Fingerprint breakthrough hope in US double murder probe

Technique developed by University of Leicester and Northamptonshire police

29.08.2008 - A double murder investigation that has remained unsolved for almost a decade could be provided new impetus following a forensic breakthrough at the University of Leicester. A detective from America is visiting forensic scientists at the University of Leicester and Northamptonshire Police in a bid to shed new light on the investigation.

He will meet with Dr John Bond a forensic research scientist at the University of Leicester and scientific support manager at Northamptonshire Police. Dr Bond and colleagues from the Department of Chemistry at the University of Leicester are investigating a new technique to identify fingerprints on metal casing - including bullets and bombs.

The method enables scientists to 'visualise fingerprints' even after the print itself has been removed. They conducted a study into the way fingerprints can corrode metal surfaces. The technique can enhance – after firing – a fingerprint that has been deposited on a small calibre metal cartridge case before it is fired.

Detective Christopher King, of Kingsland Police Department, Georgia, is the lead investigator working on a 'cold case' - a double homicide - which has gone unsolved for a number of years. Detective King was given the task of reviewing the previous investigators file to bring a "fresh" prospective and new ideas to the case.

Detective King said: "In December 2007 I was offered the position of Investigator to focus on an unsolved double homicide from 1999. The suspect(s) in this case entered a downtown business in the early afternoon on 12/01/1999, shot and killed the two employees and stole a small amount of cash. Four fired shell casings ejected from the suspect's pistol were recovered at the scene and have been processed for latent fingerprints using traditional methods of dusting and fuming with negative results.

“Our Chief of Police, Darryl Griffis, read an internet article about Dr Bond's work at the University of Leicester and Northamptonshire Police in developing latent prints on fired casings and it was decided that we should attempt to have our casings tested. We checked with several of the larger crime labs and learned that everyone was interested in the process, but none were ready to try it out. We contacted Dr Bond and were invited to bring the evidence to Northampton for processing in the hope that that, with the Leicester process, a latent fingerprint might be located on the actual casing(s) itself which would help to bring more evidence against a possible suspect. While we understand that there is no guarantee of positive results, every possibility must be ex-
plored to bring the suspects to justice and closure to the victims’ families.”

Dr Bond said: “We are hopeful that we may be able to assist colleagues in the Kingsland Police Department, Georgia with the techniques we have developed recently. We have already had some success at enhancing partial fingerprints on shell casings for other police forces where the cases were some years old and conventional fingerprinting techniques had been tried and failed”.