

# **FINGERPRINT TRAINING**



**MICHIGAN STATE POLICE  
CRIMINAL JUSTICE INFORMATION CENTER  
Identification Section**

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**This training provided by the  
MICHIGAN DEPARTMENT OF STATE POLICE  
Criminal Justice Information Center  
Identification Unit  
(517) 322-1957**

## Section 1

### IMPORTANCE OF FINGERPRINTS

Each year in Michigan there are more than 100,000 felony arrests, as much as 25 percent of those taken into custody try to conceal their real identity. Identification by means of fingerprints is one of the most important factors in physical evidence and in apprehending criminals who might otherwise escape detection and identification. Fingerprints and palm prints that are on file have also been used to identify unknown dead and amnesia victims.

Of all the methods of identification, fingerprinting alone has proven to be the most reliable. To date, the fingerprints of no two individuals have been found to be identical. Therefore, by correctly recording the patterns that make up an individual's unique fingerprints and palm prints, you will continue to strengthen a system of identification that has proven to be a valuable tool for the law enforcement community.

Obtaining a complete set of acceptable prints and accurately completing the print card information is a task that will be presented to you as a law enforcement officer on a regular basis throughout your career. It is critical that you know the proper techniques for taking acceptable fingerprints.

**The art of taking good, clear impressions is not difficult; it is a matter of knowing what constitutes a fingerprint, exercising a reasonable amount of care, and using appropriate equipment and keeping it clean.**

### PRACTICE IS ESSENTIAL IN PRODUCING GOOD PRINTS!

It has been held in various court decisions that taking a person's fingerprints does not violate his/or her constitutional rights under the Fifth Amendment regarding self-incrimination. Fingerprints are not testimony but physical evidence. It has been held that society has the right to protect itself by identifying criminals.

Force should be avoided when an arrested subject resists fingerprinting. If an arrestee refuses to cooperate, the subject will have to remain incarcerated until a court order is obtained. Refusing to comply with the court order will result in a contempt of court charge.

If you do not take an acceptable print and it is returned to you after the suspect has been released from custody, the subject does not have to submit to reprinting. **MAKE SURE YOU TAKE ACCEPTABLE PRINTS BEFORE THE SUBJECT IS RELEASED.**

## SECTION 2

### CLASS OBJECTIVES

At the end of this class you will be able to:

1. Demonstrate the proper procedures in obtaining acceptable fingerprints and techniques used in completing a fingerprint card.
  - a) Clean the fingerprint slab and roller.
  - b) Properly ink the print slab.
  - c) Properly prepare and position the subject to be printed.
  - d) Obtain rolled fingerprints.
  - e) Obtain plain (flat) fingerprints.
  - f) Evaluate the quality of fingerprints according to the following criteria:
    - 1) Distinctiveness, darkness, amount of ink used, whether the fingers were completely rolled, whether the first joint shows, and whether the prints were placed on the card in the proper spaces.
    - 2) Complete the information required for a Criminal Fingerprint card and/or Applicant Personal Identification Fingerprint card.
2. Demonstrate the proper procedures and techniques used in obtaining a complete palm print, including **hypothenar** (little finger side), rolled thumbprint, and completion of the subject information section.
3. List the proper procedures for fingerprinting and completing fingerprint cards for abnormal cases; i.e., amputated fingers, cut fingers, bandaged fingers, severely crippled fingers, temporary disabilities, permanent disabilities, and uncooperative subjects.
4. The student will be expected to prepare and hand in at least one completed and acceptable fingerprint and palm card to the instructor. (Objectives 1 and 2.)
5. The student will have a basic understanding of the Automated Fingerprint Identification System (AFIS) and how it relates to taking good fingerprints.

The techniques and procedures presented in this module are only a representative example of common techniques that can be used in taking finger and palm prints. Your department will be able to assist you in becoming familiar with their equipment and fingerprinting procedures. HOWEVER ALL TESTS WILL BE BASED UPON THE CLASS OBJECTIVES.

## SECTION 3

### **MATERIALS AND EQUIPMENT**

The following equipment is used to take rolled and plain fingerprints:

1. A table top, stand, or working surface approximately 40 inches high. The inking surface should be at a sufficient height to place the subject's forearm in a horizontal position when the fingers are being inked.
2. A cardholder for standard fingerprint cards.
3. An inking plate made from either metal or glass.
4. A rubber roller (used to spread the ink thinly and evenly on the plate).
5. Standard 8" x 8" fingerprint cards.
6. Cleaner (BABY WIPES work great) and towels to remove the ink from the fingers of the subject being fingerprinted and from the equipment.
7. Black fingerprint ink. This ink dries quickly on the card and reduces smudging. Ordinary writing inks, colored inks, or stamp pad inks are poor mediums to use because they are too light or too thin and take too long to dry. Some agencies are using an, FBI approved inkless printing system. This system, **when used according to manufacturer's instructions**, will produce acceptable prints.

A product called ***PERFECT INK***, produced by Identicator, is an acceptable alternative to rolled out fingerprint ink. This product is a porcelain pad with ink; the ink comes to the surface allowing for even consistent fingerprinting. This pad lasts for up to 15,000 fingerprints. Ink dries instantly on the card, so there is no smudging, but cleans up with just dry paper towel.

Other commercial fingerprinting inkpads (resembling an office stamp pad) are not recommended for use on fingerprint cards.

## SECTION 4

### **PRECAUTIONS TO BE OBSERVED**

When printing a suspect, you should take into account several safety factors:

- 1) Remove your firearm and any other object that could be used as a weapon and secure it out of the reach of any unauthorized person.
- 2) Check for any other material lying in the vicinity that could possibly be used as a weapon by the suspect.
- 3) It is also advisable to have another officer in the vicinity if you anticipate that the suspect may become hostile.
- 4) Be aware of switches in fingerprint cards between subjects when you are processing more than one suspect. To eliminate this from happening, first obtain a good set of fingerprints and have the subject sign the card; then complete the information blocks for that subject.

## SECTION 5

### **PREPARING TO PRINT**

#### **EQUIPMENT PREPARATION**

- 1) Inspect the print slab and ink roller; if needed, remove foreign material with cleaning solvent (baby wipes work) and dry thoroughly with clean paper toweling. Dirt left on equipment will be transferred to the prints making them unusable.
- 2) Place 2 **SMALL** dabs of fingerprint ink on the back portion of the inking slab. on the equipment will be transformed to the prints making them unusable.
- 3) Place the roller in the ink, roll to pick up ink, and apply the ink to the front portion of the slab. Use the roller to spread the ink **thinly** and **uniformly**, lifting the roller at the end of each stroke, until the ink appears a light gray color. Overinking is one of the most common and easily corrected problems involved with the taking of fingerprints.
- 4) Place the appropriate fingerprint card (Criminal or Applicant) in the cardholder so that the spaces for the right hand are centered in the holder and the wording for the blocks are even with metal portion of the cardholder.

#### **READY TO PRINT THE SUBJECT**

- 1) Inspect the subject's hands.
  - a) If the subject wears jewelry and you feel it may interfere with the printing process, ask the subject to remove these items.
  - b) If the hands are dirty or if perspiration is present, have the subject wash and thoroughly dry their hands. Baby wipes work well for this process.
  - c) If the hands are dry, have the subject rub a **small** amount of hand lotion on their hands. Another thing that works well is **PREPRINT** by Identicator.
  - d) If the hands are sweaty even after washing, you can have the subject use either rubbing alcohol or fingernail polish remover on a cotton pad to help dry out the fingertips.
- 2) The subject should stand in a relaxed position in front of, and a forearm's length from the printing table.
- 3) Advise the subject to relax and to refrain from attempting to assist you. It will be helpful to have the subject look at some distant object and not their hands.





## SECTION 6

### **ROLLING THE FINGERS**

One of the primary secrets to the success of making a good fingerprint rests on the control you have on the subject's hand and fingers.

- A) With the thumb and index finger of your right hand, grip the subject's digit below the second joint. With the thumb and index finger of left hand, reach across and grasp the subject's digit at the end of the nail. Use the other fingers of your hand to control movement of the subject's hand.
- B) Place the subject's digit on the inking plate. Roll the digit from nail edge to nail edge. The thumbs are rolled in or toward the subject's body and the fingers are rolled out or away from the body.
- C) Make sure that the digit is evenly inked and that the ink extends approximately 1/4" below the first joint.
- D) Examine the ink slab for evidence of a smear. If a smear is found, clean finger and reroll on an unused portion of the slab. **DO NOT ROLL SUBSEQUENT FINGERS ONTO AREAS OF THE GLASS WHERE PREVIOUS FINGERS WERE ROLLED, UNLESS INK HAS BEEN REROLLED OR INK HAS BEEN ADDED.**
- E) The inked digit is then rolled onto the fingerprint card, in the appropriate box, in exactly the same manner as it was inked, lining up the cuticle of the finger with the horizontal lines in the block, this will result in the fingers being centered within the block.

**BE SURE THE DIGIT IS CENTERED AND PERPENDICULAR IN THE BOX!!!!!!**

Follow the same procedure for all 10 rolled impressions.

The correct amount of pressure to be exerted in inking and recording rolled impressions is determined largely through practice and experience. If too much pressure is applied, the prints will be smudged. Conversely, if too little pressure is used, the prints will be too faint.

## **USE OF RETABS**

Evaluate each print as they are taken. Waiting until the entire card is done may cost you considerable time and effort. If a print appears incorrect (smudged, too faint, not centered) use of a block tab is allowed. These are white stickers (see below) that are the same size as a fingerprint box. The FBI has established the following guidelines for using tabs:

- 1) A reprint tab placed on a fingerprint card must be restricted to within the individual finger block so that it does not interfere with the adjacent block.
- 2) Fingerprint cards having no more than two individual fingerprint impressions covered with the FBI approved reprint tabs will be processed.
- 3) Any fingerprint card having 3 or more individual fingerprint impressions covered with a reprint tab or two or more tabs in any single block will be rejected and returned without being processed.

The Michigan State Police, Criminal Justice Information Center has acknowledged and accepted the FBI Guidelines.

## SECTION 7

### **PLAIN IMPRESSIONS**

To complete the fingerprinting process, you will need to obtain plain impressions from the subject:

- A) Align the fingerprint card so that the spaces provided for the plain impressions are centered in the cardholder.
- B) Reroll the ink on the slab, adding more if needed.
- C) With your right hand, grasp the subject's hand across the top, having him/her extend and join together all four fingers. If subject has very large hands, you may grasp the first three fingers, instead of all four fingers. Press their fingers down on the inking plate without rolling.
- D) Lift the three or four inked fingers from the slab and place them in the proper area on the fingerprint card. **DO NOT ROLL!!** It may be necessary to turn the subject's hand on a slight angle to fit all impressions in the box. If you did only the first three fingers it will be necessary to ink the little finger, and place it next to and lower than the ring finger. Repeat this process with the subject's other hand.
- E) Next, grasp the subject's thumb and place it directly on the inking plate without rolling. Place the inked thumb in the proper box on the fingerprint card. Record subject's other thumb in the proper location.
- F) When all impressions have been taken, remove the card from its holder and check the prints for clarity and sequence.

## SECTION 8

### **SPECIAL SITUATIONS**

Occasionally you may be unable to take a complete set of fingerprints of a subject due to either a permanent condition such as an amputation, digit missing at birth, or a temporary condition such as a cut, skin condition, or broken finger. In all cases, the corresponding finger box should be marked with reason why there are no fingerprints and a notation made in the Marks, Scars, Amps, Tattoos, etc. box (which is on the information side of the print card) explaining the absence of the impression(s).

Individuals with crippled hands may be printed using special equipment such as a spoon or curved holder. Check your department for the specific equipment available.

Persons of advanced age, females, children or persons in certain occupations may have very fine ridge structure. To obtain usable prints from these individuals, use a very small amount of ink on the slab and very slight pressure when rolling the fingers.

## SECTION 9

### **COMMON PROBLEMS AND POSSIBLE CORRECTIONS**

Improper prints have many causes. A well-trained person can identify the cause of an unacceptable print and take corrective action. The following are examples of many common fingerprinting errors, possible causes, and possible solutions to correct them.

If a print card having improper impressions is received by State Police, Criminal Justice Information Center, a copy of the card will be returned to the contributing agency with a form letter attached stating the reason(s) why the fingerprints are not usable on AFIS.





## SECTION 10

### **PALM PRINTING**

Palm printing requires the same equipment as fingerprinting with the addition of palm print cards and a palm print roller or a stack of newspapers.

- A) Prepare the ink slab and hands as you would for taking rolled finger impressions. Ink the roller by rolling it over the prepared slab, then over the entire palm and palm side of the fingers. Be sure to cover the area completely and evenly.
  
- B) When printing the subject's right hand, the subject is placed on the person taking the prints left and the person grasps the subject's hand at the wrist with his/her left hand. The subject's fingers are controlled by the person's right hand.
  - 1) The subject's fingers should be together.
  - 2) Place the tips of the fingers on the roller at the top of the proper side of the palm card. If using a stack of newspapers, place the palm card flat on the stack and place the subject's hand flat on the card and apply pressure to whole hand.
  - 3) Push the subject's hand away from you while applying pressure against the subject's hand to ensure that all ridge structure is recorded.
  - 4) Continue pushing until the heel of the subject's hand clears the roller.
  - 5) Lift the subject's hand straight up.
  - 6) Repeat the process for the other hand on the reverse side of the palm card.
  
- C) After rolling the palms, ink the *hypothenar* or little finger side of the hand. Set the subject's hand on the palm card, hypothenar side down, and roll slightly toward a hands down position.
  
- D) The last print which needs to be put on the palm card is a rolled thumbprint from the hand the palm print was recorded from.

The preferred locations for the palm print, hypothenar, and rolled thumbprint are shown on the palm card illustration (next page).

When the printing is completed on the palm card, complete the information portions of the card.







## SECTION 11

### **RI-7 COMPLETION**

Once the printing process is correctly completed, it will be necessary for the officer to complete the informational portion of the card. The following instructions should be helpful in such completion. ***PLEASE USE TYPEWRITER ON SECTIONS D-F!***

#### **Section A**

Boxes 1-4 ask for information regarding the printed subject:

1) **NAME AT ARREST** (Last, First, Middle)

It's important to spell the names correctly and to obtain the full middle name, if possible.

2) **DATE OF BIRTH**

This must be shown as a 6-digit number: first 2 digits are the month, second 2 digits are the day, last 2 digits are the last 2 numbers in the year.

EXAMPLE: 01-30-89

3) **RACE**

Given as: I - American Indian or Alaskan Native - a person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliations or community recognition.

A - Asian or Pacific Islander (Far East, Southeast Asia, the Indian sub-continent, of the Pacific Islands, Vietnam, Philippines, Bangladesh)

B - Black

W - White - a person having origins in any of the original peoples of Europe, North Africa, or the Middle East. Also Latinos and Mexicans.

U - Unknown

4) **SEX**

Given as: M - Male      F - Female

U - Unknown, for individual's having a sex change operation, or individuals of questionable sex (Female Impersonator).

## Section B

Boxes 5-9 are to be completed by the person taking the prints.

- 5) **IMPRESSIONS TAKEN BY:** (Signature)
- 6) **BADGE NO.:**  
If a sworn officer, include the badge no.
- 7) **DATE PRINTED:**  
Could be different than the Date of Arrest.
- 8) **REVIEWED BY:**  
This is the name of the supervisor or person approving quality of print impressions, and completion of RI-7.
- 9) **AGENCY:**  
The name of the agency taking the impressions.

Boxes 10-14 are to be completed by the person that was printed.

- 10) **SIGNATURE OF PERSON PRINTED:** (in own writing)  
The complete name is to be entered.
- 11) **ADDRESS:**  
Current building number and street address where the subject is residing.
- 12) **CITY:** Current city in which subject resides.
- 13) **STATE:** Current state in which subject resides.
- 14) **ZIP CODE:** Number for area in which subject resides.

If person refuses to complete these boxes the officer should write REFUSED across the box.

## Section C

This is the area for the fingerprints. **PLEASE BE SURE THE ROLLED IMPRESSIONS ARE CENTERED AND PERPENDICULAR IN THE BOXES!!!!**



## Section D

Boxes 15 -27 and 50 to be filled in by officer taking impressions.

15) **NAME AT ARREST:** (Last, First, Middle)

Use the same name as entered in Box A-1.

16) **DATE OF BIRTH:**

Use the same DOB as entered in Box A-2.

17) **RACE:**

Use the same as entered in Box A-3.

18) **SEX:**

Use the same as entered in Box A-4.

19) **HEIGHT:**

Given in feet and inches as 3 digits.

Example: 603 or 510

20) **WEIGHT:**

Given in 3 digits.

Example: 090 lbs. or 150 lbs.

21) **HAIR:**

Given as: AUB - Auburn

BLK - Black      BLN - Blond

BRO - Brown      GRY - Gray

PGY - Partly Gray

RED - Red      SDY - Sandy

STR - Strawberry

BALD is listed in Box 26 as a Mark/Scar/Amputation, not in HAIR.

22) **EYES:**

Given as: BLK - Black      GRN - Green

BLU - Blue      HAZ - Hazel

BRO - Brown      MAR - Maroon

MUL - Multi-color

- 23) **DRIVER's LICENSE NO.:** (State)  
Include the letter prefix or prefixes of the appropriate state. see list on page 25.  
Separate numbers as they appear on the document using slashes, dashes or spaces.  
Example: (MI) S378-365-223-123
- 24) **SOCIAL SECURITY NUMBER:**  
Federal social security number given as a nine digit number. Separate numbers as they appear on the document using slashes, dashes or spaces.
- 25) **PLACE OF BIRTH:**  
Two digit alpha code for the state in which the subject was born.  
See page 25 for list of states. Use alpha code for countries other than USA.
- 26) **MARKS, SCARS, AMPS, TATTOOS, ETC.:**  
Describe any abnormalities and give the location as left/right arm, hand, torso, leg, etc.
- 27) **ADDITIONAL NAMES:** (Last, First, Middle)  
Other names the subject has used. It is important to spell the names correctly and to obtain the full middle name, if possible. Especially if subject signs a different name other than what you filled out on the card.
- 50) **SID NO.:**  
If you know that the subject has a previous record, you can query the Criminal History Records by LEIN and obtain the State ID number.

## Section E

Boxes 28-37 arrest information:

- 28) **MOST SERIOUS CHARGE:** (Description)  
Enter the common description of the most serious offense for which the subject was arrested.
- 29) **MODIFIED CCC:**  
This is a 4-digit Criminal Class Code. See page 24 for the proper codes.
- 30) **F/M/O (FELONY, MISDEMEANOR, ORDINANCE)**  
Enter letter "F", "M", or "O" if offense is a felony, a misdemeanor, or if charged offense is a violation of a municipal ordinance substantially corresponding to state law.
- 31) **INCIDENT NUMBER: (COMPLAINT NUMBER)**  
Departmental number identifying the incident.
- 32) **MOST SERIOUS PACC CHARGE CODE**  
This code is determined by the Prosecutor's Office, along with the possible alpha characters: [A]-Attempted, [C]-Conspiracy, [S]-Soliciting
- 33) **CRIMINAL TRACKING NUMBER (CTN)**  
Is assigned to each defendant to a specific warrant. The CTN is the basis for tracking the defendant through the arrest, trial and disposition procedures.
- 34) **CHARGED**  
The Prosecutor marks this box when the subject is charged with an offense.
- 35) **NOT CHARGED**  
The Prosecutor marks this box when No Charge is authorized.
- 36) **DIVERSION**  
The Prosecutor marks this box when the subject meets the requirements for a prosecutor diversion program. For a court diversion program, the Prosecutor marks box 34 "CHARGED".
- 37) **JUVENILE**  
The Prosecutor marks this box when the subject involved is petitioned as a juvenile.



## Section F

Boxes 38 - 44 filled in by the arresting agency and/or prosecutor's office.

- 38) **WARRANT HOLDING AGENCY**  
This is the name of the warrant holding or arresting department.
- 39) **DATE OF ARREST**  
Might not be the same as date printed.
- 40) **PROSECUTING AGENCY**  
Name of the office issuing warrant.
- 41) **COURT OF JURISDICTION/ARRAIGNMENT**  
Name of court with jurisdiction in this case.
- 42) **WARRANT HOLDING AGENCY ORI**  
LEIN designator for the warrant holding or arresting agency.
- 43) **PROSECUTING AGENCY ORI**  
LEIN designator for the office issuing the warrant.
- 44) **COURT JURISDICTION/ARRAIGNMENT ORI**  
LEIN designator for the court of jurisdiction.

**PLEASE BE SURE ALL INFORMATION MATCHES ON BOTH SIDES OF THE CARD AND THAT NAMES MATCH THE SIGNATURE OF SUBJECT ARRESTED.**

Now that you correctly completed the finger and palm print cards, they can be submitted to the prosecutor's office.

**REMEMBER TO KEEP THE STATE, FBI & PALM CARDS TOGETHER!!!!**

If staples are used, staple at the bottom half of the card. Staple holes across the top of the card create problems with the AFIS reader.

## CRIMINAL CLASS CODES

### CRIMES AGAINST PERSON

0900 MURDER  
1000 KIDNAPPING  
1100 SEXUAL ASSAULT  
1200 ROBBERY  
1300 ASSAULT  
1400 ABORTION

### PROPERTY CRIMES

2000 ARSON  
2100 EXTORTION  
2200 BURGLARY  
2300 LARCENY  
2400 MOTOR VEHICLE THEFT  
2500 FORGERY/COUNTERFEITING  
2600 FRAUDULENT ACTIVITIES  
2700 EMBEZZLEMENT  
2900 DAMAGE TO PROPERTY

### MORALS/DECENCY CRIMES

3500 CONTROLLED SUBSTANCE  
VIOLATIONS  
3600 SEX OFFENSES  
3700 OBSCENITY  
3800 FAMILY OFFENSES  
3900 GAMBLING  
4000 COMMERCIALIZED SEX OFFENSES  
4100 LIQUOR  
(Except OUIL & Tax Revenue)  
4200 DRUNKENNESS (Except OUIL)

### PUBLIC ORDER CRIMES

4800 OBSTRUCTING POLICE  
4900 ESCAPE/FLIGHT  
5000 OBSTRUCTING JUSTICE  
5100 BRIBERY  
5200 WEAPONS OFFENSES  
5300 PUBLIC PEACE  
5400 TRAFFIC  
5500 HEALTH & SAFETY(Except Traffic)  
5600 CIVIL RIGHTS  
5700 INVASION OF PRIVACY  
5800 SMUGGLING  
5900 ELECTION LAWS  
6000 ANTITRUST  
6100 TAX/REVENUE  
6200 CONSERVATION  
6300 VAGRANCY  
7300 MISC. CRIMINAL OFFENSE

## TWO-LETTER STATE AND TERRITORY ABBREVIATIONS

Alabama.....	AL	Nebraska.....	NE
Alaska.....	AK	Nevada.....	NV
Arizona.....	AZ	New Hampshire.....	NH
Arkansas.....	AR	New Jersey.....	NJ
American Samoa.....	AS	New Mexico.....	NM
California.....	CA	New York.....	NY
Colorado.....	CO	North Carolina.....	NC
Connecticut.....	CT	North Dakota.....	ND
Delaware.....	DE	Northern Mariana Islands.....	CM
District of Columbia.....	DC	Ohio.....	OH
Florida.....	FL	Oklahoma.....	OK
Georgia.....	GA	Oregon.....	OR
Guam.....	GU	Pennsylvania.....	PA
Hawaii.....	HI	Puerto Rico.....	PR
Idaho.....	ID	Rhode Island.....	RI
Illinois.....	IL	South Carolina.....	SC
Indiana.....	IN	South Dakota.....	SD
Iowa.....	IA	Tennessee.....	TN
Kansas.....	KS	Trust Territory.....	TT
Kentucky.....	KY	Texas.....	TX
Louisiana.....	LA	Utah.....	UT
Maine.....	ME	Vermont.....	VT
Maryland.....	MD	Virginia.....	VA
Massachusetts.....	MA	Virgin Islands.....	VI
Michigan.....	MI	Washington.....	WA
Minnesota.....	MN	West Virginia.....	WV
Mississippi.....	MS	Wisconsin.....	WI
Missouri.....	MO	Wyoming.....	WY
Montana.....	MT		



## SECTION 12

### AUTOMATED FINGERPRINT IDENTIFICATION SYSTEM

#### ( A F I S )

Michigan began implementation of one of the country's first statewide Automated Fingerprint Identification Systems (AFIS) in October of 1989. The NEC AFIS uses state-of-the-art technology to perform fingerprint search processing. With AFIS, a fingerprint taken from either the scene of a crime (latent) or from a tenprint card can have a search completed in minutes.

Because no two fingers are exactly alike, police and forensic experts have used fingerprints to solve crimes since the early 1900's. The crucial identifying fingerprint characteristics are its minutia - those small details that mark the endings or splitting of individual ridges. Every fingerprint is unique not so much in the shape or number of its ridges as in how or where these ridges begin and/or end. It is exactly these details AFIS recognizes and uses for matching.

The Michigan State Police AFIS receives fingerprint data on subjects from law enforcement and other agencies, also latents found at a crime scene. It converts this data into machine-readable form and executes various automated searches. All search results undergo human verification by displaying fingerprint images on terminal screens.

MSP AFIS interfaces with Criminal History Record Information (CHRI) and Law Enforcement Information Network (LEIN) systems to receive information.

AFIS performs four basic functions:

- fingerprint input
- fingerprint matching
- visual verification of the matching results
- registration

AFIS will require even more diligence and care in the taking of fingerprints. Compared to human experts, the computer will be less tolerant of flaws and less able to compensate for deficiencies of poor quality prints. **TAKE THE TIME REQUIRED TO GET THE BEST PRINTS POSSIBLE!!!!**

## **AFIS FACT SHEET**

- AFIS (Automated Fingerprint Identification System) is a computerized system for encoding, searching and matching fingerprints. AFIS is a statewide system with equipment located in the Michigan Department of State Police and local law enforcement agencies.
- Performs two basic functions:
  - Compares all new tenprint cards submitted against the tenprint file.
  - Compares all latent prints entered for search against the tenprint file.
- Involves four basic processes:
  - fingerprint input
  - fingerprint matching
  - visual verification of matching results
  - registration of all new records not previously on AFIS
- Can also compare latent prints against other latent prints to show that the same individual is responsible for more than one crime even if there is no tenprint card in the system for that person (suspect was never fingerprinted, etc.)
- Approximately 1,100,000 plus sets of tenprint cards are in the AFIS files, as of July 1994. All new tenprint cards received after this date will be compared and added to the file.
- To have manually searched a latent in the old Henry system of filing prints, would have taken 72 years. With AFIS, the entire search will take 24 hours or less.
- Latent prints are searched against the registered tenprints to produce a candidate list of file prints which most closely resemble the latent print. The latent print examiner will view individual candidate fingers supplied by AFIS and compare them to the latent print on a split-screen monitor.
- Latent prints not immediately matched are entered into the unsolved latent print file. AFIS will automatically compare all new fingerprint cards received and registered against the unsolved latent files. Possible hits are returned to the remote AFIS site which registered the latent.
- AFIS consist of three components:
  - Tenprint input at Michigan State Police, Criminal Justice Information Center, Lansing.
  - Mainframe computer and matcher units at the State Police Criminal Justice Data Center, East Lansing.
  - Remote terminals located at State Police Forensic Science Laboratories and at local police agencies.
- An AFIS Policy Council formed by legislation (Public Act 307 of 1988) oversees and assists in the development of the Automated Fingerprint System for Michigan.

**FOR MORE INFORMATION CONTACT:  
RICK WIRTH – 517-322-5514  
MICHIGAN STATE POLICE**

## QUICK IDs

Michigan State Police, Criminal Justice Information Center (CJIC), Identification Section, will provide quick identification services for the identification of unknown deads and suspicious individuals. The decision to use this service is at the discretion of the requesting agency.

The Identification Section's hours of operation are 7:00AM till 5:00PM Monday through Friday. If identification is required on weekends or hours other than 7:00AM till 5:00PM daily, a fingerprint technician will be called in to process the request.

If there is a need to call in a technician after hours, the individual needing the identification will have to make the request to MSP Operations at (517) 336-6123 and inform them of your needs.

If you need the quick identification during the 7:00AM to 5:00PM Monday through Friday time frame, call CJIC at (517) 322-5515, or 322-5538.

If the agency requesting the quick identification is located within a reasonable driving distance from CJIC, the fingerprints can be hand carried to the Identification Section. This again is up to the discretion of the agency needing the quick identification.

If the driving distance is untimely or unreasonable, the fingerprints can be faxed to CJIC. The fax number at CJIC is (517) 322-0635. For a more accurate search result, using the faxed prints, CJIC requests that the contributor fax a "normal" size full set of the tenprint card. This set is used by the technician to verify that the fingerprints were taken in the proper sequence and to assign pattern types to the individual fingers for a search through AFIS. CJIC also requests that fingers number 1 and 6 be enlarged on a copy machine to approximately 2 to 3 times their normal size, and faxed with the full tenprint set.

The enlarged prints (1 & 6) are reduced back to normal size here at CJIC and processed through AFIS. The transmission of the prints through the fax results in print degradation. The enlargement of the prints, transmission, and reduction back to normal size results in recouping print quality lost through the transmission process. AFIS uses only fingers number 1 and 6 for tenprint matching, thus there is no need to enlarge the rest of the prints.

It is very important to have good quality prints for processing through AFIS. If the fingerprints are smudged, blurred or indistinct, too light, too dark, etc. the system may not be able to locate the correct candidate, even though the subject printed may have a prior record in the AFIS data base. With the copying and enlarging of the prints, problems with print quality are magnified. Make sure you have good quality prints before any copying and enlarging is performed or if you are going to hand carry a set to CJIC.

## LIVE SCAN

The future has arrived, Live Scan equipment is being used in several cities throughout the state. Kent Co. Sheriff's Department was the first in the state to get the system installed. Saginaw Co. Sheriff, Pontiac Police Department, Dearborn Police, Livonia Police, Genesee Co. Sheriff, Monroe Co. Sheriff, Eaton Co. Sheriff, Muskegon Co. Sheriff, Holland Police Department, Ottawa Co. Sheriff have had the system installed.

There are two different systems available, Identix and Digital BioMetric Incorporated (DBI). These two systems are basically the same, you take the fingerprints of your subject or arrestee on the computer and then you can print on the laser printer attached to the system as many cards as you need.

The thing to look for when printing the subject on the glass plate is that you still need to get the joint line and full pattern area when rolling the finger across the glass. To achieve this it takes practice and patience.

When checking each system out, determine the system used, and follow a few basic rules, with the Identix system, if you line up the cuticle of the finger to be printed with the screws holding the glass plate to the machine you will find that your prints will be where they need to be on the card.

When using the DBI system you will notice the wording for each finger on the computer screen, if you keep the joint line of the finger to be rolled just above this wording you will achieve the results of the fingers being where they are needed on the card. Also with the DBI system there are cross hairs in the middle of the screen, you will notice that the center of the pattern area will fall on these hairs if you follow the rule about the joint line.

The amount of pressure you use will also determine the quality of the print. Too much pressure will cause the prints to be too dark, and too little pressure will result in the prints being too light. Practice, Practice, Practice.