

SURVEY OF THE NATIONAL POLICE LABORATORY

SAIGON, VIETNAM

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Submitted By: Mr. Arlen W. Jee

Regional Criminalistics Advisor
Office of Public Safety/Washington DC

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I. Terms of Reference

Request per Telegram Saigon 13493, dated 5 July 1969, was made for TDY criminalistics assistance to survey the current Vietnamese National Police Laboratory, its personnel capabilities and equipment needs for the purpose of USAID (CORDS/PSD) programing for FY 70-71.

The following is the report of the survey conducted and prepared July 28 to August 8, 1969. It enumerates those observations made and subsequent evaluations of the laboratory's operations. Finally, recommendations are provided as guidelines to the facility's future development and to the aforementioned future program planning with respect to commodities, training and technical assistance,

Information and assistance here was obtained from contacts and consultation by this Advisor with the following persons.

A. Vietnamese Laboratory Technicians

VU TRAN HA, Chief, Scientific Crime Investigation Lab.

TRAN THIEN LAC, Chief, Physical Examination Bureau

NGUYEN VAN BAI, Chief, Laboratory Files Bureau

NGUYEN XUAN TONG, Chief, Firearms Section

HO KIM LANG, Chief, Serology Section

DO VAN NAY, Chief, Photography Section

B. U.S. Public Safety Advisors

MAJOR McBEE, Senior Advisor, Investigations Section

HOWARD GROOM, Advisor, Investigations Section

GEORGE MILLER, Advisor, Identification Section

II. Summary

The Scientific Crime Investigation Laboratory of the Vietnamese National Police has a staff (including its Chief and

the administrative personnel) of 50, who have been distributed among 3 Bureaus - Chemical Examination, Physical Examination and Laboratory Files - and one Administrative Section. A few of the technicians are quite capable, but, for the most part, the staff can provide only limited criminalistics services. The physical facilities are, in general, adequate; however, they are not fully protected and left open to the local weather conditions. As a consequence, many instruments and chemicals have been ruined. Today, they find themselves with a severe problem and good supply of unusable equipment.

In overall evaluation, the capability of the laboratory is very limited. They can adequately assist the National Police in only three specialized fields of criminalistics - the identifications of firearms, handwritings and narcotics.. Of those in which they have no or little capability include trace evidence, blood, semen, tool mark and ballistics examinations.

The development of their capabilities should take the following approaches: (1) Broaden them, so they can examine more types of physical evidence; (2) strengthen the procedures they are using today with other simple, improved, but not too advanced, techniques; and (3) create the need for their criminalistics assistance, by simultaneously developing the crime scene investigation capabilities.

Based on their needs and the local situation, the following recommendations, in general, are made: (1) That the laboratory be weatherized. (2) That the existing vacancies in the laboratory be filled with qualified police officials and/or civilian contract technicians and that a selected few of the staff be provided with U.S. specialized training. (3) That the entire laboratory be re-organized. (4) That examination procedures be standardized. (5) That crime scene investigation procedures also be standardized. And (6) that TDY criminalistics assistance be requested to carry out these objectives.

III. The National Police Laboratory: Its Operations

A. General

The National Police Laboratory was first formed and operated by the French. In the 1950's the Vietnamese took over this facility and ca. 1959 received assistance from the Michigan State University under the ICA program.

The Laboratory today was created by the Vietnamese Decree, proclaimed in October 1967, and whose operations were spelled out in the National Police Service Letter, dated April 1968 (See Annex I).

1. Organization: The Scientific Crime Investigation Laboratory (SCIL), as it is known presently, is composed of 3 Bureaus and one Section (See Annex II). The Chemical Examination Bureau is, in general, responsible for toxicological, serological and general analyses (Such as, narcotic and explosive identifications). The Physical Examination Bureau handles the questioned document problems, the crime scene investigations, comparisons of all classes of prints, photographic needs and the firearm identifications. The third is the Laboratory Files Bureau and has the functions of maintaining the examination reports, statistics and safeguarding all physical evidence examined by this forensic service unit. The last is the Administrative Section which is responsible for the purchases and maintenance of equipment and supplies, as well as the receiving of Laboratory requests.

The Laboratory facilities are located in the principal compound of the National Police in Saigon and occupy most of a 2-story structure. The space available for this operation is sufficient. Of particular interest, however, is that the rooms are not adequately protected from the local climatic conditions, but in fact are left exposed by the louvered doors or swinging double half-doors leading on to unenclosed balconies. Most quarters were at one time cooled with air conditioners, but many of which are not in working order today.

For the future the Laboratory Chief expressed desires to completely close off the balconies and further climatize the rooms with conditioners and dehumidifiers. These rooms would then be partitioned into smaller quarters, each one having sufficient space for two technicians and their desks.

2. Staff: The SCIL Chief is Mr. Ha, the only technician who has completed a college education - namely, a University degree in Science obtained here in Saigon.

In his charge are 49 positions (Including the administrative personnel), most of which are filled today (See Table I). Each technician has his own specialty. For instance, one man is responsible for only firearm identifications and another for tool

TABLE I: DISTRIBUTION OF LABORATORY STAFF

TOTAL POSITIONS	Laboratory Chief and Administrative Section	Chemical Examination Bureau	Physical Examination Bureau					Photography Section	Laboratory Files Bureau	TOTAL
			Office of Bureau Chief	Document Examination Section	Evidence Examination Section	Firearms Section				
Assigned Positions	6	5	3	6	10	5	10	4	49	
Technical Staff	1	5	1	5	9	4	10	1	36	
Administ. Staff	5	0	2	1	1	1	0	3	13	
Technical Positions	1	5	1	5	9	4	10	1	36	
Filled	1	3	1	3	4	1	7	1	21	
Vacant Temporary	0	1	0	1	5	0	1	0	8	
Not Filled	0	1*	0	1+	0	3	2	0	7	

(*) Chief of SCI Laboratory also Chief of the Chemical Examination Bureau.

(+) Chief of Physical Examination Bureau also Chief of Document Examination Section.

mark comparisons, although both are very similar examinations. At times, however, due to the shortage of personnel, a few of the technicians are required to double up their responsibilities. In one case, the Chief of the Document Analysis Section also handles footprint comparisons.

Several of the technicians have received specialized laboratory and/or general police training in the U.S. (See Annex III) For the most part, however, the training has been OJT in the laboratory. In this respect, the Chief of SCIL indicated that they are able to train at "the low levels", that is, to form assistants. But for "high level" training they depend greatly on the U.S.

3. Instruments: In general, the local climatic conditions - high humidity and heat - has caused serious damage to instruments and chemicals. Much of their equipment was provided by the French. But, as time passed, the instruments started to deteriorate and slowly were set aside as being unusable. Furthermore, a vast majority of the principal items was given by the MSU program ca. 1960 and these too are becoming inoperable.

4. Caseload: The laboratory requests most frequently come from the different National Police precincts (It is said 70% are from the Saigon area) but also are received from the military and civilian courts. Based on the statistics for the first 7 months of 1969, the types of cases they have handled were principally in questioned documents and firearm identifications. In field investigations most of their work has been in homicides. (See Table II).

The procedure followed by the SCIL when a request for examination is made is rather lengthy and forces the physical evidence to be passed unnecessarily through many hands.

The request with the evidence is first received by the Administrative Section; where it is logged in the register and given a laboratory case number. This is then referred to the Chief of SCIL, the Physical Examination Bureau or Laboratory File Bureau. The case is given to a technician of the appropriate Section and assigned a second number - the Sections' examination number.

Once the examination is completed, which takes anywhere from two to eight weeks, the written report is made by the examiner

TABLE II: Statistics of Laboratory's
Caseload

(January through July 1969)

<u>Types of Cases</u>	<u>Number</u>
Firearms Identifications	<u>117</u>
Firearm Cases Total	117
Signatures	49
General Handwritings	69
Typewritings	8
Mechanical Printings	8
False ID Cards	2
Forgeries	<u>1</u>
Document Cases Total	137
Toxicology Analyses	4
General Analyses	49
Narcotic Identifications	10
Seminal Stains	4
Blood Stains	3
Hairs	1
Secret Writings	<u>11</u>
Chemical Exam Cases Total	82
Fingerprints	44
Tool Marks	<u>25</u>
Evidence Exam Cases Total	69

TABLE II: Statistics of Laboratory's Caseload

(Cont'd)

<u>Types of Cases</u>	<u>Number</u>
Murders	48
Suspect Deaths	28
Suicides	12
Robberies	9
Burglaries	67
Arsons	11
Explosions	51
Bombings	3
Traffic Accidents	7
Labor Accidents	<u>5</u>
Field Investigation Total	241

and checked by the Section Chief. From this, the final report is prepared and signed by the SCIL Chief.

Of particular interest is that in the final report the actual examiner's name does not appear. In answer to this, it is said that the request is made directly to the Laboratory Chief who must therefore sign the answering correspondence. Too, in the French-bases judicial procedure a detailed report adequately supported with photographs suffices. Rarely have they been questioned as to who actually made the tests nor is it likely they are ordered to court to elaborate or support their findings.

B.- The Chemical Examination Bureau

The Bureau is further divided into three Sections - the Qualitative Analysis, the Toxicology and the Serology Sections. These three units are quartered in the same room, an area of ample space, appropriately furnished with wet chemistry benches and adequately supplied with gas, water and electricity. An adjacent room is presently being used as the technicians' office, but hopefully in the future can be air conditioned and dehumidified so instruments and chemicals can be stored.

Mr. HA, The SCIL Chief, is also the Chief of this Bureau. Four technicians are assigned to him, one working in each of the Sections and the fourth presently attending a 3-month course at the Pasteur Institute, a medical laboratory here in Saigon.

The majority of their cases is in the general chemistry field, where they are often asked to identify an unknown substance. The next most frequent requests are, firstly, to identify narcotics (Principally, marijuana and opium) and, secondly, the detection of suspected secret writings.

Other examinations they say are performed but are not reflected in their statistics are the "many" restorations of obliterated serial numbers - mostly those found on Jeeps and motorcycles, but rarely on guns and other types of motor vehicles.

To perform these analyses they are equipped with a large assortment of chemicals and with the following major instruments - A stereoscopic microscope, a chemical microscope, analytical and pharmaceutical weighing balances, a centrifuge, a Model L photomicrographic camera, the usual types of ovens and water bath.

Quite noticeable during this survey were the items found in the laboratory but not in usable condition. For example, a second, and newer, microscope was not being used due to moisture damage to the optics. Many anhydrous chemicals had deteriorated, again due to the humidity. The apparatus to make distilled water had a burned out heating element. An old refrigerator had in time quit functioning. Equally obvious were the many items with metal parts that showed signs of corrosion due to the high humidity.

C. The Document Examination Section

The Physical Examination Bureau is sub-divided into four Section, each having its own distinct function and operations. For this reason, each is discussed separately.

The Chief of the Document Examination Section, Mr. Lac, is also the Bureau's Chief. He has been making these examinations for a total of 4 years, learning the field principally from self-education with some assistance from a Mr. LE VAN DINH, former Section Chief and participant of the USAID/OPS-sponsored Questioned Document Course in the U.S.

Assigned to this Section are four technicians, all of whom have learned the field by OJT. Two of them completed a one-year course at MSU in laboratory techniques in 1960. However, not preferring the examinations of trace evidence, they transferred to this Document Section.

The principal types of examination handled by them are signature and handwriting identifications. For this they are equipped with a small stereoscopic microscope (Without proper illumination) several pocket fingerprint classifiers and a ultra-violet light source.

D. Firearms Section

The second unit with the Physical Examination Bureau is the Firearms Section which, besides the normal identifications, is responsible for test firing each weapon brought to the National Police to be registered.

Today, after 7 years, their files contain close to 11,000 specimens of the test fires. The recovered bullet and casing for

each weapon is filed chronologically.

The technical expertise consists primarily of individual-type identifications, that is, to identify the responsible firearm through comparisons of fired bullets or cartridge cases. Class identifications, or the identification of the type, caliber, make and model of the weapon from markings found on the bullet or casing, are rarely performed.

Equipment-wise, the Section has a hand magnifier, one bullet comparison microscope with a bellows-type camera (B&L, not being used) and another such microscope with a fixed cone-type camera (AO, just provided by USAID (CORDS/PSD)). The laboratory also has a cotton-filled bullet recovery box, 30 x 30 x 200cm, which 3 years ago replaced their water tank. It was said that the tank method was slow and inconvenient.

The entire workload is handled by just one person, the Section's Chief. Mr. TONG, who attended the USAID/OPS-sponsored firearms identification course for 1 year in 1964 at Ft. Gordon, has assigned to him three technicians. However, these slots have not been filled.

E. Evidence Examination Section

This Section is responsible for the comparison of prints and impressions (Those made by skin, tools, shoes) and for crime scene investigations.

Three technicians, including the Section Chief, carry out the required comparisons. However, because one of them is presently in the hospital, the work is left to the others and at times assisted by both Mr. IAC, the Bureau Chief, and Mr. NAY, Chief of the Photography Section.

For these examinations the Section is equipped with pocket fingerprint classifiers, but strangely without a comparison microscope. It was explained that photographs would be taken of the tool marks and the suspect instrument and would then be compared to make the necessary identification.

The second principal function of this Section is crime scene processing. There should be three teams of two men working in 24-hour rotation shifts. However, because three men are now

attending a course at the National Police Academy, the field investigation teams are reduced to one man each.

In the first seven months of this year they have been called on 241 cases (36% of them involving deaths, 28% burglaries and 22% in incidents involving explosions or bombings).

To carry out these field investigations, the team is assisted by a photographer and in serious cases by the laboratory technicians. Equipment-wise, there is only a latent fingerprint kit and no materials to collect, preserve nor transport physical evidence. Transportation to the scene is provided by the requesting agency. At one time the Section had a specially equipped Jeep station wagon. However, three years ago the vehicle broke down and was never repaired nor replaced.

F. The Photography Section

The photographic needs of the entire National Police are handled by this Section. So far this year they have averaged 94 field cases. For the same period they have processed 1364 negatives and printed 3906 positives each month.

The Section is equipped to take 35mm, $2\frac{1}{4} \times 2\frac{1}{4}$ and 4 x 5 photographs. Their basic camera is the Rolleiflex, of which 4 are still in operation and 3 are not. They also have two Graflex cameras to take 4 x 5 film, two 35mm Leotax with a telephoto lens and one 35mm Topcon with close-up lens. For copy work there are one large floortype French and one small Burke & James view cameras.

Of the accessory items, the Section has four electronic flashes, of which only one is not giving them a lot of problem and all of which have no bracket to attach to the press-type cameras. Also, depending on the field requirements, there are available a tripod, photofloods and close-up auxiliary lenses for the Rolleiflex cameras.

The negative and print processing is carried out in a small darkroom, furnished with a ceramic tile sink, improvised safelights and running cold water. The major processing equipment include one Leitz Focomat IIc enlarger (35mm and $2\frac{1}{4} \times 2\frac{1}{4}$ films), one new Omega D-6 enlarger (4 x 5 film, without lens, provided by USAID), one Pakolux print washer, two print dryers (Drum and table models).

The procedure used to process both film and paper is "tray development" with neither temperature control nor voltage regulation.

A second small darkroom adjacent to the first is also furnished to process photographic materials. However, for the lack of an adequate light-trap entry, it is not being used.

To handle the entire photography caseload the Section Chief, Mr. NAY, is provided with 9 technical positions. Of these, 6 are presently filled and another temporarily vacant, as the technician is attending a course at the Academy.

G. The Laboratory Files Bureau

This Bureau is supervised by Mr. BAI, a former IPA participant and MSU laboratory trainee. Three people are assigned to him to carry out his responsibilities, that of maintaining the entire Laboratory's file, safeguarding the examined physical evidence, coordinating any training related to the collection and preservation of physical evidence and keeping the laboratory statistics.

They have three separate files - one for the reports of the Physical Examination Bureau, another for the Chemical examination Bureau and the third for the Document Analysis Section. The reports are filed in their appropriate section, according to their examination numbers. There is no cross index files.

Another file they have and use to maintain is for typewriter specimens. Between 1963 and 1967 they were required to take specimens from all typewriters in government offices. In 1967, the Director General of the National Police rescinded this order and since then no specimens have been obtained. Nevertheless, the file has approximately 20,000 exemplars.

All physical evidence examined by the Laboratory is locked in a small room located on the first floor of the building and, it might be added; at a considerable distance from Mr. BAI who is directly responsible for its security. These physical materials are not returned with the laboratory report. But, if a transfer is made, the receiver is required to sign a log in order to maintain the continuity of the chain of custody.

This Bureau also handles the training of specialists in the collection and preservation of physical evidence. Hopefully, one technical team was to be formed for each provincial police agency and would be capable of processing the scene, taking photographs and making the necessary sketches. Mr. BAI's unit would then be responsible for the coordination with the teams with respect to replacing supplies and to providing any necessary technical assistance.

Since 1961 over 500 officers have been given this training. It was said, however, that "90%" of those trained were of the low ranks and unable to do the job properly. Another reason given for the lack of success in the above program was the difficulty encountered in moving about the country due to the war and shortage of transportation.

This year two classes have already been held and two more are on the schedule for September. Each class is for 2 weeks, a total of 170 hours and is limited to 20-25 students.

The last principal function of this Bureau is the maintenance of laboratory statistics. For this, they keep a running count on a blackboard, of the types of examination per month. A second set of data is kept indicating the region from where the request was made, based on information recorded in the Administrative Section's register.

IV. Evaluations and Discussion

A. The National Police Laboratory's Operations

The assistance being given to the National Police by the SCIL is extremely limited, in comparison with what we know criminalistics can do today. For example, the laboratory can not type dry blood; they do not examine trace materials, such as, glass, paint and soil; nor do they compare tool marks in the accepted manner.

Yet, it certainly can't be said that they have no capability. For example, excellent results were seen of bullet and cartridge case comparisons, and photographs of them. Another "strong" field is handwriting identifications.

To better understand the predicament the Vietnamese laboratory finds itself in, its snail-pace progress and its inability

to keep up with current technology in criminalistics, one must consider the situations the SCIL has had to face in the past.

Firstly, the war, its expense and requirements have placed the needs of the laboratory at a low priority. They have not received the budget, personnel and training support required by a criminalistics laboratory.

Secondly, the present political climate and turmoil hinders the meticulous, stringent requirements of this police science field, in general. For instance, we know that to properly process a crime scene, the area must immediately be closed off. Yet, today in Saigon as well as the rest of Vietnam, this can hardly be accomplished, for the military and civilian authorities demand to enter and thoughtlessly rush into the scene, destroying any chance of recovering trace evidence and prints, for instance. In addition, the situation at hand often requires urgent reaction of the policeman or the soldier; consequently the time-consuming, careful search of the scene may not be justified.

Thirdly, another type of climate, the local weather conditions has played its role to make the laboratory's job more difficult. Already a good number of instruments and chemicals have been ruined by the humidity.

And, lastly, in the last 9 years the technicians have received no criminalistics assistance; except for the occasional advice given for the purpose of obtaining equipment and supplies.

Physical Facilities: The present site of the laboratory is perfectly adequate, space-wise.

The most serious problem is that the area is not satisfactorily protected against the weather. It should be. Many chemical examinations require temperature control, for instance, determination of refractive indices, the application of crystal and color tests. The laboratory houses many instruments which should be protected from the high humidity, such as, weighing balances, microscopes and photographic enlargers. The photographic development processes depend on the temperature and its stabilization. Chemical compounds are left so the humidity can cause deterioration; numerous boxes of photographic film and paper are now lying on the floor out in the open room. Such materials need to be stored in a cool, dry area, at the least.

Technical Personnel: In the SCIL there is a total of 37 positions for technical personnel. This is adequate and there is no need to increase the number.

However, 15 of this total are vacant today, either because the assigned technician is now attending a course or the position has yet to be filled.

To alleviate the hardship (Particularly on the Firearms Section and the Crime Scene Investigation Unit), the National Police should make every effort to fill the vacancies and to stagger the necessary absences. Selected candidates should have the education and maturity to satisfactorily perform the technical functions (At least, at the Redactory level of rank). If this cannot be accomplished, the Police should be prepared to hire civilian contract technicians who already have the scientific qualifications.

A problem which the SCIL will have to face in the near future is the forced retirements of key technicians. The retirement age is 55 with a possible extension of 3 more years. Included in this group are Mr. Lac (Age 51), who is the principal document examiner; Mr. BAI (Age 50), the best qualified person in administration and the principal figure in physical evidence training courses; and Mr. NAY (Age 52), the most knowledgeable person of the Photography Section.

For this, the National Police should select and train qualified officers to serve as the replacements within the next 3 to 8 years.

Administrative Operations: The SCIL table of organization and its operation demonstrate a degree of complexities and inconsistencies which are contra-productive and which also results in a duplication of efforts. Understandably, they should be corrected to shorten the custody chain of physical evidence and to provide a smoother, more practical administration.

a. It is felt the organization reflects an over-specialization and should be modified to enable each technician to perform more tasks. For instance, in the Chemical Examination Bureau one technician is assigned to each of three Section (Note: Ergo, one man per section). According to the submitted statistics, the general chemical analyst had the most work, while the toxicologist

conducted 2 examinations and the serologist only one per month! These three positions should be equalized, so that each can perform all the analyses of the Bureau.

This over-specialization is demonstrated also in the proposed redesign of the physical facilities, where every two technicians will have his own special work area.

Therefore, considering the SCIL's current caseload and capabilities, their trend should be towards generalization rather than towards further specialization.

b. The table of organization also manifests an inconsistent division of functions. The normal division of criminalistics would find the firearms unit also performing other similar physical comparisons, such as, on shoe prints and tool marks. The crime scene and photography field technicians can be realistically unified into one group. A field investigation team would then include two technicians, who can perform all tasks, rather than the three which are called for in the present organization. Furthermore, this would provide for extra, or back-up, teams to cover overlapping requests.

c. The administrative set-up of this relatively small operation causes duplication of work, such as, report writing and maintenance of a log book. It further creates an unnecessarily long chain of custody of the physical evidence.

The Administrative Section should be absorbed by the Laboratory Files Bureau. Not only would this centralize the administrative functions, but the Bureau Chief can also assume many such tasks now performed by the Laboratory Chief.

In this new Bureau the laboratory files should be centralized. Only one laboratory number is to be given to each case and the examination reports filed according to these codes. There is no need to have three separate files; each having its own examination number. For cross reference, index cards with the appropriate information can be filed, possibly according to the month and year of the request, sub-categorized by the requesting department and its investigation number.

All physical evidence should be retained by this new Bureau,

until the technician is ready to examine it. One examination report signed by the technician and counter-signed by the Laboratory Chief should be written.

For a more representative gauge of the SCIL workload, it is suggested they keep two sets of monthly statistics: (1) Number of cases received vs the requesting agency, or region of Vietnam; and (2) the types of examinations requested vs their frequencies.

Lastly, since the typewriting specimens have no practical use in the Laboratory Files Bureau today, they should be turned over to the Document Examination Section to be used as control specimens for class identifications.

Technical Operations: When the specific types of examinations were considered in this survey, it was clearly demonstrated that (1) their capabilities ranged widely from "extremely good" to "none at all" and (2) even with those examinations being made adequately some practical improvements can be introduced to place the expert opinion on a more solid foundation.

a. Firearms Section: The comparisons of bullets and casings to identify the actual responsible weapon were the strongest capability of this Section and of the entire Laboratory. Of the examples observed during this survey, there was none that left any doubt in the positive identification made.

The file of bullets and casings kept from the required test fire of weapons is serving no use today, mainly because these items are categorized solely by the request number assigned by this Section. The file cards should be stored, based on physical characteristics of the markings left by the weapon and of the bullet or casing itself. From this arrangement, a preliminary file check against questioned situations might lead to class or individual identification of the responsible firearm.

This Section performs very few class identifications of weapons and ballistics examinations. These capabilities should be strengthened.

b. Document Examination Section: The signature and handwriting identifications performed by the chief examiner are good. However, because he lacks experience and formal training in this

field, he is weak in the interpretations of characteristics that he has observed.

The number of examinations related to typewriting, mechanical printing, counterfeits and forgeries is very few. These capabilities should also be strengthened.

c. Evidence Examination Section: The comparisons of prints by this group are weak. There is plenty of room here for improvements.

While the examinations of latent fingerprints appear to be adequate, the ones of tool marks are completely unsatisfactory. To identify the responsible tool by comparing photographs of the same and of the questioned mark allows for a great degree of error. The sources of light may not be aimed identically at the objects; the magnification of the very fine striations may not be equal; photographs are two dimensional, while the identification of a tool is based also on the third dimension - depth.

Foot print comparisons are very few. This expertise along with other similar ones, such as with tire impressions, should be strengthened. The technicians should be trained in the method of comparing these prints and the statistical interpretation needed to make a positive identification.

d. Chemical Examination Bureau: Of all the expertises performed by the SCIL, this section shows the least capability. Every effort is to be made with the technicians to broaden and strengthen their operations.

The strongest area is in the identification of narcotics; simply because they are using crystal and color tests suggested in "the Method of Analysis", published in 1956 by the U.S. Bureau of Narcotics. The tests in this manual are perfectly accepted and adequate.

Their explanation of blood examination clearly demonstrate a lack of understanding of the procedures and principles. While they do perform tests to detect blood and identify its specie, blood typing of dry stain is avoided and possibly sent to the Pasteur Institute. For similar reasons, seminal stains are based only on the spermatozoa's identification through the microscope, without the use of the very reliable acid phosphatase color test.

In both instances, it is felt that one very important point which should be brought out is their lack of technical information and contacts to keep up with current developments and practices found in the criminalistics field.

Strangely enough, most of the restorations of obliterated serial numbers have been on Jeeps and motorcycles. A departmental policy should be introduced to require this examination on all numbered articles, particularly, on guns and other motor vehicles. Secondly, this capability should be strengthened through the use of another method, the "Magnaflux" technique.

An evaluation of the general analyses and toxicological examinations is difficult. The statistics they've kept for these functions have been unspecific. The fields in themselves are extremely broad and cover a wide range of possibilities. Most of the questioned substances or objects are brought to the laboratory without any hint from the investigator as to what the material might be.

However, of the limited number of examples shown, one would suspect many conclusions of "no identification".

Based on the observations made in this survey, the laboratory has no capability to examine trace evidence and to make any subsequent interpretations. Their knowledge of the examinations of hairs, fibers, glass, paints, construction materials, for example is purely academic.

In overall evaluation it can be said that this Bureau has the least capability and will require the most assistance. More important is that this group handles the types of evidence that are highly interpretative and produce the most valuable information.

e. Crime Scene Investigation: This unit is plagued by the lack of equipment - no transportation, no portable evidence kits - and is unaware of newer methods being used today - silicone rubber casting, latent fingerprint searching.

Judging from the information given on the field procedure used by this group, it is felt that functions are performed more or less haphazardly. There is no set scheme used by the technicians. They may, or may not, take photographs, make casts of the impressions or collect physical evidence.

Every effort should be made to assist this group and to standardize their procedures in field investigations. Set procedures are to be laid out. Each step is to be performed (or, at least, accounted for) and followed in its proper order. A check-off list may be valuable here.

f. Photography Section: This unit is doing its best to keep up with the demands, in spite of a shortage of personnel and increase of responsibilities. They now have 3 vacancies and just recently were given the additional duty of handling all photographic activities for the entire National Police, yet they have a very low backlog of work.

The quality of their work, however, has been "fair". This can be attributed to the following: (1) They do not take time to produce good photographs. For instance, they didn't like one make of electronic flash because it took 12 seconds to recharge, while for another flash the interval between shots was only 3 seconds. They do not use the reel and tank to develop roll and 35mm film, because the loading takes too much time; instead they tray-develop these films. (2) They do not employ the necessary measures to give good quality negatives and prints. It was noticed the development was not time-temperature controlled. The solutions appeared to have already been over-worked. Negatives were found drying out in the open where dust can get on them. (3) Implements which can assist them are not being used. Safelights are only improvised, by wrapping a light bulb with red cellophane paper. Stainless steel tanks for processing are resistant to corrosion and breakage, while plastic and enameled ones are not.

Therefore, the Photography Laboratory should make the necessary changes to better the quality of their product, rather than to shorten the time to process (That is, mass-production methods).

Technical Equipment: Already sufficient words have been said about the effects of the local weather conditions on the laboratory. The following are those instruments and supplies which they should have: (1) to strengthen their present capabilities. (2) to broaden into other capabilities and (3) to fulfill their responsibilities.

a. Firearms Section: Vernier calipers to measure in units of 0.001 inch, inside and outer dimensions; stereoscopic microscope and pedestal stand with light source for opaque specimens, pharmaceutical, torsion-type weighing balance; another bullet

comparison microscope. (If this section has a full staff and will perform tool mark comparisons); a low-power (Approx. 10x) microscope with stage and ocular micrometers and light source for opaque specimens.

b. Document Examination Section: 2 - Stereoscopic microscopes with desk stand and light sources for both opaque and translucent specimens; series of handwriting and typewriting examination plates (Already on purchase order).

c. Evidence Examination Section: Stereoscopic microscope with pedestal stand and light source for opaque specimens.

d. Chemical Examination Bureau: Binocular chemical microscope with illuminator and small photomicrographic camera; a set of new optics - objectives and eyepieces - to replace damaged ones on the B&L microscope; one refrigerator with separate freezing compartment; heating element for Barnstead water distilling apparatus; an assorted type of glassware, chemicals and supplies consistent with their current and near future capabilities.

e. Crime Scene Investigation: Two - Motor vehicles with drivers; portable evidence collection and preservation kits; portable Plaster of Paris and silicone rubber casting kits.

f. Photography Section: With the exception of the Leitz and Omega enlargers, this laboratory should be completely re-equipped. Of particular importance, the materials should include stainless steel processing tanks, trays and sink; processing thermometers; safelights; automatic timed contact printer; voltage stabilizer; water purifier or demineralizer of adequate capacity; portable camera kits for field use, to include all necessary accessories - tripod, flash (Preferably electronic with nickel cadmium battery) with appropriate connecting cord and bracket, hand exposure meter, photoflood lamps with extension cord, attachments for close-up photography, ruler, tape measure, magnetic compass and a carrying case for the above items.

g. Laboratory Files Bureau: Two or three lockable metal cabinets of adequate size to store physical evidence.

B. USAID(CORDS/PSD) Programing

For the last 9 years technical advice had been given occasionally on the purchases of equipment and supplies. But, for

all intents and purposes, the Vietnamese laboratory has received no criminalistics assistance to develop their capabilities since ca. 1959.

During this survey it was sensed that criminalistics at this moment has understandably been placed at a low priority. However, it is important to remember that, as pacification takes place in Vietnam and as police operations become more sophisticated as well as more typical of civil law enforcement, the demands for criminalistics will certainly increase. The laboratory here must be prepared for this.

In view of this situation, then, three approaches can be taken to develop the SCIL capabilities: (1) Broaden their capabilities, so they can adequately handle more types of physical evidence; (2) strengthen the examinations now being performed, by replacing or supplementing them with better techniques and thereby establishing a more solid foundation upon which their expert opinions are based; (3) create the need to examine the different types of physical evidence by simultaneously increasing the requests and the proficiency of crime scene processing.

To a certain degree, we can call these approaches "sophistication". However, it is to develop their capabilities to that level where an examination of physical evidence is considered adequate. At the same time, it is not justified to introduce techniques that are too advanced, that serve no real supportive information to the identification, that require overly delicate instruments and/or require equipment that has no real purpose in this police laboratory.

Commodities: USAID(CORDS/PSD) included a list of proposed materials for the SCIL for FY 69-70 and requested an evaluation of the same. It is believed that all listed items should be ordered except for the following. Reasons for rejecting these items are (1) they deteriorate rapidly and would require constant repair or replacement; (2) their purpose is not practical and another item or procedure should be used; (3) the employment of them would be considered too advanced; or (4) it is believed the items are extras or excessive.

"Section 3. Laboratory Equipment"

Forgery Detection Kit
Stereoma Viewer
Opacimeter
Narcotic Kit (Laboratory prepare)
Blood Testing Kit
Semen Test Kit
Moulage Set (Substitute with silicone rubber compound)
Dust Hardener (Aerosol can of clear shellac is suitable)
Foto Focuser
Spectronic 505 Spectrophotometer
Recording Spectrophotometer
Spencer Microtome
Hydrometer Alcohol
Gas Generator
Cathetometer
Balance, Specific Gravity
"M" Wratten Filters
Colorimeter
Paper Gauge
Spherometer
Geneva Gauge
Thread Counting Micrometer
Petrographic Microscope

"Supplement to FY 69-70 CAP, dated 30 June 1969"

Reflex Back, for Model L photomicrographic camera
Plain Back, for same camera
Substage fluorescent illuminator
Low power stage
Supporting post
Double plate holder
Set of 5 filters (450mu to 650mu)
Set of neutral density filters
Complete set of "M" Wratten filters
Achromatic objectives - 2x, 6x, 3.5x, 43x
Huygenian eyepieces - 6.4x, 7.5x, 12.5x
B & W processor, BW 915

Training: There is no facility here in Vietnam to train in the field of criminalistics, except OJT in the Laboratory. The Pasteur Institute can provide general medical laboratory

courses and instill a practical appreciation of science, in general, in the student; however, the Institute has no capability to give courses in this police science.

U.S. participant training is the only alternative to provide the formal, broad background and practices in criminalistics or one of its specialty fields. Therefore, to meet the needs of the SCIL, they will have to resort to the special U.S. programs.

No less important would be training in crime scene processing. This can and should be accomplished locally. The course should be for field technicians to be assigned to the laboratory. It should be extensive, technical and practical. The class materials should include all phases of crime scene investigation - inspection of the site; the interpretation of the discovered physical signs; searching for, collecting and preserving physical evidence; making casts of different impressions; taking general and special photographs; making crime scene sketches; report writing.

Technical Assistance: The Laboratory has no PS Advisor assigned to it. If this project to develop their capabilities is to be carried out, a criminalistics advisor should be requested.

TDY assignment can suitably accomplish the objectives. While a U.S. training course will provide a broad technical background, the advisor can assist with the specific needs of the SCIL. For instance, he can assist in re-organizing the firearm, document and laboratory files; assist in re-organizing the laboratory's overall administration; assist in developing adequate, more representative statistics; and, most time consuming, assist them in standardizing their examinations and crime scene investigations. After receipt of new instruments, he can instruct the technicians on their operation and their application to criminalistics.

V. Recommendations

Based on the findings of this survey, the consideration of their needs and the local situation, the following recommendations are made.

A. That at least three areas of the SCIL - the chemical laboratory, the photographic darkroom and a storage room - be weatherized by re-modeling them with appropriate types of doors and windows which will protect these areas from open exposure, by air conditioning and by dehumidifying.

B. That the vacancies found in the staff be filled with qualified police officials and/or with civilian contract technicians.

1. That two laboratory technicians be trained in the US in general criminalistics procedures for the analysis of trace evidence and physiological fluids and that they be employed in this field.
2. That two others (Including the Document Examination Section Chief) be trained in the U.S. in questioned documents and they be employed in this expertise.
3. That 10 persons be locally trained in crime scene investigations and that they be assigned to the laboratory as field technicians.

C. That the laboratory, its table of organization, its administrative and technical operations be completely re-organized. (See Annex IV).

1. That the technical work be re-distributed into a more logical division, based on the types of physical evidence and the general types of examinations used.
2. That administrative functions be centralized and that as much of these tasks be taken from the Laboratory Chief.

D. That standardized schemes of analysis be developed for each type of physical evidence and, in so doing, that the following would be considered.

1. That, where practical, old methods be replaced with improved ones.
2. That, where necessary, new appropriate techniques be introduced.

3. That, towards these objectives, the laboratory be equipped with materials as suggested in the "Evaluations" of this report (Under "Technical Equipment" and "Commodities").

E. That a standardized procedure be developed for crime scene investigations to be used in all situations.

1. That all procedures which are to be performed be enumerated.
2. That the procedures be set up and carried out in proper sequence.
3. That, towards the successful accomplishment of this technical investigation, the field unit be equipped with two vehicles and drivers, two sets of three portable kits - photographic, casting and evidence collecting.

F. That TDY criminalistics assistances be requested to assist in carrying out the above recommendations.

REPUBLIC OF VIETNAM
MINISTRY OF INTERIOR
DIRECTORATE GENERAL
OF NATIONAL POLICE

GENERAL STUDY AND
INSPECTION SERVICE

S E R V I C E L E T T E R

SUBJECT : The operation of the Forensic Service
REFERENCE : Decree NO.161-S1/AN dated 30/10/1967

I. NAME. -

The Forensic Service

II. CHANNEL. -

The Police Block of Directorate General of NP.

III. RESPONSIBILITY. -

Assuming the work of Scientific Police: Using chemical methods for recording, studying, comparing, and analysing all formal traces, rounds, poisonous drugs to help authorities to find out the truth in all investigations.

Directly taking charge of crime lab. operations which are important when National Police Units or Security Agencies have neither the ability nor facilities for proceeding; meanwhile, monitoring and supplementing the scientific police at Directorates and Police Headquarters throughout the country.

IV. ORGANIZATION. -

The Forensic Service is composed of 3 Bureaus and Sections (attached here is a chart of organization).

1.- EXPERIMENTATION BUREAU.

Studying the composition of poisonous substances, chemical analyses, explosive weapons, blood and sperm. This Bureau has 3 Sections:

11. Poisonous Examination Section: Analyzing all kinds of poisonous foods, contents of stomach, other evidence and narcotic substances

12. Analytical Section: Analysing hairs, textile fibres, glasses, printed ink and all kinds of explosives.

13. Section of Serum: Searching spermatozoa in rape cases, analyzing blood, distinguishing and comparing between human and animal blood in murder cases.

2.- TECHNICAL BUREAU.

Investigating technical angles of offenses, comparing handwriting, exploiting scene crime traces, taking jurisdictional pictures and comparing bullets and empty cases. This Bureau has 4 Sections:

21. Handwriting Examination Section: Comparing handwriting and typewriting, printed letters, signatures, suspected documents having alterations, searching disappearing ink on documents.

22. Section of trace searching. Investigating, searching and confiscating evidence at the crime scene, comparing fingerprints and footprints, and other evidence.

23. Section of Photography: Photographing documents, traces, crime scene and development a printing according to jurisdictional photography operations.

24. Section of Fire Arms: Searching and maintaining bullets, cases of short guns throughout the country. Comparing bullets, cases in the murder causing by gun.

3.- DOCUMENTS RECORDS BUREAU.

Recording documents, evidence and dossiers relating to cases which must be sent to court. Maintaining statistics of operations and to train scientific police technicians, and to provide logistical support. This Bureau has 2 Sections:

31. Documents Record Section: Recording materials and evidence collected at the crime scene, filing printed forms typed forms, inks, paints, cloths for comparing.

32. Statistical and Training Section: Making statistics of implemented identification operations. Organizing training courses for investigators of scientific judicial police and jurisdictional photographers. Supporting guidance and supplement any assistance to Sections of Scientific judicial police at localities.

Making liaison with USAID agency for planning and requesting equipment, chemical products for identification which are short in the home market.

4.- ADMINISTRATION SECTION (Office of Service)

This Section has responsibility for letter of the Service and its 3 Bureaus. Receiving and sending official letters, directing personnel and managing materials. Solving administrative papers according to instructions of DGMP.

V. CHAIN OF COMMAND & SPECIALIZED TECHNIQUES.-

The Crime Lab is considered as a technical unit placed under the general command of the Directorate General of National Police and directly under the Police Operations Directorate in the field of personnel management, administration and logistics.

As to specialized techniques, the Crime Lab. shall assume and shall be responsible directly any such activities performed.

As to the Scientific Crime Sections under the Corps and Province Police units, the Forensic Service shall be responsible for direct supervision, control of technical activities; and logistical support.

VI. COOPERATION AND LIAISON.-

Has responsibility for handling all special operations about Scientific Police requested by Civilian and Military Courts, Administrative Agencies and Security agencies, and all units of National Police.

Supplying results of operations requested after completion of tests by either formal reports or letters.

Cooperating with police and security agencies in the field of criminal investigation to help these agencies find out the truth in those investigations in which scientific skills are required.

VII. PERSONNEL AND MATERIALS.-

The table of organization and equipment of Forensic Service will be determined by Personnel Service.

VIII. EFFECT AND APPLICATION.-

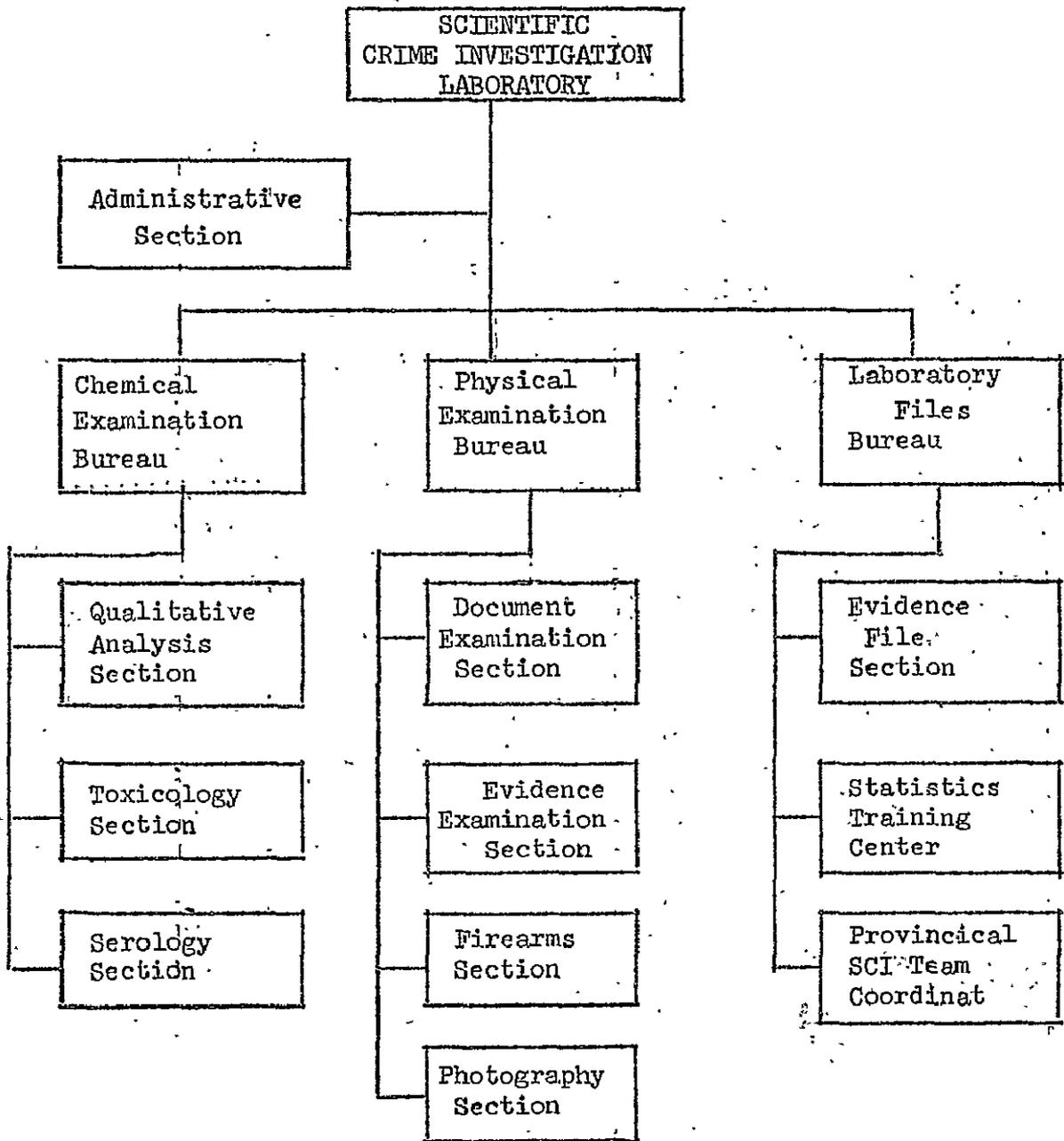
This Service Letter is in effect from the date of signing.

For Director General of National Police
Deputy of Director General
S/S BUI VAN NHU

Distribution:

- Office of Director General
- Special Police
- Blocks, Services, Bureaus of DGNP.
- Police Field Forces's Office
- River Police Force
- General HQs Commander
- National Police Academy and Training Centers.
- Directorates of National Police.
- Nationwide Police Headquarters.

ANNEX II: ORGANIZATION CHART OF THE VIETNAMESE NATIONAL POLICE LABORATORY



ANNEX III: US-Trained Vietnamese Technicians

NGUYEN VAN BAI	(1) MSU 1960-1 Yr: Laboratory Training (2) IPA 1968: Criminal Investigations
TRAN THIEN LAC	(1) MSU 1960-1 Yr: Police Management
NGUYEN XUAN TONG	(1) AID 1963-1 Yr: Firearms Identification
NGUYEN DINH GIAO	(1) MSU 1960-1 Yr: Laboratory Training
LIU KE	(1) MSU 1960-1 Yr: Laboratory Training
DO VAN VEN	(1) IPA 1969: Criminal Investigations