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Paper 137

Assessing the Police Use of Decoy Vehicles

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Foreword

A decoy vehicle initiative is just one tool available to the police to combat vehicle crime. This report presents the findings of a case study of one such initiative that took place in Cleveland Constabulary. The work highlights good practice in the use of this type of operation in support of the Government's 30% vehicle crime reduction target which is to be achieved by March 2004.

Decoy vehicles can be used to target both thefts of and from vehicles. They are chosen to be similar to those vehicles targeted for theft, and are parked in a high vehicle crime location as 'bait' for offenders. Decoy vehicles are specially adapted and may be fitted with technical devices which make it possible to trap an intruder inside. The report describes, in the first instance, the results of a national survey regarding the use of decoy vehicles and highlights issues that should be considered in their deployment. It further focuses on the initiative undertaken in Cleveland Constabulary using a decoy Ford Transit van. The report concludes with a number of recommendations regarding good practice in the use of decoy vehicles at a local level and at a more strategic national level.

The report recommends that an effective decoy operation is highly dependent upon accurate local level analysis to determine the precise vehicle crime problem together with a well-planned and implemented scheme. It must be remembered that decoy vehicles are just one method of combating a specific vehicle crime problem and should therefore form part of an overarching vehicle crime reduction strategy.

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The author

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Executive summary

This report assesses the police use of decoy vehicles as a method of vehicle crime reduction with the goal of identifying police good practice. With a government target of a 30% reduction in vehicle crime by 2004 it is important for police forces to know what types of operations work in which situations.

Decoy vehicles are chosen to be similar to those targeted for theft. They can be used to apprehend those committing crime against the vehicle or, if stolen, to locate potential 'chop shops' where the vehicle may be broken into components or rung[1]. They can be deployed in locations based on high crime levels or the preferences of targeted offenders. Decoy vehicles are specially adapted, fitted with technical devices, making it possible to trap the offender inside the vehicle. More sophisticated technology, such as tracking devices, fuel cut off switches and parts marking, may also be used and surveillance is often necessary in the use of this tactic.

[1] A rung vehicle is one which has had its identity altered.

Data for this study have been drawn, primarily, from Cleveland Constabulary's use of a decoy vehicle in Stockton-on-Tees. A telephone survey of forces throughout England and Wales was also carried out to establish general usage of such vehicles.

Police use of decoy vehicles

The telephone survey to forces requested details including types of vehicles used, locations and the perceived success of the initiatives. Approximately 70% of forces surveyed either currently used decoys or had used them in the past. Reasons for never using or no longer using decoys were related to resource issues, health and safety implications, fears of accusation of acting as an *'agent provocateur'*[2] and access to suitable vehicles. A variety of vehicle types, makes and models were used, equipped with varying levels of technology. Cars were the most frequently used vehicle types – with high volume, familiar models (e.g. Ford Escort, Vauxhall Astra) the most popular. Motorbikes, 4x4s, caravans and trailers were also used. No thorough evaluations of decoy operations have been carried out. A number of forces did report some arrests and a reduction in vehicle crime. Not all forces found decoy vehicles to be effective. Failure of operations was attributed to poor management and organisation, and resource implications – the number of staff involved and the costs being disproportionate to the potential awards.

[2] Such a person incites or counsels another to commit a crime which he/she would not otherwise have committed.

The use of decoy vehicles in Cleveland

In 1996 Cleveland Constabulary suffered a particularly high number of Ford Transit van thefts (n=277) coupled with a low recovery rate (36%) indicating that the vehicles were being targeted for professional theft. Forty two percent of these thefts took place in Stockton-on-Tees. In response to this problem the division undertook

a vehicle crime reduction initiative involving a decoy Transit van during 1997 and 1998. A media campaign followed between April and July 1998, with both local and national coverage.

The decoy Transit van, purchased by the Stockton Crime Prevention Panel, was successfully deployed in April 1997 resulting in the arrest of both a thief and his receiver. Although there were no specific details of other occasions when the decoy vehicle was used, surveillance reportedly facilitated the arrest of two other gangs of prolific Transit van thieves in March 1998. Over the period studied (August 1995 to December 1998) both vehicle theft and Transit van theft fell in Stockton and across the rest of the force. Transit van theft fell by 60% in Stockton and by 56% across the rest of the force. Total vehicle theft also fell but by less – 44% in Stockton and 20% across the rest of the force. There was also a significant, though short term, reduction in vehicle thefts and Transit theft in the quarter immediately following the successful deployment of the decoy van in April 1997 and during the media campaign (April to July 1998). The reduction in vehicle thefts and Transit thefts was greater at the core of the operation, i.e. Stockton, than across the rest of the force. There was no evidence of either immediate or delayed displacement across area boundaries.

The recovery rate of Transit vans increased both in Stockton and the rest of the force over the period studied. In 1996 the recovery rate was 34% in Stockton and 36% across the rest of the force. By 1998 the rate of recovery had increased to 66% in Stockton and 59% across the force suggesting a reduction in the propensity for professional theft.

Conclusions and recommendations

Both vehicle crime and Transit van theft fell over the time period studied. The onset of both phases of the initiative appeared to yield a reductive effect. The effect of the decoy vehicle and media campaign did, however, seem to be time limited. These findings highlight the potential for decoy vehicles as a method of vehicle crime reduction especially when used in conjunction with other tactics.

A decoy operation is just one tool available to reduce vehicle crime and a number of issues should be considered when planning to undertake an initiative of this type:

- An effective initiative needs to be focused and targeted. Local level analysis should be carried out to establish the precise nature of the vehicle crime problem in the local area. Knowledge of the types, makes and models of vehicles targeted by thieves and the specific hot spot locations is crucial to the successful deployment of such an operation.

- This type of operation may be suitable for those vehicles at risk of professional theft – these vehicles are often at high risk of theft but are not the most popular vehicles on the road. As there are fewer on the road the decoy vehicle may be more likely to be targeted by an offender as choice is limited.

- Publicity can be used to increase public awareness of crime problems. The decoy initiative assessed in this report shows that the media can act as a deterrent to offenders and have a short term impact on crime levels. Opportunities to bring about a reduction in crime may therefore be available at very little cost.

- Monitoring crime levels throughout the initiative is important as the risk of theft of particular vehicles or locations may change over time. This will allow any necessary adjustments to the tactics of the operation.

- Routine evaluation of operations should be incorporated as part of general management practice in order to assess the effectiveness in relation to both crime reduction and cost effectiveness. A decoy operation can use extensive resources and these costs should therefore be considered against the crime reduction success of the initiative. Evaluation is of benefit to the management of an overall vehicle crime reduction strategy as it will highlight whether the initiative is effective in reducing crime and whether it is more effective than others undertaken. Operations found to be effective can then also be disseminated to other forces as examples of good practice. It is recommended that records be kept regarding operations and the type of information that should be collected should include the purpose of the operation, time series crime trends and resources involved.

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1. Introduction

Background

Police use of decoy vehicles[3] was the subject of much press coverage during 1998, following the publicised success of an initiative in Cleveland. This small study evolved through policy interest and PRC's objective to provide research to support achievement of the 30% vehicle crime reduction target announced by the Prime Minister in September 1998.

[3] Also known as 'rat-trap' vehicles.

A decoy vehicle is chosen to be similar in make, model and age to that targeted for theft. It is parked at a targeted location as 'bait' for offenders. Decoy vehicles have been used to combat both thefts of and thefts from vehicles. The decoy is often fitted with specialist equipment to help secure an arrest. Decoys constitute just one of a range of covert initiatives, such as sting operations, buy-bust and sell-bust[4], with the shared aim of providing evidence for successful prosecution. It is not necessary for the police to know the identity of the offender when setting up such an operation, just details of the offence to be targeted and their location. The police provide the opportunity to commit a crime. The offender 'volunteers' by taking advantage of the proffered opportunity. The offender 'self-selects', so these techniques cannot reasonably be criticised on the grounds of entrapment.

[4] Sting operations, buy-bust and sell-bust operations involve undercover police officers acting as potential handlers, sellers or buyers of stolen goods respectively.

The Audit Commission in 1993 proposed that the police 'target the criminal, not just the crime'. The police were urged to identify prolific offenders and target them through organised operations (Maguire and John, 1996). Sherman (1992) argued that the police should target crime control efforts not only on prolific offenders but also on high-risk places, times and victims. In an analysis of 323,000 phone calls to police in Minneapolis, 3% of street addresses and intersections accounted for over 50% of calls. The concentration was greater for vehicle theft (Sherman et al, 1989). By targeting these areas, resources may be used more effectively. The same logic underpins the emphasis on preventing repeat victimisation.

There is a wealth of information regarding sting operations (see for example, Marx, 1988) but little about the use of decoy operations, still less about the deployment of decoy vehicles. Such detail as is available concerns other types of crime, for example street robbery, prostitution and white-collar crime. Often, the operation involves an undercover police officer acting as the decoy. For example, the New York Street Crime Unit instigated a decoy programme to combat street crime focusing on specific crime categories (notably robbery), locations, and victim groups (for example, the elderly). The unit was set up in the early 1970s and consisted of squads of officers commanded by a lieutenant divided into teams of two to four (Breslin, 1979). An officer, disguised to represent a vulnerable potential victim,

patrols the designated area together with a back up surveillance team, also disguised (Edelman, 1979). Halper and Ku (1976) found this operation to have little effect on levels of robbery and theft. Countering the charge that the operation 'sucked in' the previously non-criminal, it was found that the offenders arrested when the initiative was in operation had previous convictions as serious as those arrested by conventional means. Other articles written about the New York Street Crime Unit judge it to be more successful. For example, Edelman (1982) found a reduction of some 30% in the number of robberies involving victims aged 60 or over. Breslin (1979) observed that between 1971 and the time of his writing there had been 29,000 arrests and an overall conviction rate of 85%.

There are three obvious mechanisms by which decoys work: *incapacitation, deflection and deterrence*. Offenders detected through decoys may be in custody, hence *incapacitated,* when they would otherwise be offending. Offenders who know (either from personal experience, word of mouth or publicity) that decoys are in operation may mistake real targets for decoys, and be *deflected* from their crime, perhaps to other crime types (see the discussion of displacement below) but ideally to legitimate ways of making a living. Potential offenders who know that decoys are in operation may be *deterred* from starting to commit offences of this type. There is thus a subtle link between rumour, formal publicity and decoy effectiveness.

Decoy operations can either be used as a covert operation where only the officers involved have knowledge of the initiative, or they can be used more overtly. Media coverage and signage at the location of the decoy operation raise awareness of the risk of detection and thereby can act as a deterrent or deflector. An initiative to combat vehicle crime in 'park and ride' car parks in Vancouver using bicycle patrols was preceded by a high profile media campaign. The result was an immediate decline in the trend in vehicle crime in the month prior to the actual initiative. This reduction continued once the bike patrol had been introduced. The media campaign therefore appeared to act successfully as a deterrent to offenders who perceived there was a high risk of detection (Barclay et al, 1997). Publicity has also been used to support initiatives relating to other crime types. For example, the Metropolitan Police's Operation Bumblebee raised the profile of burglary and communicated the role that the public could play in its prevention and detection (Stockdale and Gresham, 1995). Publicity regarding a property marking scheme appeared to contribute to its success in reducing burglary (Laycock, 1992).

While publicity can deter offenders, there is always the risk that crime is simply displaced. The notion of displacement has often been a contentious issue in crime reduction. If an offender is prevented from committing an offence his/her behaviour

may change. The offender may instead commit a different offence, or commit the original offence at a different time, in a different location, using a different modus operandus or selecting a different target (Reppetto, 1976; Hakim and Rengert, 1981). Alternatively, a new offender may fill the space left by the removal of an existing perpetrator (Barr and Pease, 1990). Displacement is dependent upon a number of factors: the level of an offender's motivation; the number of alternative targets perceived to be available; the presence of low vulnerability targets adjacent to high vulnerability targets; and the failure of the crime prevention designers to account for action and counter action by the offender (Heal & Laycock, 1988). If displacement is complete, no crime is prevented. However, there is evidence that suggests that not all prevented crime is displaced, and where displacement does occur it will be limited. Gabor (1990:47) stated "This writer has yet to see evidence of 100 percent displacement of crime". In a review of 55 published articles on crime prevention measures, Hesseling (1994) found that 40% showed no displacement at all and of that 40%, 28% showed a diffusion of benefits.

Diffusion, the opposite of displacement, is a phenomenon too long neglected. Clarke and Weisburd define "diffusion of benefits" as "the spread of the beneficial influence of an intervention beyond the places which are directly targeted, the individuals who are the subject of control, the crimes which are the focus of intervention or the time periods in which an intervention is brought" (1994:169). Two processes underlie the phenomenon of diffusion, those of deterrence and discouragement. The former is an assessment of risk, the latter an assessment of effort and reward. Deterrence will occur when intending offenders over-estimate the reach of situational measures, and feel more at risk of apprehension in neighbouring areas to the initiative than is the actual case. Offenders will be discouraged from crime if they perceive the costs outweigh the benefits. Costs include the risk of apprehension and the effort involved in the perpetration of a crime.

Given the possible complexity of the mechanisms involved, evaluation is essential to assess whether police operations are successful in reducing crime cost effectively. The competent evaluation typically analyses the crime levels of the surrounding areas to identify any displacement or diffusion that may have occurred. The research reported here is an exploratory exercise providing preliminary data regarding the deployment of decoy vehicles.

Objective

This report examines police use of decoy vehicles with the goal of identifying good practice.

Methodology

The report draws primarily on Cleveland Constabulary's use of a decoy vehicle and its role in reducing vehicle crime in Stockton-on-Tees. Data at both force and divisional level concerning vehicle theft over the period August 1995 to December 1998 were collected.

Visits were made to the Kent and Cambridgeshire forces regarding decoy initiatives they had undertaken. A telephone survey of forces throughout England and Wales established general usage of such vehicles. The questions reproduced in Appendix A, requested details, including types of vehicles used, locations and the perceived success of the initiatives.

The data collected for this project were limited in important ways. The decoy vehicle in Cleveland was initially used in early 1997. However, detailed information of its usage was not available. It has been possible only to identify occasions when the vehicle's use led to an arrest, but not when the vehicle was used without success. Thus the hit rate (arrests/deployments) could not be calculated.

Monthly data of thefts of and from vehicles and recovery rates, by division, were obtained for the period August 1995 to December 1998[5]. The same information was collected specifically for Ford Transit vans. Cleveland Constabulary's new computer system, operational from April 1998, coincided with the launch of a media campaign centring on the decoy vehicle. Another source of data, collected and used by the analysts on division, was more detailed. This included information regarding date and time of theft, beat area where the offence took place, general location of theft (e.g. car park, street, driveway), whether the vehicle was recovered, and type, make and model of vehicle. The data collected prior to April 1998 on the old system were considered too unreliable to be used in any detail. Therefore, estimating the putative effect of the media campaign on vehicle crime in Stockton was only possible for the period April 1998 to December 1998. Despite the new computer system and analysis tools, the data still have to be viewed with caution, as despite the Stockton divisional data being downloaded direct from Cleveland Constabulary headquarters, discrepancies have been found which have proven difficult to explain.

[5] *These data were collected routinely by the Headquarters statistics department.*

Structure of the report

The remainder of the report is divided as follows:

- Section 2 describes the use of decoy vehicles and establishes the main areas for consideration in their deployment.
- Section 3 assesses the use of decoy vehicles, based on the initiative in Cleveland Constabulary.
- Section 4 sets out recommendations and conclusions to be drawn from this work.

2. Police use of decoy vehicles – an overview

The use of decoy vehicles is just one police tactic to combat vehicle crime. Decoy vehicles can be utilised to target both thefts of vehicles (organised and taking without consent) and thefts from vehicles. These vehicles can be used under the following rationales:

- to detect those committing crime against the vehicle;
- to follow the vehicle, if stolen, to locate potential 'chop shops' where the vehicle may be broken down for parts or rung[6].

The police can either apprehend thieves as they break into a vehicle[7] or allow the vehicle to be stolen and monitor its movements. This provides the opportunity to apprehend not only the thief but also potentially the handler or dismantler. Decoys can be deployed in high crime locations and/or on the basis of the preferences of a particular targeted offender. The vehicle of choice will be one known to be at particular risk of crime, either generally or in that location.

How do they work?

A decoy vehicle may be fitted with technical devices which make it possible to trap an intruder inside. The technology will vary depending on the specific initiative. Where thefts from vehicles are concerned, items such as a mobile phone or handbag may be left on a seat in the car. The vehicle may be covertly alarmed which alerts the police control room once the vehicle has been broken into and officers, on surveillance near by, would respond.

More sophisticated technology may also be used, especially if the purpose of the decoy is to combat thefts of vehicles. This might include:

- Tracking devices, which are radio transponders, fitted to the vehicle. When the vehicle is reported stolen, the tracking unit is activated and the police alerted. The unit broadcasts a unique signal, which can be detected and decoded by tracking computers which are fitted in police cars, helicopters and at fixed land sites. The police thereby locate the vehicle.
- Locking doors preventing the escape of the thief - The door handle and locking mechanism in the vehicle doors can be dismantled, so that doors can only be opened from the outside, as is familiar from child locks.

[6] *A rung vehicle is one which has been stolen and the identity altered – the number plates are changed and/or the vehicle identification number (VIN) has been removed so that identification is hampered.*

[7] *At this stage it will be difficult to infer the exact intention of the offender – whether he intended to steal an item from the vehicle or whether he intended to steal the actual vehicle.*

- Ignition or fuel cut off switches - These allow the vehicle to be started and driven a short distance before the fuel supply is cut off. There has also been discussion of the possible use of remote fuel-cut off switches. Officers could operate these if the vehicle was stolen when the location was deemed safe.

- Parts marking - Should the vehicle be stolen and dismantled the main component parts can be identified at a later date. This is achieved using chemical marking products which provide a unique identification code either under ultra-violet light or when magnified.

Police surveillance is often necessary within each of these scenarios. If a tracking device is used the resource implications are less onerous, with officers free to carry out other duties while 'waiting' for the decoy vehicle to be stolen. The device will alert the control room as soon as the decoy vehicle has been driven away. Lack of continuity of surveillance may have implications for the likely success of a charge.

Considerations

The use of decoy vehicles as a means of combating vehicle crime raises a number of issues:

- *Insurance liability* – An offender may be allowed to steal a vehicle and drive it away. This has insurance implications, especially if injury was inflicted on a third party, as the driver obviously would not be insured. The insurance premium for a decoy vehicle may be extremely high. Normally, insurance companies require prudence to be exercised to prevent theft, not encourage it! Third party liability also may be unavailable, as the force would not have care or control of the vehicle at the time of an accident. Insurance liability was found to be one reason why some forces have not used decoy vehicles.

- *'Agent provocateur'* – Such a person incites or counsels another to commit a crime which he would not otherwise have committed. Police officers leaving a vehicle insecure or leaving items on show inside could be considered to have acted as 'agents provocateurs' by the Crown Prosecution Service (CPS) and courts. Evidence could be excluded or a case discontinued. Entrapment, the result of the actions of an 'agent provocateur', is not a defence under English law and evidence obtained by means of entrapment may be excluded under section 78 of the PACE Act (1984)[8] although discretion can be used. Forces have often consulted the CPS or the force solicitor to clarify the circumstances under which a decoy vehicle could be used. In R v. Smurthwaite and Gill (1994), factors were highlighted which should be taken into consideration when deciding whether to

[8] *Police and Criminal Evidence Act. Section 78 of PACE states 'the duty to exclude evidence whose admission would have adverse effects on the fairness of the proceedings'.*

exclude evidence under PACE. These factors included: 'Was the officer acting as an agent provocateur in the sense that he was enticing the defendant to commit an offence he would not otherwise have committed?'; 'what was the nature of the entrapment?' and 'how active or passive was the officer's role in obtaining the evidence?' (Maguire and John, 1996). However, self-selection by the offender is an important feature. Although the offender may be motivated and tempted by factors in the environment, there is always the option not to proceed with the offences (Marx, 1980). For example, in Williams v. Director of Public Prosecutions (DPP), a van's rear door was left open by police officers with goods on show inside. The appeal, which argued that the officers had acted as 'agents provocateurs', by attracting people who may not otherwise have been tempted, was dismissed (Noble, 1993).

- *Civil liberties* – An offender breaks into a decoy vehicle and is locked inside once the door is closed, through the activation of deadlocks or the dismantling of the door handle. This could be considered unlawful imprisonment and an infringement of civil liberties. In Dawes v. DPP (1994), the defendant was convicted of aggravated vehicle taking after being arrested for breaking into a 'trap' vehicle. His appeal that the arrest was unlawful was dismissed in the Crown Court. The offender was arrested when he was detained by the automatic activation of the doorlocks. The arrest was rendered lawful when the police informed the offender as soon as was practicable of his arrest and the grounds for the arrest. Damage caused to the vehicle in attempting to escape constituted damage under section 12A(2)(d) of the Theft Act 1968 as inserted by the Aggravated Vehicle Taking Act 1992. Although Lord Justice Kennedy found the arrest to be lawful he suggested that it would be prudent for police forces using decoy vehicles to consider having a device in the vehicle which informed the offender that he had been arrested and on what grounds.

- *Criminal liability* – Efforts must be made to ensure that the person who stole a vehicle is the person arrested. A vehicle containing a tracking device that has not been under constant observation by the police could change hands before the police reach it. This could also be the case if the vehicle stopped temporarily while being tracked. It could be maintained that the vehicle was passed to an innocent individual. Constant observation or the installation of audio/video equipment within the decoy vehicle could overcome this.

These issues need to be considered when an initiative is being devised. They have not prevented forces successfully deploying decoy vehicles.

National use of decoy vehicles

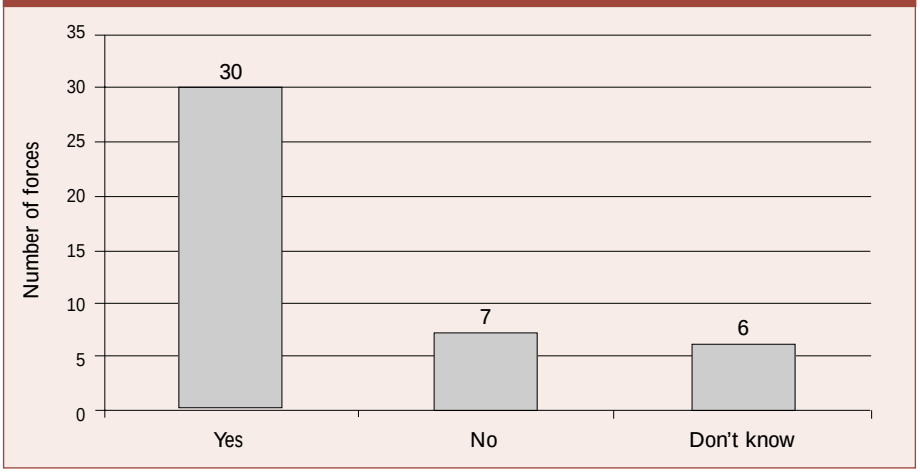
A brief telephone survey of forces was undertaken to investigate the level of usage of decoy vehicles as a method of vehicle crime reduction (see Appendix A for the schedule of questions). Figure 1 shows the estimated number of forces who report themselves as having used decoy vehicles at some time[9].

Approximately 70% of forces either use decoy vehicles or have used them in the past. Reasons for not having ever used decoys (16%) or no longer using them were related to:

- resource concerns – they are too expensive to set up and maintain or the returns would not justify the costs;
- health and safety implications – these reasons included concerns of having no control over the vehicle, and the insurance risk involved;
- 'agent provocateur' – concerns about repercussions of 'entrapment'; and
- access to vehicles – the difficulty of obtaining a vehicle for use as a decoy.

[9] Forces may use decoys on either a divisional level or a force wide basis, therefore accurate data collection is very difficult and only an estimate has been given here.

Figure 1: Estimated national usage of decoy vehicles



The reasons for not using decoys differ between those forces which have never used them and those which no longer use them. The main concern for forces no longer using decoy vehicles was safety. The risk of an accident when an offender was

driving the stolen decoy vehicle and the implications of an offender locked inside a vehicle was deemed too problematic to continue using decoy operations. The costs of mounting an operation in terms of the amount of labour required and the technology needed in the vehicles were also perceived to outweigh the benefits. Arrests, prosecution of those offenders and a reduction in crime, were held not to justify the costs involved. The main reasons given by forces which had never used decoy vehicles were:

- the type of operation was unsuitable for the geography of the force area;
- the presenting vehicle crime problem did not suit a decoy operation;
- safety and insurance issues; and
- difficulty in obtaining a decoy vehicle for use.

The forces which have used decoy vehicles deployed a variety of vehicle types, makes and models, with varying levels of technology and different methods of monitoring the decoy vehicle. Figure 2 shows the types of vehicles used by forces as decoy vehicles[10]. Forty seven percent of forces that had used decoy vehicles used only one type of vehicle – in 63% of these cases, cars. Seven forces (23%) used two types of vehicle and five (17%) used three types. Motorbikes were the most popular type of vehicle used by forces using a variety of types in decoy operations. Motorbikes, cars and 4x4s were used by 80% of forces that had used three different vehicle types. Motorbikes were used by 57% of forces, cars by 29% and light commercial vehicles (LCVs) by 43% of forces that had used two types of vehicles in their operations.

[10] Multiple responses allowed. Forces may use more than one type of vehicle for different decoy operations.

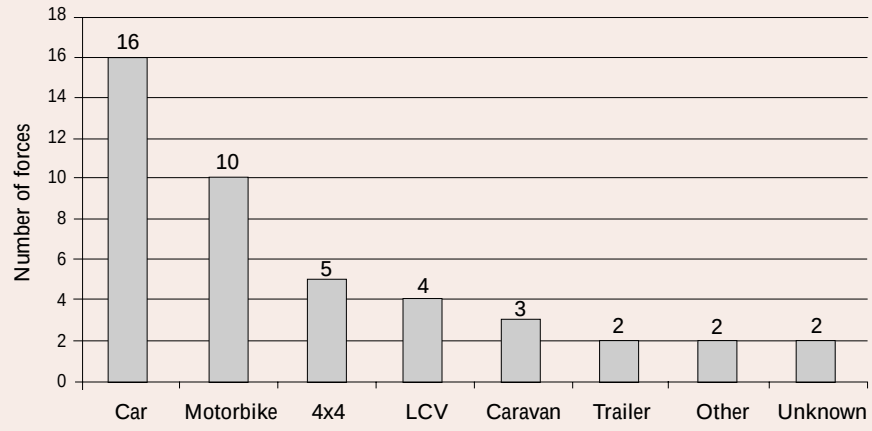
The survey showed that high volume, familiar models of cars such as the Ford Escort, Vauxhall Astra and Ford Fiesta are most often used, no doubt due to their relatively high risk of theft (Car Theft Index 1999). Other models of car (e.g. Mercedes), 4x4s, high-powered motorbikes and even caravans were also used.

The technology used by police forces varied from none, relying solely on police surveillance, to the use of tracking devices, data tagging[11], door and window locks, fuel cut off switch or a combination of these. It appeared that police surveillance was seen as an essential part of the decoy initiative. This has resource implications.

[11] Data tagging is a method of covertly marking and identifying body parts. A sticker, however, can be placed in the window announcing that this method of marking is used.

Without thorough evaluation it is not possible to say whether decoy vehicles were successful in reducing vehicle crime. Anecdotally, forces did report that a number of arrests resulted from the use of decoy vehicles, and one force attributed a 10% reduction in vehicle crime in a city centre to the success of a decoy vehicle

Figure 2: Types of vehicles used by forces as decoys



initiative. Cambridgeshire Constabulary (Case study 1) was identified as having used a decoy caravan to combat the small but persistent problem of this type of vehicle theft. The deployment of the decoy vehicle was said to be intelligence led, i.e. it was placed in either hot spot locations or near addresses of known offenders. The operation involving the decoy caravan was covert. Although no thorough evaluation was carried out, data obtained from Cambridgeshire suggest that the thefts of caravans were reduced over the period that the decoy vehicle was used.

Case study 1: Cambridgeshire Constabulary

Caravan thefts were a small but persistent problem for Cambridgeshire Constabulary, especially during summer. A decision was made to mount a decoy operation. A caravan was obtained from an insurance company for use as a decoy vehicle and it was deployed during the summers of 1997 and 1998. The number of thefts declined by 57% between July 1996 and December 1998 in the force area, although it must be borne in mind that the numbers involved were small.

The caravan was usually placed at the road-side of main thoroughfares through Cambridgeshire. It was fitted with a tracking device which meant that surveillance was not necessary. The control room would be automatically alerted if the caravan were stolen. A record was kept of the deployment of the caravan and of eight times that it was used in 1997 and 1998; it was stolen five times and eight people were arrested and charged for these thefts.

Case study 2: Kent Constabulary – Operation Eagle

Operation Eagle was carried out as a pilot operation to establish the potential use of decoy vehicles. The operation took place in three divisions between August and November 1998. The initiative addressed two scenarios:

- Theft from vehicles – Cars at high risk of thefts from were identified through analysis and were to be locked with property on display (e.g. mobile phone). Officers would keep the car under surveillance.

- Thefts of vehicles – A car at risk of professional theft was to be left secure in hot spot locations. It was equipped with technology to allow it to be followed and the offender to be videoed.

Signage was available to heighten awareness of the operation in the community and a publicity campaign organised.

As this was a pilot operation, an evaluation was to be carried out following the initiative. Those involved were required to complete logs each time the decoy vehicles were used which provided information including location of the decoy, length of time used and details of any incidents.

Vehicle crime increased in two of the three areas and in the third a small reduction during the operation was followed by an increase. The total cost of the operation in terms of staff resources was estimated to be nearly £18,000.

The organisation and management of decoy initiatives was one reason ascribed by forces for their failure. In some cases the vehicle was not stolen, which may possibly have been an indicator of poor management and organisation – or just bad luck. Another issue was the resource implications – the number of staff involved in surveillance and the subsequent costs of this in relation to the potential rewards of the operation were considered disproportionate. Case study 2 sets out the Kent experience.

Kent found the operation to be staff resource intensive with too little likelihood of arrest. Technical difficulties also arose. The recommendations following their evaluation highlighted the importance of obtaining the correct make and model of vehicle to match those most at risk of theft as well as using items that are at risk of being stolen. As this operation was a pilot with the intention of determining how best to proceed with the use of decoy vehicles, Kent has used the evaluation to formulate guidelines regarding the future use of decoy vehicles.

3. Assessing the use of decoy vehicles in Cleveland

Stockton-on-Tees division of Cleveland Constabulary, undertook a vehicle crime reduction initiative involving a decoy Ford Transit van during 1997 and 1998. A media campaign followed in 1998, with much local and national publicity. This section describes the operation and assesses the success of both the initiative and the media campaign.

Background

The vehicle crime problem in Cleveland Constabulary

Cleveland Constabulary is divided into four divisions – Hartlepool, Langbaugh, Middlesbrough and Stockton. Middlesbrough is a highly urbanised area, whereas both Hartlepool and Langbaugh divisions are relatively rural. Stockton incorporates both a town centre and rural areas. In 1996, vehicle crime (thefts of and thefts from vehicles) accounted for 29% of all recorded crime in Cleveland, higher than the 26% for vehicle crime nationally. Across the Cleveland force area thefts of vehicles made up 40% of all vehicle crime, slightly higher than the national proportion (38%). In 1996, the rate of thefts of vehicles was 15 per 1,000 population in Cleveland in comparison to an average across England and Wales of 10 per 1,000. The rate in Cleveland was the sixth highest in the country. For thefts from vehicles the rates were 22 per 1,000 in Cleveland, the highest in the country along with Avon and Somerset and Gloucestershire, compared to a national average of 16 per 1,000 population.

As Table 1 shows, 40% of Cleveland's vehicle crime took place in Middlesbrough division, with Stockton division, the second highest, suffering over 5,300 vehicle crime offences, a quarter of the force total. Thefts of vehicles accounted for 42% of all vehicle crime in Stockton division in 1996, higher than both the force and the national percentage.

Table 1: Vehicle crime in Cleveland Constabulary, 1996

	Thefts of vehicles	Thefts from vehicles	Total vehicle crime	Percentage of total vehicle crime by division
Hartlepool	1,007	1,839	2,846	13.3
Langbaugh	1,857	2,779	4,636	21.7
Middlesbrough	3,514	5,016	8,530	39.9
Stockton	2,270	3,075	5,345	25.0
Force	8,648	12,709	21,357	100.0

Both Cleveland generally, and Stockton specifically, suffered a problem involving the theft of Ford Transit vans. In 1996, 277 such vans were stolen within the force area with 115 (42%) of these stolen from Stockton division. As Table 2 shows, the number stolen in Stockton was nearly twice the number stolen in any other division. Only 100 vans were recovered across the force – a 36% recovery rate. In Stockton the recovery rate was similar at 34%. Both of these rates were higher than the national recovery rate of Ford Transit vans of 27% (Brown and Saliba, 1998). Table 2 shows the breakdown of Transit van theft across the force area. To place this in context, Brown and Saliba (1998) examined the nature and extent of light commercial vehicle (LCV) theft nationally and found that over half of all LCVs stolen consisted of just two models – the Ford Transit van and Ford Escort van.

Table 2: Theft of Ford Transit vans in Cleveland Constabulary, 1996

	Number stolen	Percentage of force total	Number recovered	Recovery rate (%)
Hartlepool	62	22	26	42
Langbaugh	37	13	12	32
Middlesbrough	63	23	23	37
Stockton	115	42	39	34
Force	277	100	100	36

While the recovery rates of Transit vans within Stockton (and Cleveland generally) were higher than that found by Brown and Saliba (1998) for the country as a whole, they were still considerably lower than recovery rates for stolen vehicles generally. The recovery rate of vehicles hints at the primary reasons for the theft. Vehicles not stolen with the intention of permanently depriving the owner of their use are typically recovered. Those generally not recovered are likely to have been subject to either professional theft or insurance fraud. Insurance fraud has been calculated to account for about 8% of all vehicle thefts. The balance of unrecovered vehicles reflects the level of professional theft (Webb and Laycock, 1992). The low recovery rate of Transit vans therefore indicates that the problem was probably predominantly one of professional theft.

Response of Stockton division to the problem

Stockton officers were concerned that professional thieves were responsible for the thefts. The suspicion was that vans were either being sold on or were being taken to 'chop shops' where they were reduced to components for onward sale.

The police response aimed to:

- identify and arrest those involved in the theft of Ford Transits in the Stockton area; and
- trace the premises to which the stolen vehicles were being taken.

It was decided that the most effective way of carrying this out involved the use of a decoy vehicle. The Stockton Crime Prevention Panel, consisting of local business people who raised money to tackle local crime issues, was consulted and purchased a used Transit van for £2,500 in early 1997. The van reflected the type, colour and age of those Transits most frequently stolen in the local area. The identity of the van was known only by the few officers involved in the initiative to ensure anonymity. It was kept away from police premises at all times. When not in use it was stored away from the division, at a location known only to the officers involved. Since its purchase, the van's identity has been changed on a number of occasions, to preserve its anonymity, through changing its colour, signage, registration etc.

The van had to be adapted for use as a decoy vehicle. The extra cost for this adaptation brought the total price to £4,000 for the vehicle. It was set up initially as a builder's van, with tools in the back. The exterior was dirty, while inside old newspapers, receipts, food wrappers etc. were left in the driver's area. The van was modified so that, if necessary, the offenders could not escape once inside. A padlock was placed on the back doors so the thieves could not escape by that route. The window winders were also disconnected so that windows could not be lowered. Equipment was installed so that the police could be alerted if the van was stolen and then track it. Tracker[12] provided this equipment free of charge. A video recorder was installed in the van, triggered by pressure sensors in the driver's seat, so that the identity of the thief could be recorded when inside the vehicle. This meant that even if the vehicle were to change hands before the police recovered it, there would be visual evidence of the thief. A fuel cut off switch was fitted so that the van could only be driven a short distance before coming to a stop, in circumstances where the purpose of the operation was to catch the thief. This switch could be overridden if the aim was to follow the van to a 'chop shop'. It was not appropriate to use all equipment simultaneously. The van's set-up could be customised. Cleveland Constabulary's solicitors were contacted and the risk of being accused as an 'agent provocateur' discussed. The solicitors agreed that the door to the Transit van could be left unlocked without an accusation of entrapment following. An unlocked door would not 'make' an offender steal the van.

[12] *Tracker is a commercial company who provide a stolen vehicle recovery system using tracking devices as described in Section 2.*

Determining the hot spots within Stockton

Detailed local analysis determined the hot spots for Transit van theft in Stockton. The division itself is divided into four areas with a police station in each – Stockton, Billingham, Thornaby, and Yarm and Eaglescliffe. Deployment locations followed from knowledge of where thefts of Transit vans were clustered and where known prolific offenders operated. Initial analysis highlighted one area, characterised by out of town retail outlets on a trunk road out of Stockton town centre. This trunk road led to the A19, the main thoroughfare though the Cleveland force area, leading north and south to Durham and North Yorkshire respectively, and beyond. Thefts were clustered around a DIY store car park. Intelligence also showed that a prolific offender, who had previously evaded arrest despite surveillance, was known to operate in this area.

The initiative

The decoy operation

The decoy Transit van was placed in the DIY store car park at the beginning of April 1997. As well as being fitted with equipment to help secure the arrest of the thief, as described above, a team of officers was used as covert surveillance and was strategically placed close to the Transit van. Tracker was alerted to the operation so that the signal would automatically be picked up if the van were stolen. This information would then be relayed to the police control room and patrol cars fitted with mobile tracking computers. This would enable the officers involved to follow the decoy van. Control rooms in the neighbouring forces (Durham and North Yorkshire) were notified of the operation, in case force borders were crossed during a pursuit.

The aim was not only to catch the prolific thief but also the receiver, as so many vans were not recovered. It was therefore necessary to follow the thief without raising suspicion. If the thief became aware of the police he would probably not risk identifying the 'chop shop' and abandon the vehicle elsewhere. This operation therefore involved not only police patrol vehicles, but also two public service vans - a local authority van and a gas van - for use 'undercover'. These vans were fitted with mobile tracker units so that they too could follow the stolen vehicle.

On 3rd April 1997, the decoy Transit van was stolen from the car park at approximately 11.30am. Breaking into and starting the van took approximately seven seconds. As well as the two 'undercover' vans, back-up police were waiting at the police station in Stockton for notification that the van had been stolen. Due to the speed with which the van was stolen it was initially lost from the mobile

tracking units in the police cars (the units only have a five mile tracking radius). The force plane, already on stand-by, was called upon. This has a mobile tracking unit with a radius of 35 miles. It picked up the signal from the stolen van. The van moved into the Durham police force area, and was traced to an allotment in a small village in east Durham. On arrival at the scene, the allotment was deserted. It was discovered later that the offenders had left to attend a funeral. On their return, they began to dismantle the vehicle. The police moved in and arrested them. They found parts from at least seven other Transit vans. This operation culminated in the arrest and imprisonment of a prolific thief and a receiver previously unknown to the police.

The officers involved were unable to give specific dates for other occasions that the decoy vehicle was used. Reportedly, it was not stolen again but there were attempted break ins. Surveillance carried out by the police has facilitated observation of offenders either attempting to break into the decoy vehicle or other vehicles nearby. This has been purported to provide invaluable intelligence in relation to other professional vehicle thieves working in Cleveland. The result has been the arrests of two other teams involved in Transit van theft, at the beginning and the end of March 1998. The decoy Transit van was used between April 1997 and April 1998. It is now used rarely. The recovery rate of Transit vans has increased and the theft of Transit vans is no longer considered a problem.

The media campaign

In April 1998, following the perceived success of the decoy Transit van, the press was informed of this approach. Articles were published locally, nationally and overseas for over two months. The articles were seen across the force area. Any effect on vehicle crime levels may be expected to be force wide. The articles generally described the decoy initiative, specifically highlighting the success in April 1997 described above. The media campaign stated that both cars and vans were used in the operation, although emphasis was given to vans. Stockton was highlighted as the main, but not the only, area where the police were targeting the decoy operations. The impression given by the police was that the decoy operations were very successful leading to over 60 arrests and a reduction in crime of 32%.

Trends in vehicle crime across the force during the initiative

The impact of the decoy initiative on vehicle theft in both Cleveland generally and Stockton in particular was assessed using police recorded vehicle theft data covering the period August 1995 to December 1998. These data allow the separate analysis of thefts of Transits as well as overall vehicle theft in Stockton and the rest of the

force. The initiative ran most actively between April 1997 and April 1998 followed by a media campaign between April and July 1998. The data available therefore allow comparison of divisional vehicle thefts and Transit thefts in the 19 months leading up to the initiative and media campaign and approximately six months after the media campaign ended. The raw data has been adjusted using three monthly moving averages. This, albeit crudely, smoothes out the random fluctuations in the data but still allows the underlying trend to be identified. Indexing the data at 100 allows direct comparisons to be made between Stockton and the rest of the force. The data were analysed to take into account seasonal variation, however, only slight differences were made to the actual findings. The data available were also insufficient to ensure that analysis for seasonality was rigorous and accurate. Therefore, the more simple technique of moving averages has been used to reflect the seasonally unadjusted trends in thefts.

How will we know whether the initiative had an effect? It would be expected that if *the decoy van* had a crime reduction effect in Stockton then a fall in the theft of Transit vans would be experienced. If offenders presumed that decoys were being used for a variety of vehicle types, a more general effect on vehicle theft would be seen.

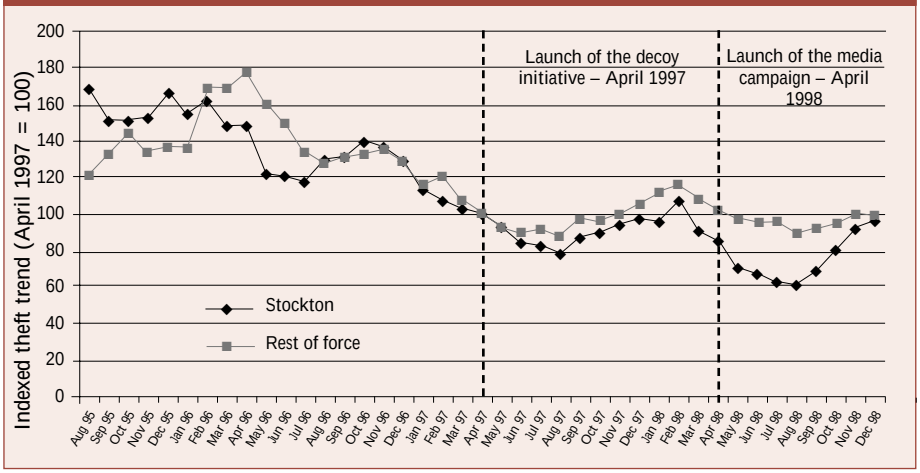
Any changes in the levels of vehicle theft are likely to be attributable to changes in theft patterns rather than reporting and recording practices because of the near-universal rate of reporting to the police of this crime type. According to the 1998 British Crime Survey (BCS), 97% of car thefts were reported to the police.

Figure 3 shows indexed vehicle theft trends for Stockton and the rest of force over the period August 1995 until December 1998. April 1997, when the decoy initiative started, has been indexed at 100. Figure B1 in Appendix B shows actual theft figures and the resultant trend for this period.

Prior to August 1996 the trends in vehicle theft in Stockton and the rest of the force are disparate. However, what is immediately apparent is that vehicle theft in both Stockton and the rest of the force appears generally to follow a similar trend after this date, diverging only slightly during the critical period. Comparing the Stockton trend with that in the remainder of the force, there was no major reduction in the former relative to the latter during the decoy operation. It must be concluded that the effect of the decoy Transit itself did not generalise to any great extent to vehicle crime generally, i.e. having the (unpublicised) deployment of one vehicle type did not affect Stockton offender perceptions to the extent that they desisted from theft of vehicles generally. However, the separation of the two lines in

April/ May 1998 was considerable, with the indexed difference doubling. This suggests a possible generalised effect of publicity. The drawing together of the lines after July 1998 when the publicity campaign ended strengthens that interpretation.

Figure 3: Indexed trend of thefts of vehicles across Cleveland, August 1995 – December 1998[13]



Earlier in this report the issue of displacement was discussed. How would displacement of vehicle crime outside Stockton manifest itself in the data available? A simple way of looking at this would be to use correlations[14]. It should be evident in a negative association between crime trends in Stockton and elsewhere in Cleveland during the period when an initiative is in place. As vehicle crime is exported from Stockton, vehicle crime within Stockton should decline[15].

The time period, August 1995 to December 1998, can be divided into three epochs, split by the introduction of the initiatives:

- August 1995 to March 1997, prior to the decoy operation (epoch 1);
- April 1997 to March 1998, during the decoy operation (epoch 2); and
- April 1998 to December 1998, inclusive of the media campaign and a six month follow up period (epoch 3).

[13] To calculate a moving average for a particular value, add that value to those on either side, for example, for February sum January, February and March's values and then divide this total by 3. It is not possible to calculate a monthly average for the first and last data value in the series therefore the actual figures have been used. Three monthly moving averages have been used rather than a 12 monthly average as there was insufficient data available for this type of analysis. If the moving average length is longer, the data will be smoother, however, if too long the moving average may not reflect the 'real' changes in the underlying data.

[14] Whilst correlations do not show any causation between two sets of variables, they do show whether there is any relationship.

[15] Although displacement can occur in more ways than simply crimes occurring in a different location, and that displacement to other locations could be further afield than the immediate surrounding area, the data available in this study did not allow this analysis. Further investigation of other types of displacement was not possible within the scope of this work. It would perhaps be useful to carry out further research investigating levels of vehicle theft in neighbouring forces as well as comparing vehicle theft to other types of property crime.

Analysis was carried out to determine any relationship between vehicle theft figures in Stockton and the rest of the force within each time period (Table 3 shows the results). During epoch 1 there was no significant relationship between vehicle thefts in Stockton and those in the remainder of the force area. In epochs 2 and 3, however, during the decoy operation, media campaign and the follow up period there was a closer positive association between figures for Stockton and the rest of the force. In short, this pattern is the opposite to that which would be expected from displacement. Yet particularly during the media phase, where the initiative was specifically assigned to Stockton, one would have expected displacement.

Table 3: Relationship of vehicle thefts between Stockton and the rest of the force, August 1995 to December 1998

	Epoch 1 (August 1995 to March 1997)	Epoch 2 (April 1997 to March 1998)	Epoch 3 (April 1998 to December 1998)
Pearson correlation	0.371	0.623*	0.634*
N	20	12	9

* is significant at the 0.05 level (1-tailed)

Those wedded to the notion that displacement is inevitable might then argue that displaced crime happens a little later. For example, a crime displaced from Stockton may turn up in Hartlepool not on the same day, but perhaps the following month. To check out this possibility, lagged correlations between Stockton and the rest of the force were carried out to determine whether the Stockton thefts were 'exported' one month or so later, to the remainder of the force. This analysis compared monthly force theft figures, excluding Stockton, with the preceding monthly theft figures for Stockton, e.g. force figures for May 1997, compared to Stockton figures for April 1997. The results showed that, in fact, theft figures during the decoy operation and media campaign carried out in Stockton were still positively associated with trends elsewhere in the force (the correlations being .32 and .47 respectively). As noted above, displacement requires a negative association. Thus the hypothesis of 'displacement with a one-month delay' is not a tenable interpretation of the data.

Trends in Ford Transit van theft across the force during the initiative

Thefts of Ford Transit vans were considered to be a major problem in both Stockton division and Cleveland Constabulary as a whole. What must be borne in mind when analysing the problem of Transit van theft is that the numbers involved are small – 277 were stolen across the force in 1996. This means that when examining indexed

trends month on month a large increase between two months could actually mean in raw numbers thefts increasing from seven to thirteen. Therefore, small samples can imply a much greater fluctuation and percentage change than a large sample.

Figure 4: Indexed trend of thefts of Ford Transit vans across Cleveland, August 1995 to December 1998[16]

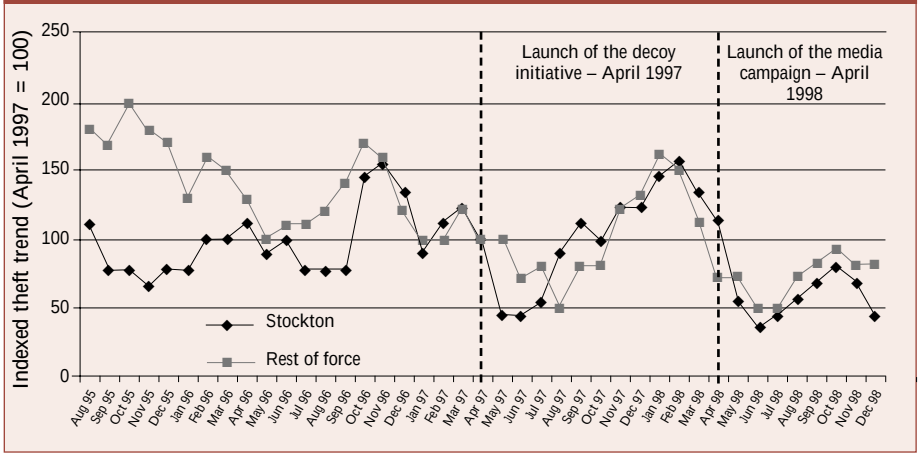


Figure 4 shows the indexed trends in thefts of Transit vans between August 1995 and December 1998 in Stockton and the rest of the force. As before, April 1997 has been indexed at 100, as this was the start of the decoy initiative. Figure 4 is self-explanatory. Over the time period the thefts of Transit vans across Stockton and the rest of the force follow a similar pattern. Marked declines, both in Stockton and elsewhere, coincide with the onset of both stages of the initiative, with thefts creeping up as the effects of initial deployment decay. However, the decline is much sharper in Stockton after deployment of the decoy. Figure B2 in Appendix B shows the actual figures over the study period for comparison.

Although the results seem clear from Figure 4, we need to test for displacement. Breaking down the Transit theft figures into three time periods, in the same way as that done for vehicle theft allows comparison of theft activity in Stockton with the rest of the force within each time period. Table 4 shows the results of the analysis. Stockton and the rest of the force are not correlated during epoch 1 (August 1995 to March 1997), indicating that factors affecting thefts in Stockton were not affecting Transit thefts elsewhere in the force. In epoch 2 (April 1997 to March 1998) the relationship between Stockton and the rest of the force is slightly smaller, and by epoch 3 (April 1998 to December 1998) there is only a modest positive

[16] *The graph has been constructed using 3 month moving averages. As it is not possible to calculate a monthly average for the first and last data value in the series therefore the actual figures have been used.*

relationship between the two areas. All the associations are positive, contrasting with what one would expect from displacement. The decline in the size of the association may suggest that the trends in Stockton and elsewhere in Cleveland are becoming 'uncoupled', i.e. that the effect has become more Stockton-specific. However, there is no evidence of displacement. Thefts across the rest of the force were diminishingly related to Transit thefts in Stockton during the decoy operation and media campaign.

Table 4: Relationship of Transit van thefts between Stockton and the rest of the force, August 1995 to December 1998

	Epoch 1 (August 1995 to March 1997)	Epoch 2 (April 1997 to March 1998)	Epoch 3 (April 1998 to December 1998)
Pearson correlation	0.352	0.304	0.168
N	20	12	9

Testing the 'delayed displacement' hypothesis shows positive correlations between theft figures for Stockton and the rest of the force during the decoy operation and media campaign. The actual correlations between Stockton and the remainder of the force were .34 and .37 in epochs 2 and 3 respectively. Displacement, therefore, was not shown to occur when a delay of one month was taken into consideration.

Trends in the recovery of Ford Transit vans

The problem of Transit van theft in Stockton and Cleveland was that many were stolen and few recovered. As mentioned previously, in 1996 of 277 Transits stolen only 100 were recovered across the force – a recovery rate of 36%. In Stockton the recovery rate was 34%. Figures 5 shows the trends in recovery rates between August 1995 and December 1998 for both Stockton and the rest of the force.

Both in Stockton and across the rest of the force the recovery rate remained low between 1995 and 1997, despite the decoy initiative in operation in 1997. However, following the launch of the media campaign in April 1998 (which described the decoy operation and how the vehicles worked), the recovery rate increased across the whole force and remained high through to the end of 1998. In Stockton division, following the success of the decoy vehicle in April 1997 and a subsequent drop in Transit thefts in May and July 1997, the recovery rate increased temporarily. Recovery fell again after July 1997 until the media campaign launch in April 1998.

Figure 5: Recovery rates of Ford Transit vans in Stockton division and across the rest of the force, August to December 1998

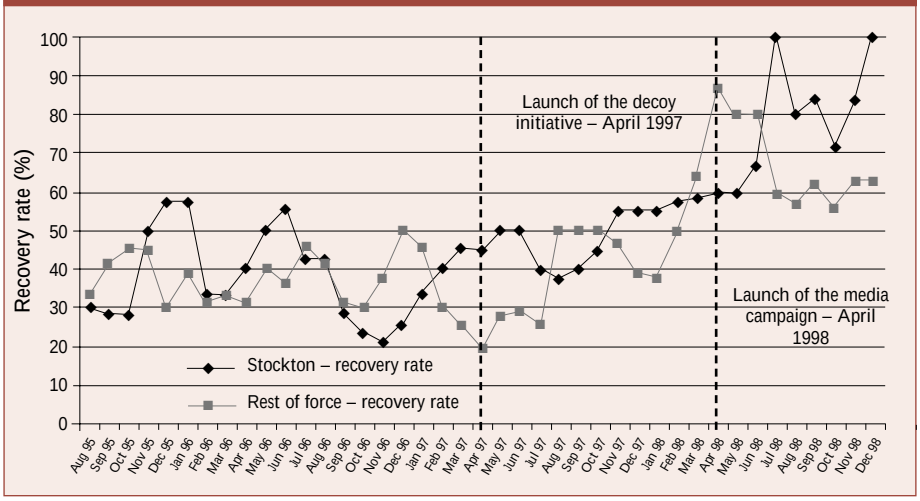


Table 5 shows the recovery rates of Transit vans across the divisions for the period 1995 to 1998. It can be seen that while the proportion of vehicles recovered increases annually, there is a dramatic rise of approximately 20% between 1997 and 1998. It is only in Langbaugh that the recovery rate remained low in 1998.

Table 5: Recovery rates for Ford Transit vans, 1995 to 1998

	1995	1996	1997	1998
Hartlepool	38.2%	41.9%	33.3%	65.8%
Langbaugh	39.0%	32.4%	46.8%	44.4%
Middlesbrough	31.4%	36.5%	38.2%	63.2%
Stockton	35.2%	33.9%	44.4%	65.6%
Force (minus Stockton)	36.4%	37.7%	39.8%	59.2%
Force	36.0%	36.1%	41.9%	62.2%

The impact of the decoy operation and media campaign on Stockton division

The exact deployment of the decoy vehicle during 1998 is unknown, as precise records were not kept. However, it is known that the decoy was not used between April and July 1998 as the officers felt that the media campaign provided an adequate deterrent. It should therefore be possible to assess the impact of the media

campaign on vehicle theft levels in Stockton. The potential impact of the arrest of the two gangs in March must be borne in mind.

Location of Transit van thefts

The media campaign did not specify exact locations of the decoy vehicles within Stockton. Therefore analysis of Transit thefts during 1998 was undertaken to determine the extent to which, if any, offenders with local knowledge altered offending patterns during and after the media campaign.

The Portrack Lane area of Stockton (constituting one beat area) was the location of a significant number of Transit van thefts, and hence the prime location for the decoy vehicle in 1997. The local vehicle theft database used by analysts in Stockton division showed that during the period April to June 1998, there were no thefts from this area. The majority of the Transit van thefts took place in Stockton district of the division (12 of a total 17 recorded on the database), with four of those being stolen from the Stockton town centre beat area.

The period July to September 1998 saw a decrease in the number of Transit van thefts in the Stockton town centre beat area, but Transits were again being stolen from the Portrack Lane beat area. More than half (eight of 15 thefts) occurred within Stockton district, although there were five thefts to the north in Billingham district. (Billingham and Stockton are separated by the A19 main trunk road through Cleveland.) In the previous quarter there had been only two thefts from this police district. In the last quarter of 1998, October to December, the number of Transit vans stolen rose to 28, nearly double on the last three months. Eleven of those thefts took place on the Portrack Lane estate, an increase of almost three-fold. Only one theft occurred in the town centre, representing a drop of 80% since the April to June quarter. In Billingham, there were nine thefts between October and December 1998, almost double that in the previous quarter.

As already discussed above, it appears that the target areas for Transit van theft do appear to change location throughout 1998 within Stockton division. There may have been movement from the Portrack Lane area to the town centre during the media campaign (April to July 1998). No offences occurred in the former area, however, five thefts took place in the latter, despite Portrack Lane's 'popularity' in the previous year. This is further substantiated by the reduction in the number of offences taking place in the town centre later in the year, and the return of thefts in the Portrack Lane area. Any flux to the town centre was, therefore, only short-term. There also tended to be a gradual shift of thefts over the year to Billingham.

Table 6 shows the change in the specific location of thefts between April 1998 and December 1998. In the first quarter studied (April to June 1998) 50% of stolen Transit vans were taken from the road, with only 17% being stolen from car parks. This is despite, anecdotally, the problem being Transit vans stolen from car parks. However, over the rest of the year, the emphasis changes – in the last quarter (October to December 1998) 59% of thefts occurred in car parks, while only 35% were stolen from the roadside.

Table 6: Location of Transit van thefts in Stockton division, April to December 1998[17]

	Car park	Road	Driveway	Unknown
April – June 1998	17%	50%	22%	11%
July – September 1998	53%	40%	7%	0%
October – December 1998	59%	35%	4%	4%

[17] *Figures may not total 100 percent due to rounding.*

Vehicle type/vehicle model

Over time there was no significance within Stockton in the type of vehicle targeted by thieves. Car theft consistently accounted for 79% of all thefts in the area while vans accounted for 8%. Across the rest of the force the breakdown was similar, with cars accounting for 88% of all thefts and vans just 4%. There was no shift over time by thieves to a different vehicle type. There was no statistical significance in Stockton or the force with regard to a displacement to other model types between April and December 1998.

Conclusions

If the Cleveland experience were to be summarised in two sentences, it would probably be in the following terms. Events following the deployment of the decoy had an effect on Transit theft in Stockton. The publicity campaign had an effect which generalised more to other vehicle theft in the area. These conclusions, developed and qualified below, should encourage further development of decoy initiatives, but must be tentative, to reflect the imperfect conditions for evaluation, such as the absence of precise records of decoy deployment.

Over the time period studied (August 1995 to December 1998) both total vehicle theft and Transit van theft fell in both Stockton and across the rest of the force. In Stockton vehicle theft fell by 44% and Transit theft 60%; across the rest of the force vehicle theft was reduced by 20% and Transit theft by 56%. In the short term, defined as a quarter of the year (three months), the specific initiatives seemed to bring about an even greater reduction. The media campaign was successful, not only in reducing thefts but sustaining that reduction throughout the rest of the year.

It would be expected that the impact of the decoy initiative would be greater at its core in Stockton and that this effect may spread, in diluted form, to the rest of the force area. This is borne out as vehicle theft fell to a lesser extent across the rest of the force in the three months following the decoy operation (9%) and the media campaign (20%) than in Stockton - 18% and 27% respectively. A similar pattern emerged with Transit van theft. In the three months following the decoy operation Transit thefts fell by 20% across the force and 44% in Stockton. The reduction during the quarter of the media campaign (April to July 1998) was 29% and 60% for the force and Stockton respectively.

It should be borne in mind, however, that vehicle crime fell not only across the force, but also reduced significantly nationally during this period (approximately 15%). This national reduction, however, was not as extensive as that seen across the Cleveland force area. It is virtually impossible to disentangle the effects of the specific decoy operation, the media campaign and the impact of the arrests of offenders, although the latter factor was fundamentally a result of the decoy operation.

Although the decoy initiative focused solely on Ford Transit vans (only 5% of the vehicles stolen in Stockton) vehicle thefts fell by a quarter in Stockton following the decoy operation. If this initiative was the sole cause of the fall in vehicle thefts a significant diffusion of benefits must have occurred. Incapacitation of those offenders arrested during the initiative may have influenced the reduction in theft. Despite the operation being covert, knowledge may have been passed on by rumours through a network of offenders and this may have caused a deterrent effect. The reduction, however, was short lived.

The decoy vehicle was not used during the media campaign between April and July 1998. Thefts of vehicles and more specifically Transit thefts began to fall again following the arrests in March 1998 and the introduction of the media campaign. One of the gangs arrested in March 1998 was based in Hartlepool and predominantly committed thefts in Stockton. This may be a possible explanation for the significant reduction in both Stockton and Hartlepool between April and July 1998 in comparison to the other divisions. Analysis also showed a significant correlation between Transit thefts in Stockton and Hartlepool. If this gang had primarily worked in Stockton and Hartlepool, it may logically follow that after their arrest the number of thefts would decline in both areas.

Ignoring any impact that the media campaign may have had on theft levels, it appears from the trends for both vehicle theft and, more specifically, Transit theft

that the greatest reductions in the number of thefts occurred after a significant arrest was made. This would imply that the changes in the level of theft might be *offender specific* – by taking a prolific gang out of circulation the number of thefts decline. The decoy operation was successful in targeting these offenders – although the massive reductions in theft seen immediately after arrests were short-lived, vehicle theft overall was lower at the end of the study period than at the start.

If looking at the figures *solely* to see any effect the *media campaign* had on theft levels the impact would appear to be immediate. There was a definite fall in the number of incidents during this time, however, as soon as the campaign ceased levels of theft began to rise. However, the levels did not attain those previously seen and therefore the media campaign could be described as successful in reducing both vehicle theft and more specifically Transit theft.

The rate of recovery of Transit vans increased following the media campaign. The campaign described the tracking devices used in the decoy vehicles. Anecdotally, the police believe that the modus operandi used by thieves to steal Transit vans changed during 1998. Previously, vans stolen by professional thieves (that is, stolen with the intention of permanently depriving the owner of the vehicle) were usually taken immediately to a garage or 'chop shop' where they were broken down for components or rung to be sold on under a new identity. The emerging method involved an extra stage, once stolen the van was parked in another car park for approximately 24 hours and then moved on to its final destination. This time lapse allowed the police to recover the vehicle should it be fitted with a tracking device. The reasoning behind the increase in the number of vans recovered, therefore, is that there is a longer period of time in which it could be discovered before being moved to be broken down or rung.

Summary

Trends in vehicle theft

- Between August 1995 and December 1998 vehicle theft fell by 44% in Stockton and by 20% across the rest of Cleveland Constabulary.
- In the quarter immediately following the successful deployment of the decoy Transit van in 1997 and during the media campaign in 1998 both the force and Stockton saw a decline in the number of vehicle thefts taking place.

Trends in Ford Transit theft

- Transit van theft fell by 60% in Stockton, and by 56% across the rest of the force between August 1995 and December 1998.
- Following the successful deployment of the decoy vehicle in April 1997, Transit van theft fell by 30% across the force and by 66% in Stockton in just two months.
- During the media campaign (April to July 1998) Transit van theft fell by 29% across the force and by 60% in Stockton.

Trends in recovery

- In 1996 the recovery rate for Transit vans was 34% in Stockton and 36% across the rest of the force.
- By 1998, the recovery rate had increased to 66% in Stockton and 59% across the rest of the force.

Location of Transit thefts in Stockton

- Within Stockton division there appeared to be a shift in the location of thefts of Transit vans during 1998. After experiencing no Transit thefts in the Portrack Lane area of Stockton during the media campaign the number began to increase for the remainder of the year. The number of offences in Billingham also increased throughout the year.
- The number of offences that occurred in car parks increased from 17% (April to June 1998) to 59% (October to December 1998). In comparison the number of thefts off the street fell during the same periods from 50% to 35%.

Overall conclusion

- The decoy operation appeared to have a significant short term effect in reducing the numbers of Transit van thefts in Stockton.
- The impact of the media campaign was to instil a reduction in both vehicle theft and Transit theft in Stockton and Cleveland.
- Longer term, both vehicle thefts and Transit van thefts have been reduced both across the force and in Stockton.
- It is very difficult, however, to attribute the reduction in vehicle thefts and Transit thefts to the decoy operation and media campaign alone.

4. Recommendations and concluding remarks

The aim of this small study was to assess the use of police decoy vehicles as a method of reducing vehicle crime and to identify police good practice. In the Cleveland case, the onset of both phases of the initiative did seem to yield a reductive effect. The effect of deployment of the decoy vehicle appeared to be time-limited, and this was probably also true of the media phase. One thing of which we may be confident is the transient effectiveness of the measures put in place. Although significant reductions were only seen in the short term, over the whole study period vehicle crime did fall by approximately 20% across the force. It would be foolish to try to apportion the effect between deterrence and incapacitation. The findings, therefore, do seem to highlight the importance of changing tactics and 'keeping them honest by keeping them guessing'. There is no evidence of displacement of crime across area boundaries, nor across vehicle types or models, either immediate or delayed. Indeed, diffusion of benefits seems a more plausible interpretation of the pattern of results across local areas. The research did not, however, analyse crime trends any further afield, for example in adjacent forces, and so it is not possible therefore to assess whether there may have been a displacement or diffusion effect in these areas. Reasoning behind this is that persistent, professional offenders may be more willing to travel a greater distance to commit offences.

The announcement by the Prime Minister in September 1998 of a 30% reduction target for vehicle crime to be achieved by 2004 has highlighted the need for the police to instigate effective vehicle crime reduction strategies. To achieve this it is, therefore, important for police forces to know what types of operations work in which situations. A decoy vehicle operation is just one tool available to police officers that can be used to reduce vehicle crime. To undertake an effective initiative the following should be considered:

- An effective initiative is one that is focused and targeted. Local level analysis should be carried out to identify the specific vehicle crime problem of the community. It is very important that this highlights not only the hot spot locations of vehicle theft in an area, but also the specific makes, models, year of registration and even colour of the vehicles at high risk so that the decoy vehicle itself and its deployment reflect the current trends (Sallybanks and Brown, 1999). Using a decoy vehicle as a 'fishing' exercise could prove to be resource intensive. However, detailed analysis will allow a decoy vehicle similar to that at high risk of theft to be placed in a specific high risk location and give the operation a better chance of success.

- Thieves, especially those involved in professional theft, are not indiscriminate in

their choice of vehicle to steal – they often have a preference which may be dependent on market forces. Professional theft is often indicated by a low recovery rate (Webb and Laycock, 1992). Anecdotally, the type of vehicles involved in this type of theft are those at the upper end of the market or those where replacement parts are typically expensive or hard to come by. These are often not the most popular vehicles on the road, but suffer a high risk of theft (Car Theft Index, 1999). These types of vehicles may be best suited to a decoy operation. As there are fewer on the road, the decoy vehicle may more likely be targeted by an offender as the choice is limited.

- Publicity can be used to increase public awareness of specific police initiatives. Offenders are a sub-section of the general public and they will also be aware of crime prevention messages communicated by the police. The media, together with increased levels of enforcement, can act as an effective deterrent to offenders. For example, the media campaign used during the Stockton decoy initiative appeared to have a short term impact on vehicle crime levels. The Stockton campaign showed that there was a deterrent effect even when the actual decoy operation was inactive. If this can be replicated then there are potential opportunities for crime reduction at very little cost.

- The type of vehicle at risk may change, as could the hot spot location over time, especially if the offender network is aware of the decoy operation. It is therefore important that the trends in vehicle crime are monitored so that the initiative can be adjusted as necessary during the operation.

- Routine evaluation of the use and impact of decoy vehicles should be undertaken to inform management decisions. A decoy operation can use extensive resources. There are potential costs involved in obtaining the vehicle, adapting the vehicle for use, insurance costs, staff costs and any repairs or maintenance that might be required once the vehicle is broken into. These monetary costs need to be weighed up against the relative crime reduction success of the initiative to establish whether a particular operation is cost effective. Although it is not essential that an in-depth evaluation is carried out for each operation, forces should record before and after crime trends and an estimated cost of resources. More thorough evaluation undertaken periodically will be of benefit to the management of an overall vehicle crime reduction strategy as it will highlight whether the initiative is effective in reducing crime and whether it is more effective than others undertaken. This will allow the development and refinement of these strategies.

- Records should be kept, not only regarding decoy vehicle initiatives, but all vehicle crime operations, so that it is possible to assess confidently whether operations are effective. The type of information that would be useful includes:
  - the aim of the operation, whether it is for example, to arrest a particular individual, to reduce levels of a specific crime or raise the public's awareness through crime prevention advice;
  - the levels of crime before, during and after the initiative within and around the intervention area so that it is possible to assess the impact of the operation; and
  - information regarding resources used in order to establish cost effectiveness of the initiative.

At a national level the following recommendations could be considered:

- There is some evidence that networks between police forces have already led to the sharing of decoy vehicles. It may be useful to take this further and develop a national database of vehicles available for use as a means of providing a larger and more varied pool of vehicles. This could also potentially reduce the costs involved in purchasing and adapting a suitable vehicle and maintain vehicle anonymity.
- The Code of Practice regarding undercover operations produced in 1999 by the National Criminal Intelligence Service (NCIS), in collaboration with the Association of Chief Police Officers (ACPO), incorporates guidance on the use of officers acting as decoys. This could be extended to include guidance regarding the use of decoy vehicles. The implications of the Human Rights Act 1998 on the use of decoy vehicles and covert surveillance should also be considered.
- Advice could be sought from legal experts regarding agent provocateur, entrapment and false imprisonment, as well as any implications of negligence should injury or death occur to either an offender or third party. Any guidelines produced would reassure officers, highlight more acceptable procedures and avoid some duplication of effort should challenges be mounted in courts around the country. This would also prove useful for other types of undercover police work.
- Examples of good practice in the use of this type of initiative should be disseminated to other forces, for example through the National Operations Faculty good practice database or the Crime Reduction College, so that expertise can be shared.

Concluding remarks

An effective decoy operation is highly dependent upon accurate local level analysis to determine the precise problem together with a well-planned and implemented scheme. Decoy vehicles could be considered if the prerequisite is to target particular offenders, or a high level of thefts of a specific vehicle make or model in a particular hot spot location. However, it must be remembered that decoy vehicles are just one method of combating vehicle theft and they should form part of an overarching vehicle crime reduction strategy which incorporates other operations tailored to specific problems at the local level.

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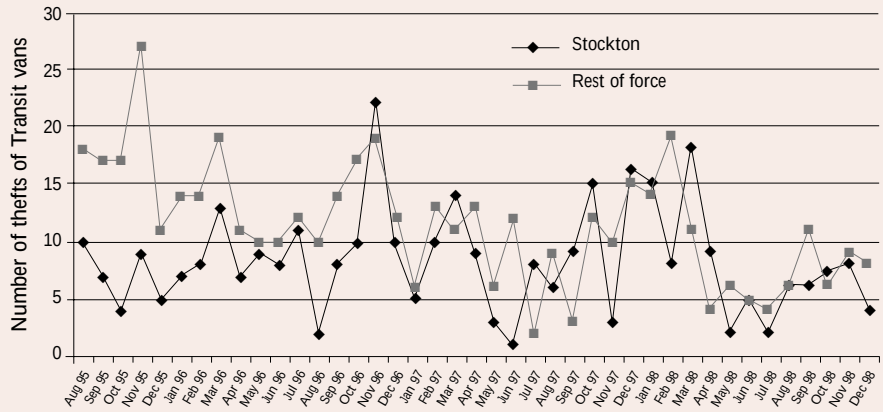
Appendix A: Schedule for telephone survey

1. Have you ever used decoy vehicles?
2. If not, are there any reasons why?
3. If yes, when did the force use decoy vehicles?
4. How did the force choose the location/area where the decoy vehicle was used?
5. What type of vehicle was used? What make and model?
6. What type of technology was used in the vehicle?
7. Was the initiative successful?
8. If so, how was it successful?
9. If not, why was it not successful?
10. What were the problems involved and how were they overcome, if at all?

Appendix B

Figure B1: Thefts of vehicles in Cleveland, August 1995 to December 1998 (actual figures)

Figure B2: Thefts of Transit vans in Cleveland, August 1995 to December 1998 (actual figures)



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