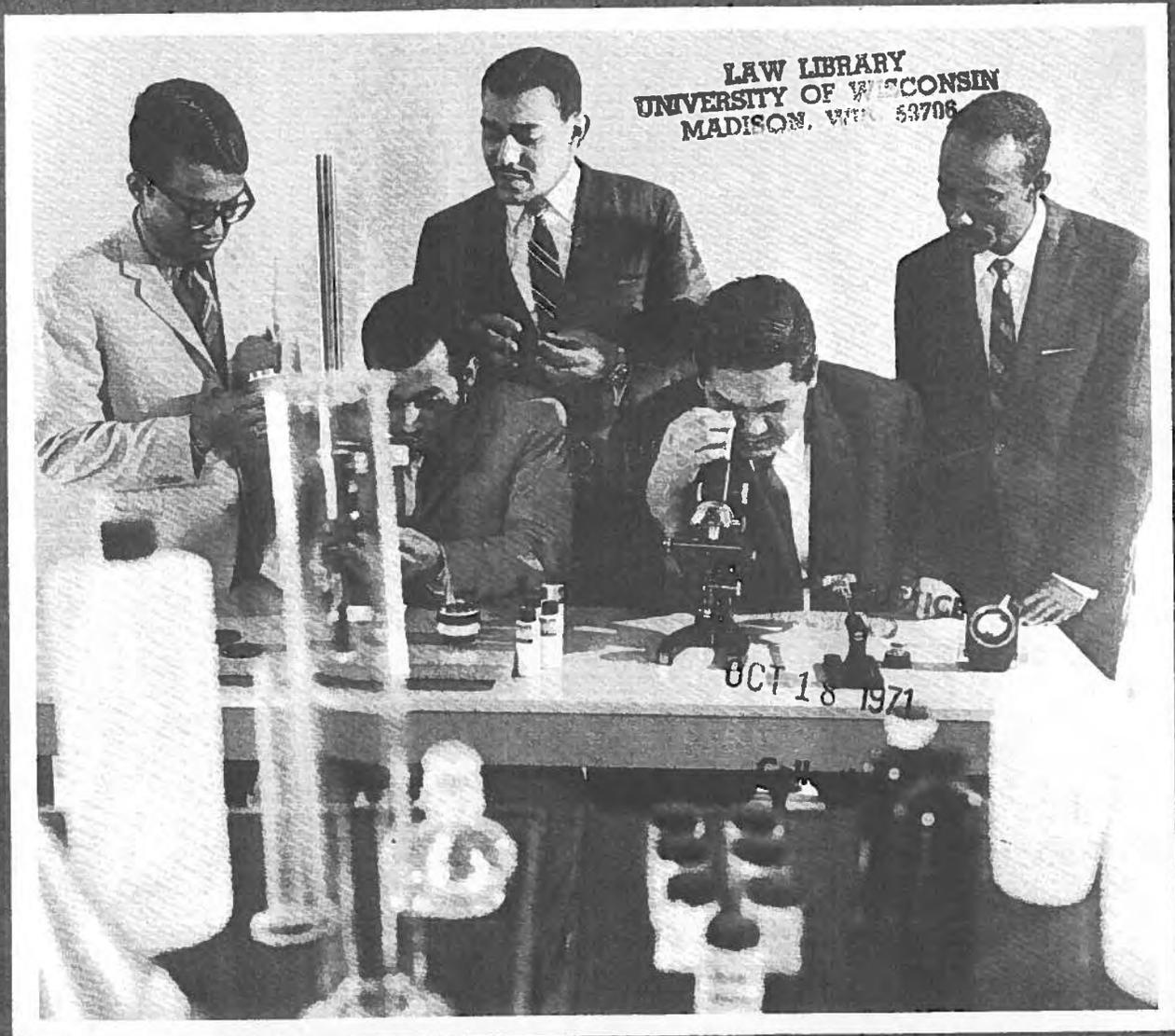


October 1968

INTERNATIONAL POLICE ACADEMY REVIEW



OFFICE OF PUBLIC SAFETY
AGENCY FOR INTERNATIONAL DEVELOPMENT

Director's Message . . .



Throughout the world today, nations and peoples are experiencing the upsetting and frequently painful ferment of change. We commonly encounter such terms as "revolution of rising expectations" or "technological revolution", widely used by the press and other communications media. There can be little doubt that expanding technological advances, including improved communications, create new awareness and desire that cause much of the unrest and ferment being encountered.

We in the law enforcement fraternity are acutely aware of this phenomenon as we daily confront the turbulent symptoms of change. In the face of this universal unrest, as criminal elements become aware of and begin to exploit the new technology, the agencies of law and order must not lag behind in the use of scientific methods.

The modern police organization finds the forensic scientist to be one of the most valued members of the law enforcement team, and the police laboratory an irreplaceable weapon in the unending combat against crime (see articles in this issue). However, we hold to the philosophy that instruments and technical devices are valuable only if properly applied by dedicated people, well trained in the methods and philosophy of science. With such persons utilizing the modern tools of our profession, we can be confident that the police will be more capable of assisting justice, law and order.

BYRON ENGLE, *Director*
Office of Public Safety

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United States of America

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Use of funds for printing this publication approved by the Director of the Bureau of the Budget.



**cover
photo**

IPA participants from various countries view police laboratory equipment.



Anti-terrorist Action

THAILAND'S FRONT LINE

Thailand shares territorial borders with Laos, Cambodia, Burma and Malaysia. Much of the thick jungle terrain along these border areas is mountainous. Transportation is a problem and, on many occasions, can be accomplished only on foot or by horse or elephant. Such areas are difficult to protect from intruders or Communist Terrorists (CTs) who infiltrate into Thailand from outside the country. The responsibility for the protection of these border areas is the function of the Border Patrol Police and the Provincial Police elements of the Royal Thai National Police.

**Major General
TEP SAROMPAL**
Assistant Commissioner,
Education Bureau
Thailand National Police
Department
IPA Senior Officer Class No. 3



They are Thailand's front line of resistance to the CTs, providing security for the rural people while simultaneously containing and suppressing the Communist Terrorists.

Because of the limitations of police deployment along such vast borders, in some cases the terrorist forces cannot be coped with by either the Provincial Police or the Border Patrol Police. When this happens, the Royal Thai Government deploys military forces to assist. This is the present case in Nan Province in the northern part of Thailand where a terrorist force from Laos, estimated at battalion strength, with modern weapons, crossed the border from Communist Pathet Lao units into Thailand. The terrorists of this particular battalion are of many nationalities—North Vietnamese, Pathet Laos, hill tribesmen and Communist Thais. The Royal Thai Government realized that eliminating the extensive terrorist deployment was beyond the capability of the police, so a military force has been mobilized to cooperate with the police in suppressing these Communist Terrorists.

In addition to using military and police forces to suppress the CTs, the government is accelerating rural development programs such as irrigation and construction of dams and reservoirs. The Border Patrol Police are also assisting hill tribes in various types of agriculture. The tribesmen cut down valuable trees in the jungle to make room for their farms. After a few crops are grown the soil is exhausted, so they move elsewhere and cut down more trees. By providing instruction on proper use of fertilizer and vegetable crops rotation, the government hopes the farmland will remain productive longer and, as a result, preserve the valuable forests.

Hundreds of one-room schools are being built and manned by the Border Patrol Police who teach the children of the tribesmen to speak, read and write Thai. The government is constructing more elementary schools throughout the country to reduce the percentage of the illiterate.

Many new roads and highways are being constructed; some are finished and are open for traffic. Using these new roads and mobile medical units, the Border Patrol Police are able to assist doctors and nurses in treating diseases and distributing medicine. Such projects help create good relations with the tribesmen and facilitate police operations in suppressing terrorism.

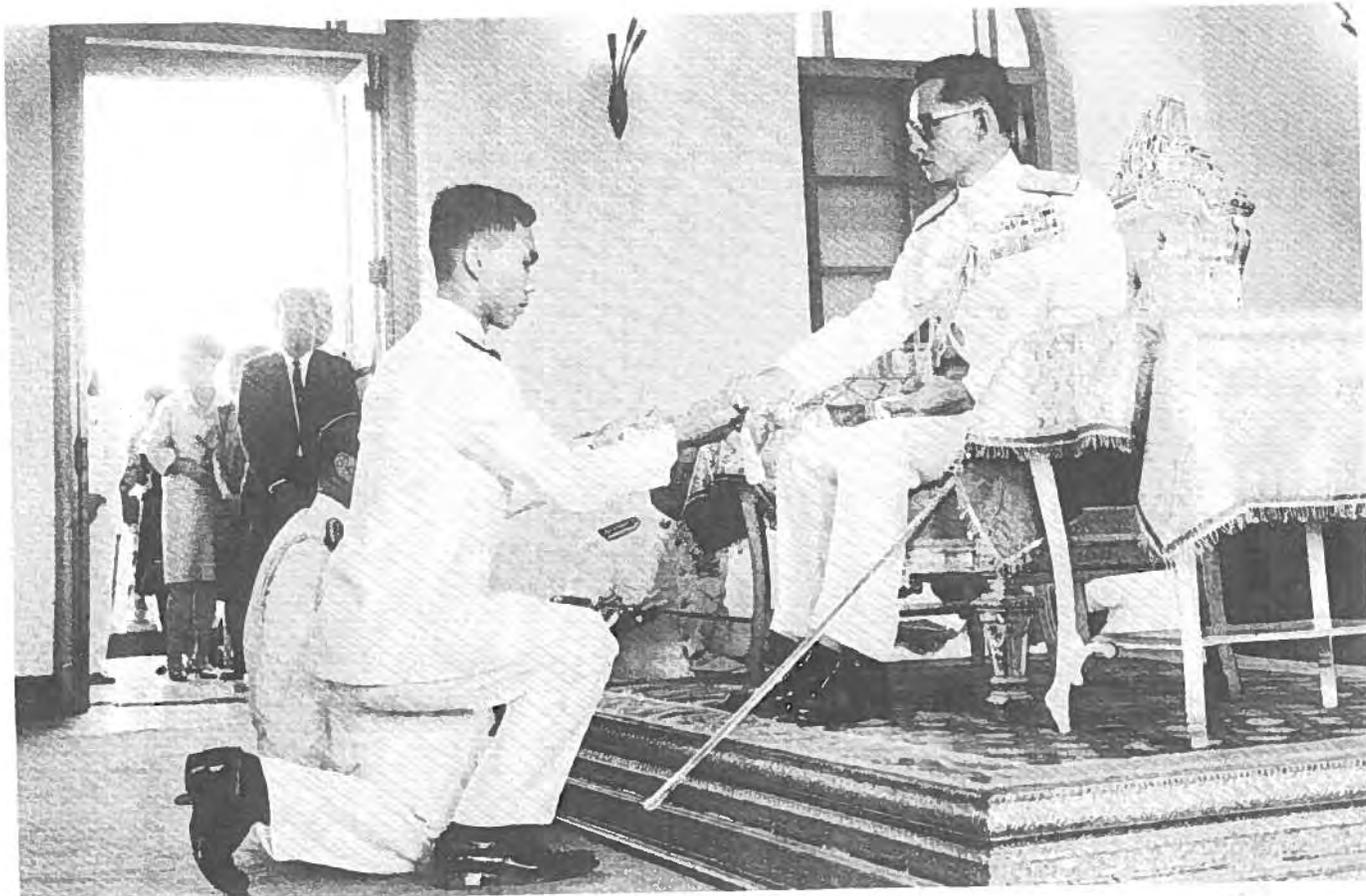
In Thailand a group of villages is known as a tambol. At present, the police department is constructing more tambol police stations, the main purpose being to protect villagers from terrorism and encourage them to fight against Communist Terrorists, assured that the police are there to assist.

Plans have been made to construct more than 1,000 tambol police stations, with a deployment of 20 policemen at each station. The Education Bureau must produce more than 10,000 qualified men to fill vacant positions and to provide the complement for the tambol stations completed during the 24-month period from July 1967 to June 1969. To achieve this, the Bureau is utilizing the facilities of the Metropolitan Police Training School and five Provincial Police Training Schools.

The training period for a new recruit is four and one-half months. Three months are allocated for training in regular police subjects and six weeks are for Chaiya (jungle warfare) training. This latter training is of the utmost importance for police operations at the present time. Chaiya training includes such subjects as jungle survival, the use of various types of weapons, short and long-range patrols, ambushes, counterambushes, counterinsurgency, and counter subversion. During the six-week period of Chaiya training, recruits are trained in both the classroom and in the jungle.

Another function of the Education Bureau is the training of commissioned police officers. At present more than 1,000 commissioned officers are needed to fill vacant positions. The Police Cadet Academy, which offers a four-year course, graduates less than 100 officers annually, so permission has been granted to recruit officer candidates from those who have obtained university degrees with majors in law, political science or public administration. After passing an entrance examination, these men are trained for six months then re-examined. Those who pass are commissioned as police sub-lieutenants. This method will commission around 100 new officers per year.

Examinations may also be given to sergeant-majors who have held that rating for at least four years. For those who qualify, there is a six-month training period and a final examination. Those who satisfactorily complete both phases are given the rank of sub-lieutenant. However, this is a difficult examination and when given in the past to over 1,000 candidates, only 50 received commissions.



Graduating police cadet receives symbolic sword from His Majesty, King Phumiphol Aduldej of Thailand

In-service training is another major concern of the Education Bureau. There are only two schools to fulfill this task. One is the Detective Training School, whose function is to give four months of advanced training in investigation, interrogation, scientific crime detection and administration to commissioned police officers. The other is the NCO Training School which has a three-month training course for non-commissioned officers below the rank of sergeant-major. The emphasis here is to teach all police subjects above the level of recruit training but below Detective Training School. Some subjects are similar to those taught in Detective Training School, but are less extensive.

The Education Bureau is planning to open two more courses. The first is intended for Inspectors and OCPDs (Officer in Charge of Police District), with ranks ranging from Captain up to Lieutenant Colonel. Subjects taught will be more advanced than those taught in the Detective Training School, and the emphasis for this three to four-month course will be placed on planning, administrative behavior, delegation of authority and decision-making.

The second course, with similar subjects, is designed for police superintendents with the rank of Lieutenant Colonel or Colonel. The period of training is expected to be from two to four weeks and the instruction will be conducted entirely in seminars. The difference between the two courses is based on the method of instruction and the emphasis for each subject. Planning for the new courses has been developed jointly with technical advisors and the proposal will be sent soon to the police department for approval.

Thailand is training a strong and capable police force in addition to her modern armed forces. Moreover, the Thai people are united behind Their Majesties, the King and Queen, and the Royal Thai Government. This well-planned program of the Education Bureau should produce capable policemen with the knowledge necessary to work effectively against the Communist Terrorists. Thai officials are confident that the problems created by the CT will diminish and, finally, be eradicated. ■

CRIMINALISTICS IN THE BRAZILIAN FEDERAL POLICE



**ANTONIO CARLOS
VILLANOVA**
Director, National Institute
of Criminalistics
Brasilia, Brazil

In Brazil those concerned with the subject known in other countries as Forensic Science have generally received the designation of Technical Police or Scientific Police. In 1947 the First National Congress of Technical Police met in São Paulo and recommended adoption of the term "Criminalística" or Criminalistics, which had for a long time been utilized by an early Austrian criminalist, Hans Gross. This word was used by those in police work who were concerned with the examination of physical or objective evidence, to define the discipline which encompasses the activities of laboratories and other associated special services.

The same Congress also sought, by means of a definition for criminalistics, to clearly define the field of this specific activity and to establish its limits in relationship to Legal Medicine or Forensic Pathology: "A discipline which has as its objective the recognition of external traces relating to the crime or to the identity of the criminal. The examinations of internal traces (on the living person or on the cadaver) fall within the jurisdiction of Legal Medicine."

The Brazilian Penal Code of Procedure, which, being a Federal code, applies throughout the nation, establishes in article 158 that when evidence is left as a result of an infraction of the penal law, examination of the corpus delicti, direct or indirect, is indispensable. The requirement for such an examination cannot be waived even by complete confession of the accused.

Such legal injunctions therefore pointed toward the creation of specialized services for the study and appreciation of physical evidence or corpus delicti in all of the large population centers. At first these services were always those of the Legal Medicine group. Identification services, both civil and criminal, had been introduced into Brazil in 1903, and the examinations which are today the function of Criminalistics or Technical Police were performed in laboratories connected with and dependent upon those services.

With the visit of Professor Rudolph Reiss, Director of the Technical Police laboratory of the University of Lausanne, Switzerland, and with the presentation of courses given by him in 1914 in Rio de Janeiro and São Paulo, a movement was initiated tending to give independent status to the laboratories and establishing independent services which, like Legal Medicine and Identification, were subordinate to the police organizations. Accordingly, the laboratory of the Technical Police was created in São Paulo in 1930 and three years later its counterpart in Rio de Janeiro was designated as the Cabinet of Expert Examinations. In 1955 this was named the Institute of Criminalistics, and, since establishment of the capital in Brasilia, has been known as Institute of Criminalistics of the State of Guanabara.

In conformance with the evolution and the necessities of the various police organizations in the states of Brazil, which possess administrative autonomy, similar specialized services were being created in Belo Horizonte (Minas Gerais State), Pôrto Alegre (Rio Grande do Sul), Recife (Pernambuco), Curitiba (Paraná), Salvador (Bahia), and elsewhere.

Generally speaking, these specialized services are carried out by Experts or Criminal Experts, public officials of various organizations who as a rule have university backgrounds in the fields of chemistry, physics, biology, engineering or medicine.

When the Federal Capital moved to Brasilia in 1960, consideration was given to the idea of endowing the Federal Police, which was undergoing reorganization, with one of the most modern, well-equipped sections for providing services related to

Dr. Antonio Carlos Villanova, Director of the National Institute of Criminalistics, organized it in 1962. After 33 years of service in the field of criminalistics, he came from Guanabara when the nation's capital city was moved to Brasilia. A college graduate in chemistry, Dr. Villanova has attended many courses of specialization in the United States, Germany, France, and elsewhere.

criminalistics—not only to meet the needs of police services in the Federal District, but also to supplement those of other states which requested assistance. In addition, this organization was to develop a full program of pure research. Consequently, the National Institute of Criminalistics was created.

An explanation concerning the Institute, its goals, organization, operational capacity and selection and training of its technical personnel, will give a complete picture of its position in criminalistics today and its role in the years ahead. Like Brasilia, the Institute was conceived with an eye toward the future.

The National Institute of Criminalistics (INC), is the technical organ of the Department of Federal Police (DPF)—or the Brazilian Federal Police—charged with the responsibility of examination and expert analysis necessary in criminal investigation and judicial action. This refers to the search, collection, study, and evaluation of physical evidence.

With its headquarters in Brasilia, the INC has as its principal and immediate obligations the response to requests made by the Federal Police (who have jurisdiction in the entire national territory over specific types of crimes), Police of the Federal District (who, in addition to the capital itself, have jurisdiction over the so-called satellite cities of Taguatinga, Gama, Sobradinho, Planaltina and Brasilia, which are included in the Federal District) and by the Federal tribunals. In addition to this, the INC responds to any request for cooperation or execution of services submitted by other police organizations or judicial authorities of any other state of the union, as well as other governmental agencies or Federal ministries.

Today, six years after its installation, the INC's activities have expanded all over Brazil, not only to meet the specific requirements of the Federal Police, but mainly to cooperate with the authorities of the remainder of the states, particularly in the more complex cases that require the utilization of very special equipment that other criminalistics laboratories in the country do not possess.

To service the requests which arrive from other points of the country and which constitute about 50% of the routine work of the Institute, the INC may send its experts and, at times, its equipment. For this purpose it has at its disposal especially-adapted vehicles in which the necessary equipment for preliminary examination of any type may be transported. This includes materials for photography, molding and casting, collection and packaging of physical evidence and of any material which may be submitted to INC laboratories for examination.

The National Institute of Criminalistics has four large divisions. The Administrative Division is charged with the direction of the Institute, personnel problems, material problems, functional organization, records and other administrative duties. The other three divisions are technical, including the Division of Criminal Experts for routine services; Criminalistics Research, charged with developing pure research projects; and Technical Archives, which collects all of the materials, weapons, and objects which may serve as reference standards for comparison or to aid in the resolution of specific types of crimes.

The growing development of the Federal Police Services determined that a great quantity of INC services would be required by Federal authorities,



still remaining at the former Federal capital, now the State of Guanabara. In 1966 a new section of the Institute was established in the City of Rio de Janeiro, which, though more modestly equipped, has the capacity to completely take care of a great number of routine cases or make preliminary studies of those that are more complicated, remitting to the headquarters in Brasilia those that require more technical resources.

At present, the establishment of two additional similar sections is being considered. One will be situated in the south and the other in the north of the country. These sections are expected to begin functioning in the coming year.

In order to carry out its technical services the INC has at its disposal laboratories and special services dealing with crime scene examination, questioned documents and counterfeit money, forensic ballistics, applied microscopy, trace evidence, analytical chemistry, biochemistry and immunology, spectrography and spectrophotometry, chromatography (column, paper, thin layer, and gas), and instrumental analysis. In addition there is a complete photographic service with two dark rooms, a studio, and a drafting service.

The Brasilia headquarters of the INC was functionally designed and constructed for its services and includes a combination of two buildings, providing a total area of 1,440 square meters. In addition to the laboratories and administrative rooms, the buildings contain a library, an amphitheater for film projection and conferences, and a cafeteria and living quarters for personnel—either staff members of the Institute who remain on service during the night or for guests coming from other states to study or do advanced work at the Institute.

With regard to the selection and training of its technical personnel, the INC has developed an intense teaching activity in conjunction with the National Police Academy, another organ of the Federal Police, as well as with the University of Brasilia. INC technicians are divided into two categories: those who have received their college degree and those who have taken university courses, particularly chemistry, physics, and civil engineering.

Since 1962 these people have received intensive specialized training in various courses which have had as their principal objective the development of knowledge concerning the use of INC equipment and its immediate application in criminalistics. This is an area of training not encountered in the college or university curriculum. The University of Brasilia has also given a course in physics as applied to the field of criminalistics. In all, these courses have included more than 800 classroom hours.



An INC expert examines and collects evidence at crime scene

The INC, jointly with the National Police Academy, has always provided specific courses for the improvement of its experts, especially on subjects concerning internal security, homemade bombs and clandestine explosives. In 1964 the INC offered a course for Criminal Experts from the police organizations of other states, which attracted 18 students from eight different services. Another special course designed for officers of the armed services was concluded recently, with members of the Army, the Navy and the Marines participating. Several Institute technicians have also participated in specialized courses in foreign countries, notably the United States.

At present, the National Police Academy is giving another course, especially for the INC, comprising aspects of nuclear energy applied to criminalistics. Our aim in the future is to utilize, by means of an agreement, the equipment of the Institute of Nuclear Energy of the University in Belo Horizonte, approximately one hour from Brasilia by plane.

In this sketch of the organization, objectives and the operational and human resources of the Institute, we believe that the present condition and the future of our criminalistics organization has been clarified. There remains only the necessity of adding a few words touching upon the doctrinary aspect and upon the connection of our work with that of other police and judiciary services.

From the doctrinary point of view, the principle of a dynamic approach to criminalistics has been adopted by the INC. Such a point of view concerns itself with the mechanism, the manner, and the means with which a certain crime was committed. We are thus opposed to an attitude of work which is static, which concerns itself with simple verifications and material examinations which are at times merely formalities.

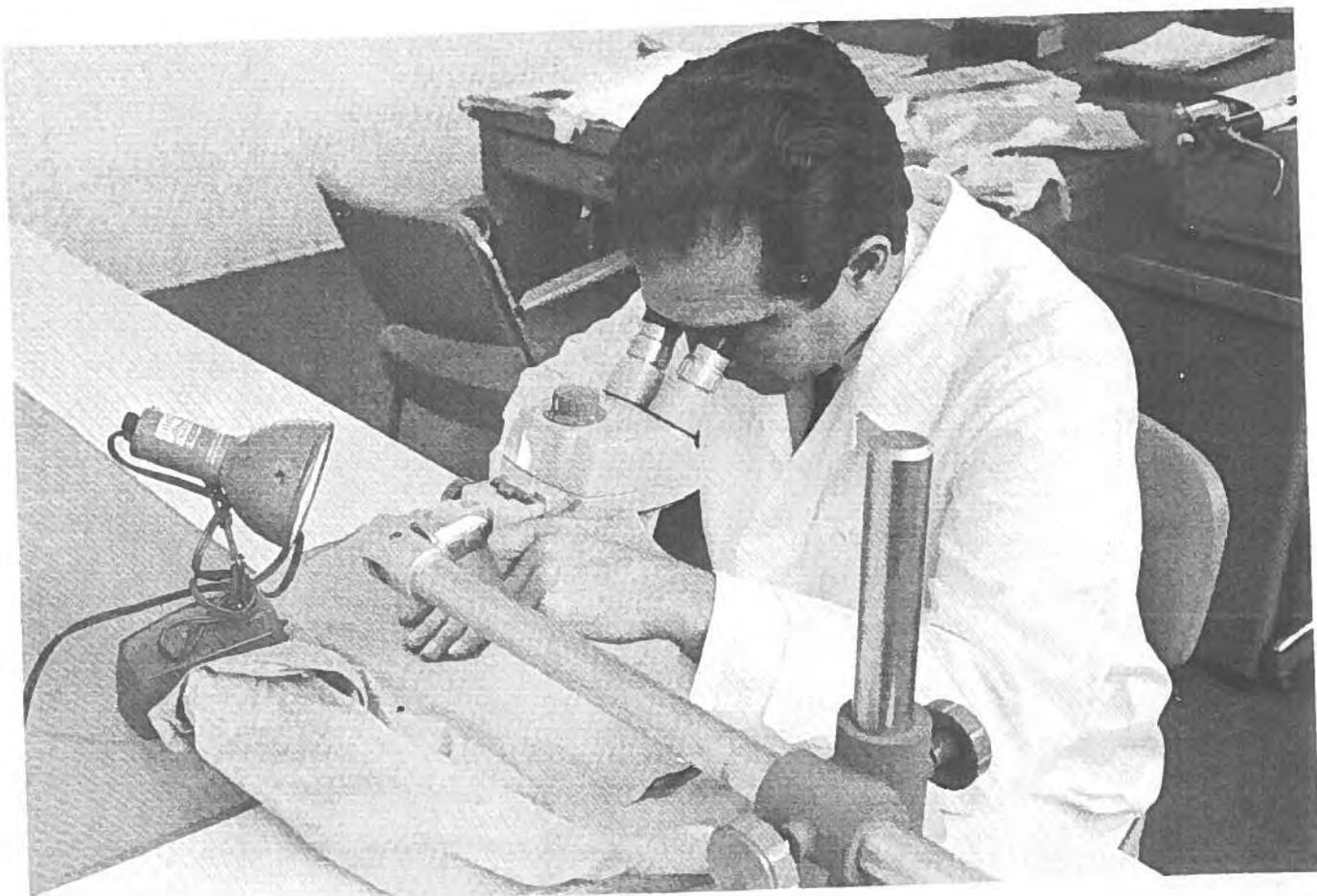
We agree with the concept that criminalistics, as a science of criminal investigation, includes, along with the physical or objective component and the tactical component, a psychological component, touching upon the animistic processes which are

interested in the verification of the truth. We arrive, therefore, at the frontiers of criminology.

With respect to the inter-connections of the INC with other technical organizations of the police or with the judiciary, it should be pointed out that a complete independence of our criminalistics organization, in relation to other services, was sought and obtained. The Director of the INC is, by legal requirement, a Criminal Expert, and the Institute in its entirety is subordinate to the General Director of the Federal Police Department. Within its competence and in the course of performing its service, it deals directly with any other agency or police, judicial or administrative authority.

However, the operational liaison maintained with the other technical services such as the Medico-Legal Institute and the National Institute of Identification is excellent. In many cases teams composed of criminal experts, pathologists, fingerprint experts and detectives are working in complete harmony, and cooperation with the judicial or prosecuting authorities has been the best possible. ■

In one of the INC laboratories, expert checks foreign elements in clothing



THE USE OF NINHYDRIN IN THE DEVELOPMENT OF LATENT FINGERPRINTS



MORRIS GRODSKY
Criminalist, IPA

Among the many varieties of physical evidence employed in criminal investigation perhaps the most highly regarded are those patterns left by the friction surface of the skin—the palm, sole, and finger impressions.

Since the beginning of this century, the utility and validity of this type of evidence has become firmly established. However, even in a field as highly exploited as that of fingerprint examination and identification there are new developments. It is one such new technique, the Ninhydrin method for latent fingerprint development, which provides the subject of this article.

The Ninhydrin process of developing latent fingerprints on paper has come into wide use in recent years. It has certain advantages over the iodine vapor and silver nitrate methods previously utilized. These advantages are such that the Ninhydrin technique has been called one of the major advances in the field of identification in recent years.

The first report describing the practical application of Ninhydrin to the development of fingerprints on paper was published in the March 1954 issue of the scientific publication, "Nature." However, it had been known for some time that Ninhydrin (triketohydrindene hydrate) would react with certain amino acids to produce a colored product. Consequently, there has been an area of doubt in the United States concerning patent rights over this process, and many authorities question the validity of the patent rights.¹

Preparation of the Ninhydrin Developing Solution

Ninhydrin is available as a powder which may be mixed with any of a number of solvents. Some solvents which have been used are acetone, ethyl ether, petroleum ether, ethyl acetate, methyl alcohol, and ethyl alcohol.

There seems to be considerable latitude regarding the concentration of Ninhydrin which may be used in the mixture, varying widely from 0.2% to as much as 5%. Although acceptable results are obtained with widely varying percentages, there is an indication that the higher-percentage solutions hasten the reaction time. It has also been suggested that high concentration causes increasing discoloration and may produce prints which are not suitable for comparison purposes. Certainly, each individual working and experimenting with this technique will eventually select a mixture which provides the most satisfactory results.

The Solvent

Selecting the frequently-used proportion of approximately 1.5%, 1.5 grams of Ninhydrin is dissolved in 100 cubic centimeters of the selected solvent which could be ethyl alcohol or acetone. This solution is then ready for application. However, when such a solution is applied to written documents, it may cause some spreading or diffusion of ballpoint or typewriter-ribbon inks. To eliminate this possibility Mr. David Crown of the United States Postal Inspection Laboratory has devised a Ninhydrin solution which would not effect such writing.

Crown's method is as follows: 7.5 grams of Ninhydrin is dissolved in 40 cubic centimeters of methyl alcohol. When completely dissolved, 960 cubic centimeters of petroleum ether (also known as petroleum benzine or ligroine) is added and stirred for several minutes. The mixture is poured into a separatory funnel and allowed to stand for five to ten minutes. Two layers are formed, a small quantity of deep yellow liquid on the bottom, and a much larger quantity of less-viscous pale yellow liquid on the top. The deep yellow phase on the

bottom is drawn off and discarded, as it contains methyl alcohol, deleterious to ballpoint inks. The pale yellow upper phase is used to process documents. It will not cause bleeding or dissolution of inks normally encountered.

It is most desirable to make up a fresh solution prior to testing for fingerprints. Although storing the solution in a closed amber bottle prolongs its potency, it will deteriorate after a month even under the best of conditions. In any event, both newly-mixed and stored solutions should be tested before applying to evidential materials to verify that the reagent is indeed active.

Application of the Reagent

The prepared solution of Ninhydrin may be applied to the document in a variety of ways. The paper may be dipped into the solution, the solution may be brushed or swabbed over the surface, or the reagent may be sprayed.

Crown recommends the dipping of the paper into the solution as the most convenient technique. If this technique is used, a glass tray rather than a metal tray should be used for the solution. The document is immersed in the liquid, removed immediately, and placed upon some type of hanger to allow the solvent to evaporate.²

The solution may also be applied with a brush or cotton swab. Mr. Andre H. Moenssens suggests that rubber gloves should be worn by the technician when this method is used.⁴ Indeed this is good advice regardless of the method of application, inasmuch as the reagent will stain the skin.

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GN OF THE CHEVRO

Road map recovered from abandoned stolen car. Smudges were developed by Ninhydrin, revealing excellent print of suspect

Enlarged fingerprint, showing identifiable detail elicited through use of Ninhydrin

The method generally recommended by those who have utilized and investigated the use of Ninhydrin is the spray method. Spraying may be accomplished by using a dentist's spray or even a rubber bulb-type atomizer to blow a fine mist of the solution on the paper. A commercially produced pressurized aerosol can of Ninhydrin solution is also available for this purpose. However, because of the desirability of using fresh solutions, most laboratory personnel will probably prefer to make their own solutions with the solvents found to be most desirable.

Regardless of how the spray is produced, it is strongly recommended that the spraying be carried out under a fume-hood so that the vapors will be carried away in the exhaust. The laboratory worker will discover that the fumes of Ninhydrin solutions, described as toxic, are extremely irritating.

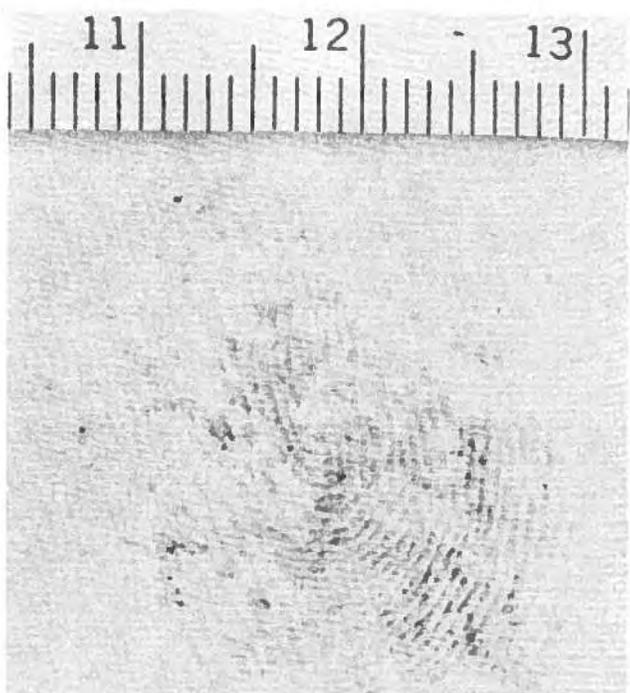
An advantage of the spray technique is that signatures and important written material may be masked or protected by strips of glass, placed on both sides of the document covering the critical areas.

Development

Following the application of Ninhydrin the prints must be developed either by application of heat or by simply allowing spontaneous development at room temperature. If spontaneous development is used, the prints may develop almost immediately or may require periods of time as great as sixty days.

Heat processing accelerates the development, but some authorities believe that it may diminish the intensity of the final print or might possibly discolor the document. Heat may be applied through use of an infrared lamp, a clothes iron, or by placing the document in an oven. Recommendations regarding desirable temperature range from 80° centigrade to 150° centigrade. A too-low temperature may slow down the process and too much heat may discolor the paper and result in prints of lesser intensity or contrast. There is an indication that development in steam will produce a stronger print and in general a humid environment is preferable to one which is dry.⁶

Bear in mind that once the paper has been treated with Ninhydrin it is in a sensitized condition so that if it is handled subsequently with the bare fingers, new fingerprints of the technician will begin to appear over a period of time. To avoid this possibility, the document should be placed in a transparent protective cover. It is also possible to desensitize the paper by washing with acetone, which will remove the excess Ninhydrin without affecting the developed, visible prints.⁸



Fresh print developed by author, using Ninhydrin in acetone. Kept in folder to prevent handling, print was photographed four years later, showing durability

Questions Concerning the Use of Ninhydrin

Some questions of interest concerning the use of Ninhydrin are now considered:

Can Ninhydrin be used to develop old prints?
Yes. This method has been used to develop prints which are more than 30 years old.⁶

Are the Ninhydrin-developed prints permanent?
No. Developed prints will fade over a period of time ranging from about three months to several years. In any case, it is always a wise procedure to photograph the developed prints to make a permanent record of them. A fixative has been described which may be applied as a spray. This consists of an approximately 2% solution of copper chloride in methyl alcohol. Upon fixation, the normally purplish-colored pattern changes to a reddish color following the evaporation of the alcohol.⁶

Can the colored Ninhydrin reaction products be removed? Yes. Sodium hypochlorite, oxalic acid, a 1%-3% solution of ammonia, and chlorine gas have all been suggested as bleaches to remove the developed Ninhydrin.

How can Ninhydrin be used in conjunction with Iodine vapor or Silver Nitrate development?
Iodine vapor treatment may be used first. This may be followed by Ninhydrin treatment and the Ninhydrin in turn may be followed by the Silver Nitrate treatment. Any other sequence would eliminate the possibility of using all three tests.



Print development after passage of four years. Ninhydrin has been used to develop prints more than 30 years old

What is the basis of the Ninhydrin method? The Ninhydrin process of developing latent fingerprints on paper is based upon the presence of proteinaceous materials, specifically α -amino acids, in the perspiration. The Ninhydrin reagent reacts to these amino acids in the fingerprint trace and produces a visible purplish-colored pattern.

Does the age of the fingerprints affect the results? Although some writers have suggested that Ninhydrin works better with old prints than with fresh prints, experiments carried out by researchers in the United States Postal Inspection Laboratory indicate that fresh prints and old prints react about the same.^{1, 2}

Is the Ninhydrin process capable of developing the latent fingerprints of all individuals? Obviously, there is great variation in the latent prints left by different individuals or even by the same individual at different times. It has been suggested that some persons apparently have insufficient amino acids in their perspiration to permit a satisfactory color reaction.³ Mr. C.J. Edwards and his co-workers, however, carried out a survey which indicated the contrary. Interestingly, they also found indications that younger people—under 25 years of age—tended to give stronger results than older subjects.⁷

Caution: Since the sizing or finish on some papers is of a gelatinous nature and would itself react positively with the Ninhydrin reagent, it would be well to test a corner or unimportant area of the paper to ascertain that the paper itself will not react.

It is also important to consider the nature and significance of the document and its contents before applying any procedure such as the Ninhydrin process. Consider important writing which may be destroyed or modified. Bear in mind the possibility of color changes which might result. Use sampling and testing procedures when possible, and, if necessary, consult with proper legal or administrative authorities before proceeding with this method.

Conclusion

In this article we have attempted to present an overall view of the Ninhydrin method of developing latent fingerprints on paper. It is our belief that while this method provides no magical panacea, it does present the police laboratory scientist with a simple, sensitive and useful technique. We believe that laboratories which have not yet experimented with this process will be extremely gratified with the results available to them once they initiate the use of Ninhydrin in the development of latent prints on paper. ■

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26 Countries, 146 Officers

OCTOBER GRADUATION



One hundred, forty-six police officers from abroad—the second-largest group to graduate from the International Police Academy—heard a General of the U.S. Army stress the importance of cooperation between civil police and military forces. Speaking at the October 4 graduation, Major General William E. DePuy, referring to the maintenance of internal security, stated that “it is the police force which can and must retain the early initiative, usually . . . when the general public may be unaware of the scope and nature of the threat . . .”

General DePuy, Special Assistant for Counter-insurgency and Special Activities, Office of the Joint Chiefs of Staff, said that “where there is a domestic threat, the police possess—and should possess—a legitimacy which the military should not appropriate. The police have the authority and the responsibility to deal with individuals by due process of law,” and, he stated, the citizenry accepts this authority. Military force, he emphasized, should be brought into play only in extreme circumstances.

Drawn from 26 countries of Latin America, the Near East and South Asia, Africa, and the Far East, the graduating participants comprised four classes at the Academy, with instruction delivered in three languages. The groups were English-language General classes 19 and 20, Spanish-speaking Inter-American General class 37, and the second French-speaking General class to take studies at the IPA.

Valedictorians selected by the participants were Inspector Herman E. Ricketts of the Jamaican Constabulary Force, speaking on behalf of the two English classes; Major Raul Ferrada Ibanez of the Carabineros of Chile, for the Inter-American class;



and Commissaire Principal Cao Xuan Hong of the National Police of Vietnam, for the French-language class. Each spoke of the deep ties of friendship made by the graduates, expressing appreciation for the opportunity of sharing experiences at the Academy. Mr. Ferrada, speaking of the national and cultural differences of the participants, said that they had found "a common denominator, which is providing efficient services to the community." Mr. Hong appealed for moral support for the current war in his country and quoted a Vietnamese author: "The road ahead of us is extremely hard; not because of the streams, and the mountains in our path, but because of the difficulty to find within ourselves the will to cross these chasms and summits." He likened this to the task of the police.

"We are deeply conscious of the tremendous responsibilities that fall on the police . . . of the Free World," said Mr. Ricketts, speaking for the English-language classes. "Today, the words 'brother's keeper' take on greater significance as the world is becoming increasingly smaller and man . . . must live together with his fellow man." Continuing, he added: "What is it that unites us? It is the one thing that all peace-loving people cherish and dream of . . . the search for freedom, liberty and justice, summed up together—the Rule of Law."

Other class-selected representatives presented bronze and silver mementos to the IPA. Sous-Commissaire Gaston Kayembe of the National Police, Democratic Republic of the Congo, and Commissaire Marc Monteillet of the National Police of Chad represented the French class; the Inter-American class selected Comisario Cipriano Becerra of the Judiciary Technical Police of Venezuela and Lt. German Torres of the Panamanian National Guard;

Inspector Saeed Adib Attayeh of the Somali Republic Police Force and Major Wattana Suchiritakul of the National Police of Thailand did the honors for English class 19; and, for English class 20, those selected were Redactor Le Huu Tong of Vietnam's National Police and Lt. Col. Muslihat Wiradiputra of the National Police Force of Indonesia.

Gen. DePuy, who entered the Army as a Lieutenant and has since been decorated numerous times by the U.S. as well as by France and Vietnam, spoke of the problem of insurgency in many countries of the world. The target of insurgency, he said, "is the people, so the civilian agencies, responsible for caring for the needs of the people, have a major role in eliminating grievances, creating unity, building national pride and confidence in their governments. Chief among those agencies—and at all levels—are the police forces. Living among the people, protecting them, enforcing the law in a just manner places them in a position where they can do more than any other group to gain the confidence, respect and support of the people."

General DePuy was introduced by the Acting Director of the Office of Public Safety, Johnson F. Munroe, who later awarded the diplomas to the graduates. Michael G. McCann, the Academy Director, presided at the ceremonies, which were attended by friends of the graduates, representatives of their Embassies, distinguished government and law enforcement officials, and other participants currently attending the Academy. A reception in the student lounge followed the ceremonies.

Music was provided by a large contingent of the U.S. Marine Band orchestra, under the excellent direction of Captain Dale Harpham. ■



POLICE COLLEGE AT GO-CONG



NGUYEN HUU NGOAN
Chief of Police
Go-Cong Province, Vietnam
Participant, 1961

While in the United States in 1960-61 I had the opportunity to visit several California colleges and become acquainted with various courses in police science. It is well known that California colleges pioneered in teaching police science and administration, and that many other colleges throughout the United States have since established such courses. It is hoped that in the near future we will have law enforcement programs in schools of higher learning in Vietnam.

In Go-Cong we decided to conduct a police science course of our own, an International Police Academy in miniature, perhaps, or simply a form of in-service training. The course had three objectives: the first was executive development for young potential leaders; the second was to critically examine some of the other free-world police systems; and the third was to assist, through this pilot program, in determining the feasibility and desirability of conducting similar courses in the future. The program was not intended to supplant any phase of current National Police training.

The course was divided into two phases. The first consisted of classes in administration, intelligence, investigation, resources control, riot control, criminal law, community relations, and weapons. My staff and I taught the police classes. The class in Criminal Law (eight hours) was taught by Judge Nguyen Duc Quy of the Court of First Instance. We were extremely fortunate to have Judge Quy; it is very unusual to obtain a guest lecturer of his stature for any but a formal college class. For the subject of Community Relations the lecturer was

Mr. Le Van Cang, Chief of Education in Go-Cong Province. Again we were fortunate in having a leading citizen of the community offer the benefit of his knowledge and experience. The lecturer in the Weapons class was Mr. Robert C. Joerg, an American with the Public Safety Division of the Saigon offices of the Agency for International Development, and an internationally-known weapons expert. With the exception of the weapons class, all of the first phase was conducted in the Vietnamese language.

The second phase of the course was a study of the origins of Western law enforcement concepts. The instructor was Mr. Bruce Couston, Public Safety Advisor in Go-Cong and former professor of police science at Cochise Junior College, Douglas, Arizona. He was assisted by an interpreter, who did an excellent job.

No suitable text was available so the class wrote an outline or workbook, in both Vietnamese and English. The workbook contained three main parts: significant quotations by noted police authorities; an outline of Vietnamese history, to assist the student in correlating important dates in the development of Western law enforcement with what was happening in his own country at the time; and a glossary of important police personages, landmarks in the evolution of police, and some police terms. Each student received a copy.

A number of films, provided by the Vietnamese Information Service and other organizations, were used. Some films had Vietnamese-language soundtracks; problems concerning training films with English-language soundtracks were solved by eliminating the sound and having the interpreter do the narration, using a sound-powered microphone.

Lack of consistent or continuous electric power is not an uncommon problem in Vietnam. Therefore, it is never certain that a training film can be shown even when a portable generator is available, and so the instructor must always be prepared to present other material.



Chief Nguyen Huu Ngoan with Public Safety Advisor Bruce Couston during seminar

As indicated previously, any class conducted in the English language posed problems. Only a few of the students had even a slight knowledge of English. To overcome this problem, the second phase of the course was conducted at a reduced pace, and the abilities of the interpreter were used to the fullest. Here the key was "RIP"—Repetition, Interpreter, Pace.

The classes were held in the Go-Cong elementary school or, in some instances, outside. Total instruction time, including the two-hour final examination, was forty-four hours. The course was not easy, nor did all the students pass. A formal graduation ceremony was held at the police station, with Judge Quy as the principal speaker, and the six students with the highest grades each received a book on Vietnamese criminal law. A diploma was presented to each graduate, and a record of his achievement was sent to the Directorate General National Police. In addition, the grades and records of each student were sent to my office.

This was believed to be a successful program. It was not without faults, of course, but we learn by doing, and the faults can be corrected. Although the class was small, it was composed of thoughtful students who made a sincere effort to improve themselves as police officers and citizens. It was no "snap" course.

The school was a good example of the utilization of a variety of community and governmental resources. In addition to the police staff, two prominent Vietnamese professional men and two U.S. advisors served on the teaching staff. The resources of the local school system, the Vietnamese Information Service and other organizations were used in addition to the contributions made by the Go-Cong Police Department. It was a rewarding experience for all who participated, students and teachers alike. It made meaningful the words of an old Vietnamese proverb: "Buy a torch to light up the road; read a book to distinguish right from wrong." ■

Discussion during outdoor weapons class in Go-Cong



ACTIVITIES AT IPA



The three-month period since publication of the last issue of the Review saw a continuing round of sports and other activities at the Academy, involving many participants. The challenge of sports never fails to find adherents, and the several forms of physical "combat" elicit much enthusiasm from scores of students. The pleasure of sports knows no age limits; if one cannot participate he can always enjoy being a spectator, and it frequently appears that as much energy is expended by the latter as by the former, as they shout their encouragement for the teams of their choice.

Sports Activities

A volleyball tournament was held in August, involving the four classes studying at the Academy: English General classes No. 19 and 20, French General class No. 2, and Inter-American General class No. 36. Instead of an elimination-type tournament, each class team was required to play the teams of the other classes. The team ending with the most victories would become the accepted champion.

The four teams trained earnestly, but when the action began it was soon apparent that the French-language class and the Inter-American group were the real contenders. They quickly disposed of their opponents and "squared off" with each other. The French class took the first match and the victory seemed almost assured in the second match, but the Spanish-speaking class rallied and took the second. The playoff game was won by the Spanish class members, bolstered by the voluble support of their comrades.

Members of the winning team, drawn from Inter-American class No. 36, were Commander Dardo O. Cardenia (Argentina); Captain Raul Escobar and Detective Miguel A. Garcia (Bolivia); First Lt. Augusto A. Moraes and Lt. Petrucio A. de Alcantara (Brazil); Second Lt. Simon O. Melendez (Guatemala); Lt. German Torres (Panama); and Captain Claudio Calderon (Chile).

All four classes were also represented in the table tennis tournament, each participating in singles and doubles matches. Despite tough opposition—and amid loud shouts and applause from onlookers—the French-speaking class won in both categories, remaining unbeaten throughout the contest. Winners were Commissaire Quach Van Trung (Vietnam) in the singles; and, in the doubles, Principal Redactor Nguyen Huu Tuan (Vietnam) and Captain Kongkham Luangkhot (Laos).



Soccer Matches were held between French class No. 2 and English class 19, with the victory going to the French class; and between English class 19 and Inter-American class 36, which resulted in a 2-2 tie. The Spanish-speaking team led the attack during the early stage of the game, but English class 19 caught its "second wind" and scored two consecutive goals to even the score.

A new-to-the-Academy sport made its appearance during this period—that of the famous Thai boxing—and, except for the Thai students who participated, all others were glad to be spectators. It is a rough sport, utilizing not only the gloved hands but also the feet—a form similar to that of the dangerous savate made famous years ago, largely by the French.

A number of Thai police students took part in the event, which included a showing of a film on Thailand, a brief narration on the history of Thai boxing, a demonstration of the ceremonial ritual which precedes the contest, and two boxing bouts. During an intermission, Major Sittichai Bhamornbutr (English class 19) of the Thai National Police, who acted as narrator, displayed and described a carved model of the Thai Royal Carriage that is used by the King in ceremonial parades. The model was later presented to the International Police Academy.

Other Thai National Police officers participating in the event were Captain Damri Nissaipan (English class 19), who acted as referee; Captain Anant Senakanth (English class 19) and Captain Sumon Sophonsiri (English class 20), contenders in the first bout; Major Seri Hastanand and Lt. Vatnachai Varunaprabha (both of English class 20), who were the gladiators in the second bout. The program and

the boxing demonstration were thoroughly enjoyed by those who attended—which included practically the entirety of the four classes then studying at the IPA, plus the faculty and staff.



Capt. Sumon Sophonsiri delivers kick to Capt. Anant Senakanth, as Capt. Damri Nissaipan referees



Capt. Damri Nissaipan shows ceremonial ritual which precedes boxing

In Memoriam

Colonel

PEDRO VELIZ URBINA

(retired),

Former Chief,

Telecommunications Service,

Carabineros of Chile,

died of a heart attack

on September 6, 1968.

Member of

Senior Officers Course No. 2

Firearms Competition

The proficiency shown in the revolver competition between the three classes (French class 2, English class 19 and Inter-American class 36) resulted in new records being set in the indoor firing range of the IPA. The four-man team of English class 19 broke the previous IPA target shooting record of 1,067 points when it scored 1,105. The four were Major Sittichai Bhamornbutr, Major Sornsee Suthisor and Captain Damri Nissaipan, all from the Thai National Police, and Major Abdulaziz M. Af-founh of the Public Security Forces of Jordan.

Another IPA record was shattered when Captain Damri Nissaipan achieved the highest individual score ever set in IPA qualifying rounds—290 points. In the final competition, Captain Damri scored 287 points, tying the record set previously at the IPA. The winners of the firearms competition—like those in the various sports activities—were presented IPA perpetual trophies and the hearty congratulations of their classmates.

National Holidays

Independence Day ceremonies were conducted for 14 countries during the period since the Review's last publication. In each instance the national anthem of the nation was played and Academy officials paid quiet but sincere tribute to the country, the day on which it achieved its sovereignty, and the friendly relationship existing between the particular nation and the United States. Ranking members of the countries' representatives at the Academy responded in kind, expressing pleasure and appreciation for the opportunity to attend the IPA and for the interrelationship between the countries and the police organizations.

Ceremonies saluting the following nations were held recently on their Independence Days: Colombia (July 20); Liberia (July 26); Jamaica (August 5); Bolivia (August 6); Indonesia (August 17); Malaysia (August 31); Brazil (September 7); the Central American countries, Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua (September 15); Chile (September 18); and Saudi Arabia (September 23). ■



Members of French General class 2 were unbeaten in table tennis



IAGC 36 receives volleyball award



Thailand's Capt. Damri Nissaipan receiving firearms Certificate from IPA Director

Reason is the life of the law;
nay, the common law itself is
nothing else but reason . . .
The law, which is perfection
of reason.

Sir Edward Coke
1552—1634

