

*Crime Prevention and
Community Safety Council*



Tasmania Police

EVALUATION OF THE DEVONPORT CCTV SCHEME

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EXECUTIVE SUMMARY

Background

In recent years there has been an increase in the use of closed circuit television (CCTV) as a tool to reduce crime and anti-social behaviour in public places. Evaluations of CCTV schemes in the United Kingdom have demonstrated that camera systems can reduce property crimes, particularly burglary, but are less effective in preventing crimes against the person (Brown, 1995). The effectiveness of CCTV appears to be enhanced when it is installed alongside other complementary measures such as physical alterations (e.g. lighting, fencing and painting), the deployment of visible security personnel and publicising the potential for offender identification (Tilley, 1993).

CCTV footage has also assisted police investigations in a number of high profile cases, including the abduction of James Bulger from a shopping centre in 1993 (Bulos and Sarno, 1996) and, closer to home, the abduction of a young woman from Invermay Road, Launceston, in 1999 and her subsequent rape and murder.

In Tasmania, the Government has provided funding to local government councils to establish CCTV schemes in Hobart, Launceston and Devonport. This report presents findings from an evaluation of the Devonport CCTV scheme which consists of eight cameras located in various streets in the city centre, including Rooke Street, King Street, Stewart Street and William Street. The camera monitors are located at the Devonport Police Station, and monitored by volunteers two nights per week, and at other times by police officers and administrative staff.

Evaluation of the Devonport CCTV Scheme

Evaluation Methodology

The evaluation is a combination of an outcome evaluation (whether the scheme has reduced crime and anti-social behaviour) and a process evaluation (how well the scheme was implemented and is currently operating). The evaluation techniques include a community survey, interviews with stakeholders and an analysis of police crime and calls-for-service data.

Main Findings

The main findings in relation to the effectiveness of the Devonport CCTV scheme are:

1. The community survey revealed a high level of public support for the use of CCTV in public spaces and showed that the presence of cameras in the Devonport City Centre has made people feel safer. The stakeholders interviewed were also very positive about the cameras and their effectiveness, and Devonport City Council has allocated funding this financial year for the installation of two additional cameras¹.

¹ One of the cameras will be located at East Devonport, and the other will be located on the corner of

2. One of the main issues in the Devonport City Centre is the level of community concern about the presence and/or behaviour of young people, particularly in the Rooke Street Mall. The presence of cameras does not prevent young people from gathering in public places.
3. The data suggests that the cameras may have reduced burglary in Rooke and William Streets although this finding is somewhat overshadowed by the fact that the number of reports of injury to property in Rooke Street in the period after the introduction of the cameras is more than double the number reported pre-CCTV. There is also evidence of crime displacement:
 - Burglars targeting premises in Rooke Street may have switched their point of entry to the roof or rear of premises to avoid being detected by the cameras.
 - Formby Road, which is not covered by the cameras, experienced a significant increase in the number of burglaries reported in 2001 compared to previous years.
4. There is anecdotal evidence from stakeholders that the cameras have assisted with the detection and identification of offenders:
 - In three of the incidents reported to police (one in King Street, one in Kempling Street and one in Rooke Street) an offender was able to be identified and charged as a direct result of the presence of the cameras. In one of these incidents an offender was apprehended after police officers observed a car burglary in progress on the CCTV monitor and the resultant video footage assisted them to obtain an admission.
5. There is some evidence to suggest that the cameras may be under-utilised as an investigative tool, and a number of problems/limitation associated with the Devonport CCTV system need to be addressed to enhance the effectiveness of the system.

Limitations

The evaluation of the Devonport CCTV system was hampered by the following:

1. the lack of any baseline data about the nature and extent of the problems in the city centre prior to the installation of the cameras
2. the absence of any specific objectives against which the performance of the system was to be judged
3. the comparatively low volume of reported crime in the city centre before and after the installation of the cameras making it difficult to assess the impact of the cameras.

Recommendations

The report contains several recommendations to address some of the process issues associated with the implementation and current operation of the CCTV system. The recommendations include:

- ongoing publicity and/or signage to increase the community's awareness of the Devonport CCTV system
- the development of a Memorandum of Understanding between Tasmania Police and Devonport City Council to define the rights and responsibilities of each organisation in relation to the cameras, particularly ownership and maintenance of the various components of the system
- the identification of a clear set of objectives for the CCTV system against which its performance can be more accurately assessed
- the development of a set of Standing Operating Procedures (SOPs) to guide the day-to-day operation of the scheme and formalise the procedures currently in place
- ongoing training for police officers and the volunteers involved in camera monitoring
- the removal of any remaining vegetation restricting the visibility of the cameras in the Rooke Street Mall
- expediting the work in progress to reposition the camera monitors in the public enquiries area of the Devonport Police Station as the present location is causing discomfort to the volunteers responsible for monitoring the cameras.

Implications

The findings from the evaluation of the Devonport CCTV scheme are broadly consistent with research conducted in the United Kingdom on the effectiveness of city centre schemes and reinforce some of the key points made by Brown (1995), Tilley (1993) and others about best practice in the use of CCTV:

1. Before considering the implementation of a city centre CCTV scheme, the nature and extent of the crime problem should be clearly identified and an assessment made of all the available options for dealing with the problem, only one of which may be CCTV.
2. CCTV on its own is 'no panacea' and it works best when it forms part of a package of measures to reduce crime and anti-social behaviour in a city centre. In most of the studies that report an impact on crime, a number of other measures were implemented as well as CCTV, such as increased patrols (police, security or other), other physical alterations (e.g. lighting, fencing, painting) and ongoing publicity.
3. When a decision is made to implement a CCTV scheme, clear objectives for the scheme need to be set and evaluation mechanisms need to be developed. It will usually be necessary to collect baseline data before the scheme is implemented in order to measure its effectiveness.

4. The roles and responsibilities of the key players involved in the CCTV scheme need to be clearly defined right from the start. In particular it needs to be clear who 'owns' the scheme and who is responsible for the ongoing maintenance costs, which are likely to be significant.
5. In order for a camera system to be effective in a city centre, there needs to be a high degree of coverage. Camera locations need to be carefully selected to ensure that there are no trees or other obstacles blocking the visibility of the cameras. It should also be recognised that it may not be possible to extend coverage to alleyways, arcades and rear accesses which may limit the effectiveness of the cameras.
6. The possibility that crime may be displaced to other areas not covered by the cameras system needs to be addressed.
7. The effectiveness of CCTV, in deterring offenders and reducing the fear of crime, is likely to diminish over time. To sustain the effectiveness the successes of CCTV need to be periodically publicised. Signage should also be erected to maintain the deterrent effect of the cameras and address civil liberty concerns.

1 INTRODUCTION

CCTV cameras are increasingly being used to assist police to reduce crime and anti-social behaviour in public places. In fact, it has been suggested that the advent of CCTV is the most important change in policing to have occurred in the twentieth century (Bulos and Sarno, 1996).

Various public place CCTV schemes operate around Australia. One of the largest schemes is probably that operated by the City of Sydney Council which consists of fifty-one cameras in Central Sydney which are monitored in a central control room staffed by council security personnel 24 hours a day.² In Tasmania, the Government has provided funding to three local government councils to establish CCTV schemes in Hobart, Launceston and Devonport. For each of the three schemes, the camera monitors are located at the local police station and monitored by Neighbourhood Watch volunteers on a part-time basis.

The growth of CCTV in Australia is modest compared to the United Kingdom where it has been phenomenal. UK Governments, both past and present, have invested a huge amount of money in CCTV. The most recent example is the £153 million CCTV Initiative which is an extension to the Government's Crime Reduction Programme. The Initiative aims to help local crime and disorder reduction partnerships deploy CCTV in areas identified in local crime audits as having significant crime and disorder problems³. The Initiative is supported by a major programme of evaluation as to the impact of CCTV on crime and fear of crime in residential areas, town centres and car parks. The final report will be published at the end of 2004.

1.1 Function of Public Place CCTV Schemes

CCTV cameras in public places can assist police and other stakeholders to respond to crime and anti-social behaviour in a number of different ways:⁴

- as an aid to deployment - camera operators can 'patrol' city centres, and help with the co-ordination of an effective and rapid police response to any incidents detected
- as an aid to the identification and arrest of suspects - if an incident takes place and an offender attempts to avoid being arrested by running away or hiding, camera operators can monitor his/her movements and pass this information on to police officers on the ground
- as a deterrent to crime and anti-social behaviour - cameras can increase the risks of detection and apprehension and this may deter offenders from committing crimes
- as an evidence gathering tool - where incidents are recorded by the cameras, offenders may be identified and be more likely to admit to committing the crime

² Johansson et al (2001)

³ See <http://www.crimereduction.gov.uk/cctvpros.htm>

⁴ See Brown (1995) and Tilley (1993)

- by increasing people's perceptions of safety - people may feel safer in public places if they are aware that CCTV cameras are installed and monitored.

One widely quoted Police Superintendent in the United Kingdom glowingly described a city centre CCTV scheme in Liverpool as equivalent to having:

*20 police officers on duty 24 hours a day, who take note of everything, never take a holiday and are very rarely off sick.*⁵

CCTV footage has also assisted police investigations in a number of high profile cases, including the abduction of James Bulger from a shopping centre in 1993 (Bulos and Sarno, 1996) and, closer to home, the abduction of a young woman from Invermay Road, Launceston, in 1999 and her subsequent rape and murder.

There are other potential uses for public place CCTV schemes, in addition to tackling problems associated with crime and anti-social behaviour. During the recent Olympic Games in Sydney, an extensive CCTV system was established consisting of over 700 cameras, including the existing cameras covering the CBD, cameras located in Olympic Park and traffic cameras covering major street intersections (Johansson et al 2001). All the cameras could be accessed from a central control room in NSW Police headquarters. The main objectives of the scheme related to crowd management, with the cameras being used to monitor people and traffic movements.

1.2 Previous Evaluations of CCTV

There is a lack of research on the effectiveness of CCTV schemes in Australia (Johansson et al 2001; NSW Law Reform Commission, 1997). However, there have been several comprehensive evaluations of schemes in the United Kingdom. These evaluations suggest that CCTV is most effective in reducing property crime, but achieves poor results in reducing personal crimes such as assault and robbery (Mazerolle, Hurley and Chamlin, 2002). Surveys of public attitudes to CCTV generally reveal a high level of public support for the use of cameras in public places (see Honess and Charman, 1991 and Goodwin, 1999).

The effectiveness of CCTV appears to be enhanced when it is installed alongside other complementary measures such as physical alterations (e.g. lighting, fencing and painting), the deployment of visible security personnel and publicising the potential for offender identification (Tilley, 1993). The erection of signage is also recommended to increase the level of deterrence and address civil liberty concerns (Mazerolle, Hurley and Chamlin, 2002).

1.3 Report Format

This report presents findings from an evaluation of the Devonport CCTV scheme. Part 2 of the report provides an overview of the Devonport CCTV scheme. Part 3 highlights findings from the surveys, interviews and analysis of crime and calls-for-service data

⁵ *The Times*, July 6, 1994 (cited in Bulos and Sarno, 1996)

conducted as part of the evaluation. Part 4, the final section of the report, draws together the main findings about the effectiveness of the Devonport CCTV scheme and contains recommendations to address some of the process issues associated with the implementation and current operation of the scheme. Attachment A contains a review of the literature on public place CCTV schemes.

1.4 Evaluation Methodology

The evaluation of the Devonport CCTV system is a combination of:

1. an outcome evaluation of how well the CCTV system met its objectives (i.e. whether it has reduced crime and anti-social behaviour in the target areas)
2. a process evaluation of how well the system was implemented, whether it is currently operating as effectively as possible and how it might be improved.

The following evaluation techniques were used:

- a survey of community attitudes to, and awareness of, the Devonport CCTV system
- a survey of business people's attitudes to, and awareness of, the Devonport CCTV system
- interviews with key stakeholders
- interviews with the volunteers responsible for camera monitoring
- an analysis of police recorded crime statistics and calls-for service data.

2 THE DEVONPORT CCTV SCHEME

2.1 Funding and Installation

In January 1997, the Executive Officer of Devonport Commercial Promotions submitted a proposal to the Premier of Tasmania seeking Government financial assistance for the installation of CCTV cameras in the Devonport city centre. In March 1997, the Minister for Police and Public Safety held a meeting with representatives from the Devonport community, the Devonport Police Inspector, a Devonport City Council Alderman and several representatives from Devonport Commercial Promotions to discuss the availability of funding for the CCTV proposal.

As a result of the discussions that took place at the meeting in March 1997, the *Video Surveillance Cameras Steering Group* was established to investigate the monitoring equipment available, assess the costs and effectiveness of the equipment, and review the operation of CCTV systems in Tasmania and throughout Australia. The Steering Group consisted of representatives from Devonport City Council (DCC), Tasmania Police, Devonport Commercial Promotions and the Devonport Chamber of Commerce.

Preliminary investigations indicated that the supply and installation of six cameras would cost in the vicinity of \$150,000. In July 1997, a further approach was made by Devonport City Council to the Minister for Police and Public Safety seeking Government assistance in the order of \$100,000. The Council was advised that funds were not available at that time.

During the 1998 State election, the then Opposition Leader made a commitment that an incoming Labor Government would contribute \$100,000 towards the installation of the cameras and welcomed the support of DCC in contributing \$30,000 towards the project. The State Government provided funding, through the Department of Police and Public Safety (DPPS), of \$100,000 in the 1999/2000 financial year towards the installation of surveillance cameras in the Devonport Mall. The *Video Surveillance Camera Steering Group* was responsible for deciding on issues such as the preferred location of the cameras, who would monitor them and who would 'own' them. In due course, tender documentation was prepared for the supply and installation of the cameras, and tenders were called for in November 1999.

The tender was awarded to Minecom Australia Pty Ltd, a communications company specialising in underground communication in mines. While Minecom had expertise in underground camera installation, the installation of above ground cameras for street surveillance was a new endeavour for the company. Eight cameras were installed and were fully operational by 1 July 2000. The final contribution from DCC was in the vicinity of \$60,000 as additional funds were required for the Four Ways cameras.

2.2 Camera Locations

The cameras are located in the Devonport City Centre as follows:

- corner of Stewart and Rooke Streets (1)
- corner of King and Rooke Streets (1)
- corner of Best and Rooke Streets (1)
- Rooke Street Mall (2)
- Stewart Street, on top of Toyworld (1)
- Four Ways (2)
 - corner of Best and William Streets
 - Kempling Street car park.

2.3 System Details

The two cameras in the Rooke Street Mall are Spectra domes mounted under the eaves. The other six cameras are Espirits, larger cameras with a more powerful zoom, mounted on poles or buildings. The cameras are radio linked, which eliminates the need for underground cables to enable the images to be transmitted to the monitors, although some trenching work was required to connect the cameras to a power supply. The radio link technology used by Minecom Pty Ltd for the Devonport CCTV system was 'cutting edge' and not a tried and proven system.

The camera monitors are located at the Devonport Police Station. There are two sets of monitors, one in the public enquiries area and the other in the Constables' Muster Room. There is a keyboard located in the public enquiries area which enables the people monitoring the cameras to move them around and zoom in on incidents. The cameras are monitored by volunteer members of the community, including Neighbourhood Watch volunteers, two nights per week. At other times, the cameras are monitored by police officers in the muster room and/or administrative staff in the public enquiries area.

There are three video recorders at the police station. Three hour tapes are used and these are continuously taped over. The back-up system consisting of a multiplexer⁶ and an additional video recorder, which uses twenty four hour tapes, is located elsewhere.

⁶ A multiplexer is an electronic device that can accept a number of camera inputs and record them almost simultaneously (Edwards & Tilley, 1994)

3 MAIN FINDINGS FROM THE EVALUATION

3.1 Community Survey

The main purpose of the survey was to determine the level of support for, and awareness of, CCTV cameras operating in the Devonport City Centre. Respondents were also asked some general questions about their perceptions of safety in the city centre and experience of victimisation in the last five years.

The surveys were conducted during the day on 15 and 21 March 2002 at various locations in the city centre (e.g. Rooke Street Mall, Four Ways, King Street) and East Devonport.

Respondent Characteristics

One hundred and ninety six (196) people were interviewed. More females than males were interviewed, with female respondents comprising 57% of the sample. The respondents were fairly evenly spread across the different age categories, except for a smaller number of respondents under the age of 17 compared to the other age categories. The main occupational categories which the respondents represented were: retired (17%); retail, sales and service (17%); and home duties (14%).

PART A - GENERAL SAFETY QUESTIONS

Frequency of visits to the city centre

Most of the respondents visited the Devonport City Centre on a fairly regular basis during the day, with 71% visiting it at least 2-3 times a week or more. The respondents were much less frequent visitors to the city centre at night, with 57% stating that they rarely or never visited the city centre at night.

Respondents who said they never visited the city centre at night were asked to indicate why they didn't visit at night. The main reasons for never visiting at night were 'safety concerns' (33%) and 'no reason to visit' (25%).

Safety concerns

Respondents were asked if they had any concerns for their safety in the Devonport City Centre during the day and at night. Only 24% of the respondents said they had concerns for their safety during the day, but a much larger proportion of the sample (55%) said they had safety concerns at night.

Respondents were asked to indicate what it was they were concerned about. There were some differences in the nature of day time as opposed to night time concerns. The main concerns during the day were: the presence of young people and/or their behaviour; undesirables/bad behaviour; bag snatching/theft and gangs/groups of people. The main concerns at night were: the presence of young people and/or their

behaviour; undesirables/bad behaviour; general safety concerns and being attacked/violence.

Undesirables include: *louts, hoods, drunks, hooligans, the criminal element vandals and thugs*. Bad behaviour includes: *urinating, spitting, language, drunken behaviour, aggressive behaviour, hanging around and people driving around*.

Experience of victimisation

Thirty respondents (16% of the sample) said they had been the victim of crime or anti-social behaviour in the Devonport City Centre in the last 5 years. The main type of incident experienced was verbal abuse/harassment, which was experienced by 6% of the sample. Some respondents had experienced more than one type of incident.

Six respondents indicated that they did not report the incident they experienced to Police. Five of these respondents provided reasons for not reporting the incident:

- too trivial (1)
- dealt with it myself (2)
- no point (2).

PART B - QUESTIONS ABOUT VIDEO CAMERAS

What are cameras used for in public places?

Most respondents believed that video cameras are used for crime prevention, detection and investigation, and to make people feel safe. Twenty nine respondents (15%) thought cameras were used to 'spy on people.'

Table 1. Community members' beliefs about the use of cameras in public spaces

Use	No.	% of sample
To help prevent crime/stop trouble breaking out	171	87
To detect crime	166	85
To provide police with evidence to convict offenders	167	85
To make people feel safe	164	84
To spy on people	29	15

Support for the use of video cameras

Nearly all of the respondents (96%) said they agreed with the use of video cameras to monitor public places, and only nine respondents (5%) had any concerns about the use of cameras in public places. Eight of the nine respondents who said they had concerns indicated what the nature of their concern was:

- invasion of privacy (5)
- ethics/morals of camera operators (1)

- quality of equipment (1)
- might be used for minor offences (1).

Perceived effectiveness of cameras

Most respondents agreed that cameras were most effective in identifying offenders (84%) and making people feel safe (81%), and, to a lesser extent, in detecting crime (74%) and deterring potential offenders (73%). A significant minority of respondents were undecided about the effectiveness of cameras, particularly in relation to detecting crime.

Awareness of Devonport City Centre Cameras

Respondents were asked whether there are any video cameras operating in the Devonport City Centre. 80% of the respondents said there were, but a significant minority (16%) said they didn't know whether there were cameras operating or not.

Table 2. Community awareness of the Devonport cameras

Aware cameras operating?	No.	% of sample
Yes	157	80
No	4	2
Don't know	32	16
Missing data	3	1

Knowledge of camera locations

Respondents who said there were cameras operating in the city centre were asked to indicate where the cameras were located. The respondents provided general details about camera locations (e.g. 'the Mall') and these were coded as four locations: Rooke Street Mall, King Street, Stewart Street and Four Ways.

Fifteen of the 157 respondents who said there were cameras operating in the city centre were unable to provide details of their location. Only 12 respondents (6% of the total sample) correctly identified all four camera locations.

In terms of the camera locations identified, 58% of the sample mentioned the Rooke Street Mall, 20% mentioned King Street, 11% mentioned Stewart Street and 22% mentioned Four Ways.

How do you know there are cameras in the city centre?

Respondents were asked how they knew there were cameras operating in the city centre. Most people were aware of the cameras because they had seen them. The other ways respondents had acquired knowledge of the cameras were via the media and word of mouth.

Most of the respondents who knew about the cameras in the city centre thought the police and/or Neighbourhood Watch were responsible for monitoring them. Thirty four respondents said they did not know who was responsible for monitoring the cameras.

Impact of cameras on perceptions of safety

Respondents who knew cameras operated in the city centre were asked to indicate whether the presence of the cameras made them feel safer during the day and at night. Most of these respondents (67%) said that the presence of the cameras made them feel safer during the day. Seventeen respondents said they felt safe already during the day. A smaller proportion of respondents (59%) said the presence of the cameras made them feel safer at night and fifteen respondents said they did not go out at night.

Welcome the presence of cameras

Ninety-three per cent of the respondents who were aware that cameras operate in the city centre said they welcomed the presence of the cameras.

Extending cameras to other areas

One hundred and twenty respondents, 76% of those who were aware that cameras operate in the city centre, thought that cameras should be extended to other areas in Devonport. Respondents were asked to specify which areas they thought cameras should be extended to and East Devonport and, to a lesser extent, the Bluff were the most frequently nominated locations. Forty-eight per cent of the respondents who thought cameras should be extended to other areas did not indicate which areas, and 10 respondents nominated locations where cameras were already operating.

Who should monitor cameras in public places?

All respondents were provided with a list of categories and asked to indicate who they thought should be responsible for monitoring cameras in public places. The majority of respondents nominated Police (67%). Neighbourhood Watch (47%) and private security personnel (44%) were the next most frequently nominated categories.

Additional safety strategies

Respondents were asked to indicate what else they thought could be done to make people feel safer in public places. More than half of the respondents took the opportunity to make a suggestion, with most of these (51% of the total sample) nominating more police/increased visibility. Other suggestions included harsher penalties (6%), more security (3%), more cameras (3%) and improved lighting (3%).

DISCUSSION

The high level of community support for the use of CCTV in public places apparent from this survey is consistent with the findings from a similar survey conducted in Hobart in 1998 and research in the United Kingdom (see Honess and Charman, 1991). In the

present survey, nearly all of the respondents agreed with the use of cameras to monitor public places and only a very small number expressed any concerns about the use of cameras. The majority of respondents agreed that cameras are an effective crime prevention, detection and investigation tool, and also enhance people's perceptions of safety.

While the majority of respondents (80%) were aware that cameras operate in the Devonport City Centre, the fact that a significant minority (18%) were not aware of the cameras' existence suggests that ongoing publicity and/or signage may be warranted. If people are unaware that the cameras are operating, this limits their effectiveness in preventing crime and enhancing people's perceptions of safety.

Respondents' knowledge of the camera locations was also rather sketchy, as was their knowledge of who is responsible for monitoring the cameras in the city centre. Also, when asked whether the cameras should be extended to other areas, ten respondents nominated locations that were already covered by the cameras. Once again, this issue could be addressed via ongoing publicity about the cameras. Importantly, the majority of respondents who were aware that cameras were located in the city centre said that the presence of the cameras made them feel safer during the day and, to a slightly lesser extent, at night.

The finding that 24% of respondents had concerns for their safety in the city centre during the day, which increased to 55% at night, is significant, particularly when only 16% of the sample had been the victim of any crime or anti-social behaviour in the last 5 years. The main concern both during the day and at night was the presence of young people and/or their behaviour.

The issue of young people's use of public spaces and the impact of their behaviour on other people was examined at length in the *Common Ground Project*. The project aimed to address people's fear of crime in selected public spaces in Hobart and was part of a two stage National Fear of Crime Project. Fieldwork findings from stage 1 of the national project indicated that all respondents (including young people) saw young people, in particular, as a source of threat in public spaces.⁷ Some of the strategies developed as part of the *Common Ground Project* could be of assistance in reducing people's fear of young people in public spaces in Devonport.

The fact that a large number of respondents nominated 'more police/increase visibility' as an additional strategy that could be used to make people feel safer in public spaces is consistent with the findings from the Hobart CCTV survey and the Common Ground Project.

⁷ National Crime Prevention (1998) *Fear of Crime Summary Volume*

3.2 Survey of Business People

A separate questionnaire was designed to determine the views of a sample of thirteen business people about CCTV cameras and safety in the Devonport city centre.⁸ Most of the businesses were located in the Rooke Street Mall and the remainder were part of the Four Ways shopping area in William Street. The businesses included: a jewellery store, a book shop, a cake shop, a dry cleaners, a surf shop and a pharmacy.

Respondent Characteristics

The sample contained more females (54%) than males (38%) and the majority of the respondents (69%) were aged between 25 and 45. Six of the respondents were business owner/managers, two were sales assistants and five respondents did not state their occupation.

PART A - GENERAL SAFETY QUESTIONS

Safety concerns

As with the community survey, respondents were more likely to say they had concerns for their safety at night, rather than during the day. Only 23% said they had concerns during the day, while 54% said they had concerns at night.

Not all of the respondents who said they had safety concerns indicated what their concerns were. In relation to day time concerns, two respondents said they were concerned about the behaviour of young people. Specific night time concerns related to the Mall area being dark and closed in, and a fear of being attacked and robbed.

Experience of victimisation

Three respondents said they had been the victim of crime or anti-social behaviour in the Devonport City Centre in the last 5 years. Three different types of crime were mentioned: shoplifting (2001), multiple burglaries (1999-2000) and multiple incidents involving smashed windows. The burglaries had occurred at a particular business's previous location which was also in the city centre. The smashed window incidents involved a premises in William Street and the incidents had ceased since the Four Ways cameras were installed.

PART B - QUESTIONS ABOUT VIDEO CAMERAS

What are cameras used for in public places?

Most of the respondents thought that cameras were used to prevent and/or detect crime, and, to a lesser extent, to make people feel safe and provide

⁸ Nine business people were interviewed in the general community survey.

police with evidence. None of the business respondents thought that cameras were used to ‘spy on people.’

Table 3. Business people’s beliefs about the use of cameras in public spaces

Use	No.	% of sample
To detect crime	10	77
To provide police with evidence to convict offenders	7	54
To help prevent crime/stop trouble breaking out	11	85
To make people feel safe	8	61

Support for the use of video cameras

All of the respondents agreed with the use of video cameras to monitor public places, and none of the respondents had any concerns about their use.

Perceived effectiveness of cameras

Most respondents (85%) thought the cameras were effective in identifying and deterring offenders. A smaller proportion of respondents felt that the cameras were effective in detecting crime (77%), and making people feel safe (69%).

Awareness of cameras in Devonport city centre

All of the respondents were aware that there were cameras operating in the Devonport City Centre but most nominated only one or two locations when asked where the cameras were situated. Similar to the community survey, most respondents were aware of the cameras because they had seen them or heard about them via word of mouth or the media.

While most of the respondents thought that the police and/or volunteers monitored the cameras, four respondents indicated that they did not know who monitored the cameras.

Impact of cameras on perceptions of safety

Seven respondents (54%) said that the presence of the cameras made them feel safer during the day and at night.

Noticed decrease in crime

Respondents were asked whether they had noticed any decrease in crime committed against their business since the cameras were installed. Three respondents (23%) thought crime against their business had decreased and an additional respondent thought that the street in which his/her business was located had been quieter with less broken windows since the cameras were installed.

Welcome the cameras

The majority of the respondents (77%) said that they welcomed the presence of the cameras in the Devonport City Centre. Two respondents failed to answer this question.

Extending cameras to other areas

Five respondents (38%) thought that the cameras should be extended to other areas in Devonport. Three respondents nominated specific locations (Bluff, Foreshore area & King Street), one of which is already covered by a camera.

Who should monitor cameras in public places?

Consistent with the community survey, the majority of respondents (67%) thought that the police should monitor the cameras. The next most frequently nominated categories were Neighbourhood Watch Groups (54%), private security personnel (31%) and local businesses (31%).

Additional safety strategies

The respondents were asked whether they were aware of any other strategies in place to prevent crime and anti-social behaviour in the city centre. Three respondents indicated that they had noticed an increased police presence and one respondent mentioned that trees had been removed from the front of his/her shop.

Similar to the community survey, when the respondents were asked what else could be done to make people feel safer in public places many of them (46%) said more police/increased visibility. Other suggestions included moving the trouble makers on, doing something about unemployment and making the Rooke Street Mall more open.

DISCUSSION

The findings from the survey of business people are very similar to those from the community survey and provide additional evidence of the high level of public support for the use of CCTV in public places. The survey results also confirm the need for some additional publicity about the cameras, as most of the respondents were only aware of one or two of the existing camera locations.

The safety concerns identified by the business people were similar to those mentioned by the other community members surveyed, with the behaviour of young people causing concern to some respondents during the day. Both surveys indicate that people are more likely to be concerned about their safety at night than during the day.

Some of the respondents had noticed a decrease in crime against their business since the cameras were installed and for one business, the installation of cameras has prevented any further incidents involving smashed windows. However, the significance of this finding is difficult to judge given that the sample was relatively small and not representative of all businesses in the city centre.

3.3 Interviews with Stakeholders

Interviews were conducted with a range of stakeholders to gather information about the implementation, ownership and maintenance of the cameras, perceptions of their effectiveness and any limitations or issues associated with their use.

Representatives from the following organisations were interviewed:

- Devonport City Council (Council staff and Alderman)
- Tasmania Police
- Minecom Australia Pty Ltd
- Devonport Commercial Promotions
- Devonport Chamber of Commerce
- Partnership in Policing.

Some of the stakeholders interviewed were members of the *Video Surveillance Cameras Steering Group*, and had an in-depth knowledge of the events leading up to the installation of the cameras. Others had more limited knowledge of these early events, particularly the rationale behind the installation of the cameras.

Installation

Most of the stakeholders said that the cameras were installed in response to community concern about crime and anti-social behaviour in the city centre. Prior to the installation of the cameras in the Rooke Street Mall, businesses were being ram-raided and people were complaining of threatening behaviour. Vandalism was also a significant problem in the city centre.

As mentioned previously, the camera sites were selected by the *Video Surveillance Cameras Steering Group* in consultation with Minecom Australia Pty Ltd. The rationale behind the selection of particular sites appears to be twofold. Sites were selected on the basis that they were problem areas and/or because they would provide the best coverage of the city centre. There was no suggestion from any of the stakeholders interviewed that the extent of the crime problem was ever quantified in any way by reference to police statistics and/or community surveys.

The stakeholders indicated that there were some teething problems associated with the installation of the cameras, most of which were resolved. For example, there were some problems with the transmitter/receiver installations and one of the Spectra dome cameras in the Rooke Street Mall was vandalised. Also, the positioning of the camera above Toyworld in Stewart Street had to be changed after the camera was damaged by a truck.

There is no signage in the Devonport CBD to advise people that the area is being monitored. Some stakeholders said they did not agree with the erection of signs, and others pointed out that the cameras are quite visible which alleviates the need for any

signage. Stakeholders also advised that there was a significant amount of media publicity about the cameras when they were installed and that there was an open day at the Devonport Police Station.

Ownership

The cameras are owned by DCC which is also responsible for the ongoing maintenance of the CCTV system, including the cameras, monitoring equipment and supply of tapes. The agreement that DCC would be responsible for the maintenance appears to have taken the form of a verbal undertaking.

Monitoring

Most of the stakeholders were aware that the cameras are monitored by volunteers and police officers and were quite content with this arrangement. One respondent suggested that the business community, as one of the main beneficiaries of the CCTV system, should also assist with the monitoring of the cameras. Some respondents felt that, while the current system of monitoring was quite good, there was room for improvement to maximise the potential of the CCTV system.

Minecom has conducted training sessions for the volunteers and police officers,⁹ and a 'how to use' manual is kept in the public enquiries area. The training provided focused on how to use the keyboard to control the cameras and how to play back the tapes. One of the police officers said that there are still some police officers who have no idea how to operate the cameras. The Devonport Police Inspector advised that the standard induction procedure for new police graduates stationed at Devonport Police Station includes training in relation to the operation of the cameras.

System Management

The CCTV system appears to be managed by an informal management committee consisting of representatives from Devonport City Council and Devonport Police, who liaise with Minecom where necessary. Another group consisting of some of the volunteers responsible for monitoring the cameras was established but appears to be inactive at present. The original purpose of this group was to manage the roster for camera monitoring but concerns were expressed by some of the volunteers about the group members having access to their phone numbers and addresses and so this responsibility was returned to the Devonport Police. It is anticipated that the group will continue but with a revised focus on training and other monitoring issues.

While there are procedures in place to manage the day-to-day operation of the CCTV system, it was not possible to locate any Standing Operating Procedures or other documentation formalising these procedures and to ensure continuity of practice in the event that different personnel are required to perform the relevant duties.

⁹ In the 2001/2002 financial year the training costs were \$866.25 (personal communication with the Devonport Police Inspector). Refresher courses for volunteers and police officers were conducted in February 2002.

Effectiveness

While most of the respondents interviewed believe that the cameras are an effective deterrent to crime and anti-social behaviour, some pointed out that anti-social behaviour is still a problem in the Rooke Street Mall. In particular, there is some community angst about the behaviour of young people in the Mall. The gathering of young people in groups is thought to create fear, particularly amongst older members of the community. There has also been some rowdy behaviour with fighting during the day between groups of young people, abusive language and shoplifting.

The Mall Caretaker/Gardener said that he had noticed a reduction in vandalism since the cameras were installed. In particular, shop windows and light fittings are not broken as often. However, the cleanliness of the Mall has not improved, with people still urinating and defecating behind the flower beds. To improve the visibility of the cameras, some of the trees in the Mall have been cut down, and a flowerbed of Rhododendrons has also been removed. The Caretaker said that before the flower bed was removed he often found coat hangers and clothing tags in the bushes.

Some of the other respondents also cited anecdotal evidence in support of the cameras' effectiveness. For example, one respondent said that the back window of the Four Ways Laundromat had been broken several times prior to the installation of the cameras but this has not happened since the cameras were installed.

Generally speaking, respondents thought that the presence of the cameras made people feel safer,¹⁰ but were unsure about the effectiveness of the cameras in relation to offender identification. Also, some respondents believed that it was possible that crime/anti-social behaviour might have been displaced to other areas not monitored by the cameras, such as Victoria Parade, Formby Road and the Bluff.

Problems/Limitations

Various problems and/or limitations associated with the cameras were identified:

- Retrieval of information from the video tapes is inefficient and time consuming.
- There is no keyboard in the Constables' Muster Room.
- There have been problems with the cameras being vandalised.
- There have been problems with the zoom lenses in the Espirits cameras wearing out too quickly.
- The cost associated with the ongoing maintenance of the system is significant.¹¹

¹⁰ One respondent mentioned being told that Rooke Street Mall was now considered by homeless people to be a good place to sleep because it was safe!

¹¹ The total amount spent on maintenance in the financial year 2001/2002 as at 27/6/02 is \$4476.93 which consists of \$1643,74 for repairing faults and \$2833.19 for replacement of consumables (personal communication with the Devonport Police Inspector).

- There is still some vegetation blocking the visibility of the cameras in the Rooke Street Mall, although a significant amount of vegetation has already been cleared to address this problem.
- At present, the cameras are fixed to particular locations and not mobile which limits their potential.

In relation to the retrieval of information it was suggested that, if the system was upgraded to digital, the value of the cameras would be greatly enhanced as it would be much easier to search for particular incidents and increase the camera range. An additional benefit in upgrading to digital would be the reduced cost of video tapes, although the initial cost of upgrading the system would be high (estimated to be in the vicinity of \$33,000).

The absence of a keyboard in the Muster Room is considered to be problematic because it limits the capacity of police officers to quickly follow-up any signs of trouble. The respondent from Minecom indicated that the Devonport Police had asked whether an additional keyboard was available, which it is at an extra cost.

The ongoing maintenance costs of the CCTV system appear to be quite high. In addition to repair costs for the cameras, the recording equipment is expensive to maintain,¹² and there is also a significant cost associated with the supply of video tapes. Also, the respondent from Minecom indicated that there is a problem with the gearing in the zoom lenses in the Espirits cameras, which means they are wearing out too quickly. Minecom has taken this issue up with the supplier.

Respondents mentioned that some of the vegetation in the Rooke Street Mall restricts the visibility of the cameras. In particular, the trees in the Mall have grown since the cameras were installed and some of the flower beds are blocking areas from view.

Some of the cameras have been vandalised, including the King Street camera which has been damaged on at least one occasion by someone climbing up the pole it is mounted on and hanging off the camera. Also, the Spectra domes in the Mall have had to be cleaned as a result of being spat at and some of the cameras have had plastic bags placed over them to obstruct their vision.

Two respondents suggested that the utility of the cameras could be increased if they were able to be moved to different locations to respond to emerging trouble spots and to help overcome the problem of displacement. Trouble spots that are not within the range of the existing cameras include the CMAX cinemas car park and Edward Street near the bus depot. Minecom and the Devonport Divisional Police Inspector are exploring the possibility of mobile cameras. Additional costs would be involved as posts would need to be erected for the cameras to be mounted on and more trenching work may be required for the power supply.

¹² The four VCRs in the Devonport require an annual service at a cost of approximately \$1000 each (personal communication with the Devonport Police Inspector).

Other Issues

Several respondents identified other factors that might affect crime/anti-social behaviour in the areas where the cameras operate such as: patterns of alcohol consumption and the location of hotels and night clubs; lack of facilities/activities for young people, particularly at night; the proposed re-design of the Rooke Street Mall; and policing strategies.

A range of high visibility policing strategies have been implemented in the CBD in recent times, including increased foot patrols during the day. *Operation Weightshift* has a specific focus on the problems associated with alcohol consumption and nightclubs in King Street. This operation commenced around October 2001, with the aim of reducing the number of public place assaults in King Street, and involves increased police patrols on Friday and Saturday nights to stop groups of people congregating outside the night clubs. Volunteers monitoring the cameras are also requested to give specific attention to King Street and to look out for signs of trouble. The operation was reviewed in January 2002, and judged to be a success and worth continuing.

Another strategy implemented by the night club owners in King Street has been to refuse entry to patrons after 2am to prevent the flow of people from one nightclub to another and thereby reduce the opportunities for confrontation. Interestingly, one of the respondents interviewed suggested that people may be unaware that there is a camera operating in King Street and that there should be more publicity about it to try to maximise its deterrent effect.

In relation to young people 'hanging around' the Mall area, it was suggested that there is a limited range of activities and alternative venues available for them to get together and socialise. For example, the Loading Zone, an information resource and drop-in centre, is only open during the day. Also, while the skate bowl at the Bluff is well-utilised by some skateboarders, more advanced skateboarders are attracted to the city centre because of the ramps in the CMAX cinemas in Best Street which have lots of different edges. This problem may be alleviated to some extent when the second part of the skate bowl is built.

Finally, the Rooke Street Mall is being re-designed to make it more open, which will involve the removal of some structures, changes to the flower beds and the trimming of trees. The changes, described by one respondent as 'purely cosmetic' should improve the range of the cameras and the clarity of the video footage. Another respondent suggested that the re-design will remove opportunities for people to congregate in large numbers in the Mall, which is causing concern to shopkeepers and other members of the community.

DISCUSSION

Overall, the stakeholders interviewed were positive about the CCTV system in the Devonport city centre, and cited anecdotal evidence in support of its effectiveness in reducing crime and anti-social behaviour. However, some respondents believed that crime/anti-social behaviour might have been displaced to other areas not monitored by

the cameras and various limitations associated with the CCTV system were identified. Many of these limitations could be addressed, but not without additional expenditure.

While it is clear from the interviews with stakeholders that the cameras were installed in response to community concern about crime and anti-social behaviour, there is no evidence that the extent of the crime problem was ever quantified. There is also no mention of any specific objectives against which the performance of the CCTV system was to be judged.

The ongoing maintenance of the system is a significant cost, possibly greater than was ever anticipated, and should perhaps have been the subject of a written agreement to avoid any uncertainty as to who is responsible for maintaining each aspect of the CCTV system. The monitoring of the cameras will be discussed in more detail in the next section, but the capacity of police officers to monitor the cameras is an important consideration and additional training sessions may be necessary for any police officers who do not know how to operate the cameras. The absence of a keyboard in the Constables' Muster Room may be a contributing factor to the lack of familiarity with the cameras among some police officers.

The issue of young people gathering in the Mall, and associated community concern, was mentioned by several respondents. Importantly, the presence of cameras does not appear to have prevented young people from gathering in the Mall or persuaded them to modify their behaviour.

3.4 Interviews with the Camera Monitoring Volunteers

Interviews were conducted with ten volunteers responsible for monitoring the cameras on Friday and Saturday nights from 8pm-2am. The volunteers were asked questions about their involvement in camera monitoring, the effectiveness of the cameras and any limitations associated with the CCTV system.

Camera Monitoring

Most of the volunteers said they monitored the cameras every 4-6 weeks, and had volunteered their services in order to do something for the community and/or because they supported the introduction of the cameras. One respondent said that he believes the cameras are equivalent to 'putting four more police in Devonport every week.'

The volunteers were asked questions about the training they had received in camera monitoring. Eight of the ten volunteers said they had been trained how to use the cameras. Only five said they had received training in relation to what to look for and six said they had received training about appropriate/inappropriate use of the cameras.

Respondents were asked how user-friendly the cameras are. Most respondents said the cameras are quite easy to use although two respondents pointed out that, if they have a long gap between monitoring periods, they tend to forget how to use them. Three volunteers mentioned that the monitors are not located in a very good position and that this results in neck/back stiffness.¹³ One of these volunteers suggested that the monitors need to be located at eye level, as they were previously.

The volunteers were asked what they do if they see something suspicious or a crime taking place when they are monitoring the cameras and stated that they either report this to a police officer in the station or contact the Police Radio Dispatch Services (RDS) in Hobart. One of the volunteers mentioned that often the Police RDS personnel appear to be unaware that the Devonport cameras are being monitored by volunteers and ask so many questions that, by the time the volunteer is able to actually report what has happened, the incident is over. The volunteers are required to record details of any incidents they observe in the Log Book located in the Public Enquiries area. At the time the interviews were conducted, the existing Log Book was overdue for replacement.

The volunteers said that sometimes they are asked to focus on certain areas when monitoring the cameras. One of the areas they have been asked to pay special attention to is King Street, particularly around the night clubs later in the evening. One volunteer said that on occasions he had been asked to look out for certain cars. It was noted that it is very useful for the volunteers to be able to listen to a police radio when monitoring the cameras as this enables them to assist Police by focusing on trouble spots. Several volunteers mentioned that a committee was set up to coordinate the roster for monitoring duties but has not met for some months.

¹³ The Devonport Police Inspector has advised that work is in progress to reposition the cameras (personal communication).

All of the volunteers said they still enjoy monitoring the cameras and are happy with the way they are treated and accommodated, with the exception of the problem with neck stiffness. The volunteers appear to enjoy the contact with their local police officers and several noted how nice the police officers are to them. The only other issue raised relates to disability access to the toilets facilities at the police station which are located upstairs.

Effectiveness of the cameras

The majority of the volunteers believe the cameras are effective in:

- detecting crime
- identifying offenders
- making people feel safe
- scaring off potential offenders.

Several respondents made additional comments about the cameras and their effectiveness. One respondent commented that the camera lenses were a bit fuzzy at times and another observed that there had been a lot of teething problems with the cameras. It was pointed out that people play up to the cameras, and that some young people still do not feel safe and hide behind trees. It was also noted that some people are not aware that the cameras exist and that the cameras are probably not utilised to their full potential at those times when they are not being monitored by volunteers.

Anecdotal evidence was also cited in support of the cameras. One respondent said that every time he has monitored the cameras, three or four offenders have been detected for burglaries and drink-driving, etc. Another volunteer said that the first time he monitored the cameras, a person was observed on camera attempting to break into Chickenfeed through the roof and that this crime was able to be prevented as the police attended and the offender fled the scene.

Concerns about the use of cameras in public spaces

The majority of the respondents did not have any concerns about the use of cameras in public spaces, with two of the volunteers suggesting that there should be more of them.¹⁴ One respondent suggested that the volunteers should receive some training about privacy/confidentiality issues as some of the volunteers had said things to people they observed on camera. Another concern was that the Neighbourhood Watch police checks and application forms, which are kept in the same area as the camera monitors, may be viewed by the volunteers. Finally, it was noted that, if the blinds are not kept shut, people can look into the police station and see the cameras and who is monitoring them.

¹⁴ The additional locations mentioned were the CMAX cinemas complex, William Street (near the Ten Pin Bowling Centre and Kentucky Fried Chicken), and the East Devonport Shopping Centre.

Problems/Limitations

The volunteers were asked to identify any problems/limitations associated with the cameras from their perspective. The following issues were identified:

- There are problems with the maintenance of the cameras, both in terms of arranging for repairs or cleaning to be carried out, and reporting back to confirm that the maintenance has been completed.
- Ongoing training and/or a shorter time gap between rostered monitoring duties is desirable to help the volunteers maintain their camera operating skills and knowledge.
- The trees in the Rooke Street Mall restrict the visibility of the cameras.
- Occasionally some of the cameras break down and some of them are too accessible to vandals, e.g. King Street camera.

DISCUSSION

The volunteers interviewed believe that the cameras are an effective crime detection and prevention measure, and were also able to cite some anecdotal evidence in support of the cameras' effectiveness. Several problems/limitations with the cameras were identified, including vandalism, maintenance problems and trees obstructing the visibility of the cameras in the Rooke Street Mall. A range of issues associated with camera monitoring were also mentioned, including: difficulties communicating with Police Radio Dispatch Services, a problem with the location of the camera monitors which is causing discomfort to some of the volunteers, and the need for additional training and/or a confidentiality agreement.

3.5 Findings based on Police Recorded Crime Data

The focus in this section of the report is the impact of the CCTV cameras on reported crime in the streets where the cameras are located: Rooke Street, King Street, Stewart Street, William Street and Kempling Street. The cameras were fully operational by 1 July 2000. This analysis is limited to four main crime types which the cameras might reasonably be expected to impact on: assault/robbery,¹⁵ burglary,¹⁶ injury to property and motor vehicle burglary. The data has been extracted from Tasmania Police's Crime Analysis System.

To assess the impact of CCTV the 24 month period prior to the installation of the cameras is compared to the 24 month period after the cameras. It should be noted that the comparatively small number of crimes reported in the relevant streets makes it difficult to assess the impact of the cameras.

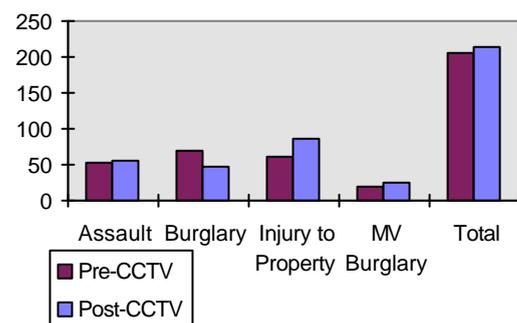
The Offence Reports relating to the crimes committed in the period after the installation of the cameras were examined to identify whether the CCTV cameras provided any assistance to police as an investigative tool, and also to try and determine why the cameras might have failed to prevent the relevant incidents.

TOTAL - ALL CAMERA LOCATIONS

Table 4 presents combined data for all five streets where the Devonport CCTV cameras are located. The data suggests that the cameras have failed to reduce the overall number of crimes reported to Police as the post-CCTV total of 213 is greater than the pre-CCTV total of 205. The only crime type to show a decrease is burglary, but this is offset by a significant increase in the number of reports of injury to property.

Table 4. Selected crimes reported to police (all camera locations)

Crime Type	Pre-CCTV	Post-CCTV
Assault/Robbery	53	56
Burglary	70	46
Injury to Property	62	85
Motor Vehicle Burglary	20	26
Total	205	213



ROOKE STREET

Overview

Table 5 reveals that 82 crimes were reported in the 24 month period after the cameras were installed, compared to the pre-CCTV total of 67. The increase in the number of crimes reported post-CCTV is attributable to an increase in the number of reports of injury to property. Burglary is the only crime type to show any significant decrease in the

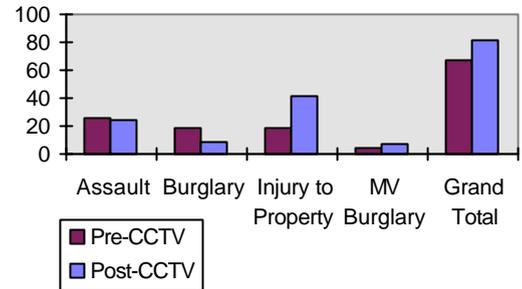
¹⁵ Limited to offences committed in a public place/street and does not include assaults against police.

¹⁶ Restricted to burglaries of non-residential premises.

post-CCTV period. The number of assaults reported post-CCTV is only slightly lower than the pre-CCTV number.

Table 5. Selected crimes reported to police (Rooke Street)

Crime Type	Pre-CCTV	Post-CCTV
Assault/Robbery	26	24
Burglary	19	9
Injury to Property	18	42
Motor Vehicle Burglary	4	7
Total	67	82



Assault/Robbery

Two of the post-CCTV incidents were robberies which took place during daylight hours. Both of these incidents remain unsolved, with the offender yet to be identified. In relation to the other 22 incidents, in all but two cases an offender has been charged or a suspect identified. Eleven of the assaults took place in the early hours of the morning, in some cases after the victim had left one of the nightclubs in the vicinity. Four of these matters have since been withdrawn.

There is no mention of the CCTV cameras on any of the Offence Reports

Burglary

Method of entry details were available for eight of the nine burglaries committed in the post-CCTV period. In four of the burglaries entry was gained via a rear door or window. In three burglaries entry was gained via the roof, and the other burglary involved entry via a smashed window at the front of the premises. Only one of the Offence Reports makes any reference to the surveillance cameras, and the notation states: 'Surveillance cameras operate in the Mall but it is not known if offenders were captured.'

Injury to Property

On some of the Offence Reports there is a notation about camera footage being viewed generally with no success. However, one incident involving damage to a pay phone in the Rooke Street Mall was detected by Police who were monitoring the CCTV cameras at the time and the offender was subsequently located and charged.

Motor Vehicle Burglary

Most of the motor vehicles burgled post-CCTV were parked in rear laneways or car parks outside camera range. There is no mention of the CCTV cameras on any of the Offence Reports.

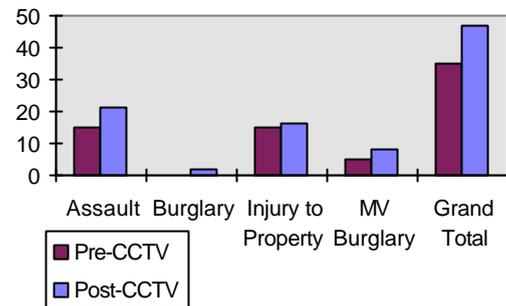
KING STREET

Overview

Table 6 shows that in King Street, 47 crimes were reported in the post-CCTV period, compared to the pre-CCTV total of 35. For all crime types, the post-CCTV total is greater than the pre-CCTV total. The most significant increase is in relation to public place assaults, with 21 reports of assault/robbery being made in the post-CCTV period, six more than the pre-CCTV total of 15.

Table 6. Selected crimes reported to police (King Street)

Crime Type	Pre-CCTV	Post-CCTV
Assault/Robbery	15	21
Burglary	0	2
Injury to Property	15	16
Motor Vehicle Burglary	5	8
Total	35	47



Assault/Robbery

The majority of the assaults occurred in the early hours of the morning, with several committed outside night clubs, and in two cases it is also noted that the victim was intoxicated. In all but four of these incidents a suspect or offender has been identified by the victim and/or a witness.

Only two of the Offence Reports make any mention of the CCTV camera operating in King Street, and one merely notes the existence of the camera. On the other Offence Report there is a notation that camera footage was viewed but it was not possible to identify the offender.

Burglary

Both the burglaries reported post-CCTV were of business premises. The Offence Report for one of these incidents states: "King Street video not able to pick up offenders." The other report does not mention the camera.

Injury to Property

The Offence Reports relating to the post-CCTV incidents reveal that in a small number of cases an offender has been charged after being identified by the victim or a witness. In some cases the damage was caused by disgruntled nightclub patrons who had either been refused entry or evicted from the premises. Eight of the post-CCTV incidents involved damage to a motor vehicle late in the evening or in the early hours of the morning.

Four of the Offence Reports mention the CCTV camera in King Street with three of them noting that the video tapes were viewed with no success. In the other incident the offender was able to be identified because he was captured on camera causing damage to a car.

Motor Vehicle Burglary

Half of the post-CCTV motor vehicle burglaries occurred in rear car parks outside the range of the camera. In another incident, the car was parked in an alleyway off King Street. One of the three Offence Reports relating to incidents which actually occurred on the street states: "Surveillance video of that date viewed without result."

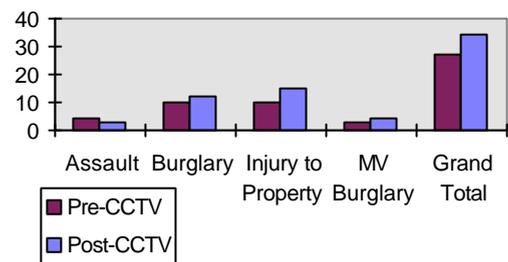
STEWART STREET

Overview

Table 7 reveals that, as with Rooke and King Streets, the number of crimes reported in Stewart Street in the period post-CCTV is greater than the number reported pre-CCTV. This is basically due to an increase in the number of property offences reported in the post-CCTV period.

Table 7. Selected crimes reported to police (Stewart Street)

Crime Type	Pre-CCTV	Post-CCTV
Assault/Robbery	4	3
Burglary	10	12
Injury to Property	10	15
Motor Vehicle Burglary	3	4
Total	27	34



Assault/Robbery

One of the three incidents reported in the post-CCTV period has since been withdrawn, and another has been cleared up with an offender identified by the victim and charged. The other assault occurred in the Stewart Street public toilets and there is a notation on the Offence Report that CCTV footage was requested and viewed but the tapes had run out three hours before the offence took place.

Burglary

Four of the 12 burglaries reported post-CCTV have been cleared up, with an offender charged as a result of forensic evidence and/or witness identification. In six of the burglaries entry was gained via a rear door or window. Only one Offence Report makes any reference to the CCTV camera, and the notation states: "Video tapes are of poor quality and am unable to identify any suspects or offenders."

Injury to Property

Fifteen incidents involving injury to property were reported in the period post-CCTV, five more than in the pre-CCTV period. Three of the Offence Reports make specific reference to the cameras, in each case video tapes were viewed with nil success.

Motor Vehicle Burglary

All four motor vehicle burglaries reported in the period post-CCTV occurred in rear car parks outside camera range.

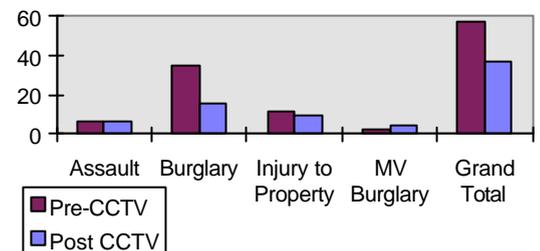
WILLIAM STREET

Overview

As Table 8 shows, 37 crimes were reported in the period post-CCTV which is twenty less than the number reported in the pre-CCTV period. This is basically attributable to a significant decrease in the number of burglaries. The other crime types show very little, or no, variation in the numbers reported prior to and after the introduction of the cameras.

Table 8. Selected crimes reported to police (William Street)

Crime Type	Pre-CCTV	Post-CCTV
Assault/Robbery	7	7
Burglary	35	16
Injury to Property	12	10
Motor Vehicle Burglary	3	4
Total	57	37



Assault/Robbery

All but one of the post-CCTV incidents have been cleared up, with the offender identified by the victim in each case. In one of the incidents there is a notation on the Offence Report that copies of the surveillance tapes for the relevant time period were requested but were unavailable as they had been taped over the same day.

Burglary

The number of burglaries reported in the period post-CCTV is roughly half the number reported in the period pre-CCTV. The Offence Reports reveal that four of the burglaries have been cleared up with an offender charged. Also, five of the post-CCTV burglaries were attempts. Only one of the Offence Reports makes any reference to the CCTV camera and states that the surveillance tapes were checked with 'nil results'.

Injury to Property

Three of the ten incidents involving injury to property in the post-CCTV period have been cleared up, with the offender identified by the victim in two cases, and arrested at the scene in the third. Only two of the Offence Reports refer to the William Street camera, with one of these indicating that video footage was viewed but to no avail. The other Offence Report states: "The camera covering the area of the Four Ways in William Street was inoperative at the time so no security video available."

Motor Vehicle Burglary

None of the post-CCTV motor vehicle burglaries have been cleared up. Two of the four incidents occurred in the vicinity of Devonport High School, with one committed outside the school and the other committed within the school grounds, outside camera range. In relation to the other two incidents, one involved the theft of items from an unlocked car, and in the other incident entry was gained via car keys contained in a stolen handbag.

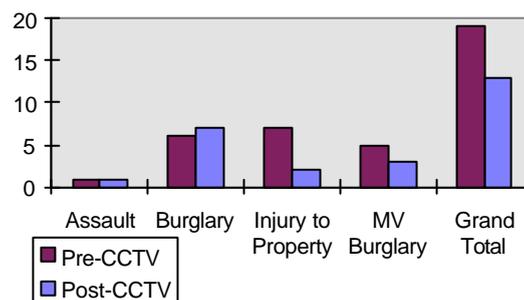
KEMPLING STREET

Overview

From Table 9 it is apparent that 13 crimes were reported in the post-CCTV period, which is six less than in the period prior to the introduction of CCTV. There is one camera in Kempling Street which covers the car park at the rear of the Fourways shopping centre, but not the whole street. The reduction in the number of crimes reported post-CCTV is mainly due to a decrease in the number of reports of injury to property compared to the pre-CCTV period.

Table 9. Selected crimes reported to police (Kempling Street)

Crime Type	Pre-CCTV	Post-CCTV
Assault/Robbery	1	1
Burglary	6	7
Injury to Property	7	2
Motor Vehicle Burglary	5	3
Total	19	13



Assault/Robbery

Only one incident of assault/robbery was reported in the period post-CCTV and this incident was cleared up and an offender charged. The offender was identified by the victim and a witness.

Burglary

There were seven burglaries reported in the period post-CCTV involving three premises (all were repeat victims) located in Kempling Street outside camera range.

Injury to Property

Both incidents involving injury to property reported in the post-CCTV period occurred outside camera range.

Motor Vehicle Burglary

Two of the three motor vehicle burglaries reported in the post-CCTV period were committed within camera range, one of which involved the theft of items via an open window. In the other incident the offender was apprehended after police officers observed him committing the offence via the CCTV camera located in the car park. Once the offender was told he had been observed on the camera he admitted the offence.

DISPLACEMENT

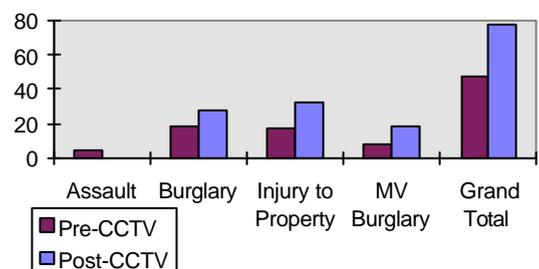
Some of the stakeholders interviewed suggested that crime may have been displaced to other areas not monitored by the cameras, such as Formby Road, Victoria Parade and Bluff Road. To investigate this possibility, the crime data for these streets was examined. Once again the number of crimes reported in any year was low, making it difficult to draw any firm conclusions about displacement.

The data relating to Bluff Road and Victoria Parade did not reveal any evidence of displacement and the total number of crimes reported to police in the post-CCTV period was less than the number reported in the pre-CCTV period.

It is possible that property crime has been displaced from the city centre to Formby Road. From Table 10 it is apparent that the total number of crimes reported in Formby Road in the post-CCTV period was 78 which is significantly more than the 47 reported in the pre-CCTV period. The increase is attributable to an increase in the number of reports of burglary, injury to property and motor vehicle burglary. For each of these crime types the number of reports post-CCTV is much higher than the pre-CCTV number.

Table 10. Selected crimes reported to police (Formby Road)

Crime Type	Pre-CCTV	Post-CCTV
Assault/Robbery	4	0
Burglary	18	28
Injury to Property	17	32
Motor Vehicle Burglary	8	18
Total	47	78



DISCUSSION

The analysis of selected crimes reported to police prior to, and after, the installation of the cameras suggests that the cameras have had some, albeit limited, impact on crime since they became operational on 1 July 2000. However, it should be noted that the comparatively small number of crimes committed in the relevant streets makes it difficult to assess the impact of the cameras.

William Street, and to a lesser extent Kempling Street, experienced a reduction in the total number of crimes reported in the 24 month period after the introduction of the cameras compared to the number reported in the 24 month period prior to the introduction of the cameras. By contrast, in Rooke, King and Stewart Streets the number of crimes reported post-CCTV is greater than the number reported pre-CCTV.

The data suggests that the cameras may have reduced burglary in Rooke and William Streets, although this finding is somewhat overshadowed by the fact that the number of reports of injury to property in Rooke Street in the period after the introduction of the cameras is more than double the number reported pre-CCTV. There is also some evidence that property crime may have been displaced to Formby Road.

In three of the crimes reported to police (one in King Street, one in Kempling Street and one in Rooke Street) an offender was able to be identified and charged as a direct result of the presence of the cameras. There are notations about camera footage being viewed, usually with no success, on some of the other Offence Reports relating to crimes committed within camera range. There is also mention of tapes being taped over, a camera being inoperative, tapes being of poor quality and tapes running out prior to the crime taking place.

For the majority of the crimes committed after the cameras were installed, and within camera range, there is no mention of camera footage being viewed. This suggests that the cameras may be under-utilised as an investigative tool, although it is acknowledged that it is possible that camera footage was viewed but this was not recorded on the Offence Report. Also, the comment about tapes being taped over suggests that the police officer concerned may not have been aware of the existence of the 24 hour back-up recording system.

Another issue which emerged from the analysis is that the effectiveness of the cameras as a crime prevention tool is limited by the extent of camera coverage, particularly in relation to alleyways, arcades, car parks and rear accesses.

3.6 Findings Based on Calls-for Service Data

Calls-for-service data was extracted from Tasmania Police's *Command and Control System (CACS)*. CACS records calls for assistance made to Tasmania Police's Radio Dispatch Services, and the information recorded includes time and date of incident, address details, dispatch details and a brief description of the incident. Incidents are coded according to the type of incident.

The focus in this section is restricted to Rooke and King Streets, because these are the two streets with the most extensive camera coverage, and are also regarded as the main trouble spots for crime and anti-social behaviour in the Devonport City Centre. The incident types selected for analysis involve the sort of crime and anti-social behaviour which the cameras might reasonably be expected to have some impact on.

Table 10 shows that there has been a slight decrease in the total number of calls for service (selected incidents) in the post-CCTV period compared to the pre-CCTV period, with the decrease attributable to a reduced number of calls for service to Rooke Street.

Table 11. Police calls for service data - Total number of selected incidents (Rooke & King Streets)

Location	Pre-CCTV	Post-CCTV
King Street	106	107
Rooke Street	116	106
Total	222	213

ROOKE STREET

Table 12 reveals that, consistent with the crime data, the cameras appear to have had some impact on burglary in Rooke Street. Only nine incidents of burglary were reported in the post-CCTV period, compared to 16 in the pre-CCTV period. The number of calls for service for assault/robbery is also lower in the post-CCTV period than in the pre-CCTV period. By contrast, slightly more reports of damage/vandalism were recorded post-CCTV compared to the pre-CCTV figure.

Table 12. Calls for service - Selected incidents (Rooke Street)

Type of Incident	Pre-CCTV	Post-CCTV
Abusive Language	1	1
Annoying Behaviour	21	27
Assault/Robbery	15	8
Assistance	18	6
Burglary	16	9
Damage/vandalism	22	25
Disturbance	16	18
Drunk	5	12
Harassment	2	0
Total	116	106

The incident reports for the post-CCTV period were examined to determine the nature of the incidents coded as *annoying behaviour*, *drunk*, *assistance*, *abusive language* and *disturbance*. The incidents include a range of anti-social behaviour, including fights and drunk people causing problems. Approximately fifty per cent of the incident reports examined make some reference to young people causing problems eg. drinking and/or annoying other people, including shop owners.

KING STREET

Table 13 shows that the total number of calls for service for selected incidents in the post-CCTV period was 107, compared to 106 in the pre-CCTV period. As with Rooke Street, the incident reports for the post-CCTV period relating to the calls coded as *annoying behaviour*, *drunk*, *dispute*, *assistance* and *disturbance* were examined. Most of the incidents involve the type of anti-social behaviour one would expect in a city street containing several nightclubs. For example, several calls are from nightclub staff, including requests for assistance with difficult patrons, and most of the *disturbance* calls were logged late in the evening or in the early hours of the morning, and mention behaviour such as people fighting and/or drunks causing problems.

Table 13. Calls for service - Selected incidents (King Street)

Type of Incident	Pre-CCTV	Post-CCTV
Annoying Behaviour	5	8
Assault/Robbery	17	16
Assistance	24	18
Burglary	1	2
Damage/vandalism	8	9
Disturbance	43	51
Drunk	8	3
Total	106	107

DISCUSSION

The calls for service data indicates that the cameras have had very limited impact on crime and anti-social behaviour since they became operational in July 2000. However, the small number of incidents, and variation in the way similar incidents are coded makes it difficult to assess the impact of the cameras.

Consistent with the crime data, the calls for service data does suggest that the cameras may have reduced burglary in Rooke Street. Also, less incidents of assault/robbery were reported in the Rooke Street in the post-CCTV period compared to the pre-CCTV period. By contrast in King Street there has been very little change in the total number of calls for service, and any variations observed in the number of reports for each incident type (eg. assistance and disturbance) is consistent with similar incidents being coded differently.

In relation to the calls for service data for Rooke Street, it is significant that approximately 50% of the post-CCTV incident reports examined make some reference to young people causing problems. This is consistent with the findings from the surveys and interviews that the presence and/or behaviour of young people in the city centre, particularly the Rooke Street Mall, causes members of the community a great deal of concern

Many of the calls for service in Rooke and King Streets arise out of the type of anti-social behaviour one would expect to observe in city centre streets which are in close proximity to nightclubs. In such locations, the combination of alcohol and large groups of people gathering often leads to fights and other rowdy behaviour. As mentioned previously, the capacity of CCTV to prevent this sort of impulsive, alcohol-induced behaviour is likely to be somewhat limited.

Unfortunately it was not possible to determine whether any of the calls-for-service to Radio Dispatch Services originated from volunteers monitoring the cameras. This would probably require a separate caller ID code to be created which may be problematic given the number of different codes the system already contains, including over 208 incident codes.

4 CONCLUSION

4.1 Effectiveness of the Devonport CCTV Scheme

The main findings in relation to the effectiveness of the Devonport CCTV scheme are:

1. The community survey revealed a high level of public support for the use of CCTV in public spaces and showed that the presence of cameras in the Devonport City Centre has made people feel safer. The stakeholders interviewed were also very positive about the cameras and their effectiveness, and Devonport City Council has allocated funding this financial year for the installation of two additional cameras.¹⁷
2. One of the main issues in the Devonport City Centre is the level of community concern about the presence and/or behaviour of young people, particularly in the Rooke Street Mall. The presence of cameras does not prevent young people from gathering in public places.
3. The data suggests that the cameras may have reduced burglary in Rooke and William Streets although this finding is somewhat overshadowed by the fact that the number of reports of injury to property in Rooke Street in the period after the introduction of the cameras is more than double the number reported pre-CCTV. There is also evidence of crime displacement:
 - Burglars targeting premises in Rooke Street may have switched their point of entry to the roof or rear of premises to avoid being detected by the cameras.
 - Formby Road, which is not covered by the cameras, experienced a significant increase in the number of burglaries reported in 2001 compared to previous years.
4. There is anecdotal evidence from stakeholders that the cameras have assisted with the detection and identification of offenders:
 - In three of the incidents reported to police (one in King Street, one in Kempling Street and one in Rooke Street), an offender was able to be identified and charged as a direct result of the presence of the cameras. In one of these incidents an offender was apprehended after police officers observed a car burglary in progress on the CCTV monitor and the resultant video footage assisted them to obtain an admission.
5. There is some evidence to suggest that the cameras may be under-utilised as an investigative tool, and a number of problems/limitation associated with the Devonport CCTV system need to be addressed to enhance the effectiveness of the system.

Nearly all of the respondents (96%) in the community survey said they agreed with the use of cameras to monitor public places, and 93% of those who were aware that

¹⁷ One of the cameras will be located at East Devonport, and the other will be located on the corner of Wenvoe and Steele Streets (personal communication with the Devonport Police Inspector).

cameras operate in the Devonport city centre said they welcomed the presence of the cameras. Most respondents believed that CCTV cameras are an effective crime prevention, detection and investigation tool, and also enhance people's perceptions of safety. The majority of respondents who were aware that cameras were located in the city centre said that the presence of the cameras made them feel safer during the day, and, to a slightly lesser extent, at night. The business people, stakeholders and volunteers interviewed were also very positive about the use of CCTV in public places.

The results from the community survey suggest that there is room for improvement in the community's knowledge of the Devonport CCTV system. The survey revealed that people's knowledge of the camera locations was rather sketchy as was their knowledge of who is responsible for monitoring the cameras. Also, a significant minority (18%) of the community members surveyed were not aware that there are cameras operating in the city centre. If people are unaware that the cameras are operating this limits their effectiveness in preventing crime and enhancing people's perceptions of safety.

A significant issue highlighted in the surveys and interviews is the level of community concern about the presence and/or behaviour of young people in the Devonport city centre, particularly the Rooke Street Mall. In the community survey, 24% of the respondents had concerns for their safety in the city centre during the day, which increased to 55% at night. The main concern both during the day and at night was the presence and/or behaviour of young people. A number of the business people and stakeholders interviewed also highlighted the behaviour of young people as a concern, and the calls-for-service data provides additional evidence that the gathering and/or behaviour of young people is problematic. This is not a issue that the cameras are capable of solving, nor is it a issue which is peculiar to Devonport. The issue was examined at length in the *Common Ground Project* and some of the strategies developed in that project could be of assistance in reducing the community's fear of young people in public spaces in Devonport.¹⁸

The interviews with stakeholders, volunteers and business people uncovered some anecdotal evidence that the cameras have been effective in preventing crime and detecting offenders. However, the analysis of selected crimes reported to police and calls-for-service data provides very little evidence that the cameras have reduced crime and anti-social behaviour in the Devonport city centre. Given that a number of problems/limitations with the CCTV system were identified, it may be that the situation will start to improve once these are addressed.

Limitations

The evaluation of the Devonport CCTV system was hampered by the following:

1. the lack of any baseline data about the nature and extent of the problems in the city centre prior to the installation of the cameras
2. the absence of any specific objectives against which the performance of the system was to be judged

¹⁸ More information about this project is available from the Tasmanian Crime Prevention and Community Safety Council.

3. the comparatively low volume of reported crime in the city centre before and after the installation of the cameras making it difficult to assess the impact of the cameras.

4.2 Recommendations

Based on the surveys, and the interviews with stakeholders and volunteers, the following recommendations are made:

1. There is a need for ongoing publicity and/or signage to increase the community's awareness of the Devonport CCTV system. In particular, as suggested by Tilley (1993), any successes of the CCTV system (e.g. in preventing crime and/or identifying offenders) should be publicised.
2. A Memorandum of Understanding between Tasmania Police and Devonport City Council should be developed to clearly define the rights and responsibilities of each organisation in relation to the cameras, particularly ownership and maintenance of the various components of the system.
3. A clear set of objectives for the CCTV system should be prepared, and appropriate measures put in place to monitor the performance of the system.
4. A set of Standing Operating Procedures (SOPs) should be developed to guide the day-to-day operation of the scheme and formalise the procedures currently in place. The SOP's as a minimum, should contain procedures and information relating to:
 - monitoring activities
 - reporting and recording of incidents
 - training of operators
 - confidentiality
 - security, storage and handling of video tapes
 - auditing activities.
5. Where possible, additional equipment should be purchased to enhance the capacity of the CCTV system.
6. The management committee established to deal with camera monitoring should meet regularly as this provides an opportunity for volunteers to raise issues and highlight any problems with the system. This committee should also include representation from Devonport City Council.
7. Any remaining vegetation restricting the visibility of the cameras in the Rooke Street Mall should be removed.
8. The work in progress to re-position the camera monitors in the public enquiries area of the Devonport Police Station should be expedited as the present location is causing discomfort to the volunteers responsible for monitoring the cameras.

9. All volunteers involved in camera monitoring should receive training in relation to:

- the objectives of the CCTV system
- the use and control of the cameras
- the type of information and incidents to look out for
- confidentiality and privacy
- the procedures for reporting and recording incidents.

Refresher courses and/or a shorter time gap between rostered monitoring duties is desirable to help the volunteers maintain their camera operating skills and knowledge.

Training should also be provided to any police officers who are not familiar with the CCTV system and its capabilities.

4.3 Other Issues

A range of issues including problems/limitations associated with the CCTV system were identified in the interviews with stakeholders and volunteers which need to be examined by Devonport City Council and Devonport Police. The issues raised include the following:

- The retrieval of information from the video tapes is inefficient and time consuming.
- There have been problems with the cameras being vandalised.
- At present the cameras are fixed to particular locations and not mobile which limits their potential.
- Volunteers have experienced difficulties communicating with Tasmania Police's Radio Dispatch Services.

4.4 Implications

The findings from the evaluation of the Devonport CCTV scheme are broadly consistent with research conducted in the United Kingdom on the effectiveness of city centre schemes and reinforce some of the key points made by Brown (1995), Tilley (1993) and others about best practice in the use of CCTV:

1. Before considering the implementation of a city centre CCTV scheme, the nature and extent of the crime problem should be clearly identified and an assessment made of all the available options for dealing with the problem, only one of which may be CCTV.
2. CCTV on its own is 'no panacea' and it works best when it forms part of a package of measures to reduce crime and anti-social behaviour in a city centre. In most of the studies that report an impact on crime, a number of other measures were implemented as well as CCTV, such as increased patrol

- (police, security or other), other physical alterations (e.g. lighting, fencing, painting) and ongoing publicity.
3. When a decision is made to implement a CCTV scheme, clear objectives for the scheme need to be set and evaluation mechanisms need to be developed. It will usually be necessary to collect baseline data before the scheme is implemented in order to measure its effectiveness.
 4. The roles and responsibilities of the key players involved in the CCTV scheme need to be clearly defined right from the start. In particular it needs to be clear who 'owns' the scheme and who is responsible for the ongoing maintenance costs, which are likely to be significant;
 5. In order for a camera system to be effective in a city centre, there needs to be a high degree of coverage. Camera locations need to be carefully selected to ensure that there are no trees or other obstacles blocking the visibility of the cameras. It should also be recognised that it may not be possible to extend coverage to alleyways, arcades, car parks and rear accesses which may limit the effectiveness of the cameras.
 6. The possibility that crime may be displaced to other areas not covered by the cameras system needs to be addressed.
 7. The effectiveness of CCTV, in deterring offenders and reducing the fear of crime, is likely to diminish over time. To sustain the effectiveness the successes of CCTV need to be periodically publicised. Signage should also be erected to maintain the deterrent effect of the cameras and address civil liberty concerns.

ATTACHMENT A - LITERATURE REVIEW

Evaluations of CCTV

City Centre CCTV

There is a lack of research on the effectiveness of CCTV schemes in Australia (Johansson et al 2001; NSW Law Reform Commission, 1997). However, there have been several comprehensive evaluations of schemes in the United Kingdom. These evaluations suggest that CCTV is most effective in reducing property crime but achieves poor results in reducing personal crimes such as assault and robbery (Mazerolle, Hurley and Chamlin, 2002).

In one of the most comprehensive evaluations undertaken, Brown (1995, 1997) examined the effectiveness of CCTV in three town centres in England. In Newcastle and King's Lynn, and to a lesser extent in Birmingham, there was evidence to suggest that the use of the cameras reduced property crime, particularly burglary. However, it appeared that the effect of the cameras on some types of property crime may have faded over time. The CCTV cameras appeared to be most effective in Newcastle city centre, where the layout of the town centre was simple and the degree of camera coverage high. There was little evidence to suggest that crime was displaced, and some evidence that there had been some 'diffusion of benefit', especially for criminal damage and burglary offences, to areas not directly covered by CCTV.

In Birmingham, the camera system failed to reduce overall crime levels within the city centre. However, Browns point out that, in contrast to Newcastle, the Birmingham city centre covers a wide area and extends well beyond the area covered by the cameras. The presence of a large number of natural obstacles such as street furniture and trees also created a difficult environment for CCTV surveillance. Regardless of its impact on overall crime levels, the Birmingham system was found to have assisted police to deal with a wide range of public disorder/public safety problems and had increased the public's feelings of safety when using the city centre at night.

The effect of cameras on personal crime was less clear. Brown suggests that the strength of the camera systems in dealing with offences such as assault may have less to do with their deterrent effect (as such offences will probably occur anyway because of their impulsive nature and the involvement of alcohol) and more to do with the way they help police officers deal with such offences. Camera systems can help co-ordinate a fast and effective response which may reduce the seriousness of the incident and they can provide evidence that might be used in an investigation and/or make it possible to convict offenders more quickly.

Brown (1995) highlights three issues arising from his study and others which have looked at the effect of CCTV on crime:

1. CCTV appears to work best when it is part of a package of measures to reduce crime and anti-social behaviour in a city centre.

2. In order for a camera system to be effective in a city centre, there needs to be a high degree of coverage. If the city centre area has many side streets and other premises such as car parks, several cameras will be required to make the CCTV system effective.
3. The effectiveness of packages that include CCTV may diminish over time. In order to sustain the effect of the cameras, they must be used to increase the risk of arrest for offenders and any successes should then be published to deter other offenders.

Mazerolle, Hurley and Chamlin (2002) report similar findings in their Cincinnati study in which they examined patterns of social and anti-social behaviour in response to the introduction of CCTV. They found that the CCTV cameras had an initial deterrent effect, but recommend the erection of signage to increase the level of deterrence and also address civil liberty concerns. They also recommend the use of mobile cameras to increase the number of hotspots under surveillance and capitalise on the initial deterrent effect of the cameras.

Car parks and CCTV

Tilley (1993) examined the effectiveness of CCTV installed in public car parks in six UK cities as part of the Safer Cities Scheme. He found quite strong evidence that schemes deploying CCTV generally led to reductions in various categories of car crime. For example, in a car park in Hull there was a significant reduction in damage to cars (down 45%), theft of cars (down 88.9%) and theft from cars (down 76.3%), comparing equivalent 7 month periods before and after the installation of CCTV.

Tilley concluded that CCTV can play a part, in conjunction with other measures, in reducing car crime, especially theft of cars, but is 'no panacea' (p 25). He observed that the effect of CCTV seems to be enhanced when it is installed alongside other complementary measures, such as other physical alterations (e.g. lighting, fencing and painting), the deployment of visible security personnel and publicising the potential for offender identification. He also found that, as with many other crime prevention efforts, the effect of CCTV can begin to fade, although this may be addressed by periodically publicising the successes of the system.

Council CCTV schemes in Australia

Johansson et al (2001) point out that while few council owned CCTV schemes in Australia have been systematically evaluated, a number of councils have provided selected research findings and anecdotal evidence testifying to the success of their schemes. They list several examples, including an evaluation of the City of Melbourne Safe City Cameras Program which shows that cameras have been effective in:

- detecting incidents that may not otherwise have been brought to police attention
- facilitating a quick response by police and assisting with investigations via recorded images

- assisting police to identify and prosecute offenders, and to prove the innocence of accused offenders.

Johansson et al note that CCTV has in some cases ended up being a double edged sword for police in the following ways:

- CCTV tends to heighten the community's expectations with regard to police response times, but resources to meet these expectations may not be available which can result in criticism.
- CCTV schemes may themselves become targets of vandalism and deliberate campaigns to 'mock' the cameras or defeat them by committing crimes out of range.
- CCTV schemes may displace crime and create new crime 'hot spots' not covered by CCTV.

Methodological Issues

Johansson et al (2001) also advise that there are a number of methodological issues associated with measuring the effectiveness of CCTV as a crime prevention tool:

- CCTV schemes may appear to result in an increase in crime because members of the public may be more inclined to report crime after CCTV is installed and/or more crimes may be detected due to the presence of CCTV.
- The CCTV scheme may be part of a range of crime prevention initiatives implemented in a particular area and it may be difficult to attribute changes in crime rates to CCTV.
- Regardless of any crime prevention initiatives, crime rates may fluctuate for many other reasons such as economic and population changes.

Public Attitudes to CCTV

In 1991 the Home Office commissioned a comprehensive examination of public attitudes towards the use of CCTV (Honest and Charman, 1991). The research included a general survey and site specific surveys of public attitudes and group discussions to explore the issues raised in the surveys in more detail. For each of the site specific surveys, 85% or more of the respondents said they welcomed (or would welcome) the installation of CCTV in that particular site. Also, an appreciable number of respondents said that the installation of CCTV would make them feel safer.

When respondents in the general survey were asked how effective they thought the cameras were, 74% of the respondents thought the cameras were very or quite effective at 'catching criminals', 62% thought they were very or quite effective at 'scaring off criminals' and 53% thought they were very or quite effective at 'making people feel safer'.

While the majority of respondents in the site specific surveys said they did not have any worries about the use of CCTV in that particular site, some respondents did express concerns about CCTV. The majority of the concerns fell into the following categories:

1. people monitoring the cameras may over-scrutinise particular groups, such as young black males and 'scruffy people', without due cause
2. controllers of CCTV might abuse the system - e.g. police control might 'lead to a police state'
3. CCTV might be used in covert ways for "entertainment purposes" or for blackmailing people
4. there was a general unease at 'being watched'
5. CCTV 'evidence' might be misleading - this included the concern that videotapes could be tampered with
6. there may be a gradual erosion of civil liberties
7. CCTV might be used as a substitute for more proactive police activity such as an increased presence of uniformed officers 'on the beat'.

While Honess and Charman concluded that members of the general public were basically positive about the use of CCTV, they suggested that public acceptance was based on 'limited, and partly inaccurate knowledge of the functions and capabilities of CCTV systems in public places' (p 25).

Ditton (2000) reports findings from a major survey of fear of crime levels experienced by local residents visiting Glasgow city centre both before and after the installation of a CCTV scheme. In November 1994, thirty two cameras were installed in Glasgow's city centre with the goal of, among other things, reducing crime and the fear of crime. The survey uncovered no evidence that the installation of CCTV cameras reduced people's fear of crime and a third of the sample said they 'minded' being watched by CCTV cameras in the street. The survey also measured people's awareness of the cameras. Fifteen months after the cameras were installed, only 41% of those surveyed in the city centre knew the cameras were in operation.

Safety in the Hobart CBD/CCTV Survey 1998

In December 1998, a survey on safety in the Hobart CBD and the use of CCTV was conducted by Tasmania Police in conjunction with Hobart City Council, Hobart City Safe Inc and the Crime Prevention and Community Safety Council (Goodwin, 1999). One of the main aims of the survey was to measure people's awareness of, and attitudes towards, CCTV cameras in the Hobart CBD. Two hundred and ninety six (296) respondents were interviewed in Elizabeth Street Mall and the Hobart Bus Transit Mall. The survey was conducted prior to the installation of surveillance cameras in the Hobart Bus Transit Mall.

The majority of respondents were positive about the use of surveillance cameras in public places and believed them to be an effective crime prevention and detection measure:

- 90% of respondents welcomed the use of surveillance cameras in the Hobart CBD.
- The majority of respondents thought the cameras were effective in: detecting/catching criminals (72%), deterring criminals/preventing crime (61%), and making people feel safe (69%).
- 61% of respondents thought the number of cameras in the Hobart CBD should be increased.

Only 8% of the sample said they had any concerns about the use of cameras in public places, with the main concerns relating to invasion of privacy, the possibility that the cameras could be misused and concern about who is monitoring/controlling the cameras.

Interviews with Offenders

Short and Ditton (1998) interviewed thirty offenders (most on probation or doing community service) from Airdie,¹⁹ about their attitudes to cameras and to reoffending. Most of the offenders had been involved in the type of public order offences that town centre CCTV cameras would be expected to film (e.g. assault, being drunk and disorderly). Fourteen of the offenders said they first heard about the CCTV cameras when they read about them in the local paper. One offender claimed that publicity about the cameras was 'always in the papers' and that 'everybody' was 'trying to break into things' before they were installed. Some of the offenders even attended the police station 'open day'.

Twenty six of the offenders were asked if they had ever been caught on cameras. Twelve had been caught themselves, four knew other people who had been caught, and three had been involved in a case of mistaken identity. Practically all of those asked had great faith in the legal power of the resulting videotapes, especially when used in court. Twelve of the thirty offenders said that the cameras had affected their behaviour. In most cases, this involved a sense of increased wariness when in camera range. For some of the offenders, awareness of the cameras did not prevent offending; it just made them more careful. For a small minority, the only option was to stay away or give up offending completely. There was some variation in the extent to which individual offenders knew how many cameras there were and which parts of the town they covered.

Other Issues

A number of issues relating to CCTV have been identified in the literature, some of which relate to the concerns raised by members of the public in the research conducted by Honess and Charman (1992). For example, Fay (1998) highlights research published by Norris and Armstrong in 1997 which confirms that CCTV operators target members of certain social and subcultural groups disproportionately. They found that CCTV

¹⁹ Airdie is a small town near Glasgow which has one of the first CCTV schemes to be installed in Scotland (Short and Ditton, 1998).

operators targeted those groups which they intuitively considered to be likely to be deviant and, thus, young black males were particularly over represented.

Fay also cites evidence that CCTV systems have been used for voyeuristic or entertainment purposes. For example, in 1996 in Maesteg, South Wales, a male operator was found to have made 379 obscene telephone calls from the town's CCTV control room, using the monitors to time his calls to a public phone box at moments when women and young girls were passing by.

Another concern relates to the quality of CCTV footage. Fay points out that the quality of the images from the shopping centre CCTV footage of James Bulger being abducted was 'appalling', and that the pictures were so poor that on their own they could not have been relied upon to secure a conviction against the two offenders. In that case, the problem with the footage stemmed from the use of a worn-out videotape, as shopping centres were in the habit of using and re-using the same tapes repeatedly for many months.

Harris et al (1998) point out that in the UK, a growing number of retailers have expressed concerns about the cost-effectiveness of CCTV and the British Retail Consortium has suggested that some town centre schemes are ill-considered. The consortium has also stressed that it is not clear whether the observed reductions in crime are due to CCTV alone or to a wider range of management initiatives introduced at about the same time, such as radio links, shop watch schemes and dedicated town centre policing, all of which may have had a substantial impact on town centres which were previously neglected.

Similarly, Fay (1998) suggests that even though CCTV systems may reduce crime, the same effect could be achieved or even exceeded by other, possibly cheaper, crime prevention strategies. As an example, he cites the London borough of Sutton where basic measures such as the locking of multi-storey car parks at night and the provision of pagers to security staff were found to be more effective than CCTV in reducing crime. Finally, Harris et al (1998) observe that the installation of CCTV in public places raises various legal, personal privacy and civil liberties issues. One of the issues relates to the use of information obtained by surveillance and whether there is an adequate regulatory framework in place to monitor the collection, storage and use of information. Another concern is whether there is adequate legal protection available against the infringement of privacy.

Research in Progress

There is important research in progress both in Australia and the UK which will shed further light on the effectiveness of CCTV. As mentioned previously, as part of the UK Government's CCTV Initiative, a comprehensive evaluation of the impact of CCTV on crime and fear of crime in residential areas, town centres and car parks is being conducted with the final report due to be published at the end of 2004.

In Australia, the Criminology Research Council recently provided Dr Adam Sutton and Dr Dean Wilson from the University of Melbourne with a grant of \$36,062 over 6 months

to conduct a study of public CCTV systems currently operating in Australia²⁰. The study will consider the context of installation, funding arrangements, operator training, codes of practice and methodology of evaluation. The research will involve six in-depth field investigations of public CCTV systems, supplemented by telephone interviews with system administrators in other locations. Based on the study, a comprehensive guide to Australian public CCTV will be produced.

²⁰ See <http://www.aic.gov.au/crc/research.html>

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