



THIS ISSUE

Does the camera really never lie? - The issue with 'classifying' guns from images alone

Meet the Team
- Chris Walsh
Cell Site Analyst

NEW FACES

We welcomed Mark O'Brien and Richard Wilkinson to the Digital Forensics team recently. Find out more about them in our next newsletter, which will be published in May.

Does the camera really never lie? - The issue with 'classifying' guns from images alone

EncroChat handsets emerged in 2016 and allowed subscribers to contact each other using modified smartphones with encrypted messaging services built in. Their security features were popular with organised crime groups for various criminal activities including distribution of drugs, guns, people trafficking and money laundering. EncroChat was eventually exposed by French security who managed to collect a vast amount of data from the phones before it was discovered by the owners and shut down. The recovered data included messages, location information and images, including of alleged firearms and ammunition, and charges were brought against individuals exposed without any firearms or ammunition ever being recovered. This isn't just limited to EncroChat images; we have also seen cases of police officers classifying firearms from other sources, such as videos, Snapchat, WhatsApp and so on.

As such, we have seen a number of cases with potential classifications put forward by the Crown based solely upon images of firearms and their associated text. These were used to help form the basis of serious charges against the defendants. Additionally, the associated text may indicate that the firearm is for sale, however, when some illegal firearms are being sold from anything between £3000 and £10,000 it may not be unreasonable to assume that some of the "sellers", whilst using an anonymous messaging service, are attempting to pass off imitations or non-functioning (broken or deactivated) guns as genuine functional firearms for financial gain.

Section 57(1) of the Firearms Act 1968 defines a 'firearm' as a **lethal barrelled weapon** from which a shot, bullet or other missile, with kinetic energy of more than one joule at the muzzle of the weapon, can be discharged. To satisfy the legislation then, in our opinion, the firearm has to be examined or tested by a suitable forensic services provider. If not, we cannot ever know if a gun in a picture was lethally barrelled or not.

Continued on next page...



We can certainly **speculate** on what their classification **may be** if the weapon is assumed to be a genuine firearm but this is a critical assumption. Without physically and forensically examining each gun, there is no means to be sure it isn't a fake or fraud. The evidential value of any speculative 'classification' based on images must be questioned.

To illustrate the point, the increased popularity of 'airsoft' guns (a form of low powered air gun designed to fire 6mm plastic balls) means that a large number of very realistic replica guns are available to purchase. These are modelled on real designs and frequently made under license meaning that they will have the same branding as the actual guns on which they are modelled. Additionally, many blank firing replicas and air pistols are also modelled on existing guns. For this reason, when looking at an image alone, it is often impossible to determine what kind of weapon you may be looking at, unless specific features, such as a proof mark, are visible. A large number of airsoft and deactivated firearms exist in the UK. For example, look at these four images:

- 1) One of the pistols shown is a genuine lethally-barrelled prohibited Glock pistol.
- 2) One pistol is an airsoft gun and is considered a realistic imitation firearm.
- 3) One a deactivated pistol and is considered a non-realistic imitation firearm.
- 4) One is an air pistol which is a firearm but is normally exempt from certificate control and, in most circumstances, free to possess without license.

What do you think? (Answers on the next page*)

Unless compelling evidence is present in the image, we are of the view that it is simply unsafe and unscientific to attempt to 'classify' a firearm from an image alone, particularly if the person carrying out the 'classification' is not actually experienced in the forensic examination of guns and their classification.

We are happy to provide assistance in cases where this type of issue arises. Please get in touch with David Platt or Alan Henderson.



A



B



C



D

An opportunity to meet the team...

CHRIS WALSH

Cell Site Analyst

How did you become a cell site analyst?

From as early as 2000 I was involved in Digital Forensics, examining computers and mobile phones whilst working for North Wales Police, so I've always had an interest in how technology can assist in criminal investigations. This naturally led me into the role of being a telecoms single point of contact (SPOC) when I worked within a specialist covert unit, following which I used my knowledge of technology and telecoms to assist Senior Officers dealing with serious crimes such as murder and drug supply. Part of those investigations focused on understanding the movement of mobile phones, which led me to undertake specialist training in the area of Cell Site Analysis and carrying out Radio Frequency Propagation Surveys.

What aspects of the job do you find most interesting?

To most people mobile phone call data records are just spreadsheets containing loads of data which they struggle to understand. To me they tell me so much about a person and how they live their lives – where they live, who they regularly contact, where they go, who they potentially meet. Mobile phones are such an integral part of people's daily lives and being able to examine those phone records tells me so much about a person, which I find fascinating.

What are your specialisms?

Having spent 28 years as a police officer, of which 22 were as a Detective in a series of technical and covert roles, I think I bring a unique perspective to understanding how the police conduct investigations and the various tactics (covert and overt) they will have used, as I probably undertook those roles at some point in my career. This means that when I assess the cell site evidence, I can also see the bigger picture and understand how and why the cell site evidence has been incorporated into the investigation.

***Answers: A) 6mm Airsoft pistol B) Genuine 9x19 Glock self-loading pistol
C) CO2 powered .177" air pistol D) Deactivated Glock 19**



@KBCforensics

You can follow Keith Borer Consultants on Twitter for up to date details of CPD training seminars for solicitors and barristers, links to news articles that may be useful to your case and, of course, details of what we do.



CrimeLine CPD Podcasts

If you are a CrimeLine subscriber, you can catch up with the experts at KBC in a series of forensic podcasts. Topics include CBD oil, IP addresses & cloud storage, fingerprints, indecent imagery, DNA, fire investigation and handwriting analysis. Look out for new podcasts being added to the series. You'll find them under CPD.



SERVICES

Alcohol
Anthropology
Arson
Ballistics
Blood patterns
Body fluids
CCTV
Cell site analysis
Chemicals
Computer examination
Crime scene assessment
DNA profiling
Damaged clothing
Drugs
Ecology
Electronic tagging
Explosions
Fibres
Fingerprints
Firearms
Firearms residues
Fires
Footwear marks
Forensic overview
Glass fragments
Hairs
Handwriting
Health & safety
Industrial accidents
Mobile phones
Paint
Personal injury
Physical fits
Road traffic accidents
Tachograph analysis
Toolmarks
Toxicology
Video imaging

CONTACT US

Email: kbc@keithborer.co.uk
Tel: 0191 332 4999

DURHAM OFFICE:

Locard House
Belmont Business Park
Durham DH1 1TW

HUNTINGDON OFFICE:

Tel: 01480 432 794

...and in Scotland:

Tel: 01835 822 511

Please note that we are no longer members of DX