GPS Tagging
First Year Interim Report

July 2018
MOPAC Evidence and Insight

MOPAC

MAYOR OF LONDON

OFFICE FOR POLICING AND CRIME

Contents

Executive Summary

In 2016 the Ministry of Justice (MOJ) agreed to work with the Mayor's Office for Policing And Crime (MOPAC) to test the use of mandatory GPS tagging for prolific offenders through the Persistent Offender Programme (POP). The main aims of the MOPAC pilot are to test whether GPS tagging: increases compliance with the requirements of a Community Order (CO) or Suspended Sentence Order (SSO), offers sentencers an alternative to custody, and supports crime detection and/or the apprehension or prosecution of offenders by providing information on an offender's location at a specific date and time.

Consequently, an electronic monitoring requirement has been available in Thames Magistrates' Court and Highbury Corner Magistrates' Court and the local Crown Courts in London since 20 March 2017. Two dedicated pre-sentence report writers from the National Probation Service based at Thames and Highbury have the option to recommend GPS tags as a requirement of a CO or SSO. Under the POP pilot, allocated probation Offender Managers (OMs) can access and monitor location data for their cases. Where the tag wearer is the subject of an SSO the police can also undertake crime mapping, matching location data with crime data where it is relevant and justified for the detection of crime.

Between 20 March 2017 and 12th March 2018, a total of **73** GPS tags were imposed by the judiciary (**54** at Highbury Corner Magistrates', **18** at Thames Magistrates', **1** at Snaresbrook Crown Court): an average of **1.4** tags imposed per week. This figure is just below the minimum target of 75 tagged offenders in the first year of the pilot. The success or concordance rate (i.e. the % of GPS tags recommended by the PSR writers which were subsequently imposed by the judiciary) over the first year was **70%**, one percentage point higher than the figure reported in the period of the first interim report (the first five months of the pilot).

Of the GPS tags imposed, **39** were imposed as a requirement of a CO and **34** as part of an SSO. Nearly all the tags were 24-hour whereabouts (95%; n= 69), with four including a restrictive requirement. Tags were imposed for a range of offences, including: theft (37%), burglary (14%), violence (12%), and public order (10%). The majority of tag wearers were Male (88%) and aged under 40 years (78%). Just over half of the sample was White (53%), followed by Black (21%) and Asian (15%).

Of the 73, 41 cases had completed successfully, while 33 had been unsuccessful, breached and revoked for either a failure to comply and/or imprisonment following further offending (a compliance rate of **56%**). Lack of attendance and failure to charge the tag were the two most common reasons for non-compliance. There were few measurable differences between the compliant and non-compliant tag wearers; however, non-compliant wearers were slightly older than compliant wearers and had significantly lower levels of motivation. For both groups, the most prevalent risk factor displayed was drug use, followed by mental health.

Findings from surveys undertaken with Offender Managers and tag wearers, and interviews with those involved in the production of Pre-Sentence Reports (PSRs) during the first 12 months of the pilot suggest GPS tagging has been well received by practitioners and tag wearers alike. Feedback from the PSR staff suggested that the judiciary were generally receptive to recommendations made for tagging requirements, and were happy to adopt these recommendations, although there was a perception that judges' understanding of GPS tagging was better than magistrates'. There was a general feeling that there was scope for greater use of GPS tagging, and for its use with higher risk offenders, but that current staffing levels – at the time of interview there was only one PSR writer and one administrative support to service both courts – acted as a barrier to this being realised.

In comparison to E&I's earlier evaluation report (produced after 6 months), it appears there is greater awareness of the GPS tag on the part of Offender Managers (at least, those that completed the survey), and willingness to use interest and exclusion zones as part of supervision. As with the first interim report, offenders had positive expectations of the tag. They were confident that they would successfully complete the tag order and knew what they needed to do to comply. Furthermore, tag wearers thought the tag would have a positive impact on their life and lead to them committing less crime. At tag removal, the majority of tag wearers surveyed (admittedly a small number, n=22) thought being on the tag had improved their offending behaviour and had made their life better in general. As in the earlier report, concerns were expressed (by tag wearers and practitioners) about the difficulties caused for this cohort by the requirements to keep the tag charged.

Early non-compliance by tag wearers, and the level of lost equipment, suggest there are issues around the identification of suitable individuals to be tagged that need to be addressed. Other challenges that have emerged are the repercussions arising from the changes to PSR writing policing around making recommendations for SSOs in April 2018, which resulted in a reduction of SSOs with tagging requirements, and a reduction in eligible cases for the crime mapping strand of the pilot (which can only be undertaken on SSO tag wearers). Question marks about the effectiveness of the crime mapping strand in its current form are also raised, particularly given the low number of 'hits' between tag wearers' location data and police crime data. Nevertheless, the overall compliance rate for the scheme, and the positive views expressed by practitioners and tag wearers about their experience with the GPS tag, provides grounds for optimism.

The next evaluation report is scheduled for Summer 2019 following the completion of the pilot's extension. This report will provide updated results for the final GPS cohort, looking at issues around compliance, as well as reporting back on the experiences of tag wearers, probation and court staff.

1. Introduction

Background to the Pilot

In early 2016 the Ministry of Justice (MOJ) announced its intention to pilot the use of GPS tags. The MOJ agreed to work with the Mayor's Office for Policing And Crime (MOPAC) to test the use of mandatory GPS tagging for prolific offenders through the Persistent Offender Programme (POP) pilot, starting in March 2017. Although GPS tags had been used on a voluntary basis in several small-scale pilots across London, this was the first-time mandatory use had been piloted with such a cohort. Initially running for 12 months, MOPAC has successfully applied to the MOJ to have the statutory instrument for this pilot extended for an additional 12 months, until March 2019.

Under the POP pilot, offender whereabouts and location data can be accessed by the allocated probation Offender Manager (OM) as part of an Electronic Monitoring Requirement imposed under a Community Order (CO) or Suspended Sentence Order (SSO). The routine use of location data as part of offender management practice is a new development and MOPAC have invested time, training and innovation to build momentum around this in local practitioner working cultures. New tools available to probation OMs include bespoke email notifications highlighting key locations visited by the offender in real time, heat maps and "Top 5 locations of the week" reports, so that patterns of behaviour associated with risk can be uncovered, explored and challenged.

Where the offender is the subject of an SSO the police can also undertake crime mapping, matching location data with crime data where it is relevant and justified for the detection of crime. There is also the capacity for the police to make external requests for location data from the GPS Tag operator (Buddi) in relation to specific crime incidents. In the first year of operation there were 13 requests made, 6 of which were granted. Police have been active supporters of using GPS with cases to manage their risk and integrate location data into existing containment strategies.

An electronic monitoring requirement has been available in Thames Magistrates' Court and Highbury Corner Magistrates' Court and the local Crown Courts since 20 March 2017. Two dedicated pre-sentence report (PSR) writers from the National Probation Service (NPS) based at Thames and Highbury have the option to recommend GPS tags as a requirement of a CO or SSO.[1] It is envisaged that the electronic monitoring requirement is used in conjunction with other rehabilitative measures (e.g., a Rehabilitation Activity Requirement).

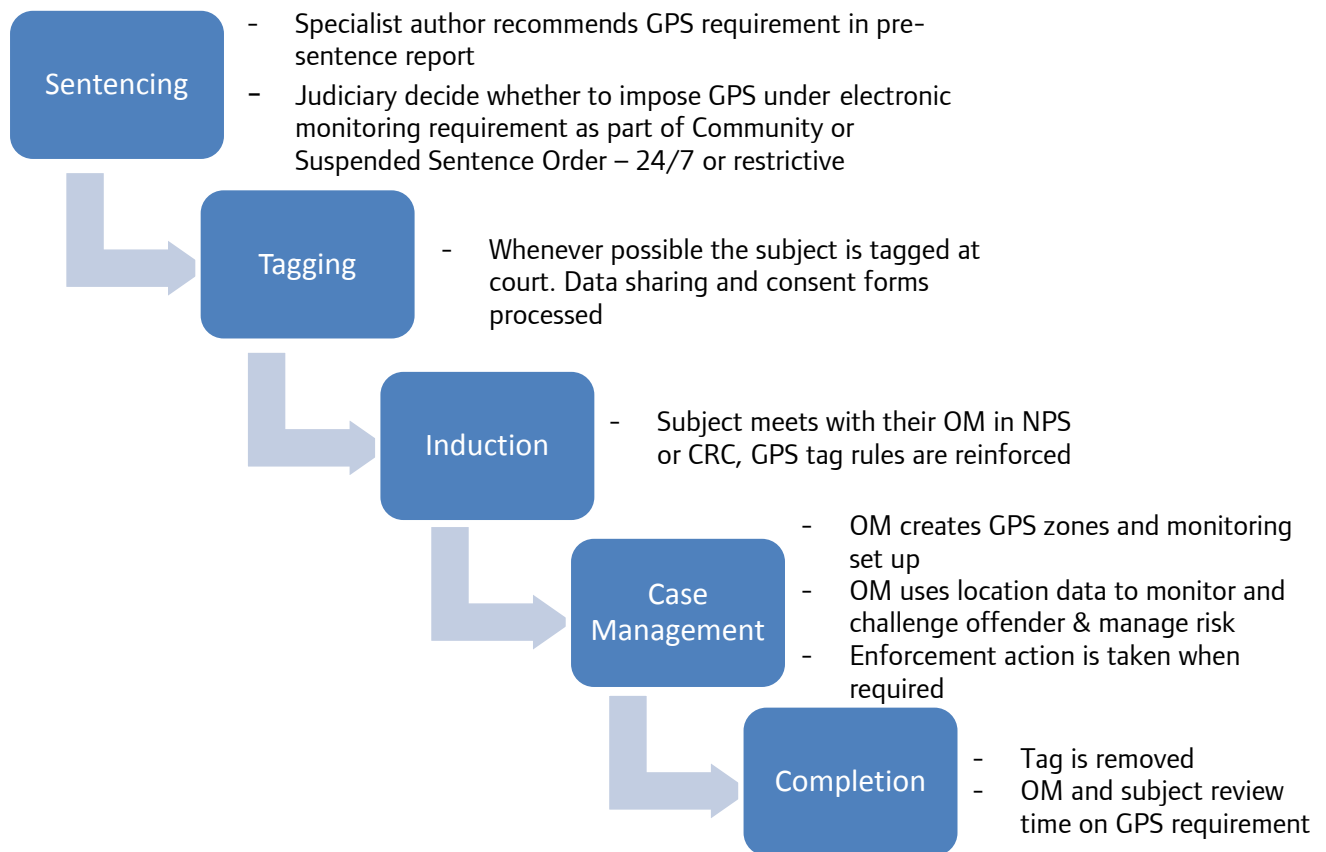The main aims of the MOPAC pilot are to test whether GPS tagging:

1. Increases compliance with the requirements of a Community Order or Suspended Sentence Order;
2. Offers sentencers an alternative to custody; and

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[1] Since April 2018, PSR writers have been no longer able to recommend SSOs.

3.   Supports crime detection and/or the apprehension or prosecution of offenders by providing information on an offender's location at a specific date and time.

Figure 1. Outline of GPS tagging process

Sentencing
- Specialist author recommends GPS requirement in pre-sentence report
- Judiciary decide whether to impose GPS under electronic monitoring requirement as part of Community or Suspended Sentence Order – 24/7 or restrictive

Tagging
- Whenever possible the subject is tagged at court. Data sharing and consent forms processed

Induction
- Subject meets with their OM in NPS or CRC, GPS tag rules are reinforced

Case Management
- OM creates GPS zones and monitoring set up
- OM uses location data to monitor and challenge offender & manage risk
- Enforcement action is taken when required

Completion
- Tag is removed
- OM and subject review time on GPS requirement

Location Data Available on Pilot

The type of location data available to the various agencies involved in the pilot differs depending on the type of order made.

Community Orders with Exclusion Zones or residence requirements

- Probation only get alerted if the offender breaches the exclusion zone or residence requirement.
- The police have no access to location data (apart from External Agency Requests (EARs)).

Community Orders with 24/7 whereabouts monitoring

- All the location data captured can be shared with the probation OMs. Alerts can be set against inclusion zones, points of interest (specific addresses) or interest zones. Requests for other data can be made via a secure email sent directly to Buddi – heat maps, top location reports etc.

- Other agencies are involved in helping to suggest monitoring locations and support compliance i.e. drug workers, police Intel Analyst, CBO exclusion zones.
- The police have no access to location data (apart from EARs).

Additional functions available for Suspended Sentence Orders

- The police will carry out automatic crime mapping and may be alerted to location data that matches a crime, so they can investigate further. They can also make EARs.

GPS Tagging Evaluation

The Evidence and Insight team at MOPAC have been asked to evaluate the GPS pilot, capturing learning around the implementation and design of the pilot, gaining insight into the experiences of practitioners and offenders, and measuring success. The evaluation of the GPS tagging pilot forms part of the wider POP evaluation. The overarching aims of the evaluation are to examine:

- *Performance* – monitor the key performance indicators, including numbers receiving the tag, types of orders, compliance rates, violations, breaches, order completions.

- *Process* – understand the experiences of practitioners and offenders involved in the pilot through surveys, interviews and focus groups.

- *Indicative Impact* – a robust impact evaluation is not possible at this point due to the small sample size. The evaluation will capture indicators of success (e.g., compliance rates) and will use qualitative methods to gain learning about the success of the pilot.

Interim Report

This report shares findings and learning from the first 12 months of the GPS tagging pilot. It consists of performance and process aspects, including feedback from offender managers, pre-sentence report staff, and tag wearers.

2. Methodology

Performance

Performance data was gathered from a range of sources, including the PSR writers, the tagging provider Buddi, the MPS analyst responsible for crime mapping, and from MOPAC delivery staff. This data included information about the tag wearers and the types of orders they were on, compliance with the tag, and data on the crime mapping function.

Interviews with Pre-Sentence Report Staff

Interviews were conducted with two members of staff involved in the production of pre-sentence reports (PSRs) at Highbury Corner and Thames Magistrates' Courts in May 2018. The interviews were designed to capture their experiences of the GPS tagging pilot, including how the pilot has been received by the courts and any challenges they have faced. Face-to-face interviews were conducted lasting approximately one hour. Interviews were recorded and later transcribed. Interviewees were asked to sign a consent form outlining confidentiality and anonymity.

Offender Manager Surveys

A survey was sent to offender managers (OMs) who were responsible for managing GPS cases in late February 2018. This survey was a follow-up to a similar survey sent to OMs in August 2017, the results from which were contained in the first interim report. The survey asked OMs about their experiences working with GPS cases, their perceptions of the tag, and how they have used the tag to manage their cases. At the time of writing, responses had been received from nine OMs.

Tag Wearer Surveys

Tag wearers were asked to complete a short survey at the point the tag was fitted, and again when it was removed. The surveys aim to collect their anticipated and actual perception of the impact of wearing the tag on their offending behaviour, their relations with friends and family, and their lifestyle more generally. At the time this report was written data were available from 22 individuals where a tag had been fitted, and 12 cases where the tag had been removed. It should be noted that this is a small data set and is unlikely to be representative of the GPS tagging cohort overall because it comprises compliant offenders (both at the point of fitting and removal). Surveys were administered by the tag fitter (a staff member from Buddi).

3. Results

Performance

GPS tags imposed

Between 20 March 2017 and 12th March 2018, a total of **73** GPS tags were imposed by the judiciary (**54** at Highbury Corner Magistrates', **18** at Thames Magistrates', **1** at Snaresbrook Crown Court): an average of **1.4** tags imposed per week.

The success rate (i.e. the **%** of GPS tags recommended by the PSR writers which were subsequently imposed by the judiciary) over this whole period was 70%, one percentage point higher than the figure reported in the period of the first interim report.

Of the **73** GPS tags imposed, **39** were imposed as a requirement of a Community Order and **34** as part of a Suspended Sentence Order. Alongside the electronic monitoring requirement, most orders imposed also included a Rehabilitation Activity Requirement, and **16** also included an Alcohol Treatment Requirement or a Drug Rehabilitation Requirement. The average length of the tag order was just over **three** months (range 1-6 months).

The majority of GPS tags imposed were 24-hour whereabouts (**95%**, n=69), which means the tag wearer's location data from any time or location can be accessed by the Offender Manager where this is relevant to the management of the case. **Four** tags were imposed with a restrictive requirement (e.g. data only available in relation to a requirement not to go to a particular place or location).

Tags were imposed for a range of offences, including theft (**37%**, n=27, 3 of which were motor vehicle related), burglary (**14%**, n=10), violence (**12%**, n=9), public order (**10%**, n=7, 2 of which were racially aggravated), drug possession/supply (**8%**, n=6), criminal damage (**7%**, n=5), breach (**7%**, n=5), possession of an offensive weapon (**3%**, n=2), harassment (**1%**, n=1) and Other offence (dangerous dog) (**1%**, n=1). See Figure 2 for breakdown.

Figure 2. Breakdown of offence types
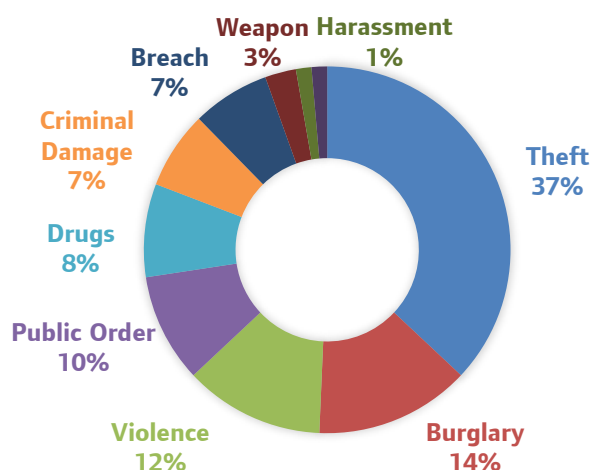
Characteristics of tag wearers

The majority of tag wearers were Male (**88%**, n=64) and the average age was 32 years (SD=9.4). More than three-quarters of tag wearers were aged under 40 years: **27%** (n=20) were 18-24 years and **51%** (n=37) were 25-39 years. **Twenty-one percent** (n=15) of tag wearers were aged 40-54 years, and only 1 was aged 55+. In terms of the ethnicity of the 73 tag wearers, **53%** (n=39) were White, **21%** (n=15) Black, **15%** (n=11) Asian, **10%** (n=7) Mixed, and **1%** (n=1) 'Other ethnic group'. In this respect, the characteristics of those receiving tags reflects the characteristics of the POP cohort overall.[2]

During the first year of GPS tagging, there were 191 individuals who received the PSR writing service whose ethnicity was known: **45%** (n=86) were White and **55%** (n=105) Black, Asian or Minority Ethnic (BAME). Of these, **23%** (n=20) of White service users and **25%** (n=26) of BAME service users were recommended GPS tagging, suggesting the report writers proposed GPS tags on similar proportions of White and BAME individuals.

Compliance with tag

Of the **73** tags imposed during the first year of the pilot (i.e. up until 20 March 2018), **41** were completed successfully ('compliant' tag wearers), while **32** were unsuccessful ('non-compliant' tag wearers), either revoked for a failure to comply with the order and/or imprisonment following the commission of further offending, or were in the process of being revoked: a compliance rate of **56%**.[3]

For the **73** GPS tags imposed, **33** Interest or Exclusion Zones had been set up by OMs. OMs receive an alert any time the tag wearer enters these zones. In the first year of the pilot, there were **44** Interest or Exclusion Zone alerts sent to OMs.

Compliant versus non-compliant tag wearers

Characteristics of compliant and non-compliant tag wearers are presented in Table 1. In terms of the demographic characteristics, both groups consisted of predominantly males. The average age of the compliant group was **30.6** years, slightly younger than the non-compliant group (average **34.6** years, although this difference was not statistically significant). For both the compliant and non-compliant groups, the proportion of White and BAME service users were similar (White individuals made up just over 50% of the groups). In terms of disposal, the non-compliant group had a higher proportion of tag wearers on a CO; however, again this difference was not statistically significant.

Information was collected on the risk factors the two groups displayed (see Table 1). Specifically, individuals were measured on drug use, alcohol use, housing, physical health, mental health, and

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[2] POP refresh data from January-February 2018 consisted of 91% Males and an average age of 30 years. A pan-London dataset compiled from CRC data from January 2018 and NPS data from October 2017 showed the following ethnic composition; Asian 14%, Black 26%, Mixed 8%, Other ethnic 2% and white 50%.

[3] This compares to a compliance rate of 51% (combining technical and non-technical parole violations) in a study testing the effect of GPS tagging with a sample of high-risk gang offenders in California (Gies et al., 2013).

motivation levels. On average, the non-compliant group displayed **two** risk factors, out of the potential maximum of six. The compliant group had a slightly lower average number of risk factors (**1.3**), but this difference was not statistically significant.

For both groups, the most prevalent risk factor displayed was drug use, followed by mental health. Comparing individual risk factors across the two groups, there was only one significant difference: the non-compliant group displayed significantly lower motivation than the compliant group.[4] The number tag wearers assessed as having housing issues was low for both group, but most likely reflect the fact that (relatively) stable accommodation is a prerequisite for the recommendation/ adoption of a GPS tag.

Table 1. Characteristics of compliant and non-compliant tag wearers

	Non-compliant (n=32)	Compliant (n=41)
Gender		
Male	28	36
Female	4	5
Age (mean)	34.6	30.6
Ethnicity		
White	18	21
BAME	14	20
Order type		
CO	20	19
SSO	12	22
Risk factors		
Drug use	21	22
Alcohol use	7	10
Housing	5	4
Physical health	3	5
Mental health	15	17
Low motivation	15	7

There were several reasons specified for non-compliance.[5] Lack of attendance was the most common reason, followed by failure to charge the tag. Other reasons were 'total non-compliance', non-engagement and the tag having never been fitted. In 12 cases (out of 15 cases where data was available), the tagging equipment was recorded to have been lost or 'almost certainly' lost.

Details of the number of appointments attended with probation was available for 30 of the 32 individuals in the non-compliant group. On average, these tag wearers attended **3.9** appointments overall (ranging from 0 to 24 appointments). Interestingly, the pattern of attendance for those who did, and who did not, attend their first appointment with probation was markedly different. Individuals who attended their first appointment (n=18) attended an average of **5.5** appointments overall. Conversely, of the 12 individuals who failed to attend their first appointment, the average was **1.4** appointments overall. What this pattern appears to suggest is that there is a group of tag wearers who are largely non-compliant right from the

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[4] Fisher exact test statistic value is 0.0096, significant at $p < .05$
[5] Reason for non-compliance was known for 23 out of the 32 non-compliance cases.

outset of the order, compared to other tag wearers who, while ultimately being breached, engage with probation over a longer period of time.

Police Crime Mapping

Under the crime mapping intervention, which began in September 2017, a dedicated police analyst maps the movements of tag wearers on SSOs against police crime data. Where the analyst believes there is a sufficiently close match, details are forwarded to the relevant police IOM team for further investigation.

In deciding whether there is a potential match, the analyst considers the time of the offence (and the precision with which the time of the offence had been recorded), the location of the tag wearer, the movement of the tag wearer (i.e. their speed and direction of travel) and other factors, such as suspect descriptions. To assist in making a referral decision, the analyst devised a weighting system based on the above factors, automatically discounting scores below a certain level.[6]

Initially crime data was uploaded only for the eight boroughs covered by the POP pilot, but since late October 2017 crime data has been uploaded for all London boroughs. Table 2 shows the number of crimes uploaded by month. The table also shows the number of matches or 'hits' that were recorded by the analyst each month: a total of **865** for the 5-month period where data is available (**0.3%** of all crimes uploaded).

However, not all the 'hits' were referred to IOM teams (see Table 2), as a certain proportion were discounted based on the weighting system developed by the analyst. In the period from September 2017 to January 2018, **46** referrals were made to the various IOM teams: only **5%** of all apparent 'hits' generated. The vast majority of matches (95%) were discounted by the analyst.

Table 2. Crime mapping data per month

	Sep-17	**Oct-17**	**Nov-17**	**Dec-17**	**Jan-18**	**Total**
Crimes uploaded	12,483	30,673	76,424	70,448	74,499	**264,527**
Number of 'hits'	162	190	108	215	190	**865**
'Hits' referred to IOM teams	13	20	3	4	6	**46**

To assess the outcome of referrals, the police analyst kept a database of what happened with respect to the matches that he provided to the police IOM teams. This covered issues such as the response from the IOM team when details of the match were emailed to them, subsequent actions (if recorded on CRIS), whether the individual was subsequently arrested, and local use of the GPS match (again, if the details were recorded on CRIS).

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[6] In practice the mapping process proved to be more time-consuming than anticipated due to differences in the way data was geo-coded on the Met's and Buddi's systems, meaning the analyst had to manually confirm the apparent proximity of the crime location and offender in some cases.

In **13** cases, receipt of the referral was acknowledged but no further action recorded. In a similar number of cases there was nothing more than a read receipt. In **seven** cases there was no response at all. In **nine** cases the decision was taken by the IOM team not to refer the case to the officer in charge due to what were often described as 'evidential difficulties' (e.g. the location was not specific enough, the time-frame provided by the victim was too wide, and there was no CCTV or forensic evidence).

In **13** cases, there was an acknowledgment the referral had been passed on to either the officer in charge, the Crime Reduction Unit, or a sergeant. In **two** further cases the decision was made to look at the incident further; one case had been allocated for secondary investigation, and in the other, an EAR request had been sent to Buddi.

To make a judgement about whether the GPS data was used in the investigation of the crime, the analyst looked at information subsequently put onto the CRIS system. In the majority of cases (**88%**, n=57)[7] information from CRIS suggested the GPS data was either not used in the investigation of the crime, or there was no information available. In the **eight** cases where there were references on CRIS to the use of GPS, in no cases was the matter proceeded with (i.e. it was deemed the GPS data was not sufficient to proceed with an arrest, or there was a lack of additional corroborative evidence).

At first sight the data above may appear disappointing, bearing in mind the large number of crimes up-loaded onto the system. However, it is important to remember the GPS-tagged population able to generate 'hits' was relatively small. Only 73 individuals had been tagged in total, and of these, only 34 were on SSOs and eligible for crime mapping. Of these, 12 were non-compliant at the outset (i.e. removed or did not charge their tags after fitting). Thus, only 22 individuals in total were eligible for crime mapping.

Another complicating factor was the type of offences for which the matches were generated (largely theft and burglary). These offences, by their nature, are likely to provide the greatest latitude in terms of the reported time that they took place (and thus, the greatest difficulty in placing the offender at ene of the crime). This is reflected in the responses from the IOM officers about the limited utility of the data (and in contrast to a contact offence like robbery, for example). In these circumstances, it is perhaps unsurprising that the level of hits was so small. It is difficult to know, as a result, whether the low number of yields from the crime mapping reflects failings in the implementation of the scheme, or in the theory behind the concept of crime mapping, particularly bearing in mind the type of offences which many of the POP cohort are committing (thefts and burglaries).

The box below provides two case examples of how GPS location data has been used to link tag wearers to other crimes, following earlier police investigations. Both are example where the IOM teams made EARs to Buddi about the specific movements of individuals.

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[7] Note this data covers the period September 2017 to April 2018. A total of 65 'hits' occurred during this time

> Case Example 1
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> The first case involved an Enfield offender who the police IOM team had linked to 19 burglaries in the Chingford, Walthamstow and Leytonstone areas via his MO. The individual was described by the police as a prolific offender who they were keen to have remanded because they were concerned that if granted bail he would reoffend and not attend court. Data obtained via an EAR request to Buddi allowed the police to place the offender at the burglaries.
>
> Case Example 2
>
> The second example was where the offender had been linked to a theft from a motor vehicle via his bus pass which had been left in the vehicle. The offence had been reported to the police at 21:50 on the 11th February 2018. Again, via an EAR request, Buddi were able to provide the police with data placing the offender at the crime scene between 21:32 and 21:40 on the night of the offence. The offender was sentenced to 8 weeks imprisonment (consecutive to other matters).

Practitioner Feedback

Practitioner feedback was collected from nine offender managers (OMs) and two pre-sentence report (PSR) staff.[8] The main themes are presented below.

Offender Manager Feedback

Use of GPS location data

Eight of the nine OMs surveyed stated they were confident using GPS tagging in their role. Five had previously logged on to Buddi's Eagle platform and seven had accessed location data. Of those who had accessed location data, six respondents had used it to set up Interest Zones, four to request heat and other maps, three to request information on a specific location, two to set up Points of Interest, and two to request 'top location' information.

OMs were also asked how they used the location data to manage their case(s). Five had used it to inform discussions with the tag wearer, three to monitor attendance at a place linked to risk of harm, three to monitor attendance at substance misuse treatment, three to find out new information about the tag wearer's lifestyle, three to try and locate a tag wearer who had gone missing, two to monitor attendance at a place linked to risk of reoffending, and two to challenge the tag wearer about his or her behaviour in supervision. Other uses mentioned by OMs were: to praise the tag wearer for compliance and positive behaviour; to protect known potential victims; and to monitor attendance at the tag wearer's workplace.

Respondents were also asked how easy it was to access location data. Of the seven for whom the question was relevant, six felt it was 'easy' or 'very easy', while one respondent felt it was 'difficult'. For the two respondents who had not accessed location data, one stated this was because they did not think an Interest Zone or Point of Interest would be useful, the other because the case had only been allocated to them at the end of the requirement. Respondents

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[8] Given the size of the research cohort, caution should be used when considering the results.

were complimentary about the quality of the communication with Buddi, the GPS tagging provider, with eight describing it as 'excellent' and one as 'good'.

The responses above show some interesting developments in terms of OM perceptions of the GPS tag, compared to their views back in August 2017, some five months into the pilot. At this point, although most OMs had some awareness of the tag, this tended to be as a requirement to be enforced rather than something that could be used proactively to manage cases. At this point also, only one OM (of seven) reported having logged on to Buddi's Eagle platform and none had set up an Inclusion Zone or Point of Interest. When asked the reasons for this the replies were that they were not aware that they could, they did not know how to, or that IT problems were causing issues.

In the second survey, OMs were also asked to select their top three from six possible uses of GPS tagging. The uses that was selected most frequently were 'to deter service users from reoffending' (selected by 8 respondents) and 'to monitor compliance with an exclusion zone or other restrictive requirement' (6 respondents). Other commonly selected uses were 'to monitor attendance with RAR/DRR/ATR appointments' (5 respondents), 'as an alternative to custodial sentences (4 respondents), and 'to use location data to match with potential new offences (4 respondents).

In the most recent survey, all nine respondents agreed or strongly agreed they understood *when* they could access and use location data, and seven out of nine indicated they knew *how* to access and use location data. Similarly, eight of nine respondents agreed they understood the restrictions and processes that applied to sharing location data with other agencies, and seven out of nine agreed they understood the different ways GPS tagging worked for COs and SSOs.

When asked if they felt that GPS tagging was a useful way to tackle prolific offending, eight of the nine respondents either agreed or strongly agreed with the statement (the remaining respondent being neutral). However, when asked whether GPS location data had improved their ability to manage the case and engage with the offender, OMs' feelings were slightly more equivocal, although most (n=6) agreed (two respondents disagreed, and one was neutral).

Three of the offender managers provided comments on their experience of GPS tagging. One stated that he found the Buddi system difficult to access and use. The comments from the other two are presented below.

> "I had two cases, one for drug requirements and one who was a DV perpetrator. I got a mile exclusion set up on one, asked for a snap shot of where one was when he said he could not leave the house due to illness etc. Buddi were brilliant, both when they came to fit the equipment and any questions that I have had in relation to service users, very efficient."

> "I have found GPS tagging useful in many ways. Firstly in regards to monitoring service users' whereabouts and their attendance to certain places…More importantly in my opinion I think it does act as a deterrent to offending. One of my service users regularly comments on the fact that having the tag on has deterred him from offending. It makes them think twice before doing something stupid…It is also good in a way for eliminating crimes that the IOM Police may think they have done"

Pre-Sentence Report Staff Feedback

Types of offenders being tagged

When the PSR staff were asked about the use of GPS tags within the POP pilot, there was a recognition that often GPS tags tended to get used on minor offenders, precisely because these individuals were in stable accommodation, which was a prerequisite for a successful tag (although, conversely, it was also identified that there could be problems getting a tag imposed on an offender for a minor offence precisely because it was viewed by the courts as a disproportionate intervention).

> "What can sometimes happen is that some of those people [shop-lifters, acquisitive criminals with drug issues] end up in relatively stable accommodation whether it's through St Mungo's or one of the other accommodation providers and actually at that point we're able to get them on a tag and because there has been so much chaos around them it is a really good idea to do it at that point"

However, there was also the perception that tagging could be used on higher risk offenders, such as domestic violence or sex offenders, or those with mental health issues, precisely because the tag provided the ability for 'additional oversight and better understanding' (although one of the respondents was keen to stress that one of the factors he felt precluded any consideration for a tag was paranoia on the part of the offender).

It was also suggested that GPS tags had a role to play in reinforcing curfew orders, or to provide effective enforcement of exclusion zones, which were areas that had previously proved problematic for probation. It was also felt that tagging could have a useful role to play with individuals involved with, or on the brink of involvement with, gangs.

> "I know MOPAC are looking at knife crime and the people who have been involved in gangs and guns at a more lower level, from some of the conversations that I have had with offenders who are clearly on the periphery of guns and gangs …it can be a really easy way to make them undesirable to bigger gangs, because they do not want someone with GPS tagging in their gang".

Notwithstanding the range of uses outlined above, both respondents felt that there was scope for much greater use of tagging, but what prevented this at present were issues related to staffing levels.

> "I think might be able to have more if we had more staff. It's just hard. When I first [started] I was like a bloodhound, going to all the different courts. Then burnt myself out, couldn't get everything…could probably have more [tags] if we had more resources".

Wider understanding of GPS pilot

When asked for their views about the level of understanding of, and support for, GPS by other probation staff, the response was mixed. One respondent suggested the dedicated CRC IOM officers were particularly impressive and had a clear idea of how the GPS tag could be used. One respondent suggested the presence of a dedicated report writer meant that other report writers did not take responsibility for proposing GPS tags. Furthermore, as above, both respondents felt the current level of staffing was too low and was hindering their effectiveness. One respondent suggested the ideal model for the team would be a PSR writer at each court, together with a support officer at each court providing administrative assistance.

Asked for their perceptions about judges' understanding of GPS tags the respondents were generally positive. However, their perception of magistrates' understanding was more equivocal, with both respondents feeling that not all magistrates understood GPS tags, and that some were unclear about the distinction between curfew and GPS tags. Both respondents stressed the importance of their presence in court to be able to inform the court about the tags and to clear up any misunderstandings.

"Half the time they [magistrates] don't know what it is, they don't know what we're doing. When I'm in court and the probation officer says 'we can put an electronic tag on him' they just get confused and call it a curfew. They don't really know what it is."

"We are quite fortunate that we have 4 resident DJs [district judges]…[who] are very aware of the GPS tagging and when I recommend it give it genuine thought."

However, one respondent was keen to put this in context, explaining that there were a large number of magistrates at the court, who might only serve one day a month, so seldom came across GPS tagging cases. Both respondents stated that where recommendations for GPS tags were made by the PSR writer they tended to be adopted (as is suggested by the data elsewhere in this report), to the extent that one respondent described himself as being 'aggrieved' if a tagging recommendation was not adopted.

Both respondents identified the difficulties that had arisen since April 2018 when PSR writers had been instructed not to make recommendations for SSOs in reports. However, the respondents both stressed that while they could not be seen to be making a recommendation, they endeavoured to keep the courts aware that the SSO (and GPS tagging) was available to them as an option.

Staff perceptions of offenders' views about the tag

The research was not able to talk directly to offenders on the tag, however staff spoken to felt that at the point of their court appearance, offenders would say anything to stay out of prison and were happy to consider a tag as an alternative to custody. One of the respondents suggested that where an offender was strongly opposed to a proposal for a tag it was an indication that

they did not want probation to know about their whereabouts and might be 'involved in something really dodgy'. The same respondent also suggested that some offenders might be actively seeking to avoid the imposition of a GPS tag (e.g. by saying they do not have an address).

"Everyone that we've talked to about it are happy, 'Don't want to go to prison, give me a GPS tag' The ones in the cells will always say that 'cos they're about to come in front of the judiciary and they want to be the friendliest person around."

Equally there was a recognition that the type of offender being considered for a tag under the POP pilot was likely to struggle with the organisational/logistical requirements of the tag, particularly requirements to keep it charged. There was also the recognition that the tag was something of a 'double-edged sword' for the wearer; its ability to provide additional oversight meant that it was likely to appeal to the court as an alternative to custody, but there was a greater likelihood for the tag-wearer to be breached because of wearing the tag. However, when asked directly if they were concerned about setting offenders up to fail by recommending them for a tag, this did not appear to be the case. As one respondent said:

'I am very clear with them that if this tag is fitted then we are going to know what you are up to and if you choose to offend that is going to happen'.

Views on Buddi

The two respondents' views on Buddi and their staff were positive. One respondent stated that he found the staff helpful, and with a good understanding of the issues that he faced. However, one respondent mentioned a problem he had had in the past getting Buddi to respond to multiple tagging requests on the same day.

Tag Wearer Feedback

All 22 tag wearers who were surveyed stated they understood why they had received the GPS tag, how the equipment worked, what they had to do to comply with the order, and how the tag fitted with their other requirements.

When the tag was fitted, respondents were asked the extent to which they agreed or disagreed with a number of statements about the anticipated impact of the GPS tag. When asked if they were worried about what their friends and family would think about the tag, most respondents disagreed (n=14). Respondents were also asked to indicate how confident they were that they would complete the tag order successfully. All tag wearers described themselves as being either 'fairly confident' (n=9) or 'very confident' (n=13).

Respondents were asked what impact they thought wearing the GPS tag would have on specific aspects of their life ('better', 'worse', or 'no impact', see Table 3). Generally, respondents felt the tag would either have a beneficial effect, or no impact. Respondents were most positive about

the impact of the tag on their relationships with family (10 tag wearers agreed the tag will make their relationships with family better). Respondents appeared to be more pragmatic in terms of their expectations of wearing the tag on their relationship with friends, their financial situation, their physical health, their mental well-being, their housing situation, employment status, ability to go out or socialise, and their education situation. In every case the most popular response was that the tag would have no impact.

When asked what the anticipated impact of wearing the tag would be on their life overall, 18 respondents felt that it would get better, while 3 felt the tag would have no impact; nobody thought their life would get worse. In terms of the impact of the tag on their offending behaviour, 20 respondents thought it would lead to an improvement.

Table 3. Tag wearers' perception of anticipated impact of wearing GPS tag

Anticipated impact of wearing tag on… (n=21 unless otherwise specified)	Better	No impact	Worse	N/A
Relationship with family	10	9	1	1
Relationship with friends	7	13	1	0
Money/current financial situation (n=20)	6	13	0	1
Physical health	7	13	0	1
Mental well-being	8	11	1	1
Housing situation	7	14	0	0
Employment situation	2	15	1	3
Ability to go out/socialise	7	12	2	0
Education situation	2	15	1	3

Respondents were also asked to provide general comments about their expectations on having the tag fitted (16 responses were received). The most popular assertion (mentioned by 7 respondents) was that the tag would assist them in 'sorting their lives out', typified by the following statement:

> "I understand that I must stay away from my partner and the tag stops me going to her address. I think it will help me sort things out by reminding me I can't go to her address. I hope this and my counselling will make life better for me"

Six respondents stated that it would stop them from committing crime/offending or make them think about such actions. Five respondents mentioned the GPS tag was preferable to a curfew tag (in that it was less restrictive), while four respondents said wearing the tag was a preferred alternative to going to prison. Typical quotes reflecting these sentiments were:

> "I am a burglar and wearing this kind of tag will show probation I am not getting involved in burglaries and will remind me the police and probation will be checking on me. I think this kind of TAG is better than a curfew TAG because I can get on with my life"

Other factors mentioned were that the tag would keep them out of situations where they might cause harm to others, would assist in enforcing the restrictions of their order (to stay away from their partner), and that it would show probation they were not offending. One respondent described the fitting of the tag as his 'last chance', but felt he was being set up to fail due to the inability of drug services to see him to address his drug dependency.

Tag wearers were also asked to complete a similar questionnaire when their tag was removed. Responses from 12 individuals were analysed. Respondents were asked to rate (on a scale of 1–7, with 1 being 'very negative' and 7 'very positive') their overall experience of being on the tag. The results are shown in Figure 3 below, and clearly indicate respondents' positive perceptions.

Figure 3. Tag wearers' experience of being on a GPS tag
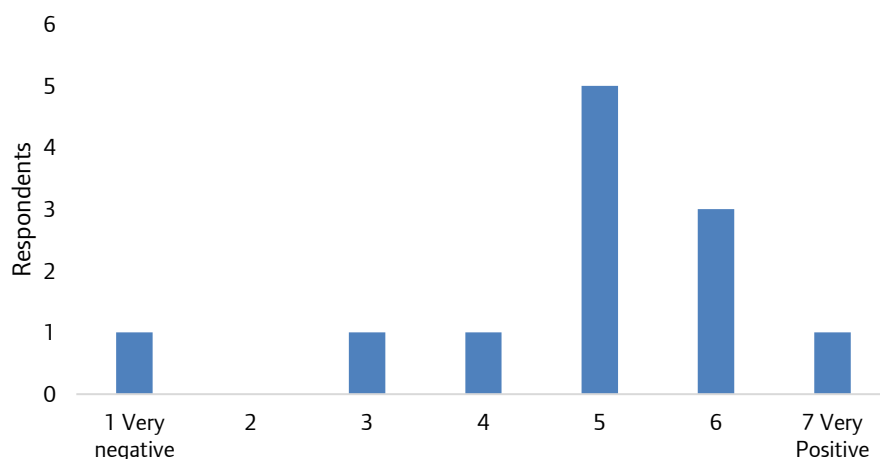
This positive outlook is reflected in responses to several related questions. For example, when asked if wearing the tag was better than they thought it would be, 10 respondents agreed, whilst only 2 disagreed. The same pattern of responses was provided to a question asking if they found the tag comfortable to wear. Respondents were also asked whether they had worried about what their friends and family thought about the tag, and only 2 agreed.

The removal survey repeated the questions from the fitting survey about the impact of the tag ('better', 'worse', or 'no impact') on a variety of aspects of respondents' lives. All 11 respondents thought their offending behaviour had improved because of wearing the tag, and, in terms of life in general, 9 of the 11 respondents thought the tag had made it better.

Responses to the other questions are shown in Table 4 below (for comparative purposes, the responses at the point of tag removal are shown in bold, the numbers in parentheses are the responses from the tag fitting survey). Although the small sample size has to be borne in mind, what is noticeable from the table is that the positive outlook identified when the fitting survey was undertaken appears to have been maintained. At tag removal, respondents still tended to

feel the tag had either no impact on the quality of their life or had led to an improvement. In only one area ('ability to socialise') did the number of negative responses (one) outweigh the positive.

Table 4. Tag wearers' perceptions of the impact of wearing the GPS tag

Impact of wearing tag on… n=11 at tag removal	Better		No impact		Worse		N/A	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Life in general	(18)	9	(3)	1	(0)	1	(0)	0
Relationship with family	(10)	6	(9)	5	(1)	0	(1)	0
Relationship with friends	(7)	5	(13)	5	(1)	1	(0)	0
Money/current financial situation	(6)	0	(13)	11	(0)	0	(1)	0
Physical health	(7)	2	(13)	8	(0)	0	(1)	1
Mental well-being	(8)	5	(11)	5	(1)	0	(1)	1
Housing situation	(7)	1	(14)	10	(0)	0	(0)	0
Employment situation	(2)	0	(15)	11	(1)	0	(3)	0
Ability to go out/socialise	(7)	0	(12)	10	(2)	1	(0)	0
Education situation	(2)	0	(15)	11	(1)	0	(3)	0

Respondents were also asked to provide general comments about their experiences of wearing the GPS tag (11 responses were received). Seven people reported the tag had helped them stay out of trouble and away from crime. Four people mentioned the tag had helped them think about or reflect upon their actions, and the same number stated they preferred the Buddi tag to a curfew tag.

"I found the tag surprisingly comfortable to wear. I am glad that I went for wearing the tag because I did not want to go to prison. The tag had an exclusion and wearing the tag has kept me away from the area and made me think about what I get up to. I was conscious probation and police could see where I have been."

Although three respondents stated they would wear the tag again, the same number mentioned the problems they had charging the tag (not the act of charging the tag itself but the organisation/thought required to do so). One respondent suggested that having a charger at probation or drugs service might help in this respect. Other themes mentioned by more than one respondent were that they had tried to cut the tag off (mentioned by two respondents) and that they were conscious the police and probation could see where they were when on the tag (also two).

"Wearing the tag has made me think how I behave and has helped me get into more stable accommodation. I think it's helped me stay away from trouble and I like it better than the curfew tags because I am not restricted in my movements. It felt comfortable wearing the tag and I would wear it again".

"Wearing the tag has stopped me from offending. I have mental health and drug problems and clearly the tag has helped me focus on staying away from trouble, keep my appointments because probation can see what I am doing and places I have been. I am trying to improve my life and the tag has helped me. I would honestly choose to wear it again".

Another respondent stated that wearing the tag for three months was not long enough to change the way people think and suggested he would like to keep the tag on because he felt it was like a 'security blanket'. A further respondent stated that initially he did not think he needed the GPS tag but had subsequently changed his views, and another that he had tried to cut the tag off but did not go through with it because there would be 'a consequence'.

"This tag has prevented me from committing further offences. I tried cutting off the strap to go and do crime but I could not get it off. Because of this it stopped me and has helped me to think about my actions. Best tag I have worn, and I have worn a lot. If I had the choice I would wear it again for longer"

4. Discussion

In the first year of its operation, a total of 73 tags were imposed as part of the GPS tagging pilot. The majority of electronic monitoring requirements (93%) were imposed alongside a rehabilitation requirement – consistent with the intended used of the tags as a package of support, monitoring and punishment. Just over half (56%) of all tag wearers complied with their order. Lack of attendance and failure to charge the tag were the two most common reasons for non-compliance.

Overall, findings from the first 12 months of the pilot show the GPS tagging pilot has been well received by practitioners and tag wearers alike, although the findings are based on small samples. Feedback from the PSR staff suggested the judiciary were generally receptive to recommendations made for tagging requirements, and were happy to adopt these recommendations, although there was a perception that judges' understanding of GPS tagging was better than magistrates'. There was a general feeling that there was scope for greater use of GPS tagging, and for its use with higher risk offenders, but that current staffing levels acted as a barrier to this being realised.

In comparison to the interim evaluation report, it appears there is greater awareness of the GPS tag on the part of offender managers (at least, those that completed the survey), and a willingness to use interest and exclusion zones as part of supervision. As with the first interim report, tag wearers had positive expectations of the tag. They were confident they would successfully complete the tag order and knew what they needed to do to comply. Furthermore, tag wearers thought the tag would have a positive impact on their life and lead to them committing less crime. At tag removal, the majority of tag wearers surveyed thought being on the tag had improved their offending behaviour and had made their life better in general (although, again, the number of respondents was small). However, there were still concerns expressed (from tag wearers and practitioners) about the difficulties caused for this cohort by the requirements to keep the tag charged.

It is clear from the data there are still issues around the identification of suitable individuals to be given the tag, reflected in the levels of lost equipment, and examples of early non-compliance (steps to combat are currently being taken by the implementation team). Other challenges that have emerged are the repercussions arising from the changes to PSR writing policing around making recommendations for SSOs in April 2018, which resulted in a reduction of SSOs with tagging requirements, and a reduction in eligible cases for the crime mapping strand of the pilot (which can only be undertaken on SSO tag wearers). Question marks about the effectiveness of the crime mapping, and whether the identification of crime matches should be analyst-led, as is currently the case, or should be led by IOM priorities and prompts also need to be resolved during the remainder of the pilot. Nevertheless, the overall compliance rate for the scheme (56%), and the positive views expressed by practitioners and service users about their experience with the GPS tag, provides grounds for optimism.

The next evaluation report is scheduled for Summer 2019 following the completion of the pilot's extension. This report will provide updated results for the final GPS cohort, looking at issues

around compliance, as well as reporting back on the experiences of tag wearers, probation and court staff.