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Australian Army History Unit

0120000891
16 July 2014

AUSTRALIAN ARMY JOURNAL



No 128

JANUARY

1960

Notified in AAOs for 31st January, 1960

MILITARY BOARD

Army Headquarters

Melbourne

1/1/1960

Issued by Command of the Military Board

A handwritten signature in cursive script, appearing to read 'B. W. Smith', is written in black ink.

Distribution:

The Journal is issued through Base Ordnance Depots on the scale of One per Officer, Officer of Cadets, and Cadet Under Officer

FRONTISPIECE

In July 1942 the Japanese landed at Buna on the north-east coast of New Guinea and began their advance across the Owen Stanley Range with the object of capturing Port Moresby. In conjunction with this operation they planned to capture Milne Bay at the south-eastern tip of the island. The loss of Milne Bay with its airfield would have had very serious consequences for the Allies.

A Japanese force landed at Milne Bay on the night 25/26 August and was immediately engaged by forward elements of the Australian garrison, consisting mainly of 7 and 18 Brigades, under the command of Major-General C. A. Clowes. In a battle which lasted until 7 September these formations, supported by 75 and 76 Squadrons Royal Australian Air Force and elements of the USA 43 and 46 Engineer Regiments and 709 AA Battery, completely destroyed the Japanese force.

This was the first defeat inflicted on the Japanese on land since they began the war in the Pacific on 7 December 1941.

The picture shows an Australian patrol pursuing the retreating Japanese after the main action had been fought.

AUSTRALIAN ARMY JOURNAL

A Periodical Review of Military Literature

Number 128

January, 1960

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Battle of Milne Bay—26th August-7th September, 1942

AUSTRALIAN ARMY JOURNAL

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The AUSTRALIAN ARMY JOURNAL is printed and published for the Directorate of Military Training by Wilke & Co. Ltd. The contents are derived from various acknowledged official and unofficial sources and do not necessarily represent General Staff Policy.

Contributions, which should be addressed to the Director of Military Training, Army Headquarters, Melbourne, are invited from all ranks of the Army, Cadet Corps and Reserve of Officers. £5 will be paid to the author of the best article published each month. In addition, annual prizes of £30 and £10 respectively will be paid to the authors of the articles gaining first and second places for the year.

UNITED STATES ARMY, ☆ ☆ ☆ PACIFIC ☆ ☆ ☆

Reprinted from the October 1959 issue of the *MILITARY REVIEW*,
Command and General Staff College, Fort Leavenworth, Kansas, USA

Material for this article was furnished by Headquarters United States Army, Pacific.—Editor, Military Review.

From the Hawaiian Island chain in the middle of the Pacific to the demilitarized zone in Korea extends a vastly important and delicate area vital to the security of the United States and the Free World.

Within this approximately 12 million-square-mile area lie Hawaii, Korea, Japan, Okinawa, Taiwan, and the Philippines, where combat-ready United States Army troops stand guard to meet any attempt at aggression by Communist forces.

Responsibility for the command of these widely dispersed forces was assigned to General I. D. White, Commander-in-Chief, United States Army, Pacific, on 1 July 1957.

On that date the Far East Command, then in Japan, was disestablished and all United States military commands in the Pacific and Far East were consolidated into one unified command under the Commander-in-Chief, Pacific.

The United States Army, Pacific, is one of the three components of the Pacific Command. The other two components are the United States Pacific Fleet and the Pacific Air Force.

As the Army component commander of the unified command, General White commands all US Army forces in the area, and is responsible for the execution of missions assigned to him by the Commander-in-Chief, Pacific (CINCPAC), as well as tasks, responsibilities, and functions which are the direct concern of the Department of the Army.

General White organized US Army, Pacific, and assumed command following two years as Commanding General, US Army Forces, Far East, and Eighth United States Army. It is General White's policy that there should be maximum decentralization of operational responsibilities within the command, and that his headquarters should be essentially one for planning and policy.

The primary missions assigned to the United States Army, Pacific, include:

1. Advance planning for the conduct of operations by United States Army forces as directed by Commander-in-Chief, Pacific.
2. Collection of intelligence.

3. Providing logistical support for operations as directed by the Commander-in-Chief, Pacific.

4. Rendering advice and assistance to the Commander-in-Chief, Pacific, regarding Military Advisory Assistance activities.

5. Furnishing advice and assistance to Commander-in-Chief, Pacific, on United States Army planning in connection with South-East Asia Treaty Organization activities.

The United States Army, Pacific Command, consists of four major subordinate commands. These are the Eighth United States Army in Korea and Japan, which includes US Army, Japan; the US Army, Ryukyus/IX Corps in Okinawa; the US Army, Hawaii/25th Infantry Division located at Schofield Barracks; and US Army Forces, Taiwan.

The Commanding General, Eighth United States Army, has three command assignments. In addition to his duties as Commanding General, Eighth US Army, he is also the Commander-in-Chief, United Nations Command, and Commander, US Forces in Korea. As Commanding General, Eighth US Army, he reports to the Commander-in-Chief, US Army, Pacific; as Commander-in-Chief, United Nations Command, he reports to the Department of Defence, and as Commander, US Forces, Korea, he reports to the Commander-in-Chief, Pacific.

Primary communication centres are located in all the major commands which link the Army's world-wide communication system to the tactical and administrative units they support. The geographical distances between commands and between the commander-in-chief and his principal commanders

make the operation and maintenance of this system most challenging to modern science and techniques.

Eighth US Army

Hostilities have been stilled almost six years in Korea, but the guard has not been lowered; battle positions continue to be manned.

Combat-ready soldiers of the Eighth US Army are engaged actively in patrolling a defence sector facing Communist forces in Korea.

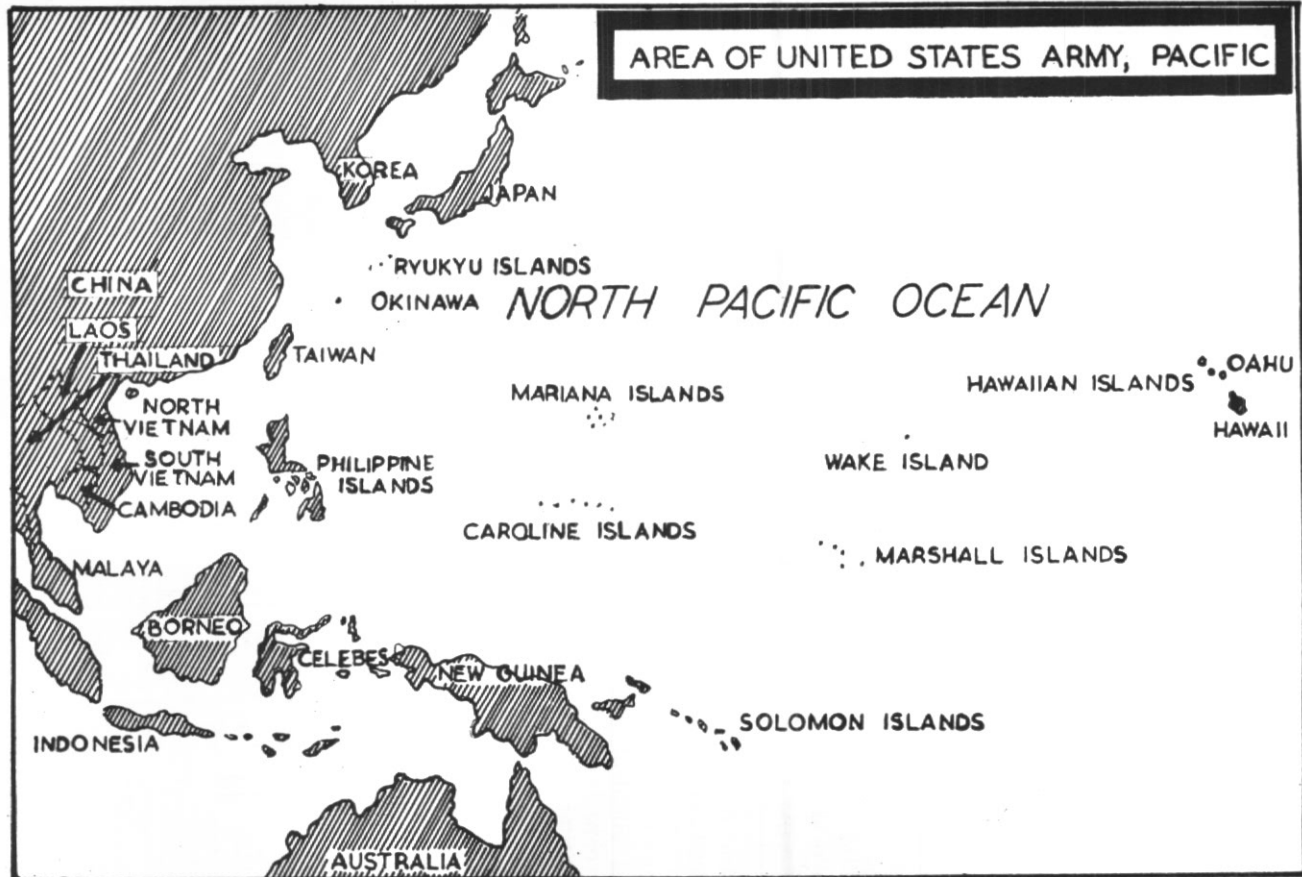
Its major combat forces are the 7th Infantry Division and the 1st Cavalry Division, both pentomic. These units and their supporting forces stand with battle-tested forces of the Republic of Korea Army and United Nations Command allies along the demilitarized zone separating the Republic of Korea from Communist-controlled North Korea.

The Republic of Korea's 18 excellent active Army divisions and one Marine division—third largest ground combat force in the Free World—comprise the bulk of the combat elements of the United Nations Command.

United States Army troops in the Republic of Korea also are providing the equipment and technical know-how to assist the Government and its people in a vast programme of rehabilitation. Army engineers are directing the reconstruction of power plants and schools, designing modern irrigation projects, and constructing paved highways.

Representatives of the American Embassy, the Eighth US Army and

AREA OF UNITED STATES ARMY, PACIFIC



the US Information Service have formed a joint Community Relations Committee to assist in promoting community relations. The committee develops community relations projects and publishes information for the Korean population.

US Army, Japan

Once a major United States Army troop area in the Far East, particularly after the close of World War II and during the Korean conflict, Japan now is able to assume a greater share of her own security and provide important logistical bases and facilities to the United States which contribute to Free World strength in the Orient.

Although the United States Army combat forces have been withdrawn from Japan, logistical support operations continue in such places as Kure, Tokorozawa, Yokohama, Chofu, and Sagami in the job of furnishing back-up support to troops in Korea and the support to Military Aid Programme (MAP) countries in the Western Pacific area.

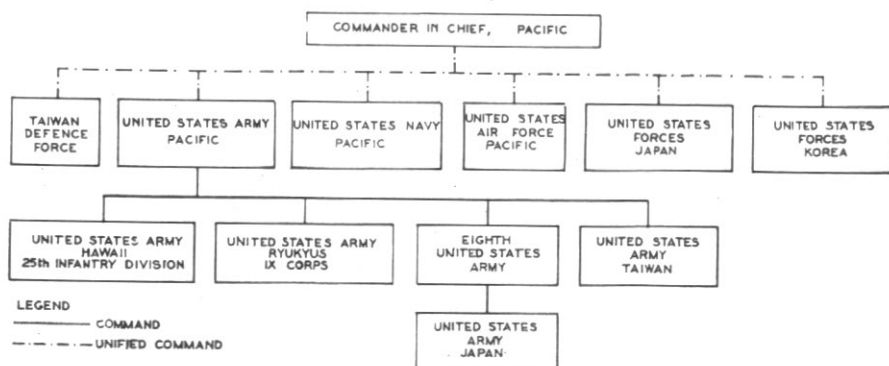
At Tokorozawa military vehicles furnished MAP countries are rebuilt and distributed to recipient

countries. Although the countries of Japan, Korea, Philippines, Taiwan, Thailand, Vietnam, Laos and Cambodia do a certain amount of such rebuild, varying widely according to capability, this installation handles rebuild requirements beyond the capacity of the countries concerned. The work is done by Japanese contractors.

Rebuild operations began with the overhaul of approximately 13,000 US-produced World War II vehicles returned from the Japanese Self-Defence Forces in exchange for new Japanese-produced vehicles that are similar in appearance to United States World War II vehicles. These Japanese-built vehicles have passed the same Army performance tests given American-built vehicles.

The depot at Tokorozawa also provides engineer, signal and ordnance supplies to all MAP supported countries distributed according to need. The General Depot at Sagami, in the Kwanto Plain area, stocks and distributes equipment, spare parts, and other supplies of all technical services.

These operations produce a substantial tonnage of cargo which moves over the docks of the US



Army port in Yokohama into and out of the holds of ships of many nations.

Camp Zama, formerly the Japanese military academy, is headquarters for the United States Army forces in Japan. Our Army has used this camp since the end of World War II. In the almost 14 years our troops have lived in Japan, they and the Japanese people have built the most altruistic occupation in history into a long record of close and friendly relationship between former enemies.

When the occupation was at its peak, in terms of United States personnel and activities in Japan, the Army occupied thousands of Japanese buildings and millions of square feet of land. The real estate used by the Army in Japan today is but a fraction of the former area, and is still shrinking due to consolidation, withdrawal and a firm policy

of returning real estate to Japanese owners as soon as it is no longer needed.

The picture of US Army activities in Japan has changed and is still changing, but the reason for its being there—deterrence of Communist aggression and maintenance of Free World strength—remains the same.

US Army, Ryukyus/IX Corps

Frequently termed the "Keystone of the Pacific," Okinawa is militarily important to the United States and the Free World as a strategically located base from which bomber, amphibious, or airborne operations could be launched to defend territory on its flanks which might be threatened by enemy aggression.

Under the terms of the Japanese Peace Treaty, the United States Government has the right to exercise



US Soldier with 3.5 Rocket in Korea

all and any powers of administration, legislation, and jurisdiction over the territory and inhabitants of Okinawa and sister islands for an indefinite period.

In recognition of these long-term arrangements, an extensive construction programme has been carried on for several years in Okinawa, providing modern, concrete, typhoon - resistant headquarters buildings, hospitals, warehouses, schools, clubs and homes for use of military and civilian personnel stationed there.

The Commanding General, United States Army, Ryukyus, also serves as High Commissioner of the Ryukyu Islands, heading up the United States Civil Administration of the Ryukyu Islands (USCAR). USCAR works closely with the Government of the Ryukyu Islands in the promotion of democratic government, in the rehabilitation and development of the Ryukyuan economy, and in effecting the cohesion of the Ryukyu Islands into a unified political, social and cultural entity.

Since 1947 the United States Congress has appropriated approximately 193 million dollars for the Ryukyu Islands.

More than 63 million dollars of this amount have been spent for food and grains. Fertilizers and seeds in the amount of about 10 millions also have been brought in. About 74 million dollars have been expended for industrial construction, equipment, and raw materials. Petroleum products amounting to about seven million dollars also have been supplied. The remainder of the appropriated funds has been allocated for the procurement of other essential supplies and services,

as well as for administrative costs. These expenditures have materially aided the welfare, rehabilitation, reconstruction, and economic development of the Ryukyu Islands.

Employment is relatively high, with an increase in per capita income from \$119 in prewar times to \$174 in Fiscal Year 1958. Along with this improvement economically has come widespread construction of schools, including the erection of a University of Ryukyus, which recently graduated 400 students in one class.

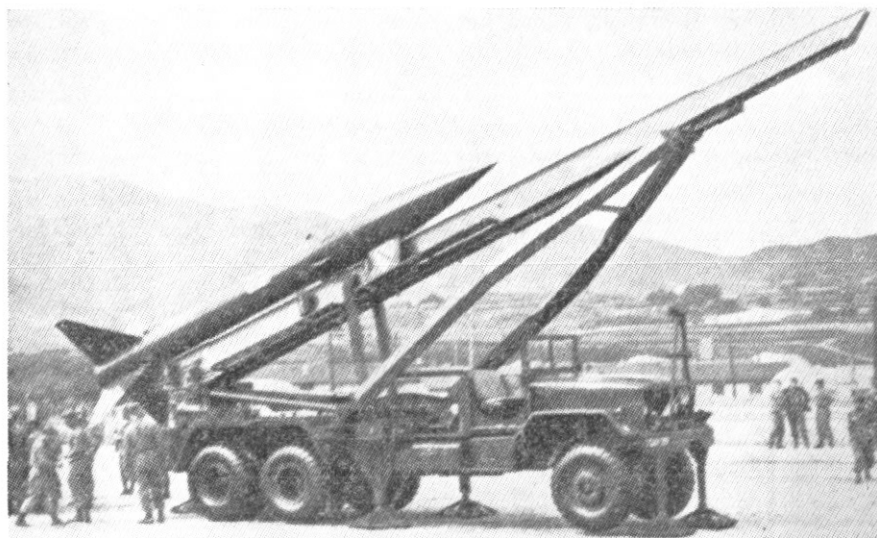
Besides sugar, which is the major cash crop and is constantly growing in size, the fishing industry has matured from a subsistence canoe type of industry to modern, power-driven craft, hunting whale and tuna in deep sea fishing and processing frozen marine products for export.

A new industry—pineapple growing and canning—also is developing, and the milling of grains is an assured addition to cut down on import costs.

On the military side of the picture the Commanding General, United States Army, Ryukyus/IX Corps, is charged with the ground defence of the Ryukyu Islands and maintenance of a base to support combat operations. He also has been designated as representative of the Commander-in-Chief, Pacific, to handle matters of joint concern among the Armed Forces components stationed in the Ryukyu Islands.

US Army, Hawaii

The US Army, Hawaii 25th Infantry Division, has, as its principal function, the performance of US Army missions relating to the



Honest John Rocket being demonstrated to South Korean troops

Hawaiian area. In addition, the headquarters supports, trains, and maintains facilities at Schofield Barracks for the 25th Infantry Division, the theatre strategic Army reserve.

Tactical units of the division conduct annual training exercises at the 115,000-acre Pohakuloa Training Area located between two ancient volcanic peaks on the neighbouring island of Hawaii. The base camp consists of several hundred tents and a sprinkling of quonset huts.

Men and equipment, including tanks, trucks and heavy artillery pieces are moved across the 200 miles of Pacific Ocean from Oahu to the island of Hawaii by a combination air-sea lift. Most of the personnel are air-lifted by commercial aircraft and heavy equipment is transported by Navy LST's and commercial barges.

The training area lies between the twin 13,000-foot peaks of Mauna

Loa and Mauna Kea, two of the largest volcanoes in the world—one extinct, one active. The area contains many old lava flows and deep ravines, making it just about as rugged a territory as a foot soldier can ever expect to find.

US Army Forces, Taiwan

The shelling of the offshore islands in the Taiwan Straits by the Chinese Communists in September 1958 resulted in the strengthening of United States defences on Taiwan and the establishment of a fourth subordinate Army command under the United States Army, Pacific.

The Commanding General, US Army Forces, Taiwan, is also Chief of the Military Assistance Advisory Group (MAAG).

To bolster the Navy's United States Seventh Fleet and units of the Air Force and Marines on the Chinese Nationalist island stronghold, the Army despatched the 2d Missile Battalion (*Nike Hercules*),

71st Artillery Regiment, which became operational on 25 October 1958.

Army personnel on Taiwan accomplished an unprecedented operation when they moved from the planning stage to initiation of actual construction of tactical missile sites for the *Nike Hercules* system in less than 10 days.

While the Fort Bliss based missile battalion was being alerted for assignment to Taiwan, a hand-picked team of experts in the *Nike Hercules* field flew to the troubled area to select missile sites and provide technical advice for the civilian engineering and contracting firms already on the scene.

The team worked around the clock locating and planning tactical sites on Taiwan and familiarizing both United States Army and Chinese Nationalist Army troops with the

capabilities and limitations of the *Nike Hercules* system.

Nationalist Chinese engineer troops using US furnished heavy construction equipment prepared the grounds for two of the missile battery sites. Company C of the US Army's 809th Heavy Construction Battalion furnished advice and assistance to the Nationalist Chinese engineer units. An American construction firm in operation on Taiwan contracted for preparation of the remaining two *Nike* battery sites to assure that the *Hercules* battalion would be operational on 25 October 1958—the deadline date established by Department of the Army.

The efforts of all engineer units and the United States contractor were co-ordinated and supervised by the Okinawa Engineer District of the Pacific Ocean Division.



A US Army BARC on Taiwan

During the Taiwan crisis, substantial quantities of United States Army equipment and numerous training teams were furnished the GRC Army under the Military Assistance Programme. Included in the modern equipment items provided the Chinese Nationalists was the Amphibious Re-supply Cargo Barge (BARC) with an accompanying training team to instruct Nationalist troops in operation and maintenance of the amphibious vehicle. Transportation Corps personnel staged an impressive demonstration of capabilities of the versatile and rugged BARC at the Tsoying Naval Base for appropriate American and Chinese officers.

Major Objectives of USARPAC Command

Seven important major objectives have been set forth by General White which the USARPAC Command must achieve in peacetime for immediate implementation in the event of hostilities.

These are:

1. To maintain the Eighth United States Army in Korea in a high state of combat readiness.

2. To maintain the 25th Infantry Division in a highly mobile, battle-ready state as a strategic reserve for development in support of Pacific Command plans.

3. To develop and maintain a forward base or bases in the Western Pacific for the continued logistic support of both United States and allied forces in either limited or general war.

4. To maintain nuclear capable units at the highest level of effectiveness.

5. To assist in the development of effective friendly forces in the Pacific Command countries and to integrate their ground forces capabilities with those of the United States Forces.

6. To be prepared to utilize the combat support of the Pacific Air Force, the Pacific Fleet, and units of the Strategic Army Forces from the United States.

7. To participate in combined exercises with friendly countries in the vast Pacific Command area.

The official United States Army photographs accompanying this article portray some of the activities of this highly strategic and important command.

AFGHANISTAN

DANGEROUS NEUTRAL

Staff Sergeant P. G. Gittins
Royal Australian Engineers

"And who knows why with so much labour he builds his house or how such things can give him pleasure? Like the dew on the morning glory are man and his house, who knows which will survive the other?"

—*The Hojoki of Japan.*

THE area now included within the State of Afghanistan, of which the mountain system of the Hindu Kush forms the backbone, lies across the land routes from the Middle East and South Central Asia into the attractively rich and fertile Indus Valley and the subcontinent of India. Historically, the recurring pattern of events for over two thousand years at least was for the area of the Hindu Kush to be invaded from the west or the north, and then, generally after a brief pause, to be used as a base for the invasion of what is now Pakistan and India. The Indus Valley, whether raided by needy tribesmen from the barren hills of Waziristan or threatened by heavier pressure from beyond the Hindu Kush, has generally been on the defensive.

For the possessors of the valley there has been no comparable prize to seek in the Hindu Kush or beyond: the mountains have simply been a rampart they needed to see in safe hands.

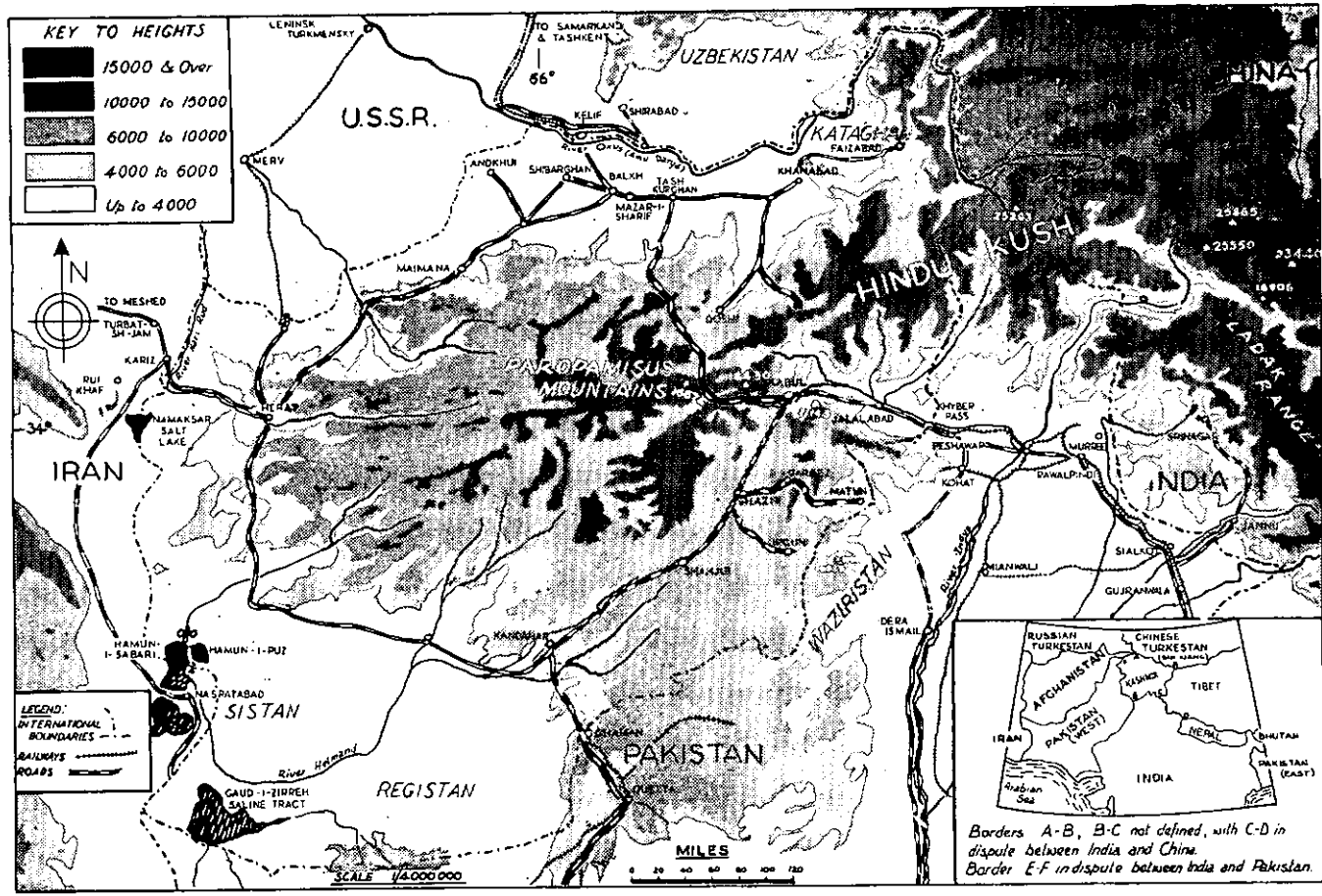
In these circumstances, and in the absence of any clearly defined

"natural" frontiers, it was not until the 18th century that a sovereign state of Afghanistan emerged. Even then its existence was precarious until in the latter part of the 19th century the diplomacy of Britain and Russia transformed it from a traditional springboard for southward invasion into a buffer state. Peace and opportunities for progress and internal development in Afghanistan have been assured only when, as after 1880, and for most of the first part of the 20th century, the country has harboured no threat to its south-eastern neighbours.

The Land and Its Peoples

The area of the Kingdom of Afghanistan is approximately 250,000 square miles, and its population in the region of 11,500,000. It consists basically of a high plateau traversed from east to west and south-west by the formidable western spurs of the Himalayan chain, the Hindu Kush range and its continuation, the Paropamisus mountains.

The country is in this way roughly divided into three main areas. The central, eastern and south-eastern



Borders A-B, B-C not defined, with C-D in dispute between India and China.
 Border E-F in dispute between India and Pakistan.

parts consist of high mountain spurs, the peaks of which decrease from over 20,000 feet in the east to 10,000 feet or less near Herat, an important population centre. Between these mountains lie fertile valleys. The north of Afghanistan is a fertile plateau continuous with the steppes of Turkestan. Between the mountains of Afghanistan and those of its western neighbour, Iran, lies the third region: the deserts and semi-deserts of Registan and Sistan. Through this area runs the River Helmand.

Over the high passes of the Hindu Kush and across the semi-desert plateau of western Afghanistan lie the routes by which caravans and armies have passed from the steppes and Central Asia to the fertile plains of the Indian sub-continent. Afghanistan has served, too, as the route linking Persia and Mesopotamia with both Central Asia and India.

Although traversed by trade routes, the physical obstacles of the terrain, the high mountains, deep valleys, and areas of barren desert have made difficult the establishment of a strong, closely-knit state. The geographical disunity of the Afghanistan area has been paralleled by the racial diversity of the population. This diversity is a result of the constant ebb and flow of conquest and migration through the area, during which Greeks and Tartars, Scythians, Persians, and Sikhs have each for a time held all or part of the land. At the present time the largest racial group of Afghanistan is that of the Pathans or true Afghans, apparently of Turko-Iranian origin with some Indian admixture, who inhabit the central areas of the country. The Indo-Iranian language, Pushtu (or

Pashtu), which they and several other tribes speak, has recently been made an official language alongside the more developed Persian. A second racial group is formed by the various tribes of Turkish origin, the Ghilzais, and the tribes inhabiting the northern steppe, such as the Uzbeks, the Turkmens and the Sardis. The Tajiks, who inhabit the mountainous areas north and east of Kabul, the capital, are Persian speaking and of Persian racial origin, as are the settled population of Herat Province and Sistan. Probable descendants of conquering armies of long ago are the Mongoloid Hazaras from the area east of Kabul and the fair-skinned Kaffirs of Noristan, who claim to have come in remote times from the far west.

Production and Trade

Although cultivation is found only in the valleys and fertile plains, good crops of fruit, cereals and vegetables are raised. The asafoetida and castor oil plants are found in all parts, and good tobacco is grown in some areas. Sheep raising is an important industry, both wool and skins (especially Persian lamb skins) being exported. Cotton, too, is grown for export.

Coal, chrome and salt are mined, but the considerable mineral wealth has still to be fully developed. Hydro-electric power is aiding the development of some industry and manufactures. Since 1949, irrigation has been developed in the provinces of Kandahar and Herat.

The principal imports include machinery, textiles, rubber, tea and petrol. Much of Afghanistan's trade is conducted with the Soviet Union. Kabul, the capital (population

about 80,000) has factories for the production of matches, leather, boots, furniture, etc. Kandahar has also some industries, mainly weaving and carpet making.

Brief Historical Notes

For upwards of 2000 years the history of Afghanistan was that, not of a nation, but of a geographical area. A more or less regular cycle of events appears. Periodically conquerors appeared from over the Oxus and established themselves on the northern slopes of the Hindu Kush. After a pause they passed through the mountains or outflanked their western spurs until they reached the passes into India. After a short while they went on to the conquest of northern India. Then a split came between those who ruled in the warm plains of India and those who remained in the cold uplands and steppes of Afghanistan. Occasionally, when the peoples of Persia or India came under a strong leadership they asserted their sway up to and even into the mountains of the Hindu Kush.

Alexander the Great, marching from Persia to India in 329 BC, wintered near Kabul and founded the nucleus of a Greek Empire which left its traces in the culture of the area and particularly in the self-governing walled villages of Bactria. In Bactria lay Balkh, and the heart of the great and civilized Kushan Empire (120 BC to 350 AD) under which Buddhism was brought to Afghanistan.

This Helleno-Buddhist civilization was swept away in the 7th and 8th centuries by the proselytizing armies of Islam. The religious conversion was thorough; today Afghanistan is a stronghold of Islam of the Sunni

persuasion except for the Shia Hazaras. In their turn the Arabs were succeeded by the Mongols. In 1220-23 Genghiz Khan laid waste Balkh, Herat, Kabul and Ghazni.

The rule of this Mongol dynasty lasted only a century and a half. It yielded place to the Turko-Mongol dynasties founded by Timur-i-Lang (Tamerlane) and Babur, of whose vast empires the Afghanistan area formed an outlying province.

It was from here that Babur descended to found the Mogul empire in the Indian subcontinent. Kabul and Kandahar remained for a time only provinces of Babur's empire.

For a little over two hundred years (from 1526 until 1747) the land of the Afghans had been successively a congeries of petty states, and centre of great empires ruled by foreigners, and a dismembered country, furnishing provinces to three monarchs. In 1737 Nadir Shah, one of Persia's greatest monarchs, recovered Kandahar and conquered the Indian Province of Kabul, but conciliated the Afghans and enlisted many in his army—among them Ahmad Khan, a young chieftain of the Sadozai family of the Abdali tribe. Ahmad Khan rose to high rank in the Persian army, and after the assassination of Nadir Shah in 1747 was chosen by the Afghan chiefs at Kandahar as their leader and assumed the royal title. Afghanistan now became, for the first time, a distinct political entity, ruled by an independent native sovereign.

From 1747 until about 1921, Afghanistan was the scene of numerous uprisings, assassinations, wars, and intrigue of every possible kind. Development was naturally retarded. Its geographical location

made its friendship important to Britain, India, and Russia. It was—and still is—of great strategic importance.

The Development of Afghan Foreign Relations

In 1919, Amanullah, a leader of the young progressive nationalists (the third son of the assassinated King Habinullah), was concerned to establish relations with other States and with Afghan participation in international affairs. The earliest diplomatic approaches were to Afghanistan's nearer neighbours, the USSR, Iran and Turkey.

The factors which had conduced to the Anglo-Russian agreement of 1907 (that of border limitations) were, of course, no longer effective after 1917-18, and the Soviet Government subsequently showed no hesitation in taking every opportunity to increase its influence in Afghanistan. On 28 February 1921 a Russo-Afghan treaty was signed at Moscow which provided for formal diplomatic relations between the two States, for mutual recognition of Khivan and Bokhari independence (both being absorbed within the USSR in 1924 as parts of the "republic" of Uzbekistan and the "republic" of Turkistan) and for a number of conciliatory Soviet gestures towards Afghanistan. The Soviet Government continued to strengthen its relations with Kabul by various methods, including offers of the services of Russian technicians (e.g., in the Afghan Air Force) and of technical facilities such as the training of Afghan pilots at Tashkent. Negotiations were also conducted between the two states in 1927 for the creation of the Kabul-Tashkent air service and for a trade

pact. In 1926 the provisions of the 1921 Russo-Afghan treaty were amplified but not superseded by a "pact of neutrality and non-aggression" concluded between the two governments on 31st August. A new treaty of "neutrality and non-aggression" was concluded on 24 June 1931.

In February 1921, Afghanistan signed a treaty of alliance with Turkey, and in June a treaty of "friendship and good relations" with Iran. Afghanistan also entered into treaty relations with a large number of other states both before and during the period 1927-28, when King Amanullah made a tour of many Asian and European countries, including a State visit to London. At about the same time Afghanistan became a party to a number of important international agreements, including the Red Cross Convention on sick and wounded combatants (1906), the Universal Postal Union (1924) and the Kellogg Pact (1928). In September 1934 Afghanistan was accepted as a member of the League of Nations.

Radical Reforms and the Overthrow of Amanullah

The innovations introduced by King Amanullah within Afghanistan were of a revolutionary character. Large-scale schemes for the building of trunk roads and for the creation of a new capital city were started. Critics have held that they took insufficient account of the small size of the national income, and that at the same time practical needs such as the maintenance of law and order and the reform of taxation were neglected. More serious was the promulgation in 1923 of a new administration code which was held

to violate the canons of Islam, and dislocated the already weak administration, and in 1924 of a decree introducing some measure of female education and emancipation. The outcome was the Khost Rebellion of 1924-25, and although victorious, Amanullah had to yield to the Afghan Great Council (Loe Jirga), which recommended the abolition or amendment of a number of the most hated reforms.

The Royal Tour encouraged Amanullah to make further attempts to introduce western ideas. In 1928 he placed before the Loe Jirga the outline of his proposed reforms: institution of a constitutional monarchy, parliamentary government, western dress, compulsory education for children, financial and currency reforms, and the suppression of the influence of the mullahs (preachers).

Opposition was universal, a rebellion broke out, and he fled to India.

Another king, Nadir, was elected, law and order was restored, and although Nadir's reign was cut short after four years by assassination, his son was able to give the country a stable administration, sound finances, and a strong guiding hand to the cabinet of ministers.

Developments 1929 to 1957

Since 1930, Afghanistan has been governed by a cabinet of ministers in which the Royal Family is strongly represented, assisted by an advisory council. The traditional Great Council (Loe Jirga), whose members are elected for life, meets only in exceptional circumstances. In local matters, however, many of the tribes exercise a measure of

autonomy through the tribal councils. The system of law administered by the courts is the Hanafi code of Islamic law.

The Afghan Government began in 1935 to put slowly into execution the policy of development laid down by Nadir Shah. The implementation of this policy has, of necessity, been slow, and on occasion unpopular. By 1939 hydro-electric installations had been built, textile mills and machinery for the processing of cotton and sugar beet erected, the northern coalfields partially developed, irrigation systems implemented, the construction of hospitals and the foundation of a medical faculty commenced, and the improvement of air and road communications. There are no railroads in Afghanistan.

In the period immediately after the Second World War shortages both of technical experts and of foreign exchange resources, resulting in great part from reduced exports of karakul lamb pelts, seriously affected the economic development of Afghanistan. An appeal was therefore addressed to the UN which resulted in a small preparatory mission going to Afghanistan in March-April 1950. This mission reported that since the Government had already framed projects covering many fields of economic development, the main requirement was technical assistance at the operational level.

Since then the relevant specialized agencies of the UN (FAO, UNESCO, WHO, ILO, etc) have been giving technical assistance to Afghanistan in a number of fields. The most important of these have been the investigation of probable

oil resources in the northern province, the establishment of improved air, road and radio communications, improved animal husbandry, disease and pest control, technical education and all aspects of health problems.

The USA is providing technical assistance in irrigation and drainage problems, soil, crop and related problems in the Helmand Valley, loans totalling 50,000,000 dollars, and assistance in the development of communications.

Foreign Relations 1930-1957

It was under Turkish auspices that Afghanistan had become a member of the League of Nations. Relations between the two States became increasingly cordial, and Afghanistan turned to Turkey for help in such matters as the provision of military instructors and medical professors. In 1937 both states, together with Iraq and Iran, signed the Sa'adabad Pact of non-aggression.

Despite contact with Germany in the 1935-39 period, Afghanistan proclaimed and maintained its neutrality during World War 2. In 1946 Afghanistan became a member of the UN, as well as a member of its specialized agencies.

Afghanistan's principal external concern has nevertheless been relations with her southern and northern neighbours. Thus when it became clear during the Second World War that major constitutional changes were impending in the Indian subcontinent, Afghanistan was vitally interested. Its principal trade route lay through the port of Karachi, there were close linguistic and religious ties between the tribes

on both sides of the Durand Line, and there was a considerable migration across the frontier. Furthermore, the Afghan Government were concerned at the possible support to rebellious elements among the tribes of East Afghanistan which might come from the tribes east of the Durand Line if at any time they were not under firm control.

The partition of the Indian subcontinent did not change the status of the Tribal Areas. The then UK Secretary of State for Commonwealth Relations (Mr. Noel-Baker) said that with regard to the territories on the former NW Frontier of India, it was the UK Government's view that "Pakistan is in international law the inheritor of the rights and duties of the old Government of India . . . and that the Durand Line is the international frontier." A plebiscite taken was in favour of Pakistan by 289,244 votes to 2,874. A series of tribal jirgas or meetings were held in the unadministered areas by the Provincial Governor during October 1947, and the tribes transferred to Pakistan their relationship to and obligations towards the Governments of the UK and India, while Pakistan undertook to extend protection to them and to continue the allowances paid by the former Government of India.

This settlement was unwelcome to the Afghan Government, and since 1947 a severe strain has been placed on their relations with Pakistan as a result of their officially-conducted agitation in favour of the creation of a "Pathanistan" state (also called "Pushtunistan" and "Pakhtunistan"). The essence of this claim is that the Pushtu speaking tribes in NW Pakistan, but not apparently

those on the Afghan side of the frontier, should be given the opportunity to "opt out" and set up an autonomous state. The Soviet leaders expressed sympathy with Afghan policy on this issue during their visit to Kabul in 1955.

Afghan relations with Pakistan further deteriorated in 1955 following an incident in Kabul at the end of March, when a mob sacked and looted the Pakistan Embassy and Ambassador's Residence and tore down and destroyed the Pakistani flag. This episode was not settled until the following September.

In November 1956 the Afghan Prime Minister visited Karachi (following a visit to Kabul in August by the Pakistani President), and it was stated afterwards that conversations had taken place in an "atmosphere of warmth and cordiality." No advance appears to have been made, however, in the Pathanistan question.

Afghanistan-Russian Relations

In relations between Afghanistan and her northern neighbour, the USSR, there have been important developments in recent years. There is little racial, religious or geographical distinction to be found between the dwellers on the north and south banks of the river Oxus, which constitutes much of the Russo-Afghan frontier. But it is an important factor that whereas the Afghan-Pakistani frontier region is rugged and economically a liability rather than an asset, the northern Afghan Provinces of Maimana, Mazar-i-Sharif and Kataghan are the source of much of Afghanistan's wealth deriving from the raising of karakul lambs, the growing of cot-

ton, and the working of mineral deposits such as coal and sulphur. The Afghan Government have in addition based considerable hopes for the development of the country on the exploitation of the oil resources believed to exist in these areas.

Arrangements had been completed in 1952 for an oil survey (including test drilling) by Western technicians working under the UN Technical Assistance Administration. In August of that year, the Soviet Charge d'Affaires in Kabul informed the Afghan Government that the employment of Western technicians on this work in northern Afghanistan would be regarded as an unfriendly act. In reply, although denying the Soviet Government's right to interfere in Afghan internal affairs, the project was shelved.

On the other hand, there has been considerable development towards closer Russo-Afghan ties. A four-year commercial agreement was made in July 1950, and a Soviet Trade Agency is operating in Kabul. Since 1953, Afghanistan has accepted numerous Russian offers of technical assistance. According to a Soviet broadcast on 17 September 1954, the current year had marked the beginning of a new stage in the development of Soviet technical aid to Afghanistan. Credit had been granted by the USSR for the building of grain silos and mills, for the construction of oil storage tanks, and for additional development of road, air and radio communications. In 1954, a Soviet cultural mission visited Kabul.

Mr. Bulganin and Mr. Khrushchev visited the country in December 1955, and in joint statements issued later it was announced that the 1931

Afghan-Soviet treaty of neutrality and non-aggression would be extended for ten years. It had been decided to "expand the friendly political, economic and cultural contacts" between the two countries. Representatives would meet to consider co-operation in developing agriculture, hydro-electric stations, irrigation systems, motor vehicle repair shops, and the reconstruction of Kabul airport. The USSR agreed in principle to extend a long-term loan of 100,000,000 dollars for the development of Afghan economy, providing an agreement was signed at the end of January 1957.

American-Russian Rivalry in Afghanistan

Four years ago, the Russians moved in to Afghanistan and set out to show their beneficence. The Americans had been in the country since the end of World War 2: the Russians suddenly decided that anything the Americans could do they could do better.

The Afghans wanted sealed roads in Kabul, which for six months in the year was a bog heap, and for the next six months a dust bowl. They asked the Americans to build the roads, and the Americans had replied, correctly enough, that it was much better to reclaim desert. The Russians built the roads—very good ones too—and put Russian buses and taxis on them. The Americans got Pan-American Airways to bolster up the Afghan Airline. The very day the contract was announced, the Russians revealed that they were building a very fine new airport at Kabul. The Americans made a fine colour film of Afghanistan—the Russians made an even better one. The Afghans wanted more bread, and the

Americans tried to provide it with an irrigation project. The Russians built a bakery in Kabul and silos to store the wheat. The Americans complained that the Russian bread was full of stones, and that the streets melted in summer, but the Afghans liked the bread and drove happily on the streets. Highly valued Persian lamb skins, once earning dollars, now began to earn roubles. Faithfully the Afghans kept the Russians out of their schools. They were determined there would be no communist subversion of their country. But when MIG fighters and helicopters arrived from the USSR for the Afghan Air Force, it was essential that cadets should receive their training in the Soviet Union.

A sort of Russian Colombo Plan took technical students off to Soviet schools. None-have gone to American schools.

Afghanistan's history of its relations with its neighbours has been a pretty sorry one. Today, many in Kabul feel that in the Soviet Union they have found a real friend.

Military Developments in Afghanistan

The organization of the Army was based on a scheme formulated in 1917 for an establishment of six corps with HQ at Kabul (two corps), Jalabad, Matun, Herat, and Mazar-i-Sharif. Additional corps or divisions are now located at Kandahar, Ghazni, Urgan, Khanabad, and Gardez. Recruitment is on a voluntary basis with some element of compulsion, since quotas are allotted to areas. The total strength of the army in 1939 was about 60,000. This was raised during the World

War 2 period, chiefly by the recall of discharged men, and it is probable that in the event of war numbers could be raised to 100,000 with 300,000 to 400,000 armed levies.

The forces are armed with modern weapons, including tanks. Military schools, once under Turkish supervision, are now staffed to some extent by Russian "advisors and technicians." A certain amount of motor transport was purchased at the end of World War 2, and this has been supplemented by Russian trucks. Thus the army's mobility has been increased, and a reorganization is in progress with the object of providing a central reserve at Headquarters from which a mobile striking force could be furnished to support provincial troops.

In the country's northern province, Soviet aid is transforming potholed Afghan roads into paved super highways, including one that runs from the Russian railheads and ports on the Oxus river, 390 miles south to Kabul. US aid includes construction of some 500 miles of road from Kabul south and east to the Pakistan border. Although it was not intended that way, the roads will provide the Russians with a perfect network of all-weather roads running from the Oxus to the Khyber Pass, the traditional invasion route into India from the north. A primitive country is not only being developed, it is being made strategically useful.

The presence of Russian troops in Afghanistan has been reported since 1954, but apparently little notice taken of it. However, reports from May, 1959, indicate that the Soviet has increased the number of troops

there, and this has caused a certain amount of tension and nervousness around Meshed, capital of Persia's Khorasan Province. From Afghanistan Russian troops could move forward to divide Persia from Pakistan, her neighbour in the Baghdad Pact. Troops and forward dumps of military equipment have been located at Herat, which straddles a main approach to Persia.

In Britain, the present Red Army penetration recalls fears of the Russian southward drive through Afghanistan, which haunted Queen Victoria's Viceroy in India, Lord Curzon, nearly a century ago.

A small air force is in existence, once again supplemented by Russian "advisors and technicians," MIG fighter planes, and Ilyushin jet bombers. More significant, a network of airfields has been constructed in northern Afghanistan, greatly reducing bomber range to Teheran, capital of anti-communist Iran, and Karachi, capital of anti-communist Pakistan. Scarcely 40 miles from the capital, lies the huge new Pagram airfield, with runways long enough to take Russia's biggest jets.

Conclusion

The inaugurator and chief manipulator of Afghanistan's "profitable" neutrality is tough Prime Minister Mohammed Daoud. He took over the premiership some six years ago, and deals with everything from high policy to trivial administrative details. He claims his objective is to improve the lot of his people to the point where they can choose the kind of government they wish.

Daoud's avowed excuse for his close relations with the Soviet Union is that he needs support in his run-

ning quarrel with neighbouring Pakistan over "Pushtunistan." In point of fact, his "reckless neutrality" clearly rests on his belief that by cashing in on cold war rivalries he can push Afghanistan's development at a rate the country could never afford by itself. To the occasional warnings he is given by his ministers he replies, with all the confid-

ence of a high wire performer, "I will personally guarantee that everything will come out all right."

For 100 years the British Raj preserved Afghanistan as a buffer state between Russia and India. Then the British Empire folded. Afghanistan, a victim of the vacuum thus created, has now passed the Communist point of no return.



Pathan Tribesman

ABOUT TRYING EXPERIMENTS

Condensed from the Royal Bank of Canada Monthly Letter,
September 1959

THE history of the world, like the story of individuals, is the record of experiments. At times, beneficial advances were made; at others, as is usual in experimentation, rather ghastly mistakes were the outcome. But without experiment there would have been no advance at all from the first-man stage of human development.

Experimentation is not so widely written about as are imagination, analysis and creativity.

What do these words mean? You imagine a thing when you see it in your mind's eye; you analyse a thing when you take it apart to see of what it is made; you invent a thing when you put together bits and pieces according to lessons learned in your analysis so as to come close to what you imagined. Experimentation is to try a thing out to see if it will work.

Truth about any phenomenon, from the cause of a common cold to the reason for a slump on the stock market, can be established only by experimental means. Men of science and business learn every day from experiments. By trying things out they constantly correct their ideas, revise their theories, improve their methods, and so come nearer and nearer to what is best.

We may go farther. Experimentation is more than a means to verify the results of inventive processes. An experiment can be the stone cast into the pool deliberately to start ripples.

Speculation Versus Experiment

Contrast the idea of windy speculation with the idea of finding out by experimentation. In the first, we exhaust our ideas in talk; in the second we assemble our ideas and put them to work. Using our knowledge of things as they are, we apply thought to their improvement.

Claude Bernard, whose book "An Introduction to the Study of Experimental Medicine" has been in print for nearly a century and is still a text-book, found more dominating facts about medicine in twenty years than all the other physiologists in the world.

The essence of Bernard's belief is this: by simply noting facts or piling up observations, we shall be none the wiser. We must reason about what we have observed, compare the facts, judge them by other facts used as controls, and put the outcome to the test by experiment. That is the only way to obtain proof of one's beliefs.

Nothing is easier than to design on paper and put together a contraption made up of wheels, magnets ratchets and pulleys, but only turning on the power will prove whether it will work and accomplish what is wanted of it.

What one needs is to have an idea, put forward a hypothesis, and then test it.

In practical work in office, factory or the multitudinous facets of everyday living, we may trace our development of something new in

this way: we sense a problem and develop a desire to solve it; we gather accurate facts; we mull over our data, incubating an idea; we reach the moment of illumination, when a possible solution comes to us; we test the proposed solution.

Scope of Experimentation

Experimentation is not confined to development of glamorous new gadgets, or the uncovering of laws in physics and chemistry. It may be applied effectively in business, for example to reduce waste.

Suppose a business man to say to himself: any work that does not add value to material, does not plan or calculate, does not give or receive essential information, is reducible waste.

He will observe, collect facts, analyze and write down what he finds. He will choose a possibly rewarding spot at which to start, and prepare a hypothesis about what would happen if he did so and so. Then he will try out his plan, testing every step.

In any job, a person can show himself conscious of methods improvement by asking repeatedly: "How can I do the job more quickly or more easily?" If top management is alert to the possibility of advancement it will give supervisors freedom to fail, provided the experiment shows promise of betterment.

Here are some points by which to check the probable value of a change: will it increase production, improve quality, add safety, prevent waste, provide better working conditions, reduce cost or eliminate unnecessary work? The tests given the new system or machine will show whether it is sound, workable and practicable, and whether it has

advantages which outweigh its disadvantages.

There is yet another factor to be considered: the human element. Before embarking upon an experiment involving human beings—as in rearranging a factory, redistributing work in an office, or introducing new methods—write down the possible effect the change will have in the life of everyone concerned with it. Take into account the probable reactions, good and bad. You may find that the success of the experiment technically would be the ruin of more valuable things.

Challenge the Obvious

Any person of spirit will find it thrilling to challenge the obvious, to question the accepted way of doing things, and to experiment with new ways. You have a "hunch"; you think up alternatives; you dream up ways and devices by which to test your guesses—as Leonardo da Vinci did when he pierced a small hole in a window blind and saw an image of the outside world reproduced in miniature on the wall of his room, thus foreshadowing photography.

Great music is the final result of inspiration followed by rewriting and trying again. Great art is preserved to us because men made experiments with drying oils. Poets reached immortality by experimenting with verse form. The columns raised by the Greeks, and still acknowledged as perfect architectural examples, were the result of experiment which widened them in the centre to eliminate the illusion of narrowness.

How to Start

One way to start is by prodding your imagination. Sit down with a

pencil and a blank sheet of paper and think of experiments you can make: candle-wax instead of "elbow grease" on that so-hard-to-raise window; a loose-leaf book of numbered form letters so that you answer routine mail by writing a figure in the corner, a figure which your secretary translates into a letter ready for your signature; a jig that will eliminate time-consuming measurements on the production line. Pencils, set in motion by imagination, can act as crowbars in moving our minds.

Note the classic simplicity of this formula. You become aware that there is something that may be done, some problem to solve, some improvement to be made. You make a proposal to yourself of some solution; you clarify the problem and the solution as far as you can; you decide upon a plan of action; you try out your plan.

In the ordinary course of life you will not wish to try an experiment until you feel the need for a change. Nevertheless, there are occasions when it is advantageous to experiment for the sake of experiment. This is so for two reasons: you may find that a change in detail or form or method or location will improve what you have accepted as being satisfactory; and you will benefit by the mental shaking up that experimentation gives you.

You take a walk, as it were, on the borders of your business, and pursue what happens to present itself to your attention. Ideas may show themselves when you are looking for them, but they are just as likely to be seen out of the corner of your eye when you are looking at something else.

This is where the widely-read or widely-experienced person has the

advantage over those with less broad knowledge: he has a background of material to which to relate new thoughts.

This background comes from observation, but we must guard against the fallacy of thinking that to observe is enough. An observer gathers data as nature and environment offer them; an experimenter applies investigation so as to vary the outcome or to make something new of it.

Nevertheless, observation is a vital step in experimentation. Dr. Alexander Fleming set aside a culture of bacteria one day, and observed when he examined it hours later that it was spoiled. The culture grew on only half the plate; the other half was spotted with a blue-green mold. He wrote in his notebook: "I was sufficiently interested in the anti-bacterial substance produced by the mold to pursue the subject," and so he discovered penicillin.

Get the Facts Straight

In planning and carrying out an experiment of any sort you must never lose sight of the facts. From the first tentative step toward an objective until the final test of validity, experimentation deals with facts. If a fact be ignored or if it be erroneous, the whole structure will crumble.

The quantity of facts needed will vary. Edward Hodnett illustrates this neatly in "The Art of Problem Solving," where he says that if you were buying rope for a clothes-line you might be content to examine ten samples, but if you were buying rope for parachutes you would likely wish to test hundreds of pieces to judge their strength.

The minute precision of the facts needed will also differ. If you are experimenting with concrete it is enough to know that one part cement, two parts sand and three parts gravel will provide concrete with such and such qualities. If you are working with bacteria you will need to collect your facts with an instrument like that used in the Institute of Biology at the University of Montreal: it can measure to a one-hundred-thousandth of a degree of temperature.

Facts are neither great nor small in themselves, but relatively so. The proportions of concrete are just as important in the foundation of a building as is the temperature of bacteria in the research laboratory.

Having collected the facts with which to start experimenting, we must clarify them, throw them into some sort of order, and isolate the essentials. The logic of experiment consists in the weighing of probabilities, discarding details judged to be irrelevant, ascertaining the general rules that govern cause and effect in what we are doing, and trying out our hypothesis by controlled tests.

What is a hypothesis? It can be thought of as an informed guess. We use the knowledge we already have to make a preliminary conjecture about what will happen if we take another step.

Even when an experiment shows our hypothesis to be mistaken, we have gained something. The alchemists founded chemistry by pursuing theories that turned out to be false. Modern scientists, says Dr. Hans Selye, look upon any hypothesis as expendable: it is a launching platform for testing ideas. He summed it up in this way in an

article in "Maclean's" magazine in mid-August: "No count has ever been made, but it is quite certain that for every series of experiments that ends in a 'useful' result like insulin, some thousands of series are completed that are apparently useless."

Your fruitless experiment has not been useless. It has eliminated one possible way of doing something, reducing the confusion of choices; and truth is more easily evolved from error than from confusion.

Nevertheless, the man who embarks upon something new must school himself to face unpleasant facts: the fact that a cherished idea turns out to be unsound, that the wrong road has been taken and must be retraced. He must be skeptical, questioning his results rigorously if he is to be certain, at the end, that he has a true solution and the best product.

Keeping Records

What are the sins marked in red in the experimenter's rule book? To be dishonest or careless in setting up the elements of the experiment; to be neglectful in keeping a record of everything done; to fail to take into account every small part of the ingredients and every action of the apparatus. Without records, successes cannot be repeated and failures have taught no lesson.

There is a bonus value in keeping complete records: the mere act of putting down on paper the what, where, when, why and how of any piece of work will, of itself, generate ideas of how the work can be done in an improved manner.

Notes help us to avoid the fallacy of attributing effects to wrong causes. They enable us to see that

not everything that follows something is caused by it. They give us the data from which to find whether there is a third influence, not taken into account in our experiment, which is influencing the result.

Trying New Ways

There are several lines to follow in trying to improve a product, a service or a system.

Originality may be, but is not always, a matter of impulse or intuition. Most of us can find it if we seek it diligently, and no one can ever become a genius except by stepping out, by experimenting. Intuition solves only problems about which we already know a lot.

One way to hasten the development of something new is to experiment with our material in various combinations. The composer of music works with combinations of notes, moving them around on the scale into pleasing harmonies, trying them out on the keyboard of his piano; the inventor works with combinations of substances and mechanisms; the office manager works with combinations of people and records and machines, tuning up his organization by trying this and that change of duty or partnership of workers.

Another way is by variation, by putting the shoe on the other foot. We ask ourselves what would happen if we placed the files in the centre of the office instead of along the wall; if we curved this assembly line instead of having it straight; if we changed the colour of the package in which we sell our goods. We can vary things so as to make them bigger or smaller, heavier or lighter, thicker or thinner. In its

new form the article may serve its purpose more efficiently or more cheaply, or it may adapt itself to an altogether different purpose.

Experiment of this sort is, in its way, deliberate creativeness. It demands that we have expectant, supple and receptive minds; that we set goals and get going toward them. The experimental mind, which is a mind that retains its youth, has a tendency to move of itself instead of waiting at the dock for a tug.

Ballast exists everywhere: all the pebbles of the harbour, all the sand on the beach, will serve for it; but men to steer the ship on a voyage of exploration are rare. The ability to originate is typical of the executive-minded man. A clerk keeps records; the executive grounds himself on the clerk's collected facts; he goes on to imagine new combinations of facts, and he experiments in search of new results. He sails into new territory.

Initiative

Experiment quite often entails nothing more or less than initiative—"Let's try it now." The inner driving force of imagination and conception should not be kept waiting for a more favourable time or for a flash of inspiration. That is how great ideas are lost.

The way to progress is by cultivating qualities of venturesomeness. A person may score 100 per cent. in a written examination and yet make nothing of his life because he fears to apply what knowledge he has in an experimental way.

Initiative requires the courage to face the consequences of trying new things. Horatio Hornblower says in one of C. S. Forester's stories: "I'd

rather be in trouble for having done something than for not having done anything." In its highest form this courage displays itself in personal experiment by medical research workers: like the German doctor who inoculated himself with a fungus he suspected of causing ring-worm; the British doctor who gave himself malaria to prove that a mosquito, not climate, spreads the disease; and the Scottish doctor, James Young Simpson, sniffing chloroform to test its effect as an anaesthetic.

Another quality needed is persistence, or stick-to-it-iveness. One may have the desire and the ability to create, to change beneficially, but there are difficulties galore in doing any new thing. Experimentation is not a slot machine into which you slip a coin and get the answer on a printed card.

There would never have been an improvement of any kind at any time if the person with a new idea had been stopped by the first "It can't be done" or "It won't work."

To experiment you must determine to work creatively despite frustrations, rebuffs and failures. You have to challenge sacred cows. To experiment is to get lost and err, but nonetheless to acquire knowledge. You have to learn to fail intelligently, making use of errors to find certainty. After failing in 700 experiments Edison said: "Now we know 700 things that won't work." The one time we must not fail is the last time we try.

Secondhand Materials

The person with an urge to improve things is often like the person arriving late at a department

store sale: he has to take goods which others have seen and not taken. Leonardo da Vinci wrote in his notebook: "The men who have come before me have taken for their own all useful and necessary themes." Picking up their leavings, he experimented with the elements, mechanics, flying machines, art, tanks, explosives, and a machine to sharpen 40,000 needles per hour, probably the first mass-production machine in history.

Time and again throughout the advance of science and commerce the consequence of following up or not following up the work of others has been very great. Originality does not consist merely in thinking of some basic principle first, but in seeing some opportunity to apply it at a point in time when it can be pursued with profit.

We should not hesitate to start from where other people left off. Ideas grow and pass from mind to mind. The engineering and technology of the present are the accumulated heritage of the past, the combined experiments of hundreds of generations. George Stephenson put this with clarity and modesty when he said, at the height of his fame: "The steam locomotive was not the invention of any one man, but of a nation of mechanical engineers."

The experimenter will never rely upon chance. "Chance" is a word we invented to express the known effect of unknown causes. He will persist in his endeavour to bring about desired effects by manipulation of means. He will reach for the stars, and though he may not get one he will enjoy trying.

MAN AND MEASUREMENT

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MODERN science has its roots in measurement, particularly linear measurement. Without it the great scientific and technological advances of the human race in this century and the several preceding centuries would not have been possible. One can indeed say that the story of man's civilization is the story of measurement.

From the view point of military advances in the production of munitions and accoutrements of war, and having regard to the modern demands for mass production and interchangeable manufacture, the part played by measurement is of profound significance. It is as well that we reflect on the story of measurement and examine its amazing development from the earliest times to the present day.

The need for some form of measurement was realized probably before 5000 BC, when the transition from cave life to rudimentary agriculture with its requirement for crude living accommodation and for simple tools brought about the use of some forms of hand-fitting and with it sighting or eye measurement. It was natural for man to select parts of his own body to serve as the basis for units of measure. The most widely used of these units was the

cubit—the distance from the elbow to the end of the outstretched middle finger—which incidentally varies little from one man to another once maturity has been reached. The cubit is known to have been in use at the time of the construction of the Khufu Pyramid in 4750 BC, and is also mentioned in connection with the building of Noah's Ark. Several nations apart from the Egyptians used the cubit, but there were slight variations in the lengths used. For example, the Egyptian cubit was approximately 20.62 inches and the Greek unit 2.38 inches shorter—these figures being based on modern archeological evidence. There is also good reason to believe that the cubit was used in Babylonia and also by the ancient Jews. The Greeks were probably the first to subdivide the cubit, breaking it down into two spans, six palms or twenty-four digits. Other evidence of the use of the human body for measurement was the Phoenician Foot, which interestingly enough was the basis for measurement used in the erection of the huge stones at Stonehenge on the Salisbury Plain in England. The Greeks too used the outstretched arm to record the length of the fathom, viz., 6 feet measured from finger tip to finger tip. The imprint

of the foot is roughly one-sixth of this length, or 12 inches.

The word "yard" is derived from the old English word "gerde" or "gyrd," meaning the girth or distance around the body, but in the time of Henry VII of England (1485-1500) the yard was established as the length of a stick measured from outstretched arm to tip of nose. Hence the term yardstick, which is of course still used today. It is interesting to note that to this day we use the terms foot, pace, hand and span when referring to different measurements. A "hand" for example, as applied to measurement of a horse, means precisely 4 inches.

With the development of commerce and manufacture and the increased scope of tools and instruments there arose a need for larger units of measure. Again the resultant units were based on the human body, for the "mille" or 1000 paces became the Roman statute mile. Advances in measurement continued so well that even before the Christian Era began the circumference of the earth had been measured with an error of only about 50 miles. By this time, too, the screw thread based on the discovery of the helix principle by Archimedes (212 BC), was beginning to be used for fastening purposes, and, together with the recognition of the applications of the lever and the pulley, manufacturing and the beginnings of metrology were well in evidence. A system of numerals is indispensable to any system of measurement, but it was not till the year 967 that we find a reference to the written use of Arabic numerals as we know them today. Some

600 years later decimals were used, and with the Arabic system the basis of the modern system of numerals was established. To have continued with the cumbersome Roman numerals would have been much too unwieldy and would have seriously retarded scientific progress.

Reference has already been made to statutory measurements by the Romans, but it is to the English that credit must be given for legalising measurement in a broader sense. Various English kings, including Ethelbert, King of Kent (600 AD), Alfred (900 AD), Edgar (975 AD) and Canute (1035 AD), issued decrees relating to standards of measurement, the basic Anglo Saxon laws in this regard being referred to as the "Law of Edward"—which dictated public policy in the matter of measurement. William the Conqueror accepted this policy, and under his decree all legal standards of measurement were transferred to Westminster and placed in the care of the chamberlains of the exchequer.

What were some of the standards of measurement of those early English times? There was the "Iron Ulna" set up by Edward 1st (1272-1307) as the standard, and then the later standard manufactured from brass set up by Edward III (1327-1377). In 1496 the legal standard yard was an end standard consisting of a brass bar of octagonal section. This served until the reign of Elizabeth I (1558-1603), when another brass standard of rectangular section was set up, and this remarkably enough served until 1824. That date marked the end of "end standards" and the introduction of "line standards," about which more is written elsewhere in this article.

The "ulna" was a rather significant measurement, because it was decreed in old English law sometime between 1227 and 1327, corresponding to the reigns of Henry III and his successor, Edward II, that it should contain "three feet and no more," each foot must contain twelve inches . . . and $5\frac{1}{2}$ ulna or $16\frac{1}{2}$ feet make one perch." It was further ordained "that three grains of barley, dry and round, make an inch . . . and forty perches in length and four perches in breadth make an acre."

The English rod appears to have had its origin in the 16th century, when it was defined as being the total length of the left feet of the first sixteen men as they came from church on Sunday morning!

The "Ell" was a cloth measurement standard of Queen Elizabeth, and remained legal until 1824, when all the legal British standards at the time were superseded by an Act of Parliament under George IV.

It is interesting to note the development of measurement as evidenced in various scientific fields in the early times associated with the Renaissance. The first printing press was set up by Gutenberg, the first mechanical clock was built in 1360, gunpowder was used for the first time in Europe at the battle of Crecy in 1346, the earliest known lathes and the screw cutting machines of Da Vinci appeared, and later on towards the end of the 16th Century Galileo formulated his law of the pendulum and produced the first high-powered telescope.

The science of measurement moved forward significantly when in 1614 John Napier introduced his discovery of logarithms from which William Oughtred later developed

the slide rule. To Napier also we owe the introduction of the decimal point to express fractions. In 1774 James Watt fitted pistons to his steam engine to within approximately $1/40$ th of an inch; in 1798 Eli Whitney first mass-produced the rifle; in 1848 Palmer originated the hand micrometer; in 1851 Sir Joseph Whitworth made the first truly precise measuring machine using end standards, and in 1892 Michelson's interferometer split the wave length of light, enabling measurements to within one-millionth of an inch to be taken.

The early "end standards" referred to earlier in this article were replaced by "line standards" in the 19th Century following on the use of micrometer microscopes for observing fine ruled graduation lines on a metal bar, the separation of the lines defining the unit distance. In the end standard the length of the bar is represented by the separation of flat and parallel end faces. At the present time two legal line standards of linear measurement both in bar form are recognized in this country. They are the Imperial Standard Yard and the International Prototype Metre. The Imperial Standard Yard, which was established by the Weights and Measures Act of 1856, consists of a bronze bar made from an alloy consisting of 16 parts copper, $2\frac{1}{2}$ parts tin and 1 part zinc. The bar 1 square inch cross section has an overall length of 38 inches. The length of the yard is defined as the distance between two central lines on gold plugs inserted in the end of the bar when the temperature of the bar is constant at 62 degrees F., and when the bar is supported on rollers in a specified manner to prevent flexure.

The custodian of the Imperial Standard Yard is the Standards Department of the Board of Trade, London. Incidentally it has been discovered that the Imperial Standard Yard has been changing in length, and is in fact contracting at the rate of about one-millionth of an inch per annum. It is interesting to note that the length of the Henry VII yard is within $1/32$ inch of the Imperial Standard and that of the Elizabeth I Yard is within one-hundredth of an inch of the present yard.

Unlike the yard, which is an arbitrary unit, the metre was assumed to be an exact fraction of the earth's meridian passing through Paris—an assumption which has been proved incorrect. The International Prototype Metre made from an alloy of platinum with 10 per cent. iridium, is made of a special X section and is a line standard with graduations which define the standard at a temperature of 0 degrees C. It is retained at the International Bureau of Weights and Measures, Sevres, near Paris, and copies are held by various other nations. It has been established by measurement of the Sevres standard metre over a number of years, in terms of the wavelength of light, that this Metre is stable.

In 1922 the relationship between the Imperial Standard yard and the metre was determined by the National Physical Laboratory by a conversion factor, viz., 1 metre equals 39.370147 inches. It is interesting to note that the American metre equals 39.370000 inches, which means that the American inch is nearly four-millionths of an inch longer than the British inch. Attempts are being made to secure

agreement on this difference, which is quite significant having regard to modern standards of accuracy, and it is felt that this will be resolved when the current material standards of length are replaced by physical fundamental standards. Such standards will be based on the wavelength of light, thus introducing a physical constant which could be adopted universally and would not be subject to the effects of temperature. The idea of using wavelengths of monochromatic light as natural and invariable units of length was put forward as long ago as 1827 by the Frenchman Babinet. It has taken from that time until now to obtain international agreement to bring the suggestion into practice. Before the end of the 19th Century the metre had been measured in terms of wavelength of cadmium red light, and in fact today an authorized definition of the metre bases this measurement upon the wavelength of the red line in the spectrum of cadmium in dry air with other specified characteristics. (The position of any particular line in a spectrum indicates the wavelength of the light from which it is produced, and is stated in international Angstrom units, where one Angstrom unit equals 10^{-10} metre, that is, one ten-thousandth part of a millionth of a metre.) Modern developments in nuclear physics have enabled research workers to overcome the problems associated with unsatisfactory light from natural elements by enabling them to use "artificial" light sources. The effect for instance of irradiating gold by neutrons in a uranium pile has produced isotopic mercury of mass 198 the green line of which in spectroscopic analysis has been found

to possess to a high degree the quality of the monochromatic light required. Modern interferometry techniques using the wavelengths of light from isotopes of mercury or krypton could maintain international standards to accuracies of 0.4 millionth of an inch or 0.01 microns or one part in ten million whichever is the greater. (One micron equals 1/25,400 of an inch.)

In the meantime the major inch-using countries having experienced difficulty in the past in establishing an international and accurate basis of size for universal interchangeability have agreed that as from the 1st Jan. 1959 the metre be used as the fundamental international standard and that the inch be declared as being equal to 25.4 millimetres. This means that an international yard has at long last been established as being equal to 0.9144 metre.

The universally accepted basis of measurement for commercial engineering organizations is the reference block or slip gauge, introduced by the Swedish engineer, Johansson, in 1896. These days gauge block or slip gauge sets may be considered indispensable to production engineering. They are generally supplied in sets built up according to a system which enables any measurement within the measuring range indicated to be made up. These gauges are made in various degrees of accuracy, the highest being guaranteed accurate to two-millionths of an inch. As well as the Johansson type slip gauges, production engineering relies on a variety of other working standards, including length bars, roller gauges, angle blocks, calibrated balls, etc. Readers of

this article will no doubt be interested to learn that the Army Inspection Service operates its own metrology laboratory at Maribyrnong, Victoria, which has been registered by the National Association of Testing Authorities, and which is so well equipped with modern measuring devices of various types that linear measurements to an accuracy of a hundred-thousandth of an inch and angular measurements to an accuracy of three seconds of arc are applied daily in the work of checking stores supplied to the Armed Services.

Developments in the field of measurement now referred to as metrology have been profound since the time of Johansson, with the introduction of ultra precision indicating comparators and the modern techniques of optical, air and ultrasonic gauging. In recent times we have witnessed the introduction to precision engineering production of automatic measuring devices with memory and feed back circuits incorporated in single or multiple machine tools in such a way as to actually prevent out of tolerance work from being produced. Such devices work to accuracies of at least a ten-thousandth of an inch.

It is a far cry from the days of Edward II, when "three barley corns round and dry" made one inch. Today, communal life as we know it would be impossible without Government regulations in regard to a comprehensive system of weights and measures. Whether a housewife buys a yard of ribbon or her husband is making products to accuracies of ten-thousandths or hundred-thousandths of an inch, both operations are based on the

same standard—the Imperial Standard Yard. Science has shown its hand in many ways in the progress of civilization—ways which are easily perceptible to the masses—but the work of establishing standards and methods of measurement has not been as easily perceived by the layman. Improved methods of measurement and the development

of equipment for measuring and gauging are being made continuously. The present emphasis on automation, and the general implications of an age of intercontinental missiles will lead to new and important developments in the science of measurement. The future is full of possibilities in this ever-widening and indispensable field of science.



Good Press Relations

Major B. C. Smith
Australian Army Public Relations Service

"Three hostile newspapers are more to be feared than a thousand bayonets."

—Napoleon.

THE Australian Army is a national force of major concern and interest to the Australian people. Consequently the Army should keep the public fully informed of all its various activities so far as this is consistent with the security of defence arrangements.

Obviously, only a good army is likely to have good relations with the public. Good public support, interest, respect, and understanding are resources of great value to the Army. Public confidence, however, is not possible where legitimate news, good or bad, is needlessly withheld. Withholding news only serves to create public suspicion and resentment.

Certain Army personnel having special qualifications and training are specifically employed in connection with public relations. But good relations with the public are the business of every officer and every man in the Army.

There are many media for public relations, but the news columns of

the press are still the most effective.

Many occasions arise when commanding officers, staff officers, and regimental officers are required to deal directly with the press, and provision is made for them to do this within the limits laid down.

This need not be a worrying nor ruelful experience. The limits are laid down in MBIs, and the principles of dealing successfully with the press are not mysterious nor the sole province of experts. They can be applied with common sense by anybody. They are:

1. Be quick.
2. Be honest.
3. Be accurate.
4. Always provide the answer.
5. Do not plug a line—provide a service.
6. Look at the thing from the newsman's point of view.
7. Never ask to vet or censor a story.
8. Trust the pressman.

9. Present the story in the form most acceptable to the newspaper.
10. Give all the relevant facts.

Let us deal with them one at a time . . .

Be Quick

The newspapers deal with what is happening now. Nothing is as stale as yesterday's news. Notify the press in advance of an event which may make news.

See that reporters get every help to get the facts fast and get them to their papers fast.

Don't wait until the whole story is complete—give what facts you can immediately, and the remainder when they are available.

Be Honest

Do not attempt to conceal facts or to fool reporters. They must be pretty smart people to hold their positions. If a reporter suspects that you are attempting to pull the wool over his eyes he will almost certainly investigate other sources to get the facts, sources which may be very detrimental to your interests and to the interests of the Army.

It is regrettable to have an accident, but it is not a disgrace to be concealed at all costs. Get the facts to the press promptly and you will effectively scotch all the exaggerated damaging rumours.

Be Accurate

Nothing destroys your relations with the press quicker than supplying incorrect facts, or facts which are ambiguous and may lead the newspaper to publish an incorrect story. This destroys the public's confidence in the newspaper, and

if you have been the instrument of that inaccuracy the newspaper certainly will not love you nor the interests you represent, and will treat you with great suspicion thereafter.

Always Provide the Answer

The newspapers employ reporters to get stories, not to report back that they have failed to do so.

Reporters and their employers prefer authoritative sources. But if you, as the authoritative source, deny them the story, they will get it anyway, and it may be a far less reliable story than you would have given them, and likely to do you and the Army much more harm.

Whether the story is good or bad—give the press the facts to the limit of your authority. Rumour is always far more highly coloured than fact.

Do Not Plug a Line—Provide a Service

No reputable newspaper will accept an advertisement dressed up to look like a news story. In the majority of cases the Army must get its mention incidentally to the main story. As long as you get that mention, you have achieved your point. Newsmen are experienced in detecting the free advertisement, and will quickly consign it to the wastepaper basket.

However, the man whose duty it is to maintain liaison with the press should be ever keen to feed into the papers news copy, whether it be about his own organization or not, so establishing himself in the eyes of the newspapers as a valuable news source.

Look at the Thing from the Newsmen's Point of View

It is useless and ultimately damaging to your aim to serve up to the

papers stories which are not news, or to attempt to present a story in a form which will be unacceptable to the newspaper.

For success, the style and policy of the newspaper must be studied, and every effort made to present your stories in the style most likely to interest it, and to make the copy easy to handle in the hurly-burly of the newspaper office when "deadlines" are approaching at a gallop. Under these conditions, sad to say, it is sometimes the story which is easiest to handle which makes the paper, rather than the best story. The same thing applies to pictures.

Never Ask to Vet or Censor a Story

Few things irritate the press world more than suggestions of vetting or censoring. In the same category are directions like: "Print that exactly as it is or not at all."

You can often get a look at a story after it is written by suggesting that you may be able to help the reporter by rechecking the facts with him later, particularly if the story contains some technical or other unusual material. This may give you the opportunity to suggest a re-angle to your advantage.

However, if you do get hold of the reporter's copy, on no account attempt to rewrite it. That's his business. And see that you get it back to him as swiftly as humanly possible.

Never on any account do anything to create the impression that an attempt is being made to restrict the freedom of action of a reporter, or to coerce him, or to bring any pressure to bear. Being a human being, his reaction is naturally adverse,

which may be reflected in the story he writes.

Trust the Pressman

The pressman cannot afford to let you down if you are a good news source.

There may be many things you cannot have him print for very good reasons. Take him into your confidence to the extent of explaining why it is not in the best interests to have these things printed. In other words, give him the background so he can see the whole picture and not just one corner of it. If he has the whole picture, what he does print will bear a realistic application to the whole subject.

Present the Story in the Form Most Acceptable to the Newspapers

The best stories are written, not by professional or amateur public relations officers, but by reporters whose business in life is to do just that. Wherever possible, have the newspaper write its own story or take its own picture.

In some cases, for various reasons, this is not possible, and the typed release is used.

This should not be cluttered with a letterhead. It should be double-spaced so that the sub-editor may interline if necessary, and on one side of the paper only so that it may be cut and pasted. It has a newspaper-style heading which immediately tells the type of story. Following this is the title and name of the spokesman in case the newspaper wishes to quote him, and at the end is the name and phone number of the person who can supply additional information.

The story itself is written newspaper-style. There is a short, pithy,

comprehensive introduction, and the importance of the material tapers off towards the end, so that the story may be cut from the bottom if necessary to fit the space allotted it, without the necessity to rewrite. In other words, it is easy to handle in the newspaper office.

The ideal picture for newspaper use is the standard 6 in. by 8 in. wholeplate size. It is glossy-finish, the faces are bold and clear, the men are doing something, and not just looking at the camera, they are close together, and there is no waste space. Technically, the picture is printed hard and has plenty of contrast.

It does not plug the Army line too obviously. It is a picture of people.

The caption, which will be rewritten in the newspaper office anyway, is attached to the picture, but in such a manner that it may be torn off without damaging either the picture or the caption. It is comprehensive, and does not assume that the reader knows anything of the subject.

Give All the Relevant Facts

This point is so obvious that one hesitates to make it, but it is surprising how much irritation is caused in newspaper offices by required facts being left out of stories. This does cause frustrating delays in

newspaper production, and can cause stories to miss the edition, and therefore ultimately perhaps be thrown away.

Conclusion

There appear to be many "don'ts" in this article. That does not imply that the business of press liaison is negative. It is the positive application of commonsense, an appreciation of the pressman's point of view, and an avoidance of those things which make his job harder. Marry to these things a nose for news, and you have good press relations.

What is news? News may be defined as facts not previously known to the public. The best source of news is people—stories about people are always welcome, and there is no shortage of people in the Army (not since recruiting brightened up).

Stories about soldiers not only establish the Army favourably in the public mind but also improve the morale of the troops, and their families and friends. If a soldier gets his name or his picture in the papers, he feels that he matters, that he is important, and his effort for the benefit of the Army improves accordingly. So press liaison is closely tied with morale.

The opinion of the community in which the Army exists is vital to its role, and this opinion depends largely on good press liaison.

Strategic Review

JAPAN KEY TO PACIFIC STRATEGY

Reprinted from the August 1959 issue of "An Cosantoir," Eire

THE importance of Japan's role in US strategy in the Pacific Ocean can be seen by a glance at the globe. US strategy in the Pacific rests on the three island groupings of Japan, Formosa and the Philippines. Formosa would not be at all so important in US military thinking but for the need to cut off any southward advance of Communist China towards the rich area of Indonesia. But Japan, described by the President of the United States as the "key to the Pacific," is the most important grouping of all, from the point of view of its position and man-power potential.

It will be recalled that following the surrender of the Japanese on 2nd September 1945, a new Constitution came into force in 1946 which, *inter alia*, abolished conscription and pledged the country not to maintain armed forces and to renounce war "for ever." A Treaty of Peace, signed at San Francisco on 8th September 1951, between Japan and representatives of 48 countries, came into force on the 28th April 1952, when Japan regained her sovereignty.

Strengths

A Security Treaty with the US ratified by the Japanese Diet on the 26th October 1951 provided for the stationing of American troops in Japan until Japan was able to undertake its own defence. The Japanese "Ground Self-Defence Force," or Army, had reached a total of 150,000 men by 1957. The Navy, or "Maritime Self-Defence Force," has a fleet which includes 4 new destroyers of 1,700 tons and 3 new frigates of 1,080 tons—all built in Japan—and has a substantial building programme in progress. Personnel of the Navy (in March 1958) numbered 24,146 officers and ratings.

The build-up of the Japanese defence forces has not been altogether fast enough for official American thinking. The US Secretary of the Army, Mr. Wilbur M. Brucker, stated before the House of Representatives Appropriations Committee (in 1957) that the Japanese were "dragging their feet in building up their ground forces."

The Japanese Government's programme for national self-defence, published in May 1957, on the spiritual plane favoured the pro-

motion of a patriotic national spirit and on the material plane provided specifically for recourse to a joint security system with the United States, pending effective functioning of the United Nations to prevent aggression. However, it was announced in June 1957 that US ground troops, some 30,000, would all be withdrawn from Japan.

As regards nuclear armament the Japanese Prime Minister announced in February 1959 that Japan would renounce nuclear arms even for defence purposes and would refuse to allow the introduction of any nuclear weapons into the country.

Increasing Population

The area of this importantly situated country, three and a half times the size of Ireland, does not vary from year to year, but its population emphatically does, increasing steadily. At present its population is over 90 million, which gives a density of about 650 persons per square mile, as compared with over 130 per square mile in Ireland, and 420 per square mile in Italy—generally considered an overpopulated country. The 45 million males in the four islands of Japan, a population literate, energetic, industrious and industrially skilled, constitute a great reservoir of military manpower in the Far East.

What is the quality of this manpower, militarily speaking? A commentator might deny that Japan is a militaristic nation, and point to the hundreds of years of peaceful development which it enjoyed under its own institutions prior to the advent of Western influence. But the record of the past hundred years certainly looks like that of a military nation. The visit of Commodore Perry in 1853 awakened Japan from a peaceful dream of seclusion

in which it had reposed for many hundreds of years. Fifteen years later, in 1867, the Shogun, Keiki Tokugawa, surrendered political power to the Emperor, the feudal clan-system fell, and Imperial rule was restored.

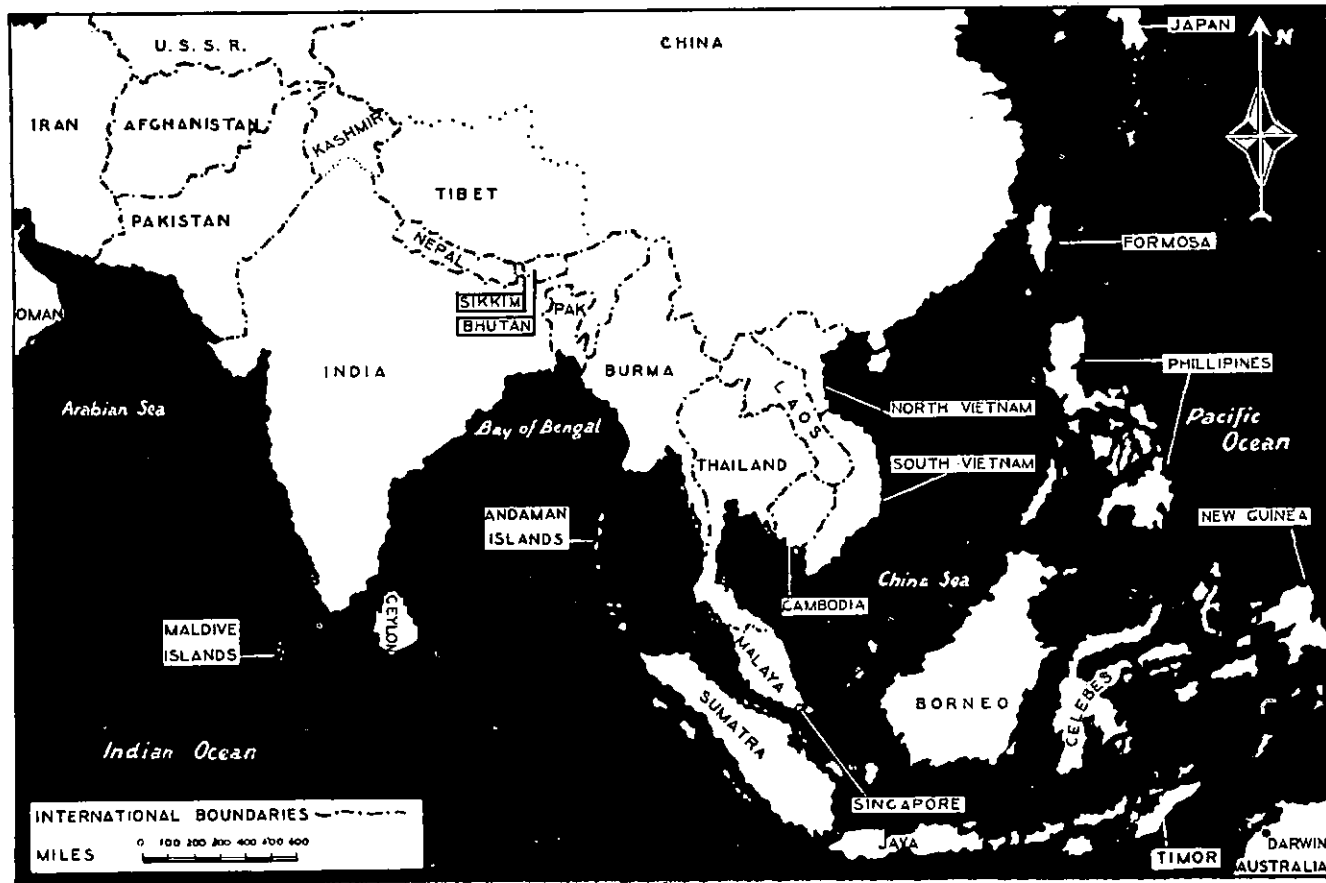
Past Century's Record

During the past hundred years the Japanese nation has passed through no fewer than six civil strifes, one expedition, and seven international wars. There were the War of Restoration from 1868 to 1871, the Saga disturbances and the Formosan Expedition of 1874, the rebellions of 1876 in Hagi and Kumamoto, known as the *Jimpuren* trouble, the Satsuma rebellion or Seinan War of 1877, the war with China in 1894-95, the Boxer Uprising of 1901 in Northern China, the Russo-Japanese War of 1904-5, World War I from 1914-18, the Manchurian incident from 1931 to 1932, the revolt of 26 February 1936, the China incident from 1937 to 1939, and the War of Greater East Asia, or World War II, from 1941 to 1945.

It is not just a question of individual fieldcraft or toughness, all-important as these things are, as the opponents of Japanese jungle-fighters, eventually credited with almost preternatural powers, found out as recently as World War II. But such a militarily active background as the Japanese have had for the past century indicates a fundamental adaptability for military requirements which by itself is significant and, in conjunction with a large population, forms an important component of war potential.

East Versus West

Japan's interests and sympathies are divided sharply between "East" and "West" in the various connotations of those rather overworked



terms. Post-war public opinion is inclined to opt for neutrality, for independence without alliances; this view is like that held by the new Afro-Asian nations. On the other hand, business and conservative circles feel that Japan's future lies with the capitalist countries, the free-enterprise democracies, whose outlook they better understand and sympathise with.

What is the view of informed official or top political opinion in Japan over the long period? Quite recently Mr. Shigeru Yoshida, five times Prime Minister of Japan, who signed the San Francisco Peace Treaty for his country in 1951, had some interesting comments on defence and foreign policy directions in Japan. These comments were published in *The Yoshida Memoirs*.

He said that to him *"the idea of rearmament has always seemed to be verging on idiocy. The necessary wealth is lacking. And even more than wealth, the necessary psychological background, which is the desire of the people to re-arm, is just not there. The miseries and destruction of the Pacific War are still actualities for a large majority of the Japanese people; they remember only too vividly what war is like, and they want none of it again."*

"It has always been my firm belief," the former Prime Minister went on to say, *"that Japan should associate and co-operate closely with the free nations in planning her future course. I do not deny the eventual possibility of friendly intercourse with the Communist countries."*

Mr. Yoshida said that the San Francisco treaty gave Japan political independence but economic independence remained to be regained.

The regained political independence had to be defended and *"most fortunately, the position of the United States in regard to the Soviet Union made the defence of Japan and that country's economic recovery a necessary part of the policy of the United States in the Far East. The interests of the two nations were as one, and that fact led to the present system of collective defence of the Japanese home islands."*

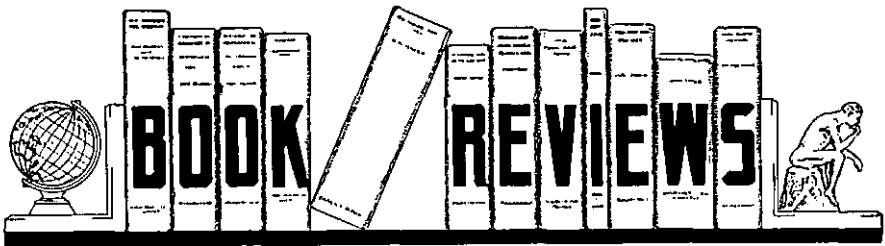
Summary

One might sum up the situation as follows. Japan is not only geographically of great importance but it is a great reservoir of uncommitted manpower. In a larger conflict between the United States of America and its allies, on the one hand, and the Soviet Union and its allies, on the other, or in a relatively smaller but still cataclysmic conflict between the Soviet Union and Communist China, the weight of Japan could be exceedingly important if given to one side.

But if one side cannot have the active assistance of Japan as a co-belligerent or an ally, the next best thing that side can wish for is that such active assistance be denied or withheld from its opponent. The US-led alliance seems the most likely to get the active co-belligerency of Japan. In the absence of such co-belligerency the United States can apparently rely on Japan's non-belligerency or neutrality.

So in the foreseeable future the assistance which the United States of America is giving to Japan to enable it to defend itself militarily, to stand on its own feet economically, should prove to be a source of strength to the United States and its allies in the Far East.

—Xenophon.



A DREAM OF FUJI, by Arthemise Goertz. (Peter Davis Ltd., London, and William Heinemann Ltd., 317 Collins Street, Melbourne.)

Before the war Miss Goertz, an American woman, went to study at the International Students' Institute in Tokyo. In July 1941, before she realized what was happening, her assets were frozen, and it was impossible for her to get home. For two years she suffered the privations of life as an enemy alien in wartime Japan. In July 1943, desperately ill from malnutrition, she was repatriated in an exchange of civilian prisoners.

Against this background of her personal experience this talented author has written a tale of love and terror in wartime Tokyo, a tale full of suspense and with many unexpected turns and twists.

If there is an absence of the physical brutality usually associated with accounts of POWs of the Japanese, the terrors of uncertainty, of constant pressure to collaborate, combined with the effects of slow starvation, were present in abundance in the house in which five women and one man were imprisoned. The diverse characters are skilfully handled—the Eurasian mistress of a Japanese liberal nobleman, the Viennese Jewess caught almost at the end of her long journey to freedom, the unorthodox missionary, the

American girl, the frosty, bitter collaborationist and the gentle Dutch naturalist. Their gaoler, Lieutenant Oda of the Tokyo Metropolitan Police, epitomizes that strange contradiction so often found in the Japanese character—on the one hand brutal ruthlessness, on the other a genuine devotion to poetry and art.

The story of the prisoners is a microcosm of the story of all those unfortunate people caught in enemy territory on the outbreak of war. The bewilderment, the sudden isolation from all contact with the outside world, the intense longing for news, the secret exultation when the first American air raid on Tokyo occurred, the despair when it was not repeated, all these emotions are vividly portrayed.

However, the book does much more than tell the story of the prisoners. It gives many intimate glimpses into a culture and a habit of thought so different from our own. It shows that not all the Japanese supported the imperialistic regime, that there were many who maintained the right to think for themselves in the face of imprisonment and death. These aspects of the book make it very useful reading for all who seek to understand our neighbours in the Pacific.

—E.G.K.

THE SEA WAS KIND, by A. Klestadt. (Constable, London.)

Mr. Klestadt's story is both fascinating and provoking. Fascinating in its simply told story of high adventure, and provoking because the reader is left with the impression that Mr. Klestadt left much unsaid.

Many stories have been told of escape from the enemy. This is not an escape story because, before one needs to escape, one must be held captive. The story, then, is about a man who was determined not to be captured.

Many people were anxious to capture him, firstly Hitler's Nazis and, after successfully evading the Nazis, he was years later to be sought by the Japanese.

In 1935, at the age of 21, he became a refugee from his native Germany. He fled, via Britain ("On the day in 1935, when I stepped off the train in London, I felt at home"), to Japan, where he obtained employment and became well established.

The day after Britain declared war on Germany he presented himself to the British Consulate in Kobe and asked to be enlisted in the British Forces. The answer was a polite "No." For months he pestered the Consulate, and finally received a half-promise of at least British employment if he could reach Singapore.

He left Kobe in September, 1941.

In December 1941, when Japan entered the war, he was in Manila.

He describes in some detail the Japanese occupation of Manila. Mr. Klestadt had no intention of remaining in Manila, or any other place, that was in Japanese hands.

His preparations for leaving Manila and subsequently the Philippines, make absorbing reading. At one stage, as part of his preparations, he obtained employment as a driver to a Japanese senior officer!

As an experienced amateur yachtsman it did not take Mr. Klestadt long to determine on the sea as the means by which he would put distance between himself and his enemies.

His efforts to obtain in turn, a suitable craft, stores and a crew exercised his mind continuously. After many interviews and much pleading he was unable to interest anyone in joining his venture. Stores he obtained by various means and finally a boat. There being no crew, he had to sail the boat single-handed.

On 14th June 1942 he set sail singlehanded for Australia, a distance of 1766 nautical miles.

One month later he was in Labason on Mindanao after having to retrace his steps from Tawi Tawi, the need for his return being repairs to his boat, Japanese patrols and the approaching monsoon.

On 21st October, whilst still land-bound, he was approached by a Filipino Army officer with a proposition that he join, as part skipper and navigator, a party of seven on a larger sailing vessel, also bound for Australia. Mr. Klestadt joined the party, and on 9th December 1942 stepped on to Australian soil.

After joining the party and before reaching Australia there were many more adventures, including two mutinies and a threat of being beheaded by the six native crew members.

After arrival in Australia Mr. Klestadt's determination to enlist in the "British Forces" was not diminished, and he eventually enlisted in the Australian Army, was later commissioned and served until the end of the war and in the Occupation Forces in Japan.

He is now an Australian citizen, married and settled in Melbourne.

About his enlistment Mr. Klestadt said: "At last the Australian Army took me and I learned to wear the Digger hat—the noblest headgear known to man."

Those who read this story will agree, I am sure, that the Digger hat would sit proudly on Mr. Klestadt's head.

—Major K. B. Thomas.

SHOOT TO KILL, by Richard Miers. (Faber and Faber, 24 Russell Square, London.)

In 1955 the 1st Battalion, The South Wales Borderers, sailed from the United Kingdom to begin a two years tour of duty fighting the Communist Terrorists in Malaya. The story of their activities during this period is told by their Commanding Officer in this book, which, though seldom actually exciting, never fails to hold the interest and attention of the reader.

The appellation of "bandit," "terrorist" to the well-organized military units and formations fighting the security forces in Malaya has led to much misunderstanding outside that country. These terms create the impression of small, isolated bands of cut-throats working quite independently and making occasional raids on plantations. How far this impression is from the truth

is shown by the author's comments on a captured Communist document:

"It was a revealing report on CT habits and thought . . . their astonishment at being bombed without warning and their painstaking inquiries to discover how they had been betrayed. Even more interesting was the action of the badly injured Comrade X in immediately rallying six other shocked and wounded men and, complete with arms and equipment, leading them through our ring of search parties to safety. His subsequent action, about which we learnt later, was no less remarkable. Collecting what medicines and bandages he could, and undeterred by losing yet another man in ambush, he led the remainder of his men into the deep jungle to recuperate. Three months later they returned to the jungle fringe to start a vigorous recruiting campaign. In a year the platoon was rebuilt to an effective strength. By any standards it is a story of fortitude and courage of the highest order: the cool-headedness and leadership of Comrade X; his steadfast determination to revive the platoon despite its fearful losses; and the sense of loyalty and discipline which induced the survivors to drag themselves into the deep jungle again when, had they chosen to surrender, they would have been assured of hospital treatment for the injuries and extremely lenient treatment for their crimes and misdeeds."

The war against the Communists in Malaya has been going on for over ten years, and even now it is not certain that it is in its final stages. Anyone who has wondered why will find the answer in **SHOOT**

TO KILL. The author tells the day-to-day, down-to-earth story of his battalion's unremitting warfare against the CT, a story of patient, constant pressure, of great effort for small rewards. With considerable literary skill he keeps the story moving from one action to another with an absence of the tediousness which so often characterises books of this kind.

This book does two things very well indeed. It gives a very readable account of an infantry battalion on active service in South-East Asia, and it gives a picture of a formidable enemy operating in an area admirably adapted to guerrilla warfare. On both counts the book is of great interest to the Australian Army and should, therefore, find a place in every Army library.

—E.G.K.

COMPETITION FOR AUTHORS

The Board of Review has awarded first places and prizes of £5 for the best original articles published in the October and November issues to:—

October—"Chinese Secret Societies," by Staff-Sergeant P. G. Gittins.

November—"Military Autarky," by Lieutenant-Colonel A. Green.