification, the transport manager to set the technical specification and a purchasing specialist to advise on the implications for procurement.

84 Once new vehicles have been delivered, some forces incur significant costs in commissioning them. For example, in one force the actual cost of equipping a Range Rover for motorway patrol purposes was calculated to be nearly £1,600, equivalent to over eight per cent of the purchase price. Forces need to look closely at their specifications and decide which items are 'luxuries' rather than 'essentials' for doing the job.

STANDARDISATION

85 In drawing up the specification, there are disadvantages both to standardising on one vehicle make and to diversifying to many makes. The ideal practice would seem to be to concentrate mainly on two manufacturers, a policy of dual sourcing. This increases the range of vehicles available and promotes competition, but does not place too onerous a burden on the workshops through having to cope with a multiplicity of vehicle types.

86 As a rule of thumb, the Commission suggests that for the fleet as a whole, no more than 75 per cent should be with one manufacturer but not less than 85 per cent with two manufacturers. This latter guideline allows forces to follow the valuable practice of purchasing non-standard secondhand vehicles for specialist purposes, e.g. drug squad, that are generally maintained away from force garages and are disposed of after a relatively short period. Of the forces visited, those following both these gui-
delines were obtaining relatively high discounts on new vehicles (17 per cent and above), although dual sourcing may not be the sole reason for this.

87 The problems of single sourcing are illustrated by one force which had an agreement with a local manufacturer to purchase its vehicles exclusively: in return it received a fixed sum for each vehicle ordered, i.e. a manufacturer's loyalty bonus. Although this was equivalent to an extra three per cent discount across the whole fleet, experience showed that some models were not best suited to the task they were expected to perform and a second manufacturer has now been brought in to give greater operational flexibility. At the other extreme one force has a car fleet consisting of 30 models and 57 derivatives purchased from 11 different manufacturers. This creates problems for fitter training and familiarisation, stock-holding and parts ordering.

PROCUREMENT
88 Although the discounts that can be obtained by fleet owners may vary from year to year, for 1987-88 some forces were able to achieve average discounts across all vehicle types of 18 per cent on the total price (Exhibit 13). The basic level of discount can be enhanced by a manufacturer's loyalty bonus or a retrospective discount; that is at the year end the force will receive from a manufacturer an additional discount for each vehicle purchased provided that an agreed minimum number of orders has been placed.

89 To take advantage of retrospective discounts it may be necessary for smaller forces to purchase their vehicles through a consortium, e.g. Wiltshire from the Consortium for Purchasing and Distribution, or through the county council, e.g. Lincolnshire. Alternatively, higher discounts may be achieved by letting multi-year contracts based on a letter of intent to purchase a particular number of vehicles in that period. One metropolitan force has reported recently that it has been negotiating directly with manufacturers rather than through their dealerships. This may lead to higher factory discounts being obtained and to a simplified purchasing procedure, but forces are advised to first consult with purchasing specialists.

90 One problem that affects many forces is the very bureaucratic way in which their purchasing process is carried out. The extent of bureaucracy is illustrated by one force which was found to use 19 different documents for each batch of vehicles purchased and the paperwork was handled by eight officers including senior policemen. It can take up to six months for this process to be completed. In other forces it is common for members to discuss in detail the vehicle replacement programme rather than decide upon the budget and delegate decisions about individual vehicles to the transport manager.

91 Ideally, the replacement programme should be agreed by members early in the financial year so that the tendering process can begin immediately. It is questionable whether members need to be involved any more than deciding upon the size of the budget. After agreement at committee level the transport manager should be free to act within standing orders and financial regulations. Where it is considered to be in the best interests of the force to waive standing orders there should be a quick and direct route for obtaining approval, for example to the chief constable.

REPLACEMENT
92 All forces have replacement policies for their fleets based on age or mileage, or a combination of the two. Most forces have replacement criteria within the ranges shown in Exhibit 14.
The Commission’s study team found that in practice many forces have not adhered to their declared replacement policies because of financial constraints. In particular, at the time of the miners’ dispute some forces financed part of their additional work by curtailing the replacement programme. The result is that backlogs of vehicles due for replacement have built up and only in the last two years has this begun to be reduced to any extent. For example, Northumbria police replaced 47 per cent of its fleet in the year 1986-87.

In practice, the total costs of operating a vehicle are not significantly affected whether it is replaced after, say, two or three years, but the timing within this range will affect the balance between purchasing and maintenance costs and will have implications for workshop staffing levels. It is important for forces’ research departments to determine the replacement interval scientifically. Unfortunately, policy is frequently based solely on engineers’ subjective judgements with little or no account taken of the trade-off between purchasing costs and maintenance costs which increase with the age of a vehicle.

Fuel

Fuel can account for more than 30 per cent of total expenditure on vehicles, and therefore its use needs to be closely monitored. It is recognised, however, that for most police vehicles fuel economy will be of only limited concern.

Some forces have invested in automatic fuel dispensing equipment that periodically provides an analysis of the fuel consumption for each vehicle. Other forces rely on a manual process of collecting mileage data, often from log books, and matching this to returns of the amount of fuel issued. This can be very labour intensive.

Although administrative staff in a transport section may put a lot of effort into calculating fuel consumption statistics, this information may not be reported routinely to either the workshop manager or vehicle users. In one metropolitan force the total effort in compiling fuel statistics was estimated to be two work years per year, equivalent to half a day per vehicle, though no use was made of the information.

One method employed widely by forces to help control the fuel budget is to give each main user (e.g. territorial division) an annual mileage target. However, such targets can have shortcomings. Two of the forces studied arbitrarily imposed a target of a 10 per cent cut on existing mileage, rather than one based on any objective criteria. Users in one force have claimed that, if rigidly adhered to, mileage limits can result in a reduced standard of service, i.e. a higher proportion of non-urgent calls for assistance being answered by foot patrol, and more ‘parking up’ by traffic patrol cars. It is not possible to say in the abstract whether this is a good or bad thing, but as a general principle the Commission believes that fuel budgets are best delegated to operational managers as part of a wider scheme of delegation.

Police forces vary widely in the extent to which they have switched to diesel vehicles. Some forces, notably Cleveland, Gwent, Northumbria and Thames Valley are now using diesel vehicles for beat patrol. In Cumbria and Northumbria diesel vehicles now account for over 35 per cent of the fleet. However, other forces have so far confined diesel vehicles to ancillary transport such as general purpose vans, and in a few forces they account for less than one per cent of the fleet.

In other public sector fleets diesel vehicles have proved to have lower whole life costs, after taking into account the higher purchase cost and resale value as well as reduced service-
Exhibit 15

REVIEWING FLEET DEPLOYMENT
Forces are recommended to focus on how vehicles are allocated between users, and the extent to which they are used.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Questions for review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>What is the number of vehicles relative to factors such as officer strength, population etc. compared with other forces?</td>
</tr>
<tr>
<td>Mix</td>
<td>How is the fleet divided up into broad vehicle groups, i.e. cars, vans, commercial vehicles, personnel carriers, motorcycles? Does this match the force's transport needs?</td>
</tr>
<tr>
<td>Allocation</td>
<td>What criteria are used to determine how the fleet is allocated to territorial divisions, HQ departments and special squads? How frequently is the distribution of the fleet reviewed?</td>
</tr>
<tr>
<td>Utilisation</td>
<td>How much are vehicles used, e.g. in terms of percentage of available hours or shifts? Is data on utilisation regularly collected and analysed?</td>
</tr>
<tr>
<td>Individual journeys</td>
<td>Is each journey really necessary?</td>
</tr>
</tbody>
</table>

101 Many forces have given little attention to the appropriate size and mix of a police fleet and how it should be allocated between the various users. At a national level, suggested formulae for allocating vehicles, for example the Eagle formula for motorway patrol vehicles* have not been widely applied and forces’ research departments could be doing more to analyse the current allocation and use of the fleet.

102 The deployment of a police fleet can be considered at five different levels: fleet size, mix, allocation, utilisation and individual journeys (Exhibit 15). With the exception of the necessity for each journey, which must remain a decision for the local police manager, each of the levels in this top-down approach to reviewing fleet deployment is considered below and also discussed in greater length in the Audit Guide: Police Phase 1.

103 In the last decade most forces’ fleet sizes have been at or near the vehicle establishment figure agreed with the Home Office. This figure has been regarded widely by forces and police authority members as a target figure to which they should aim to equip themselves.

104 The concept of a vehicle establishment originated in 1948 but the level for each force was never set by reference to any objective criteria. Fleet sizes at the time were ‘frozen’ in an effort to help restrict domestic demand and boost car exports in the post-war era. The Home Office has acknowledged the limitations of this form of control and in 1988 issued a circular (44/88) in which it withdrew the requirement for forces to obtain Home Office approval for changes in vehicle establishment.

105 The Commission considers this to be a positive step, not least because it will allow greater virement. However, forces must guard closely against a lid-off effect leading to fleet sizes increasing sharply.

FLEET MIX

106 The fleet mix in terms of broad vehicle groups varies considerably between forces (Exhibit 16). For example, in Northumbria motorcycles

*Dr R Eagle: Determination of establishments for motorway policing. SRDB Publication 54/83, Home Office

*Gloucestershire have since reviewed their vehicle fleet mix and made changes

Source: CIPFA police statistics estimates 1987-88
account for less than five per cent of the total fleet but in Hampshire they account for over 30 per cent. To help forces identify where their fleet mix differs from the majority of other forces, the Commission has produced a set of indicators (Exhibit 17). Local differences from these indicators may of course legitimately reflect the nature of the force area served and local policing policies, but forces should analyse why they differ from these norms to ensure it is for valid reasons.

Clearly, the fleet mix will depend on both the style of policing and geographic factors. For example, where forces have introduced more foot patrols, fewer small beat vehicles may be balanced by more high powered incident response vehicles. In rural areas, some forces find that either motorcycles or general purpose vans are preferable to the traditional beat vehicle, and in rough terrain Landrovers may be used. Also, forces with heavily trafficked motorways and other through routes are likely to have a relatively high proportion of high powered vehicles.

Nationally, there are several ways in which the composition of police fleets has been changing in recent years. For example:

— reducing the number of personnel carriers to a minimum level consistent with being able to respond to emergency incidents. Additional vehicles can be spot hired as and when required;

— some forces report that coaches are rarely required because officers usually need to be transported in small groups. As a result many forces now have only one or two coaches;

— the practice of 'personalising' motorcycles, i.e. setting the dimensions to suit individual riders, is being questioned. Indeed, South Wales Police have abandoned this practice, while in another force an internal report suggested that it could not be justified on cost grounds and recommended that motorcycles should be loaned between divisions whenever possible.

### Exhibit 17

**REVIEWING FLEET MIX**

Forces should investigate the reasons for marked variations from these guidelines.

<table>
<thead>
<tr>
<th>PRIMARY INDICATOR</th>
<th>SECONDARY INDICATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>% of fleet</strong></td>
<td><strong>Car type</strong></td>
</tr>
<tr>
<td><strong>Lower</strong></td>
<td><strong>Upper</strong></td>
</tr>
<tr>
<td>61</td>
<td>69</td>
</tr>
<tr>
<td>69</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>response, motorway, traffic</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Van type</td>
<td>Guideline % of all vans</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Light vans</td>
<td>65</td>
</tr>
<tr>
<td>Medium vans</td>
<td>25</td>
</tr>
<tr>
<td>Landrovers</td>
<td>10</td>
</tr>
<tr>
<td>Type</td>
<td>Guideline</td>
</tr>
<tr>
<td>Personnel carriers and specialist vehicles</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Personnel carriers</td>
</tr>
<tr>
<td>13</td>
<td>Coaches</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Lorries and other vehicles, e.g. prison vans</td>
<td></td>
</tr>
<tr>
<td>2.5% of whole fleet</td>
<td></td>
</tr>
<tr>
<td>Motorcycles</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Source: CIPFA police statistics estimates 1987-88 and Audit Commission analysis of data obtained from study forces

The Commission has devised guideline vehicle allocation ratios (Exhibit 18). They are crude because they are based on only one or two factors, for example the number of officers, road lengths or local geography. Therefore they should not be used to draw any firm conclusions about the distribution of the fleet, but they can highlight areas worth further investigation.
**UTILISATION**

111 The key test for determining the correctness of the present method of allocation is the actual level of use of vehicles. Summary management information on vehicle utilisation is usually not available and the only method of calculating it is to analyse vehicle log books which in some cases may not be accurate. Measuring utilisation by mileage is not advised because it does not identify 'standing' time, i.e. time when the vehicle is standing but would not be available to any other user.

112 There are widely differing levels of utilisation (Exhibit 19). For example, in one force, motorway and traffic patrol vehicles were in use on 69 per cent of shifts, but in another force the figure was only 35 per cent. Of particular note is that:

- motorcycles generally have a very low usage, sometimes because their work is restricted to special duties, e.g. escorting VIPs, and excludes routine patrol work. In some forces they are used for less than 10 per cent of the time;
- the level of usage of motorway and traffic patrol vehicles varies between forces by a factor of nearly two;
- CID and general purpose vehicles used by HQ departments tend to have low rates of utilisation because the vast majority of their duties are restricted to the normal working day. However, utilisation may be improved significantly by pooling such vehicles.

113 The utilisation targets set out in Exhibit 19 are based on levels of utilisation in a 'neutral' month (i.e. spring or autumn). They must be interpreted in the light of two factors: seasonality, which will be important for forces in holiday areas, and peak demands for vehicles, although it may be possible to satisfy these by borrowing from a neighbouring division or hiring in either from a transport pool or private firm.

114 Fleet holdings must also be balanced against essential and casual car user allowances. For each force, there is a break-even mileage which will determine whether it is more econ-

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**Exhibit 18**

**INDICATORS FOR VEHICLE ALLOCATION**

Unusual ratios are not evidence of poor utilisation, but signposts to show what parts of the fleet should be investigated further.

![Diagram of Territorial Division Vehicle Ratios](image)

*Average 1.3 million vehicle miles per annum per mile of trunk and principal road*

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**Exhibit 19**

**COMPARATIVE DATA ON VEHICLE UTILISATION**

Differences between forces in observed levels of utilisation suggest that in some forces there may be scope for redistributing the fleet or reducing its overall size.

<table>
<thead>
<tr>
<th>Vehicle type</th>
<th>Percentage utilisation</th>
<th>Minimum observed</th>
<th>Average</th>
<th>Maximum observed</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beat vehicles</td>
<td>Hours</td>
<td>26</td>
<td>42</td>
<td>58</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Shifts</td>
<td>35</td>
<td>53</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>Motorway, response vehicles, traffic patrol</td>
<td>Shifts</td>
<td>35</td>
<td>53</td>
<td>69</td>
<td>65</td>
</tr>
<tr>
<td>CID</td>
<td>Hours</td>
<td>19</td>
<td>29</td>
<td>38</td>
<td>35</td>
</tr>
<tr>
<td>Personnel carriers</td>
<td>Hours</td>
<td>16</td>
<td>26</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Shifts</td>
<td>26</td>
<td>47</td>
<td>63</td>
<td>50</td>
</tr>
<tr>
<td>Motorcycles</td>
<td>Hours</td>
<td>7</td>
<td>15</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Shifts</td>
<td>8</td>
<td>17</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>General purpose, admin., traffic management</td>
<td>Hours</td>
<td>8</td>
<td>28</td>
<td>43</td>
<td>30</td>
</tr>
</tbody>
</table>

*Note: Guidance on the use of these utilisation indicators is included in the Audit Guide Police phase 1.*

Source: Audit Commission analysis of data obtained from study forces and auditors’ reports
omical to provide a force vehicle to the user or to encourage the use of private vehicles if operational circumstances allow. The more efficient the force is in providing its own transport the lower will be the break-even mileage. Opportunities may exist for two or more officers with user allowances to share a single police vehicle, where work patterns permit. For example, a review by Lancashire Police resulted in 11 police vehicles being redeployed to provide transport for 24 officers in receipt of a user allowance.

IMPROVEMENTS MADE BY FORCES

115 The potential for a more effective deployment of the fleet and higher levels of utilisation is shown in what some forces have achieved. Examples include:

- a detailed analysis by the Metropolitan Police of the use of beat vehicles resulted in 85 vehicles being withdrawn and another 66 being pooled, without affecting the method of policing;

- Hampshire Constabulary identified 50 vehicles as being surplus to requirements and at the same time also identified various functions for which an extra 20 vehicles were required.

ACKNOWLEDGEMENT

117 By excluding police vehicle maintenance from the competitive tendering requirements of the Local Government Act 1988, it might be argued that the Government has given the police less incentive than local authorities to change some of their inefficient and uneconomical practices. However, the police service has responded positively to recommendations made by the Audit Commission on other topics and therefore it is reasonable to expect that this report too will be acted upon and that all forces will seek to demonstrate that their fleet costs are keen.

CONCLUSION

116 The study has shown that there are opportunities to reduce the costs of police fleets by up to 20 per cent without jeopardising safety or operational effectiveness. Also, some fleets can be deployed more effectively by reallocating vehicles that are under utilised.