

International Association for Identification



AFIS Committee Minutes

The International Association for Identification (IAI) AFIS Committee convened in Milwaukee, WI, on 13 July 1999 for a business meeting. The AFIS Committee Chair, Peter Higgins, took roll and presented the agenda for the meeting. These minutes reflect the key discussions and decisions from the meeting.

1 Committee Meeting Agenda

Role call and introduction of participants

Review of Agenda:

- Review of minutes from last meeting to see if we should follow up on any topics.
- A discussion of the provisions for latents & palms (and any other part of the standard) in the revised DRAFTANSI NIST Standard and non-forensic standards.
- A discussion of how many sites have implemented the FBI EFTS V6.2 or 7.0 and have they actually used it operationally.
- Report on West Coast demos of the FBI Advanced Technology Unit's (ATU) Latent Encoding Workstation.
- Report on the ATU's Latent Encoding Workstation.
- Report on EFTS updates (current and planned).
- Report on RFES.
- A project for 1999-2000 – still looking for ideas.
- Status reports on our 6 sessions.
- The Bill Whyte Fund.

New Business

- Discussion of next committee meeting to include location, purpose, etc. If the next meeting is in January, which day and which Coast are best for members?
- Review of Committee Charter and membership.
- Other topics as proposed at the meeting.

Review of Action Items

- Action items assigned at the meeting

Motion to Adjourn

2 Roll Call

The meeting was called to order at 8:30 and the roll was taken. Twenty-one people attended the meeting.

Name	Organization	Phone	e-mail
Higgins, Peter <i>Committee Chair</i>	HAI	202-625-7780	PeterHAI@aol.com
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Burzinski, John	NEC	847-590-8494	jburzinski@nectech.com
Eaton, Wayne	Sagem-Morpho	253-597-8242	Waynee@morpho.com
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Kiji, Kazuo	NEC	81-3-3769-9461	Kiji@fas.nes.nec.co.jp
Komarinski, Peter	NY State DCJS	518-485-7670	Komarins@dcjs.state.ny.us
Lesko, Mike	Texas DPS	512-424-4524	Mike.lesko@txdps.state.tx.us
McCabe, Mike	NIST	301-975-2932	Mccabe@nist.gov
McNeil, Glen	Sagem-Morpho	253-591-8849	Gmneil@morpho.com
Mungovan, Rob	Aware	781-276-4000	Rob@aware.com
Oby, Douglas	Printrak	703-503-5644	Doby@printrak.com
Reynolds, Rich	DBA Systems	407-727-0660	Rreynolds@titan.dba.com
Rushing, Mark	Lockheed-Martin	407-306-1388	Mark.rushing@lmco.com
Schmidt, Gerald	Cogent	626-799-8090	Info@cogentsystems.com
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Wilkie, Larry	NCSBI	919-662-4500	Wilkie@mail.jus.state.nc.us

3 Miscellaneous New Business

The Committee Chair started the meeting with a brief report on several ad-hoc items.

- Steve Meagher was still in Philadelphia at the Daubert hearing and was not likely to show up in time for his presentation on AFIS Testing. Tom Hopper had a conflict and would be unable to participate in the Committee meeting.
- The incoming President of the IAI asked him to continue to chair the Committee. Higgins reported that he and Ken Moses agreed to co-chair the committee for the next year. It was learned later that the IAI calendar year for officers and committees has been changed to start at the end of the Annual Conference rather than on January 1st. The IAI Calendar Year will now be a conference-to-conference year but the membership dues and directory will remain on a calendar year (i.e., January through December) basis.

The incoming IAI President, Ann Punter, addressed the Committee briefly. She thanked the members for their hard work and pointed out that this is one of the most active committees in the IAI.

4 Business Session

4.1 Discussion of the DRAFT ANSI NIST Standard Update

Mike McCabe reported on the DRAFT update and made copies available to the participants. A long discussion followed. Frederic Biarnes of Sagem-Morpho raised an important point – that the new standard proposed *stitching* partial palm images together. It was agreed that there was an ambiguity in the DRAFT language that had to be addressed.

No one wanted the partial images fitted together as that could cause portions of the image to be garbled without expert examiner quality assurance at time of capture. Since this was seen as unreasonable the Committee worked on new language for that section of the DRAFT standard. After the meeting Mike McCabe rewrote the appropriate section of the DRAFT standard and then Mike worked with Co-chair Moses to finalize the change. The proposed language is presented below.

Modify Section 22 to read:

22 Type-15 Very High-Resolution Palm Print Image Record

The Type-15 tagged-field logical record shall contain and be used to exchange binary or grayscale palmprint image data together with textual information pertinent to the digitized image. Textual information regarding the scanning resolution used, the image size and other parameters or comments required to process the image are recorded as tagged-fields within the record. Palmprint images transmitted to other agencies will be processed by the recipient agencies to extract the desired feature information required for matching purposes.

The image data shall be acquired directly from a subject using a high-resolution live-scan device, or from a palmprint card or other media using a very-high-resolution scanner for capturing the subject's full and writer's palms. There is no specific scanning resolution mandated, but it must be at least as great as the minimum scanning resolution, that is, 19.69 ppm (500 ppi). The greater the resolution, the more detailed ridge and structure image information available. Obviously, use of higher scanning resolutions assumes that the recipient agency can accept and process the transmitted image data.

Either method used to acquire the images shall be capable of capturing the writer's palm as a single scanned image, and the entire area of the full palm extending from the wrist bracelet to the tips of the fingers as one or two scanned images. If two images are used to represent the full palm, the lower image shall extend from the wrist bracelet to the top of the interdigital area (third finger joint) and shall include the thenar and hypothenar areas of the palm. The upper image shall extend from the bottom of the interdigital area to the upper tips of the fingers. This provides an adequate amount of overlap between the two images centered over the interdigital area of the palm. By matching the ridge structure and details contained in this common area, an examiner can confidently state that both images came from the same palm.

As a palmprint transaction may be used for different purposes, it may contain one or more unique image areas recorded from the palm or hand. Although not mandatory, a complete palmprint record set for one individual will normally include the writer's palm and the full palm image(s) from each hand. Since a tagged-field logical image record may contain only one binary field, a single Type-15 record will be required for each writer's palm and one or two Type-15 records for each full palm. Therefore, a total of six Type-15 records will be required to represent all of a subject's palmprint images (assuming upper and lower palm images are present for each hand) for the normal palmprint transaction. The full palm print shall represent an area with maximum dimensions of 13.97 cm x 20.32 cm (5.5" x 8"). The maximum dimensions for the area containing the writer's palm shall be 4.45 cm x 12.70 cm (1.75" x 5").

4.1.1 22.1.13 Field 15.013 Palmprint Position (FGP)

This mandatory tagged-field shall contain the palmprint position that matches the palmprint image. The decimal code number corresponding to the known or most probable palmprint position shall be taken from Table 19 and entered as an ASCII subfield. Table 19 also lists the maximum image area that can be transmitted for each of the palmprint positions. Left and right, upper and lower palm positions describe the two images of the full palm. The "Left-Other" and "Right-Other" entries are used for recorded portions of the palm and hand described in the "COM" field. Palmprint reference positions may be used in the position field by entering the alternate palm positions as subfields separated by the "RS" character.

Table 19 – Palm Position Code & Maximum Size

4.1.1.1.1 4.1.1.1.2 Palm Position	4.1.1.2 4.1.1.3 Code	Maximum Image area mm ²
Unknown	0	28387
Right Full Palm	1	28387
Right Writer's Palm	2	5645
Left Full Palm	3	28387
Left Writer's Palm	4	5645
Right Lower Palm	5	19516
Right Upper Palm	6	19516
Left Lower Palm	7	19516
Left Upper Palm	8	19516
Left – Other	9	28387
Right – Other	10	28387

4.2 Report on RFES

The Remote Fingerprint Extraction Software (RFES) workstation is being developed by Lockheed-Martin (L-M) as part of their FBI AFIS contract. It will be given to the States to

permit them to generate remote latent searches of IAFIS based on minutiae. Mark Rushing, L-M, reported that five states are testing Beta releases of the RFES workstation software. The production version will be available on 1 September this year and it will run on Windows NT®.

4.3 A Committee Project for 1999-2000

The vendors agreed that the experience of providing their fingerprint encoding algorithms to Hopper and the ATU has given them the motivation to exchange them among themselves. While they are very interested in Hopper's software they would now like to explore direct exchanges and testing the resultant implementations. The vendors asked the Committee to consider doing this as a major project over the next year. This testing would be different from that being performed on the West Coast by the ATU of their Latent Encoding Workstation. In that case the interoperability of ATU software with various AFIS systems is being tested. In the proposed activity the vendors would write their own code or expand on the Hopper code and then test that code with one another's systems as well as with the FBI's IASIS system.

It was noted that the Committee provided a place where the companies could exchange algorithms and test data while getting expert advice on useful test and demonstration scenarios. The Committee Chair promised to work with the vendors on this approach and see if the Committee members could provide the neutral setting, vision and support necessary to continue this evolution of interoperability.

4.4 The Bill Whyte Fund

The Chair reiterated that the Committee had been asked to propose ideas for the funds that might be available for creative use in the memory of Bill Whyte of the Royal Canadian Mounted Police. Bill passed away in Little Rock from a heart attack suffered while he was at the 1998 IAI Annual Training Conference.

The Chair pointed out that there were legal and accounting issues but encouraged the members to be creative. The participants expressed a strong interest in establishing several awards with cash stipends to be awarded each year at the Annual Conference. The consensus was:

- Up to four awards would be made per year.
- The stipend should be a \$500 Canadian Savings Bond per award.
- Award categories would be for Law Enforcement and Forensic use of AFIS technology such as:
 - Best AFIS management practices
 - Leadership in AFIS Interoperability
 - Major AFIS-based case solved
 - Creative crime prevention use of an AFIS system
 - Creative forensic use of AFIS technology
 - Outstanding paper or article on AFIS applications or technology.
- Nominations could be submitted by individual IAI members as well as by the AFIS Vendor user groups.
- Nominations can be submitted electronically or by mail but must be submitted no later than midnight of the last day of April each year.

- Awardees will be selected by the members of the AFIS Committee (if there is no RCMP Committee member in a given year then a senior RCMP IAI member will be participate in the review instead.)
- Corporate participants of the AFIS Committee agreed to consider an annual contribution of \$250 (US) each to keep the fund alive.

The Chair took an action to work with Helen Whyte and the incoming leadership of the IAI to make this Award Program happen.

4.5 Next Meeting

There was continued interest in having a mid-term committee meeting. The consensus was that the San Francisco site was a good choice. It was suggested that we should not plan on meeting too early in January in case the Y2K problem impacted travel or other critical infrastructures.

On Thursday morning the deadline dates for the July 2000 IAI conference were outlined for the Committee Chairs at a breakfast meeting. Higgins & Moses attended that meeting. A fully completed Call for Papers form must be submitted by January 21, 2000. Therefore, the Committee will have to pick a date slightly earlier than 21 January to meet the deadline. The only date available prior to the 21st is the 13th and 14th of January 2000. The meeting will be at the Chancellor Hotel in San Francisco. Details are to follow.

5 Availability of AFIS Directory

The current edition of the Worldwide Directory of AFIS Users has been completed by the Committee and is available for \$25 (US) through the IAI Secretary. This is a wonderful resource for all law enforcement agencies. Special thanks go to Ken Moses and the others who volunteered their time to pull this information together.

6 Questions

Any questions about the committee or these minutes can be addressed to Peter Higgins or Ken Moses – see Section 2 for their phone and e-mail information. Minutes from prior meetings can be found in the IAI Journal of Forensic Identification or on the IAI web site, www.theiai.org.