

NIST Standards on Livescan

Note: The views expressed in this editorial are those of the authors, and do not necessarily reflect the opinion or position of the Internal Revenue Service.

Many latent print examiners are probably not aware of the travesty which is taking place within the field of latent print identification. The subject has received some, albeit minimal, coverage in the *Journal of Forensic Identification*, and has been somewhat discussed at IAI conferences and meetings. The topic is the fingerprint image standards being set by the National Institute of Standards and Technology. There have been a total of four official meetings held by NIST in the Washington, D.C. area. Although these meetings have been open to all concerned individuals, they have all been dominated by vendors and ten print/record managers who, from the onset, have been opposed to the latent print viewpoints concerning high image quality.

For those individuals who have read but not responded to, or understood, the information presented in this journal, and for those who are not even aware of what is occurring, we would like to enlighten you.

The government of the United States is about to establish standards which will directly affect the science of fingerprint identification for years to come. These standards will dictate the methods in which fingerprints are to be recorded electronically (livescan), compressed, transmitted, exchanged, stored, and decompressed for all AFIS. These methods will, in turn, directly affect the quality of the electronic fingerprint image that will be retained as part of a master fingerprint file, whether at the local, state or federal level. *At issue is doing away with inked fingerprint cards and relying solely upon electronically stored fingerprint images. Inextricably associated with such a scheme are the standards for those images and the future of fingerprint identification as we know it.*

You might assume that the law enforcement agencies involved, and certainly the IAI, would adequately represent the field of fingerprint identification, and therefore would strive for the highest possible qual-

ity standards. This has not been so. The IAI did not even have a representative at the fourth and final meeting of the NIST workshops for the Interchange of Fingerprint Information. At the three previous meetings representatives from the IAI did hold discussion groups and did present their dissenting views, but this was ineffective.

Those attending the NIST workshops were not representatives of working fingerprint professionals. The majority of the state and local agencies involved sent administrators, ten print managers, records manager or AFIS managers, who largely spoke against high image quality in general, and latent print requirements specifically. Federal representatives were mainly computer personnel, or other similar managers. Very few latent print or ten print examiners were involved, let alone allowed to vote.

NIST is not without fault. Whenever national standards are being established, NIST sources admitted that they often hold meetings at different locations throughout the country so as to involve as many people and varying points of view as possible. For this particular standard, they elected to hold all four meetings in the Washington, D.C. area. While examiner attendance was sparse, vendor and manager attendance was plentiful. Obviously vendors were content with offering the least expensive alternatives. Records managers were satisfied with needing the least costly expenditure to provide minimum requirements for AFIS ten print searches.

The original AFIS concept was to have the ability to identify latent prints from scenes of crimes via cold searching against a computerized master file. The FBI concept was initially geared toward storing ten print records as a part of criminal history information. As more and more people without fingerprint skills became involved, however, the AFIS idea evolved into its current convoluted form, a ten print filing and searching system with some latent print capability. The real problem with this is the result that some departments are now discarding or disregarding latent prints from crime scenes if they are not of AFIS quality. (*Quo vadis, AFIS?*)

The gradual shift in assessing fingerprint quality and value according to the least expensive, minimum ten print needs is further compounded by the new standard unfairly pushed through NIST. The fingerprint images that will be recorded, transmitted, compressed and stored under this standard likely will not contain adequate pore information, incipient ridge data, and other fine details, nor will the ridge

edges be of sufficient accuracy for the identification of some partial latent fingerprints. The concept of ridgeology will be severely thwarted or destroyed. Latent fingerprints failing to meet AFIS quality requirements will not be identified. Master file prints may reveal less detail than second or third generation photocopies, images that today are often considered unacceptable for comparison purposes. Any single factor, or combination of these factors, can only result in fewer latent prints identified and fewer crimes solved.

Many individuals, agencies and groups, including the IAI, failed to speak adequately or effectively for acceptable standards. Some were not informed or didn't want to get involved, while others were misled or intimidated. Privately, many examiners from aH government levels have voiced objections to the standard as it is written, but most have been silenced by internal politics. But it may not be too late.

The IAI can instruct its legal counsel to look into the possibility of filing suit to block the standard from taking effect. NIST might be persuaded to hold impartial meetings around the country so that more latent examiners can attend, thereby balancing the economic priorities of vendors and records managers with adequate expression of the need to establish sufficient image quality standards. Prosecutors and courts can be consulted to determine if images with indistinct pores, loss of incipient detail, inadequate ridge edge sharpness, and minutiae misrepresentation (artifacts) truly conform to the legal concept of fingerprint identification and satisfy the basic tenets of "best evidence". Second or third rate master record images may be more economical, but still will only be second or third rate records.

If you are concerned, call NIST (301-975-2915/Dana Grubb or Mike McCabe). Call your records or AFIS manager. Call your chief. If all e'lse fails, call your congressman. If nothing is done now, and the NIST standards take effect, there will be the day when you cannot identify a latent print due to the poor quality of the record fingerprint image, and you will have no one to blame but yourself.

William J. Watling

Tankard G. Evans

Internal Revenue Service