

The Scientific the Omagh Bombing

From the
OBI Scientific Report 2a - August 2026

1. Introduction

- Moves from the general (Report 1) to the Omagh Bombing (Report 2a)
- Using scanned documents database as main source of information to explore:
- Forensic science strategies – preparedness, in immediate aftermath, and following publication of Police Ombudsman's report
- Against this background considers - in fingerprints, DNA, textile fibres, marks and traces and questioned documents:
 - Which items recovered from scene and elsewhere, and submitted to FSANI
 - What forensic testing carried out on them, and with what results
 - Past and current views of reliability of testing
 - What evidence, if any, uncovered during relevant time period, and
 - To what extent this was capable of identifying specific individuals
- Significant challenges in use of document database, in the various exhibit numbering systems, and multiple methods for recording and reporting results - with potential impacts on accuracy and completeness of scientists' findings

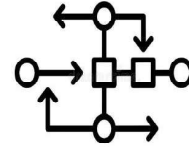


2. Laboratory preparedness

- 1994 ceasefire - scaling back laboratory staffing in Explosion and Fire sections
- 1996 ceasefire failed accompanied by rise in terrorist incidents, with 76 cases in 1998
- Coping with peaks and troughs of work
 - Restricting work to essentials
 - Prioritising cases
 - Drafting in help from other laboratories
- August 1998, 1 explosives scientist on call, but others who could step in
- Also demands on other sections - fingerprints, DNA, textile fibres, marks and chemical traces, and questioned documents

2. Development of forensic strategies

- Strategies are plans for deploying scientific tests e.g. which items/what evidence types/which tests/what test sequence/which laboratories
- Historically informal, relying on experience of Lead Scientist(s) in achieving key objectives
- Reflecting police requests/submissions, crime scene findings, case conferences, informal communications
- 1980s moving from dedicated assistants to assistant pools and dedicated analytical teams – led to more formal examination and testing instructions
- 1990s privatisation and value for money (England & Wales), and improved quality assurance – led to finer focus on activities
- FSANI centrally funded so maybe not affected to same extent? but strategies still in relative infancy in late 1990s
- Eg. not until 2000s, Case Interpretation and Assessment (CAI) model introduced



2. Forensic strategies in Omagh Bombing

In the **immediate aftermath**

- Combined police, and forensic effort - with forensic led by Dennis McAuley
- Locating remains of bomb – searches quickly yielded Mk19 TPU, then
- Physical evidence on bomb remains, bomb vehicle, phone boxes – for links to individuals
- Then links with 3 other bombings featuring same type TPU



RUC Review March 2000, and use of FSS/NCA Advisors

- New forensic strategies – May 2000 (Loxley), October 2000 - actions and opportunities and use of LCN DNA (Davison), December 2001 – fingerprints (Barclay)
- Final RUC report November 2000, followed by closer, more structured police/forensic collaboration – including Davison and Griffin

Following the **Police Ombudsman's report** December 2021

- Added impetus?

3. Forensic testing reflecting strategy

- IED from debris for components and organisation responsible
- Key items eg. bomb car remains, warning call phone boxes for:
 - personal traces from bomb maker/associates – fingerprints, hair and DNA
 - environmental marks and traces – from bomb maker's equipment and environment - textile fibres, tool/manufacturing marks, chemical analysis
- Scope extended to:
 - Other expertise eg. handwriting and inks
 - New technology eg. LCN DNA but recognising contamination risks
 - Links with other incidents (not covered here)
- More detail from individual scientists



Standards

- Casenotes, analytical results and witness statements etc indicated that, in keeping with the time:
 - Investigation strategies in immediate aftermath tended to be informal
 - Large numbers of items examined
 - Appropriate range of tests and techniques deployed
 - Producing good quality results
 - And when scientists clearly under stress
- No critical additional tests identified
- Some comparisons not meaningful or not possible owing to time delays before suspects' items seized eg. tool marks
- Some analyses not suitable because of unwitting contamination risks eg. DNA, or general lack of background data for evaluation eg. glue
- Some results not fully utilised through lack of suspects' data and/or limited database searching eg. fingerprints



Co-operation with other organisations



Recent statements from the original scientists suggest FSANI had limited engagement with other organisations, exceptions being:

- Frequent engagement with RUC about casework - through formal channels although closer connections within fingerprints
- Close ties with FSS around specific expertise eg. fingerprint recovery unit, specialist DNA services and comparison databases
- With WERC, some co-operation relating to trends/patterns in VBIEDs, but closer informal contact re analysis of writing on TPUs
- Limited, formal engagement with military - mostly about scene safety, awareness training and testing/evaluation of IEDs
- Limited engagement with FSI (RoI) - mostly about cross-border cases, sharing specific expertise and, on occasion, analytical services/caseload eg. DNA



9. Questioned Documents

- No evidence of a questioned documents strategy in immediate aftermath of the Bombing – not surprising as focus on the scene, explosives and victim identification
- Limited evidence of co-ordinated examinations involving documents early on, but may have been achieved through informal liaison
- More structured documents search strategy in 2001 – almost certainly reflecting similar developments in other areas resulting from involvement of FSS Advisor, rather than Police Ombudsman's report
- Standard, reliable techniques used – including ESDA and handwriting examination
- Identified links between anonymous documents, but no direct links established between any individual and the Bombing



Overall conclusions

- Focusing on 2 time periods – in immediate aftermath of Bombing, and following publication of Police Ombudsman's Report
- Scientific investigation strategies are very important, and have developed over time – providing background to Dennis McAuley's approach and then involvement of FSS Advisor, John Davison and Lead Scientist, Ruth Griffin
- Re-energising impact of Davison and Griffin with:
 - Additional opportunities identified and explored, or exploited for first time
 - More emphasis on DNA – more samples tested and compared, (and LCN)
 - Potential links with previous bombing incidents - especially 3 identified by McAuley

Overall conclusions.... continued

- Overall, despite significant and clearly stressful lack of resource, large amount of scientific work carried out to good standard during relevant time periods. In particular, McAuley managed the scene examination very well, identifying precise nature of explosive device at early stage and ensuring laboratory work in other disciplines got underway.
- Signs this could have been better co-ordinated/more fully documented but not surprising in the circumstances. While some opportunities may have been missed, and work taken a bit longer, this may not have affected outcome.
- Certainly when scientific investigation extended and enriched under Davison and Griffin, not especially surprising that their 'long shot' efforts failed to result in emergence of robust scientific evidence.

Overall conclusions continued



- Unfortunate that the DNA LCN technique not available from outset, and extent of its use curtailed by retrospective concerns about contamination.
- Also unfortunate, but maybe unavoidable, that items from suspects - eg. sticky tape rolls and tools, not seized and submitted earlier - when comparisons with items from bomb scene still valid
- Unclear why evidence of a potential link – involving blue/green acrylic fibres, between TPU and jumper from home address of two suspects' assumed diminishing importance
- But most significantly, despite good work by RUC fingerprint expert Julie Mallaghan, gaps in reference prints – including the more detailed TACT prints, limited scope of database interrogation and apparent and unusual lack of involvement of MPS Terrorist Fingerprint Hub at SO13, means that full potential of fingerprint evidence unlikely to have been realised