

## 1) Written Reports and Assessments

The Home Office does not have written reports or assessments (published or unpublished) of the extent and causes of Sat Nav theft in England and Wales.

## 2) Other Information

Figures for thefts of sat navs from vehicles are not recorded as a separate offence. Under Home Office Counting Rules for Recorded Crime they would be recorded by forces under the "Thefts from Vehicles" offence. We hold the following information from these forces on the theft of sat navs.

### A) Surrey

#### Satellite Navigation Systems

The increase in theft of mobile satellite navigation systems has taken a sharp increase as predicted in the market profile. Both A and D Division have taken the brunt of this rise. The devices were the gift of choice last Christmas. It would appear that many owners are removing the devices from the dashboard or window brackets, hiding the device within the vehicle, but leaving the brackets in place on display. Operation Safer Surrey Media campaign took place at the end of 2005 in an attempt to curb any increase in motor vehicle crime.

August	14	
September	14	
October	18	
November	39	(A & B division both with 16 thefts)
December	31	
<b>January 06</b>	<b>57</b>	

Aug	A=4	B=3	C=4	D=3
Sep	A=3	B=0	C=1	D=1
Oct	A=8	B=4	C=2	D=4
Nov	A=16	B=16	C=1	D=6
Dec	A=8	B=7	C=4	D=12
Jan	A=25	B=2	C=8	D=22

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B) Kent



# Kent Police

**Crime Pattern Analysis Regarding The Theft Of Satellite  
Navigation Systems From Vehicles In Kent  
01/06/05 (Week 22) – 31/12/05 (Week 52)**

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Information used in this document is sourced from Genesis and open source research.

## **Handling Instructions**

Neither the report nor its contents may be disseminated further without the prior agreement of the Authorising Officer.

## ***1. Introduction.***

A tasking was received from Staff Officer ACC Area Operations to provide a crime pattern analysis of the thefts of satellite navigation systems (SAT NAVS) from vehicles in Kent from 01/06/05 to 31/12/05. The aim of the analysis was to explore relevant issues around these thefts which would, in turn, enable a meaningful briefing to be given to a Home Office vehicle crime reduction team. To this end, this report has been produced with a crime reduction focus to the intelligence requirement and recommendations.

## **2. Inference.**

Thefts of SAT NAVS have been increasing in number. The thefts of these devices are organised.

### **3.1 Frequency Analysis.**

There were 154 offences during the period rising over the Christmas period. A detailed analysis of crime levels is to be found in Section 3.5 below.

### **3.2 Property Analysis.**

TOMS-TOMS are a small SAT NAV accessory that is widely available from most 'High Street' vehicle accessory retailers. They offer a range of products in the low hundreds of pounds. The products supplied are small, removable Global Positioning Receivers, that receive positioning data from satellites which is then processed to give a position on a map. These devices only receive information from the satellites and do not transmit data back to the satellite (unlike mobile phones) making them impossible to track or block using the host satellite. Registration/updates are often via an internet connection at home, but according to open source research are infrequently used after initial registration, therefore further limiting prevention options.

The vast majority of SAT NAVS stolen were TOM-TOMS (70 offences), the next biggest category was Unknown (35) and the next most popular were NAV MANS (16 offences).

Analysis has also revealed that audio equipment has also been stolen from some of the same venues that have seen theft of SAT NAVS, which could indicate that the same offenders are committing all these offences.

### **3.3 Geographical Analysis.**

The east of Kent has seen far more of this crime type than the west of the county, with the most crimes happening on North Kent (AZ), West Kent (BZ) and Medway (DZ).

Whilst high crime levels are usually seen in AZ and DZ, it is unusual that there are so many in AZ when compared with DZ. This could be an indication of a degree of targeting being carried out in AZ.

To indicate this point, the following table below shows the crime levels in each area during the period analysed:

Area Code	Total
AZ	60
BZ	27
CZ	12

DZ	23
EZ	4
FZ	5
GZ	5
HZ	12
JZ	6
Grand Total	154

It is worthy of note that whilst the three prevalent areas are also the three most urbanised and *most* offences are in the urban areas, offences are spread throughout the whole of the areas.

### **3.4 Scene Analysis.**

Almost half the offences happened on a public road (70). The next most common venue was a car park (46 offences). Most of the car parks were public car parks (such as the one at Bluewater which was venue which saw the most crimes, 14), although a small number of private car parks also saw crimes. The only other scene type that saw a sizeable amount of crimes was residential driveways which saw 18 crimes.

The spread of scene types across the county is fairly random, although the following two points are of note:

- a. The rural area of BZ saw a higher degree of thefts from car parks than seen elsewhere in the county. This included repeat offences at the Holiday Inn, Wrotham Heath, and a Travel Inn. Both venues in which vehicles of business travellers are liable to be found (See Section 3.10).
- b. The spread of offences and the variation in scene types indicates an offender (or offenders) who are willing to travel in order to steal a specific item. The offenders are therefore mobile, and the spread of offences would indicate that they are more likely to be using a private vehicle, than public transport.

### **3.5 Week.**

During the period analysed crime levels ran at <4 until week 40 (first week of October), when crime rates almost doubled to an average of 7 offences a week for the following 7 weeks.

The most note worthy events, however, happened during weeks 48 (last week in November) to 52 (last week in December). This was the period where the percentage of the crimes in which TOM-TOMS were stolen increased by almost 100% to an average of 7 offences per week.

Whilst a steady rise in the general level of these crimes were seen in the run up to Christmas, the percentage of crimes in which the property was a TOM-TOM has remained high even during the fall in crime levels which was seen after Christmas.

### **3.6 Day.**

Temporal Analysis has indicated a steady level of offences across the week. Offences are slightly more likely to be committed on a Wednesday, but not significantly.

### **3.7 Time.**

Temporal Analysis again shows a wide distribution of timings, with a slightly higher chance of a crime occurring in the following time bands:

- a. 11:00 –14:00 hrs.

- b. 20:00 – 21:00 hrs.
- c. 01:00 – 02:00 hrs.

The chances of a crimes occurring after 02:00 hrs then diminishes until the chances start rising again at 09:00 hrs.

### **3.8 Container Analysis.**

The vast majority of the SAT NAVS stolen are obtained as vehicle accessories, rather than factory fitted. Many new cars include SAT NAVS as an optional extra, but it is still only the most expensive models that have a 'built in' SAT NAV.

It is assessed that this is the reason that analysis of vehicle types from which SAT NAVS have been stolen has not revealed any preferred vehicle targeted.

### **3.9 Modus Operandi Analysis.**

In line with the trend seen in most Thefts From Motor Vehicles, the most common method of entry was to break a window . This was seen in 68 of the 154 offences.

In 16 cases the vehicle was recorded as being left insecure, and in 12 the lock was forced or overcome.

Only 5 offences are shown as having the doors levered.

### **3.10 Victims.**

30 of the 154 victims shown on Genesis are shown as being organisations.

This is a higher than average percentage of the usual crime mix, but understandable as a commercial vehicle is more likely to travel to an area which is unknown by the driver and providing navigational aids to these vehicles makes sound business sense.

The only organisation that is shown as having more than one of these thefts is the Automobile Association, who have had a total of 2.

### **3.11 Offenders.**

There are only 4 offences shown as detected on Genesis – 1 in AZ (local offender), 1 in FZ(offender from Chatham) and 2 in GZ (one local offender and one from Whitstable).

In the west of the county, there is a small amount of intelligence to indicate that a number of suspects for offences (particularly on BZ) come from the SE London/Essex area.

### **3.12 Motivation.**

Open source research has been used to examine the reasoning behind the increase in SAT NAVS being stolen, and has been broken down into the following sections – Value, Inertia, visibility and Access; known by the acronym VIVA.

#### **3.12.1 Value.**

SAT NAVS have, in the last 6 months, have become the 'must have gadget', and therefore are valuable to the thief for two differing reasons. Firstly, they are a desirable item for the thief themselves to have and secondly, because they are desirable they have a re-sale valuable and are therefore exchangeable in a handling network for other commodities.

### **3.12.2 Inertia.**

The physical size of these devices mean that a thief can easily hide these items or carry these items away themselves, which makes them easy to steal.

### **3.12.3 Visibility.**

Another factor to consider is that whilst these devices are small, they are not small enough to be carried without some degree of inconvenience to the owner i.e. they take up a lot of room in a handbag or won't easily fit into a jacket pocket. This means that the owner of the SAT NAV is more likely to remove the device from it's cradle and put it in the glove compartment or under the seat when they leave the vehicle. A vehicle containing a SAT NAV can easily be identified by the thief from either an external aerial or by the SAT NAV cradle.

### **3.12.4 Access.**

Once the thief has identified a target vehicle, it is extremely easy to gain access to the property. In the majority of cases the theft occurred on a road or in a public car park, which means that the thief has a legitimate reason to be in the vicinity. This makes the thief feel more comfortable in their surroundings, thus increasing their confidence and the likelihood of an offence taking place. It only then takes a matter of seconds to break a window, search the vehicle and leave the scene.

## **4. Conclusion.**

### **4.1 Are The Inferences Proven?**

The first inference has been proved, as quite clearly the level of crimes of this type has risen during the period. Crimes in which TOM-TOM SAT NAVS have been stolen have increased at a greater rate, leading to the conclusion that these are the preferred item to steal.

The second inference has not been proven. The factors within the crime reports that would form the basis of a comparative case chart (scene, MO, temporal factors, etc) are very common and do little to indicate specific linked crimes.

Whilst there have been intelligence on, and the arrest of, a number of individuals some of whom have well known criminal connections; there is no indication of specifically defined roles which would indicate a network and therefore a degree of organisation.

## **5. Intelligence Requirement.**

As this crime pattern analysis has been approached from a crime reduction point of view, intelligence requirements that have been identified as specifically aiding the investigation of these offences have been omitted, as they would have been covered by any analytical/investigation/crime series work being carried out on this subject.

**Q. Why did the level of offences rise at Week 40?**

**I.R.** Was there new products launched at this time?

**I.R.** Was there an increase in marketing of SAT NAVS at this time?

**I.R.** Was there an increase in demand in the unlawful market for these products at this point?

**Q. Why did the level of TOM-TOMS stolen rise in Week 48?**

**I.R.** Were there new products in the TOM-TOM range launched at this time?

**I.R.** Was there an increase in marketing of TOM-TOMS at this time?

**I.R.** Was there an increase in demand in the unlawful market for these products at this point?

**Q.** What is happening to the stolen SAT NAVS?

**I.R.** Information to be gathered to detail the extent, if any, of the criminal market surrounding SAT NAVS.

## **6. Predictions.**

Taking into account the product specifications, availability and the VIVA factors remain constant, it is predicted that the theft of SAT NAVS will remain at an increased level when compared with a year ago for some time, however the level of offences will eventually drop as the 'novelty value' of these devices falls and the unlawful property market becomes saturated.

## **7. Recommendations.**

### **7.1 Prevention.**

- The most likely successful option would be to work with the manufacturers of the SAT NAVS to develop an electronic registration system, which would enable the position data being sent to the SAT NAV to be blocked.
- The introduction of password protection on all SAT NAVS.
- Media campaigns and high visibility crime prevention advice to be distributed at high risk locations (i.e. Bluewater and public car parks.
- Liaison with insurance companies with regards making the removal of non-integrated SAT NAVS a condition of insurance, and the highlighting of this in subsequent media campaigns.
- Increased vehicle insurance premiums for ones containing SAT NAVS, the level dependant on security measures taken to protect the SAT NAV.

It is recognised that most of the items above could only be implemented with the involvement of a third party such as THATCHAM.

### **7.2 Intelligence.**

- Information needs to be gathered to fill the information gap of knowing how the stolen SAT NAVS are disposed of, in order to understand the driving forces behind the market.

### **7.3 Enforcement.**

- The mobile nature of the offenders does lend itself to the use of holistic targetting, so that where an offender is suspected of being involved in the theft of SAT NAVS, the targetting of the vehicles they have access to for vehicle offences (i.e. unroadworthiness, bald tyres, document offences, etc) could have the multiple benefits as detailed below:

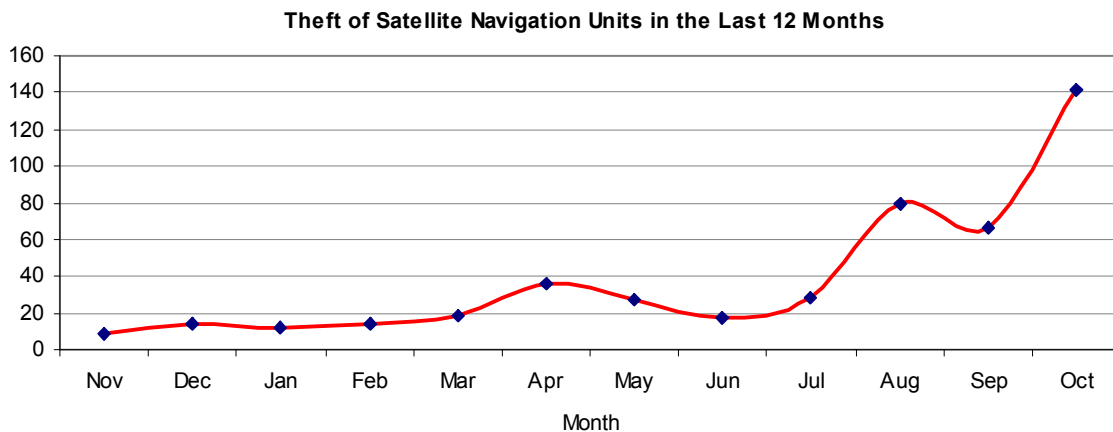
- a. The disruption of their criminal activities.
- b. The gaining of information to fill information gaps.
- c. The detection of other offences.

Specific enforcement options are currently being carried out by the Areas affected to the greater degree by these crimes, and therefore no further recommendations are made.

### C) West Midlands

#### Theft of Satellite Navigation Units in the WMP Force Area May 2005 – December 2005

- In the last 6 months there have been 360 thefts of satellite navigation units from vehicles in the West Midlands.
- This only makes up 2.97% of the total number of theft from motor vehicle offences during the same period, however there has been a sizeable increase in these thefts over recent months.
- Offences in the last 6 months have risen by 268 compared to the previous 6 months, November 04 to April 05.
- The chart below shows the monthly totals of sat nav thefts over the past 12 months.



- A rise in these offences was predicted to coincide with the increased availability and use of these systems although, as the chart above shows, there has been a sizeable upward trend, particularly since July 2005.
- The top 5 OCUs for these thefts over the last 6 months have been:
  - D2 – 56
  - F1 – 28
  - K1 – 27
  - L1 – 26
  - D3 – 24
- The majority of offences involve smashing a window. The systems are then either taken directly off the dashboard or from elsewhere within the vehicle. In many cases the units have been hidden in the boot or glovebox but the empty cradle on the dashboard indicates the motorist uses a navigation device.



- The most common make stolen has been the 'Tom Tom' satellite navigation system with 155 stolen in the last 6 months.
- The above information chart does not include November or December 2005 but information to hand indicates that there has been 175 thefts in November and 168 thefts in December. Acquisitive Crime Team (27.01.06)

### **Brief assessment of future trends**

As time progresses we are faced with both negative and positive results in terms of technological advances –

They are becoming even more attractive to thieves as sat nav manufacturers include additional multimedia facilities such as MP3 players and companies that have traditionally been involved in entertainment media (Sony, Pioneer) are now producing multi media devices (MP3 players, video players) that also have a sat nav function. However, this does mean people are more likely to remove them from the car;

Manufacturers are also making the devices smaller and more portable, making it more practical for users to take the devices with them when they leave their cars;

More and more they are being incorporated into PDAs, mobile phones and hybrids of the two, such as the Blackberry and the Palm Treo. Again this means it is less likely that the owner will leave them in the car and it will also enable the devices to be locked remotely if stolen, using any associated IMEI number;

As the cost comes down more of these devices will hopefully be fitted as standard across the range of models produced by manufacturers with the associated distribution of the function across the various Electronic Control Units thereby increasing security and decreasing their attractiveness to thieves;

Unfortunately, all of this requires us to think ahead about related issues. We have to continue to emphasise that even if owners are taking the devices with them they need to remove tell-tale signs which might still encourage opportunists to break in to the car to see if they have been put in the glove box or under the seat. Potentially this could end up increasing criminal damage figures if no other item is taken and obscuring the real reason for the attack on the car. The nature of the associated crime may also change, moving from vehicle crime to one of robbery or burglary if individuals increasingly carry the device on them or store them in their property when not in use.