

This is the cached copy of <http://police.homeoffice.gov.uk/operational-policing/technology-equipment/forensic-science/>.

[Jump to navigation](#)

- [Home](#)
- [Operational Policing](#)
- [Technology and Equipment](#)
- Forensic Science

Operational Policing

Forensic Science Team

The Forensic Science Team is continuing its work with the police service to maximise the detection opportunities afforded by forensic science. This update (although not exhaustive) is intended to give basic information on key areas of support.

Review of Early Evidence Kits

Early evidence kits are used following offences of **rape** and sexual assault. These kits contain collection equipment which seeks to ensure that potential forensic evidence is secured from victims before it deteriorates. The early evidence kit for use in sex offence investigations was introduced in 2001. Since then it has been in use in the majority of forces across England and Wales to secure early forensic samples; so vital if we are to increase the numbers of sex offence cases brought to trial.

The Forensic Science Team has recently conducted a review of the effectiveness of early evidence kits in sex offence investigations and the findings have now been published. Several forces have participated in the review that addresses; the availability of the equipment, accessibility, training issues and outcomes in terms of suspects charged following the use of these kits.

SWIM – Scientific Work Improvement Model

In 2004, the Police Standards Unit (PSU) developed a performance improvement work package for maximising the effectiveness and efficiency of forensic processes within police forces. The work package is based on a computer simulation model and was developed in collaboration with the Lanner Group and supported by Association of Chief Police Officers (ACPO). The PSU launched the work package to all UK Police Forces at a conference in November 2004 with the full support of the then ACPO lead on Forensic Science Chief Constable David Coleman and his successor Chief Constable Tony Lake. The launch was used as a platform to demonstrate the real life successes achieved in five pilot forces.

PSU matched funded a national roll out of the work package with each force in England and Wales and 41 forces have now undergone the SWIM process which utilises computer simulation programme. The resource model is intended for police officers and managers who have an obligation to exploit scientific support capability to the fullest. It is specifically designed to:

- Increase the levels of forensic identifications and detections
- Reduce the end to end process time for forensic identifications and detections

- Increase the cost effectiveness of scientific support processes
- Maximise the investigative value derived from forensic science

Operation Advance

In February 2004 Operation Advance was initiated. The project involved the forensic review of undetected serious sexual assaults and rapes from the late eighties and early nineties. Police Standards Unit (PSU) took the groundbreaking (science first) approach for conducting cold case reviews by applying the latest scientific technology to historic forensic samples and submitting the results to the police force concerned.

Working closely with the Forensic Science Service (FSS), PSU identified 215 cases that had DNA crime stains held by the FSS and were believed to be undetected. Of these 148 were scientifically progressed.

Operation Advance II

Following on from the success of Operation Advance the PSU launched the second tranche of work in this area, Operation Advance II, at a national conference in Birmingham on 12th July 2005. Operation Advance II follows the same methodology as Operation Advance but concentrates on the upgrading of samples from serious sexual assaults and rapes (cases that occurred from 1994 onwards) using a more sensitive DNA technique, to try to produce SGM Plus samples suitable for searching against the National DNA Database (NDNAD).

Original laboratory submission forms for relevant cases have been sent to the forces at the concerned, so that the forces can update PSU on the status of these cases.

To date as part of Operation Advance II, 1012 crimes of **rape** and serious sexual assault that occurred between 1994-96 have been sent to the police forces concerned for a decision on whether they are undetected or not. So far 157 have been identified as undetected and suitable for further forensic work. 66 cases have been fully progressed in the laboratory resulting in 22 matches against the NDNAD – 33% success rate (for matches against the NDNAD).

Of these 22 matches we have been informed by various force Senior Investigating Officers (SIOs) that suspects are to be arrested imminently in three cases and in one case an arrest has already taken place for an offence that took place in 1994.

Operation Advance Conference: Rapists – Day of Reckoning

On the 11th and 12th July 2006 the Forensic Science Team held their third annual Operation Advance conference in York. The theme of the conference year was ‘Rapists – the day of reckoning’ and was attended by 150 delegates from England, Wales and Scotland. The two previous Operation Advance conferences have been focused on promoting good practice in the investigation of cold case reviews of rapes and serious sexual assaults. This year – the event was widened to cover more topics that influence **rape** investigation including; victim care, force performance and Her Majesty’s Inspectorate of Constabulary (HMIC) inspection work around **rape** investigation in police forces as well as the traditional cold case reviews.

This annual event is an important milestone used to update colleagues on the further developments and successes of the Operation Advance programme. This year feedback was provided on a number of cases that have been progressed as well as outlining those cases that may be actively pursued, case studies

were included from South Yorkshire Police, Greater Manchester as West Yorkshire.

DAC John Yates – Association of Chief Police Officers (ACPO) lead on Sexual Offences provided the keynote speech putting into context the challenges that lay ahead for the criminal justice system. Joan Ryan MP – provided an videotape introduction to the conference outlining the Home Office commitment to deal effectively with **rape** and serious sexual assault cases.

Delegates attended from the majority of forces in England, Wales and Scotland as well as colleagues from the Forensic Science Service (FSS), Crown Prosecution Service (CPS), Centrex along with representatives from St Mary’s Hospital, Manchester – Sexual Assault Referral Centre (SARC). The Forensic Science Team provided an update on inter-force variance in **rape** attrition – outlining their plans to support the work of HMIC with practical (free) advice and consultancy.

Undoubtedly – the most powerful presentation was that of a victim of **rape** some 13 years ago in West Yorkshire. The victim gave a powerful and emotive presentation outlining her experiences both at the time of the offence as well as the subsequent detection and conviction of the offender. Her case was the subject of a Crimewatch documentary earlier this year.

Whilst the conference content will be independently evaluated some of the early feedback gives an indication of the success of this conference. The comments of three delegates are outlined below:

Detective Chief Superintendent John Parkinson – West Yorkshire Police: “... I have attended all three [previous] conferences. This has, by far, been the most productive and informative to give forces the ‘steer’ needed in cold case investigation”.

Detective Inspector Jeff Arnold – GMP: ‘...In this area of work the PSU have been marvellous. The support and assistance to forces as and when needed has been very helpful as well as being a sounding board for ideas as well as a conduit by which forces can gain help and advice.’

Operation Advance Familial

For 22 of the most suitable Operation Advance samples that produced a full profile but no match against the NDNAD, PSU has provided additional support to apply the very latest in DNA technology. These profiles have been through the familial searching process at the Forensic Intelligence Bureau of the FSS. This new technology enables further intelligence leads to be explored based on searching the NDNAD for parent/child and sibling relationships. All 22 samples have now completed this stage and the possible family intelligence has been reported back to the forces concerned.

Two offenders have now been identified as part of this work:

- One offender has now been charged and is currently awaiting trial
- The second offender, Tahir **Mahmood** was **convicted** of the **rape** of a young **woman** in 1993; **Mahmood received** 7 years imprisonment at Leeds Crown Court on 23/02/06. **Mahmood**, a taxi driver at the time, raped the young **woman** whilst driving her home after a night out.

As of June 2007, the number of convictions for the whole programme stood at twenty-eight.

[Go to navigation](#)

In This Section

- [Head cameras](#)
- [Breath test orders](#)

See Also

- [National Community Safety Plan 2008-11](#)
- [Forensic Science Regulator](#)
- [Review of Criminality Information](#)

Internet links

(Links will open in a new window)

- [The Forensic Science Service](#)

We are not responsible for the content of external websites.

For practitioners

(Links will open in a new window)

- [Crime Reduction](#)
- [Science and Research](#)
- [About us](#)
- [Community Policing](#)
- [Operational Policing](#)
 - [PACE, Powers and Procedures](#)
 - [Crime and Disorder](#)
 - [Road Traffic](#)
 - [Firearms](#)
 - [Bichard Recommendations](#)
 - [Technology and Equipment](#)
 - [Forensic Science](#)
 - [Head Cameras](#)
 - [Breath Test Orders](#)
 - [Extradition](#)
 - [Mutual Legal Assistance](#)
 - [Prosecution manual](#)
 - [Forensic Science Regulator](#)
 - [Review of Criminality Information \(ROCI\)](#)
- [Human Resources](#)
- [Police Reform](#)
- [National Policing Plan](#)
- [Performance & Measurement](#)
- [Finance & Business Planning](#)
- [News & Events](#)
- [Publications](#)
- [Useful Links](#)
- [Cymraeg](#)



Looking for a particular document? Use [advanced search](#) now!

[Go to content](#)

Other Home Office sites

- [Complaints](#)
- [Freedom of information](#)
- [Cymraeg](#)
- [Terms and conditions](#)

[homeoffice.gov.uk](#)

- [Advanced search](#)

[quick search](#)

SEARCH

- [Home](#)
- [A - Z index](#)
- [Accessibility](#)
- [Contact us](#)
- [Site directory](#)
- [Site map](#)

