At the end of 1969, a C-47 squadron was converted into an AC-47 combat squadron. During 1970, a number of US Army Aviation units preparing for redeployment began to turn over their helicopters, equipment and responsibilities to newly activated Vietnamese helicopter squadrons. At the end of September, 1970, the US 205th Army Aviation company relinquished their big CH-47's to the VNAF. Also, C-123 cargo planes were turned over. The training of C-123 and C-7 pilots was performed in-country with the assistance of USAF instructors. With the activation of additional fighter, helicopter, and transport squadrons, US Air Force and Army Aviation units began to redeploy to the United States. In December 1971, the US 834th Air Division was inactivated at Tan Son Nhut, ending five years of operation in South Vietnam. In conjunction with the redeployment of USAF units, air bases in South Vietnam were transferred to the VNAF. The Phu Cat air base which cost 36 million dollars to build was turned over in early December 1971. By this time, the USAF operated only 5 airbases in South Vietnam whereas in 1969 it operated a total of fifteen. In mid-May 1972, the Cam Ranh airbase, which was the biggest and most costly (72 million) USAF base in South Vietnam became a part of the VNAF. In late 1972, the 6th VNAF air division was activated in Pleiku. MR-2 was thus supported by two air divisions. Also in late 1972, prior to the cease-fire, the Enhance Plus program provided 32 C-130A cargo planes plus additional C-7 cargo planes and F-5A fighter-bombers. With these new aircraft, the VNAF was able to activate two C-130 transport squadrons, two C-7 transport squadrons, and two F-5A tactical squadrons.

During the post-cease-fire period, the VNAF was a sizable air force with a strength of 64,000, nearly 6 times its 1964 strength. It operated a total of 1700 aircraft, including more than 500 helicopters. Its six air divisions included a total of ten A-37 fighter-bomber squadrons, three A-1H squadrons, three F-5E squadrons, seventeen UH-1 squadrons, four CH-47 squadrons, 10 liaison and observation squadrons, three C-7 squadrons, two C-130A squadrons, four AC-47, AC-119 and EC-47 squadrons, and other training squadrons.
Developing and modernizing a military force expanding from 650,000 to 1,100,000 men within five years certainly involved a tremendous effort. During this period, the problem of modernizing weapon systems became critical since the enemy was receiving modern weapons from Communist countries. Beginning in 1968 and especially during 1971-1974, the enemy constantly modernized his combat forces. So the RVNAF weapon and equipment modernization plan was initiated and pushed hard in conjunction with the force structure increase. Beginning in 1965, M-24 tanks were gradually replaced by M-41's, and in mid 1967 a few AR-15's (later redesignated M-16) were brought into South Vietnam. This initial shipment of AR-15's was hastily distributed among the airborne units for operational test. The AR-15 was proven to be a light snug weapon having a higher firing rate and a greater impact than the Communist AK-47. But by the end of 1967, the quantity available was just enough to arm the general reserve force, i.e., the airborne and marine units. As more AR-15's were made available, the 1st Infantry Division, then the 2d, received them. It was during this period of time that elements of the 1st Infantry Division were replacing US Marine units in the DMZ area. As a result, this division also received other weapons such as the 106-mm recoiless rifle, M-60 machine gun and the newer 60-mm and 81-mm mortars. By mid-1968, all RVNAF infantry battalions were equipped with the new M-16 rifle and to a lesser extent, with M-60 machine gun, M-79 grenade launchers and LAW anti-tank rocket launchers. Other combat forces, such as the RF and PF, combat support units, and even the CIDGs all received the M-16 rifle during 1969. Communications equipment was also modernized with the replacement of AN/PRC-10's by AN/PRC-25's and the new VRC-series of FM radio sets.

The task of improving and modernizing the RVNAF became even more urgent as US forces initiated the redeployment in June 1969. To facilitate the equipping process for newly activated units, some of the redeployed US units turned in their weapons and equipment which were
then maintained or repaired and reissued to Vietnamese units. The equipping task was vigorously pushed for the Army through projects such as Keystone and 981. The Navy and Air Force meanwhile had their own programs of modernization.

In the summer of 1971, in view of lessons learned from our operation into lower Laos during which Russian-made T-54 tanks were used by the enemy, the US began to equip the first Vietnamese armored squadron with the M-48 medium tank, armed with a 90-mm gun. Other newly activated service and combat units also received a great quantity of modern weapons and equipment such as the M113 APC, M-41 tank, 105-mm and 155-mm howitzer and 1/4-ton M-151, 2 ½-ton and 5-ton trucks. In particular, redeployed US engineer units turned over to the RVNAF a sizable amount of heavy equipment such as the D-7E bulldozer, and road-building machinery. New signal equipment for the Army included the AN/GRC-106 AM transceiver, AN/GRC-122 radioteletypewriter and AN/TRC-35 radio relay set. Since all these items of equipment were new to us, a special large-scale training program was conducted. And by the end of 1971, US-supplied war materiel for the RVNAF had reached monumental proportions: 855,000 individual and crew-served weapons, 1880 tanks and artillery pieces, 44,000 radio sets and 778 helicopters and fixed-wing aircraft. (Table 5)

During the enemy 1972 summer offensive, the RVNAF suffered great losses in equipment and weapons. As a result, MACV urgently initiated the NOW project to replace these losses in the shortest time possible. The re-equipping and re-training process was thus completed in record time, and it was a feat made possible only by the huge and effective US logistics system. In the lower Laos operation and especially in the 1972 enemy summer offensive, the Communist simultaneously employed many new weapons: 130-mm long-bore guns, T-54 tanks, AT-3 anti-tank missiles and the hand-held SA-7 "Strella" anti-aircraft missiles. As a consequence, the RVNAF required additional weapons and equipment to counteract the formidable Communist armament. Through the expedient "Enhance" program, 175-mm artillery battalions and additional M-48 tank squadrons were activated. TOW anti-tank missiles were also brought in with additional UH-1 and CH-47 helicopters.
Table 5 — Selected Equipment Approved For RVNAF

<table>
<thead>
<tr>
<th>Item 2</th>
<th>Cumulative Requirement</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>FY 70</td>
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<tr>
<td>Rifle, M-16A1</td>
<td>790,866</td>
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<tr>
<td>Machine Gun, M-60</td>
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<tr>
<td>Grenade Launcher, M-79</td>
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<td>Mortar, 81-mm., M-29</td>
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<tr>
<td>Howitzer, LT, 105-mm., M101A1</td>
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<tr>
<td>Howitzer, Med., 155-mm., M114A1</td>
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<tr>
<td>Tank, LT, M41A3</td>
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<tr>
<td>Carrier, Pers., M-113</td>
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<tr>
<td>Carrier, Mortar, M-125A1</td>
<td>132</td>
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<td>Mask, Protect., M-17A1</td>
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<tr>
<td>Radio Set, AN/PRC-25</td>
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<td>Radio Set, AN/VRC-12</td>
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<td>Radio Set, AN/GRC-106</td>
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<td>Truck, Util., ½-T, M-151A1</td>
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<td>Truck, Cargo, 2 ½-T, M-35A2</td>
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<td>Truck, Cargo, 5T, M54A2</td>
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<td>Truck, WRKR, 5T, M543A2</td>
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<tr>
<td>Truck, CGO, LT, M-601, &amp; 3/4-T, M-37 Series</td>
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<td>Tractor, PT, Med., Dec.</td>
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<td>Crane, TRK MTD, 20T</td>
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<tr>
<td>Semi-Trailer 12T, M-127</td>
<td>1,295</td>
</tr>
<tr>
<td>Helicopter</td>
<td>128</td>
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</tbody>
</table>

2 This is a summary status of selected items of equipment approved in support of RVNAF improvement and modernization program as of 4 February 1970.
At the end of October 1972, with a view of providing the RVNAF with an abundant maintenance float and a high level of stockpiled assets in anticipation of the eventual limitations imposed by the Paris Agreement, the US government rapidly initiated the "Enhance Plus" program. This program provided the RVNAF a great quantity of equipment such as F-5A fighter-bombers, C-130A and C-7 cargo planes, M-48A3 medium tanks, 175-mm. self-propelled guns, M-42 anti-aircraft cannons, LVT-5 amphibious vehicles, and many other items.

In addition to the modernization of equipment and support facilities, the "Country Logistics Improvement Plan" was initiated to improve the entire RVNAF logistics structure to include organizations, installations, facilities, operations, and management. Indirectly, this logistics improvement plan also contributed toward stabilizing the RVN national economy and building a solid infrastructure for the post-war national development effort.

One of the major objectives of this improvement plan was to enhance support for the RF and PF whose units had increased substantially in number. In late 1968, the Sector Administration and Logistics Companies were upgraded and became Logistics and Management Centers whose size depended on the number of territorial units to be supported. These centers were now better staffed and more rationally operated as a result of better selection and training of specialists and cadres. A two-year building and rehabilitation contract worth 10 million dollars was signed with the US firm Pacific Architects and Engineers (PAE) to provide additional shops, storage space, garages and depots.

Efforts were made at about the same time to improve the logistics organization at the Infantry Division level. As of mid-1968, divisional technical and support companies were consolidated, after a period of test, into a single Logistics Battalion. This was aimed at providing more responsive support with less personnel. Similarly, technical improvement, equipment modernization and operational enhancement were brought into other logistics units, thanks to the assistance of US specialists. There was marked improvement particularly in the development of ammunition depots, modernization of loading, unloading, transportation,
storage facilities and fuel distribution. And this salutary improvement helped provide more timely and efficient support for the growing requirements of combat units.

In addition, with the objective of economizing aid funds and providing a basis for future economic development, the US set about to implement a base depot upgrade program. The 80th Ordnance Base Depot north of Saigon was transformed into the Army Arsenal in 1971; the 60th Signal Base Depot and the 40th Engineers Base Depot were also consolidated and improved. The entire upgrade program, funded at 25 million dollars and contracted to the PAE construction firm, consisted primarily of building and modernizing storage depots, shops and other facilities. The education and on-the-job training of specialists were also strongly supported by MACV. After completion of the program, all RVNAF base depots were equipped with modern machinery and facilities; they became in due time a source of pride for the RVNAF.

Beginning in mid-1969, as US and allied increments redeployed, US Army, Air Force, and Navy bases were gradually turned over to the RVNAF. The transfer of Air Force and Navy bases has been discussed earlier in the chapter. Cam Ranh base, which was the biggest ever built in South Vietnam, was transferred to the RVNAF on May 1, 1972, and the Da Nang military port was integrated into the commercial harbor on September 30, 1972. RVNAF assumed responsibility for Saigon Newport on March 29, 1973. Army bases turned over to the RVNAF were divided into two categories: operational and logistics. Some of these bases provided excellent headquarters for major RVNAF field units:

1. Dong Tam base (9th US Infantry Division) was occupied by Headquarters, ARVN 7th Infantry Division and other units.
2. Cu Chi base (25th US Infantry Division) was transferred to Headquarters, ARVN 25th Infantry Division.
3. Lai Khe base (Forward CP, 1st US Infantry Division) was turned over to the 5th ARVN Infantry Division.
4. Di An base (Rear CP, 1st US Infantry Division) became a rear base for the RVNAF Marine Division.
5. Bearcat base, near Long Binh (Thai division) was selected as the new home for the ARVN Armor and Infantry School.

6. ROK Valley base at Qui Nhon (ROK division) was occupied by Headquarters 22d ARVN Infantry Division.

7. Chu Lai base (US 23d "Americal" Infantry Division) became the headquarters for the ARVN 2d Infantry Division and a few other logistics units.

8. Eagle base, near Phu Bai (US 101st Airborne Division) was occupied by Headquarters, 1st ARVN Infantry Division.

9. Freedom Hill base, at Da Nang (HQ, 1st US Marine Division) was turned over to Headquarters, 3d ARVN Infantry Division.

Some important logistical bases such as Long Binh and Cam Ranh, provided magnificent facilities for RVNAF logistics units. Others were transferred to civilian agencies under the Ministry of Economics and Ministry of War Veterans to serve as economic or social centers. The titular transfer of US bases to the RVNAF prior to the cease-fire was a major surprise for the Communists who belatedly discovered to their consternation that there were no longer any US bases to be dismantled as required by the Agreement.

Among important installations turned over by departing US forces, the most valuable in my opinion were telecommunications stations and terminals, which included an extensive dial telephone system, multiplexing equipment, and microwave relay stations and terminals. This modern communication system constituted an extremely valuable asset for the future development of South Vietnam. Also noteworthy were the achievements brought about by the Lines of Communications program that the US implemented in South Vietnam. A new, modern system of surfaced, all-weather highways linked by solid and high-tonnage (50-ton) bridges provided an integrated communication network composed of national and inter-provincial routes which connected major cities of the coastal zone with the central highlands. In total, there were more than 4,000 kilometers of highways and this was probably the most modern road system in Southeast Asia. This again was an extremely valuable asset for future economic development.
During the period of US withdrawal the US also provided economic assistance to the RVN through the "in-country procurement" program to make up for the loss of foreign currency income. This program was called "in-country export" by the Vietnamese and began in 1971. Under this program the US ordered the procurement of locally produced goods such as batteries, electrical cables, military clothing items, barbed wires, canned foods, etc. This US procurement both encouraged the development of local industry and provided much needed hard currency for the national government. The earned income from this program amounted to 8.85 million dollars in 1971, then increased to 18.25 million in 1972, 30 million in 1973 and 40 million in 1974.

With the objectives of improving logistic operations and management and to provide better support for a one-million strong military force, the US also helped the Central Logistical Command (CLC) to establish new installations. The Logistics Data Processing Center (LDPC), which was completed in 1971, provided computer support for the complex logistics management process. Other agencies such as the Material Management Center, the Materiel Recovery Center also contributed to improving management and operation and economizing resources. At the same time, US logistic experts constantly strove to apply modern and scientific methods to the logistic management process. One of their major contributions was the Path-Finder project which studied and evaluated the entire RVNAF logistics system in order to locate various problem areas and help solve them effectively.

JGS and MACV also set a goal to help solve many problems concerning the RVNAF soldier's living conditions. The protracted war drastically curtailed all production activities and brought about ever growing inflation. The serviceman, who earned a fixed-salary, suffered the most from the inflationary economy. Many efforts were made to alleviate his privations, such as the establishment of an extensive Commissary Service to provide low-cost basic commodities for the serviceman and his dependents. The Commissary Service, however, was plagued by a shortage of funds; US assistance was most beneficial in helping with this problem. In 1967 and 1968, MACV donated to the RVNAF Commissary
Service an important quantity of surplus canned foods which, after being sold at reduced prices to servicemen and their dependents, earned a total income of approximately 1 million dollars. With this fund made available, the RVNAF Commissary Service was able to expand its operation during the following years.

Another considerable effort to solve the nutrition problem for the serviceman and his dependents was the free canned food program which was intended to improve protein and calorie intake. This was a most practical and effective way of offsetting the low purchasing power of the servicemen's salary which, although supplemented by special allowances and rare pay increases, still ranked the lowest among workers. The US-supplied canned foods, which were distributed free of cost to servicemen, amounted to 42,700,000 dollars spaced out during three years beginning with 1971. It was hoped during that time that economic development projects and the RVNAF own production programs would alleviate this serious difficulty. The US also helped increase the rice ration allotted to soldiers at remote outposts through a program initiated by the CLC and funded by US aid. Finally, the US-supported military dependent shelter program under which 100,000 housing units were built between 1970 and 1974 also brought about much comfort and encouragement for the RVNAF soldiers.

The Training Effort

Among the RVNAF development and improvement tasks, training was considered the most important one. It was obvious that to become fully combat effective, the RVNAF required adequate training in addition to sound organization and good equipment. Since this was one of the major and most consistent goals of the US advisory effort and of MACV in particular, the RVNAF system of schools and training center was constantly improved and upgraded.

At the beginning of 1968, the Army training system consisted of 56 training centers of all types and sizes in addition to military, combat arm and service schools. There were 9 national training centers, 10 divisional training centers (not including the Airborne and Marine
Divisions which also had their own training center), and 37 PF training centers. In 1967 alone, these centers trained a total of: 48 infantry battalions, 242 RF companies, 115,850 individual regular and RF soldiers, 1,442 PF platoons, and 24,427 PF troops.

In addition to building more schools and centers to fulfill an ever-increasing training requirement, there were created many new courses of instruction such as the Special Officer course, Company Commander course, and refresher courses for officers and noncommissioned officers. Training programs were constantly revised and updated to meet battlefield demands. Through the valuable contribution of US advisers, the following subjects received special attention and emphasis: command and leadership, small-unit actions, night operations, marksmanship, patrol and ambush. There was also an effort to consolidate the lesser RF and PF training centers in order to have more training assets and facilitate the standardization of training programs. The 37 provincial training centers were thus grouped into 19 inter-provincial RF and PF training centers in 1968.

After the 1968 Tet offensive, the expanded and improved RVNAF school and training center system was prepared to take on the training load created by the force structure increase. Service schools which in 1967 trained a total of 53,000 students, had to accommodate up to 70,000 students in 1968. Additionally, the total number of personnel completing instruction at training centers during 1968 was even more impressive: 168,335 recruits of the regular army and the RF, 19,174 cadets and NCO's, 22,463 PF recruits, and 13 newly-activated infantry battalions.

During the same year, recruits and RF and PF units began to be trained in firing and handling the new M-16 rifle, M-60 machine gun and M-79 grenade launcher. Because of excellent results achieved in recruiting and mobilization, and with a view to accelerate the activation of new units, training programs were shortened. The training of new recruits now took 9 weeks instead of 12; infantry companies (including newly created RF companies) underwent a 14-week program instead of 17 weeks. At the same time, courses were conducted in all infantry units, to familiarize troops with new weapons and equipment.
Services and combat arms also initiated a major recruiting and training effort in order to create new units. The Airborne Division completed the activation and training of its ninth battalion (designated the 11th) by the end of March 1968. Soon, with increased recruiting and training, the Airborne Division reached full operational strength by 1970 after the addition of two 105-mm artillery battalions of 18 pieces each. During 1969, newly created combat arm units completed their training at an accelerated pace. More and more artillery battalions and armor squadrons graduated from school and became operational. On 26 April 1969, during a ceremony at Can Tho, the ARVN 213th Artillery Battalion received armament and equipment turned over by the 6/77 US Artillery Battalion. This was the first time that an ARVN unit had taken possession of equipment transferred by a US unit just prior to its redeployment.

From 1968 to 1970, efforts by MACV to help develop the RVNAF training system paid off handsomely. The twenty-six military schools conducted a total of 326 different courses of instruction and were capable of training 24,000 students and up to 34,000 when required. Thirty-three training centers scattered throughout the country conducted 34 different courses of instruction and were capable of accommodating 65,000 trainees, and if necessary, up to a total of 106,000. In addition, the RVNAF continued to send to US service schools a great number of personnel such as pilots, signal specialists, and students for the advanced officers service course and Command and Staff College. With the continued redeployment process, the replacement of officers for US combat units in South Vietnam was no longer required. As a result, MACV began to upgrade advisory personnel, particularly US officers assigned to schools and training centers. In September 1970, US training advisory personnel increased from 55% to over 100% and by June 1971, up to 90% of training advisers had previously received combat experience in Vietnam. By the end of 1971, US training advisory strength stood at more than 3,500. Thanks to the assistance of these training advisers, all training programs (over 650 separate programs) were revised and constantly updated. A five-year RVNAF training and budgeting program was finally established.
A "sponsoring" program between corresponding US and RVNAF schools was initiated and contributed a great deal to the improvement of training. Also, a training management program was initiated by MACV to help the RVNAF manage the large school system and its various programs efficiently as training requirements became more complex and demanding. This particular program centered on an Instructional System Development (ISD) course which was given to all RVNAF training managerial cadres.

In 1970, a consolidation and regrouping plan was again initiated to reduce training personnel and expenses. This plan aimed at consolidating the existing 23 national, RF and PF, and Ranger Training Centers into a lesser number of modern National Training Centers by the end of 1972. During FY-71, the Military Construction Program provided 28 million dollars for the implementation of this plan. In March 1971, this program provided for the Infantry School construction project at Bearcat base near Long Binh (MR-3) at a cost of 7 million dollars in addition to 1 billion piasters provided by the RVN national budget. And by early 1972, all 27 construction and improvement projects earmarked by the plan had been completed.

MACV also assisted the RVN in training leadership cadre for the future. The National Defense College (NDC) was thus established and officially opened during May 1968. Students of the NDC were selected among outstanding field-grade-or general officers and civil servants slated to be assigned to responsible national security positions. The National Military Academy in Dalat which was built in 1968 with a cost of over 1 billion piasters, was completed in 1970. It became a modern military school equipped with up-to-date training facilities. In 1971, a military technical engineering school was also established in the Phu Tho National Technical Center with the mission to form engineers for the RVNAF. After the cease-fire the Command and General Staff College in Dalat was moved to Long Binh where it occupied modern building and facilities turned over by US Forces.

In addition to training assistance in schools and training centers, the US effort to upgrade RVNAF units in the field was implemented through three different training concepts: 1) On-the-job training, 2) Combined
action, and 3) Mobile training teams.

In an uninterrupted combat situation like in Vietnam, it was impossible to train simultaneously or successively—even by short programs—all combat support units in training centers or schools. Therefore, other methods of training were employed to meet training and improvement objectives.

One of the first forms of training that US units adopted to assist their Vietnamese counterparts was to provide on-the-job training. This method was mostly employed in logistics or technical units to train or improve specialists and operators in the handling, use, operation, and maintenance of modern weapons and equipment. The 1st US Logistics Command initiated this OJT program with "Operation Buddy" which was designed to train logistics specialists of the RVNAF. The program worked like this. A US unit was designated to sponsor a similar RVNAF unit which had a requirement to train specialists. Students from the RVNAF unit were sent to the US unit to be trained by actually performing the jobs under the guidance of US specialists. Once qualified, they returned to their units. Several US logistics, engineer and signal units adopted this method of training. It was also used by US standdown units, and came to be known as "Operation Switchback". This method of training proved highly effective and contributed much to accelerating the Vietnamization process. It was also widely accepted and employed by the Navy and Air Force. In mid-1969, the MACV Training Directorate established an OJT Division to monitor, coordinate, evaluate and follow up on-the-job training activities performed by US units.

In the case of combat units, the combined action form of training appeared the most feasible and most likely to succeed. In late 1965, US Marines in ICTZ initiated a program called Combined Action Program (CAP). A US Marine squad was "married up" with a PF platoon which was responsible for the security of a certain hamlet or village. The two units were integrated and lived and operated together in the same hamlet. The US Marines provided the PF with responsive artillery and air support and medical evacuation when needed. They trained the PF platoon until it had mastered the use of firepower and weapons and small-unit tactics,
then relocated and again married up with another PF platoon. The CAP teams were carefully selected and trained and their areas of operation were determined by pacification requirements.

Other forms of combined action were also employed in other CTZ's and in the Saigon area. Operation Fairfax provides an excellent example. In this operation, US battalions were integrated with Vietnamese regular and territorial units. During the operation, which lasted one year, combined operations conducted jointly by the 199th Light Infantry Brigade and the ARVN 5th Ranger Group brought about excellent results and served as an outstanding example of coordination, mutual assistance and on-the-job training.

After the 1968 Tet offensive, combined action was further developed in the II CTZ. US units such as the 4th Infantry Division and the 173d Airborne Brigade were "paired off" with the ARVN 22d and 23d Infantry Divisions. Lower echelon units of both US and RVN forces operated together and learned from each other. The same concept was also applied to combat support units. In the I CTZ, units of the US XXIV Corps closely cooperated with the ARVN 1st Infantry Division. Maneuver battalions of both forces usually operated in close coordination and the CPs of regimental size and higher units were usually co-located. In the III CTZ, US units such as the 1st and 25th Infantry Divisions and the 199th Light Infantry Brigade were paired off with three ARVN Infantry Divisions. In operation "Progress Together", brigades of the ARVN Airborne Division were paired off with those of the US 1st Air Cavalry Division and became extremely effective in helilift operations. These types of combined operations contributed a great deal to improving and developing RVNAF combat effectiveness. The cross-border operation into Cambodia that III Corps forces conducted in 1970 was an excellent example of combat effectiveness developed through combined action.

In addition to the US Marine Combined Action Program in the I CTZ, US Field Forces I and II also tried other training techniques to help upgrade RF and PF units scattered throughout the country. Improving these units was more difficult than was the case with regular units. After learning from experiences throughout South Vietnam, MACV initiated
the Mobile Advisory Team (MAT) program. Each team, which consisted of 2 officers, 3 NCO's and 1 interpreter, was assigned to an area where there were from 3 to 6 RF companies and several PF platoons. Each MAT lived with the unit to which it was assigned, organized training, and developed a training program for every unit according to local requirements. Training subjects were usually small-unit actions, terrain organization, fortifications, weaponry, and the use of air and artillery support. At the same time MACV also formed Mobile Advisory Logistics Teams (MALT) to help improve the RF-PF logistical system. By the end of 1968, there were 353 Mobile Advisory Teams and 7 Mobile Advisory Logistic Teams (usually mixed) operating in the field. These teams were highly instrumental in improving territorial forces. Later, based on this valuable experience, Sectors also organized Mobile Training Teams of their own for the training of RF and PF units.

The Vietnamese Navy and Air Force also emphasized training activities. The Navy in particular encountered no difficulties in providing training for its officers, NCO's and specialists thanks to an improved system of training centers and schools located in Saigon, Cam Ranh and Nha Trang. For the Navy, the technique of on-the-job training was most widely used. The US Coast Guard organized the programs and accepted Vietnamese crews aboard WHEC, DER, PCE and WPB ships while US Navy Task Forces 115, 116 and 117 concentrated their effort on training Vietnamese crews for river boat and coastal patrol operations. As soon as they joined US naval units for their OJT, Vietnamese sailors were assigned to different areas of specialist training such as engineers, navigation, gunnery, etc. and trained as crew of the very ships and boats they were to take over. This on-the-job training proved highly effective. By the end of June 1969, 64 craft of US Task Force 117 were officially turned over to the Vietnamese crew who had been trained on them. These craft formed VNN Amphibious Task Force 211 which immediately continued operation in replacement of the US unit. Other ships of the VNN Fleet and Task Forces 212 and 213 followed the same procedure and were operational in minimum time. Concurrently, repair and maintenance specialists were trained on US repair ships or in US naval yards.
The VN Air Force adopted both on-the-job and mobile training methods. The Mobile Training Teams (MTT) consisted of US Air Force personnel and occasionally contract engineering technical services personnel (CETSP). They were sent to VNAF squadrons where they conducted training for Vietnamese airmen. The MTT program also initiated the formation of VNAF training teams to provide in-country instruction, thus reducing the need for overseas training. Those squadrons scheduled to take over aircraft from standdown US Army Aviation units usually applied the OJT method. Follow-on training was generally performed at the Air Training Center in Nha Trang. By far the heaviest burden for the VNAF was the training of pilots. Since the number of helicopters increased from 70 obsolescent H-34s in 1968 to over 500 modern UH-1s in 1972 and because of the great number of jet fighter-bombers (10 squadrons), total pilot training requirements amounted to 3334 spaces. Since all pilots were to be trained in the US, the pilot-student had to be proficient in English. This was a major obstacle since language training required additional time. As a result, the RVNAF and VNAF Language Schools were expanded to accommodate pilot students. Selected USAF bases and Army Aviation units in the US were designated to train Vietnamese pilots. The program of pilot training was to be completed by the end of 1973.

Assistance provided by the United States for the strengthening of the RVN Armed Forces was not only confined to increasing force structure, and improving equipment, logistics and training. It also extended to other areas, such as intelligence, management, administration, planning and leadership. US civilian and military officials in Vietnam also cooperated very closely with the RVN government in the pacification program. Finally, US aid and assistance encompassed almost all other national activities with a view to create overall balance, stability and progress for the Republic of Vietnam.
CHAPTER IV

Meeting The Obstacles And Challenges

The task of implementing the Vietnamization program while the war against Communist aggression was still raging created many problems for the RVN. First and foremost was the combat burden. While it was understood that assistance in resources, materiel, equipment, technology and finances was being provided by the US, the actual task of driving back the enemy and organizing for the fighting had to be the RVN primary responsibility. The military struggle itself was but a facet of the war. Much more complex was the problem of pacifying the country in order to save the people from Communist domination. This was a difficult and delicate effort because the protracted war of subversion waged by the enemy had resulted, by its spoiling impact, in many difficult economic, psychological and social problems. The RVN had to solve these problems in order to prosecute the fighting. Enemy counter-actions made these difficulties even greater. As a result, to implement the Vietnamization program with success the RVN took on a multi-facet endeavor designed to muster total strength to counteract effectively the enemy's total war.

The Military Challenge

When the US began to intervene directly in the war by bringing its combat troops into the country in 1965, the RVN was facing an extremely difficult situation. North Vietnam was infiltrating its regular units into the South and had begun to launch large-scale attacks. South Vietnam, meanwhile, was on the edge of an abyss after nearly two years of political crisis. Acting as a fire brigade, the US rapidly poured in its combat troops, developed bases and set about to fight the ravaging fire. As a
result, by the end of 1965 the situation gradually improved and the enemy attacks slackened in pace. With more and more troops brought in, the US seized the initiative and passed onto the offensive. RVNAF units, beleaguered after a period under pressure, were given a respite and slowly recovered strength. Losses were replaced; units were reorganized, and re-trained.

By mid-year 1966, MACV and the RVN government began to concentrate their common effort on pacification which had been largely neglected since late 1963. This strategy required two principal military efforts: first, to drive major enemy regular units out of the areas to be pacified, and second, to maintain security in order to help the task of political, economic and social stabilization make progress. Entering the war with a huge and well supported force, the US apparently desired to bring the war to a quick end. Understandably, in view of the RVN weakness, the US at first thought it better to achieve its goal by itself. US forces were thus committed to conduct search-and-destroy operations while the weaker RVNAF units were assigned the minor role of pacification support.

The task of building a viable force for the RVN also received due attention but was necessarily relegated to a second rank. During 1967, a total of 60 ARVN infantry battalions were deployed to support pacification; the remaining combat units were made responsible for the protection of vital areas, undertook training, or participated in combined operations with US and allied forces. It was good exercise but still it was a role given to supplementary forces. In armament alone, the RVNAF were hardly a match for the better-equipped enemy forces.

The process of turning over the combat responsibility to ARVN units, as a matter of fact, started as early as in late 1967. In November 1967, a US Marine force was replaced by the 2d Regiment of the 1st ARVN Infantry Division in the area east of the DMZ. Reinforced with additional troops, weapons and equipment, this regiment had the morale and prowess required in combat. In the area around Saigon, as a result of the Fairfax combined operational campaign, the 5th Ranger Group became capable enough to replace its tutor, the US 199th Light Infantry Brigade. The security belt around Saigon, therefore, was assumed entirely by this ARVN unit in cooperation with territorial
forces and the national police of Gia Dinh province. In addition, border surveillance camps were also gradually turned over to ARVN responsibility as of 1967. Their Vietnamese cadre and troops, after going through a careful screening process, proved capable of assuming the border defense task after US Special Forces teams had been withdrawn.

The surprise enemy offensive attacks of Tet 1968, directed against almost all big cities and towns throughout the country, caught the RVNAF offguard. RVNAF units were barely at half strength during these holidays. Even then, RVNAF units succeeded in driving back almost all attacks, and inflicted heavy losses on the enemy during the first few days, except for the drawn-out battles in Saigon and Hue. Save for a few minor penetrations, all major targets of enemy attacks were RVNAF-held areas, and all had held firmly. That the RVNAF had held firmly in the face of the vigorous enemy offensive campaign was due to common determination and proved beyond any doubt the combat effectiveness of RVNAF units. General Westmoreland's evaluation was, in his words: "Of the 149 ARVN infantry battalions, 42 performed exceptionally well, and only eight unsatisfactorily."¹ The result was complete restoration of confidence among the troops and population of South Vietnam. And the general mobilization, which was decreed in due course with the volunteering willingness of the people, came in time for the much needed development of the Armed Forces.

In the aftermath of Tet 1968, Communist forces were clearly on the decline. US and allied forces rapidly exploited their advantages, enabling the RVN government to push the pacification effort vigorously forward. By this time, most enemy bases had been destroyed and the bulk of enemy units driven across the border. RVNAF units became more audacious and more confident of their own capabilities. The activation of new units, the modernization of equipment, and the victorious combat

achievements helped the RVN grow rapidly. The situation in 1969, accordingly, improved beyond expectation. It clearly favored the implementation of the Vietnamization program and allowed the US to begin its disengagement from the war.

The RVNAF met the first challenge of Vietnamization in late April 1969 when the US 4th Infantry Division turned over combat responsibility in the Kontum area to the 24th Special Zone Command. Barely two weeks later, the enemy deployed three regiments threatening the Dakto-Ben Het area and launched "high point" attacks throughout II CTZ. ARVN operation was conducted in the area north of Kontum, in which forces equivalent to a division were committed. The battles fought in this operation were attritional actions and lasted two months. Supported by US artillery and air firepower, RVNAF forces inflicted heavy losses on the enemy who finally broke contact and withdrew in late June, 1969. This victory bolstered the growing confidence of RVNAF units.

In August 1969, the first redeployment increment was implemented, with the US 9th Infantry Division turning over its area of responsibility in the Mekong Delta and Dong Tam Base to the ARVN 7th Infantry Division. As of that time there were no longer any US ground units in the IV CTZ. Despite limited assets, the 7th Infantry Division successfully protected the supply routes from the Mekong Delta to Saigon and made every effort to support pacification in its area of responsibility.

During the following months, the pace of US withdrawals quickened and by April 1970, 115,500 US troops had been sent home. The second phase of the withdrawal, from April 1970 to April 1971, further reduced total US strength by 150,000. During this time, wherever US units suspended combat activities and prepared to leave, the RVNAF immediately made an effort to take over and strove hard to maintain security and the continuance of the pacification effort.

Enemy reactions in late 1969 and in early 1970 were largely insignificant. Also, in late spring of 1970, political developments in Cambodia provided an advantage for the RVN. On March 18, 1970, the Cambodian Chief of State, Prince Sihanouk, was overthrown and the pro-Western new Cambodian government requested military assistance from
both the US and the RVN. For a long time, under Sihanouk's regime, the Cambodian border area, while inviolable to US and RVN forces, had been freely used by the enemy as a solid sanctuary from which to launch attacks into South VN. All supplies that the enemy brought down the Ho Chi Minh trail for the support of his battlefields in South Vietnam were stored in bases established on Cambodian soil before being channeled into South Vietnam. The Sihanoukville port also provided a channel of supply for the enemy.

Hardly a week after the overthrow of Sihanouk, III and IV Corps launched a few limited reconnaissances in force into the border area north of Kien Tuong province and west of Hau Nghia. These initial operations brought about excellent results as several enemy weapons and food caches were destroyed. With the tacit approval of the new Cambodian government and with US combat support, the RVNAF conducted larger scale operations into enemy sanctuaries in late April and early May 1970. (Map 1) Joint forces of III and IV Corps swept the "Parrot's Beak" area up to the limit of Svay Rieng province. Again, several caches of weapons and equipment were discovered and seized. Unable to counteract US and RVN offensives, Communist units turned their pressure onto Cambodian provincial capitals and even onto Phnom Penh. This action compelled the RVNAF to push further inside Cambodia to assist the beleaguered Cambodian forces while the US began delivering military aid to Cambodia.

After sweeping and clearing the Parrot's Beak area, III Corps launched an operation northward from the border area in Tay Ninh province. Simultaneously, IV Corps moved troops along the border area and jointly cleared enemy pressure on besieged Cambodian cities. During this operation, III Corps deployed most of the 5th and 25th Infantry Divisions and the 3d Armor Brigade, while IV Corps committed its 9th and 21st Infantry Divisions and the 4th Armor Brigade. In early May, 1970, to clear the Mekong River which had been interdicted at many places and also to assist in the supply of Phnom Penh, the RVN riverine force and US naval units conducted an operation along the Mekong from the Vietnamese border up to Phnom Penh. This amphibious operation successfully cleared this major waterway. The RVNAF also began to establish a garrison
at Neak Luong, southeast of Phnom Penh, where they built an airfield and a logistical base. III Corps and a number of US units, meanwhile, conducted successful search-and-destroy operations into the border area north of Tay Ninh.

Driven back from the south, enemy units moved northward, occupied the Chup plantation area and threatened Kompong Cham. Upon request of the Cambodian government, III Corps, augmented by an airborne brigade, conducted a helilift operation to clear the Chup plantation, east of Kompong Cham. Supported by US tactical air and helicopter assets, the operation was a complete success. By June 30, 1970, the deadline imposed on the participation of US units in this operation, results were remarkable. A total of 4,776 enemy troops were killed and 9,300 tons of weapons, munitions and supplies of all types (including 155 tons of weapons and 1,786 tons of munitions and explosives), and 6,877 tons of rice were captured.

Subsequently, depending on the situation, the RVNAF occasionally conducted operations across the border either to prevent enemy re-infiltration or to assist the Cambodian government. A Vietnamese Marine brigade was permanently deployed at Neak Luong to secure this supply "beachhead" and stand ready to support the defense of Phnom Penh. All in all, the Cambodian cross-border operation served as a gigantic field exercise for ARVN III and IV Corps which at times committed as many as 5 infantry divisions and 2 armor brigades. The majority of enemy bases in the border area were searched and destroyed, and it was estimated that the amount of captured weapons and supplies could have sustained the enemy for a six-month campaign in South Vietnam. In addition, the operation also bought more time for the RVNAF to train and develop, and greatly facilitated the completion of the second phase of US withdrawal by May 1, 1971.

In the wake of the Cambodian cross-border operation, the spirit of the RVNAF and of the people of South Vietnam was greatly improved. Because enemy units had been driven further from the border, the situation improved markedly and South VN enjoyed relatively complete security. Seizing this opportunity, II Corps also launched troops across the
Cambodian border and struck against enemy bases in the tri-border area.

In early 1971 MACV and the JGS organized a large-scale operation striking from the south of the DMZ into lower Laos in order to strangle the bottleneck portion of the enemy infiltration corridor in the Tchepone area. The operational planning task was assigned to US XXIV Corps and ARVN I Corps. Forces participating in this operation consisted entirely of ARVN Units: the Airborne Division, the Marine Division, the 1st Infantry Division, the 1st Ranger Group and the 1st Armor Brigade (with 3 armor squadrons). US forces provided air support and helicopter assets.

The operation, code-named Lam Son 719, was launched on February 8, 1971. This was the first time that, in this part of the country; the RVNAF conducted a cross-border operation against an important logistical area that was controlled and protected by NVA units. The RVNAF forces met with fierce resistance from five NVA divisions and at least one NVA armor regiment and several artillery and anti-aircraft units. Nevertheless, all objectives were reached; enemy bases were searched and destroyed and an element of ARVN forces even penetrated into Tchepone itself. A great quantity of enemy supplies was either seized or destroyed by the time the operation ended on April 4, 1971.

Immediately after the conclusion of the LAM SON 719 operation, President Nixon announced phase III of US withdrawal amounting to 100,000 troops to be completed by November 1971. By then, total US strength would have been reduced to 184,000. In June 1971, US Secretary of Defense Melvin R. Laird declared that 90% of combat responsibility had been turned over to the ARVN and two months later, announced that Phase I, Vietnamization, had been completed. This meant that from that time on, ground combat responsibility would be entirely assumed by the RVNAF.

The VN Air Force and VN Navy, meanwhile, also gradually took over combat responsibility. Beginning in early 1970, the 4th Air Division, VNAF, provided all air support for the 4th CTZ although there was still a requirement for US medevac helicopters. As of the end of 1970, after improvement of the air support system and the complete deployment of forward air controller teams (FAC), most of the air ground support for ARVN units was provided by VNAF. However, US airpower and helilift.
assets were still critically needed in major scale operations such as the Cambodian cross-border operation and particularly Lam Son 719.

The turnover of combat responsibility to the VN Navy was even more accelerated. After taking gradual delivery of US river craft and ships, the VNN activated Amphibious Task Force 211 at Dong Tam, River Patrol Force 212 at Binh Thuy, and Coastal Patrol Force 213 at Cam Ranh. Beginning in early 1970, operations initiated under the combined USN-VNN concept were gradually Vietnamized. In September 1970, the inner line of Market Time operation was entirely assumed by VNN ships. By the end of 1970, among the 14 operations in progress, only 2 remained combined: operation "Solid Anchor" (south of Ca Mau), and "Market Time", the outer line of which was under control of the US 7th Fleet. The remaining 12 operations were entirely conducted by VNN units. Operations Solid Anchor and Market Time, however, also became VNN responsibilities as of mid-1971.

Beginning in April 1970, VNN riverine forces took on the additional responsibility of escorting and protecting supply convoys on the Mekong river up to Neak Luong and Phnom Penh. This was a demanding task because the Communists consistently attacked river convoys to strangle the supply flow into the Cambodian capital. However, as of the end of 1970, the VNN, with nearly 800 river boats and craft of all types, was fully capable of assuming operational responsibilities over the entire river system of South Vietnam.

On March 30, 1972, the Communists suddenly launched a concerted series of attacks in almost all military regions. This major offensive and the RVNAF reaction and subsequent counterattack effort will be discussed in detail near the end of this chapter. While the battles of the enemy offensive were being fought, total US strength remaining in the country stood at a mere 69,000. US combat units which had not yet been redeployed assumed only local security duties near their base areas. Security beyond these areas was now assumed entirely by ARVN units. By the end of 1972, the US maintained only a residual force of 24,000 men in the country. Thus, during the three years of US withdrawal, the RVNAF strove hard to perform their responsibility. The war, however, was still far from being resolved, and North Vietnam never renounced its...
final goal of conquering the South. The withdrawal of US and allied forces, therefore, left in its wake many insoluble problems.

Problems of Transition

First and foremost was the density of combat forces which naturally decreased significantly. A few examples suffice to illustrate this problem. During 1968, in the two provinces north of Hai Van Pass (Thua Thien and Quang Tri), MACV deployed the US 3d Marine Division, 101st Airborne Division, 1st Air Cavalry Division and about three other brigades or reinforced brigade-size units, totalling 37 maneuver battalions. The ARVN, meanwhile, committed to the same area the 1st Infantry Division, augmented by Airborne and Marine units, totalling 19 maneuver battalions. In total, the aggregated US-RVN force consisted of 56 maneuver battalions.

Four years later, in 1972, when all US units had left, ARVN forces in the area were augmented by the 3d Infantry Division, and with reinforcements totalled just 30 maneuver battalions. The reduction in combat forces thus amounted to 26 battalions or nearly one half, and this is under the assumption that a RVNAF battalion was the equivalent of a US battalion, which was far from true. Thus the real reduction in combat forces was actually much greater. In artillery, for example, the aggregated total of pieces deployed by the above US units and US XXIV Corps was 400. In 1972, the total number of ARVN artillery pieces, including reinforcements, was merely 160. This represented a reduction of 60% in firepower. Furthermore, this figure did not take into account the fact that US ammunition supply rates were much higher. This rough comparison also omitted other US combat support assets such as helicopters, gunships, armor, and tactical air and naval firepower which were made amply available during the time US forces remained in South Vietnam. Moreover, the NVA divisions which confronted ours in 1968 did not have tanks and artillery. In 1972 they had all these and much more.

Another example of combat force density decrease could be found in the Mekong Delta where the ARVN 7th Infantry Division took over the TAOR vacated by the US 9th Infantry Division. The 7th Division had been in the area for a long time, so the additional number of RF and PF units
made available could never fill in the void left by 2 US infantry brigades and all the support of a US division. Moreover, RF and PF were merely lightly armed units capable only of fighting brushfire guerrilla warfare. If a similar comparison were made in any other area, the result would be the same.

In 1969, there were 22 combat divisions on our side country-wide, (US: 8 divisions and 1 brigade; ROK: 2 divisions; RVNAF: 12 division), or a total of 67 regimental or brigade-size units. By the time US and allied forces had withdrawn, there were only 13 ARVN divisions, or 41 regiments in South Vietnam. The reduction of 9 divisions represented a tremendous loss in terms of combat strength since it meant a 40% cut in regimental or brigade-size units, or nearly one half in combat forces.

Whereas US forces previously employed up to 5,000 helicopters, the VNAF now had to make do with 500. Also, after the cease-fire, US air and naval activities were completely suspended. But the greatest loss in firepower support was the absence of B-52 sorties which in 1968 and 1969 reached a total of 20,000. The RVNAF did receive additional air and naval assets, but such an increase was insignificant when compared to the huge quantity of US combat assets employed in the war. In terms of ground combat troops, a bigger proportion of the force structure increase was earmarked for the RF and PF. These were primarily lightly-equipped, small units which were geared to the protection of villages and hamlets. They constantly needed a larger regular force on which they could depend to back them up. This explains why the ARVN was unable to release its infantry divisions for mobile operations.

The improvement and modernization of the RVNAF, moreover, apparently came about as an after-coup response to the modernization of Communist forces. As early as in 1964, regular enemy units fought the Binh Gia battle with the modern AK-47 assault rifle and the RPG rocket launcher. During the following years, these weapons became standard weapons in all enemy units. In 1967, as substitutes for artillery, the enemy used 122-mm and 140-mm rockets, and by the time he attacked Lang Vei, near Khe Sanh, in early 1968, his units were supported by tanks. Our units, by contrast, lagged woefully far behind. During the first wave of enemy attacks in
early 1968, only a few elite units were equipped with M-16 rifles and M-60 machine guns. By and large, the RVNAF fought back the enemy offensive with inferior armament. During the Lam Son 719 operation in lower Laos in 1971, the ARVN M-41 tanks were proved no match for the 100-mm. gun-equipped T-54 tanks. At the same time, our ground troops began to experience the effect of enemy long-range 130-mm guns. Only later did the ARVN receive one M-48 tank squadron and one 175-mm self-propelled artillery battalion. But the quantity made available proved to be insufficient during the 1972 enemy summer offensive. In addition to tanks and large caliber guns, the enemy still caused further surprise in armament by his use of the AT-3 wire-guided missile and the shoulder-fired, heat-seeking SA-7 anti-aircraft missile. Only after the appearance of these sophisticated weapons during this campaign, did the US deliver to the ARVN the TOW missile, more M-48 tanks, and more long-range 175-mm guns.

By and large, RVN requests for new weapons, which were intended to counteract a new but untested enemy capability, were all rejected by the US. It was even more difficult to obtain any kind of offensive weapons from the US. While North Vietnam air force was equipped with MIG-21's, all requests for F-4 Phantom fighter-bombers met with US indifference. It was obvious then that the VNAF never had an offensive capability, and neither did the VNN. The WHEC-type ships which were turned over from US Coast Guard inventory were bulky, slow, inadequately armed, and capable only of patrolling. DER-type destroyers were also obsolescent escort ships, inadequately armed, and definitely not offensive-type naval ships. As a result, when naval gunfire was required to support ground troops, its effectiveness was minimal. The North Vietnam Navy, meanwhile, although modest in size, had the advantage of fast, offensive-type PT boats, equipped with missiles.

As to force structure components, several JGS recommendations were turned down, especially those concerning the activation of additional infantry divisions to increase reserve forces, even though they did not involve any increase in overall strength. The activation of the ARVN 3d Infantry Division, which arose from dire needs, was an exception
in that the US was faced with an accomplished fact. The US also rejected
the formation of regional regiments, which the RVNAF conceived as a
means to upgrade operational capabilities for sectors and to release
regular infantry divisions from territorial confines. The result was
that as of late 1972, the RVN no longer had any general reserve force.

In addition to a sizable reduction in combat support, other facili­
ties also became scarcer after US forces had been withdrawn. Operational
effectiveness decreased accordingly. An example in the area of military
intelligence illustrates the state of things. To solve the problem of
aerial photo under the Vietnamization program, the VNAF was equipped with
6 RF-5's and 6 RC-47's for photo reconnaissance missions. But these
limited facilities only filled part of the J-2/JGS requirement. There was
a serious gap in aerial photo coverage since North Vietnam, Cambodia and
Laos were now out of RVNAF reach. Support provided by the "Buffalo Hunter"
program (pilotless aerial photo reconnaissance) also dwindled greatly.
During the previous years, the RVNAF used to enjoy the marvels of US
technology in military intelligence: RF-4's, Mohawks, SLAR (Side Looking
Airborne Radar), Red Haze (locator of heat generating targets), Sniffer,
etc. These were no longer made available.

Electronic sensors also became more and more scarce, making divi­
sional electronic combat detachments less and less useful. Only a short
time after the withdrawal of US forces, the RVNAF suddenly found the
sensor system to be a luxury. Hence, the operation of sensor systems
laid deep inland or along enemy corridors of infiltration was suspended.
It simply was beyond the RVNAF means to operate them. The technical
intelligence branch still functioned but its efficiency was greatly
reduced. Activated since 1969 with US assistance, divisional signal
intelligence detachments operated in cooperation with local centers. In
1970, the VNAF was equipped with 33 EC-47 planes and Vietnamese operators
were trained aboard them to monitor enemy radio traffic and locate enemy
radio stations. Later, these electronically equipped planes were unable
to operate along the Truong Son corridor for two reasons. First, enemy
anti-aircraft artillery had increased manyfold in the areas of the infil­
tration corridor and sanctuaries, and a sizable number of EC-47's had
been fired upon, a few had been in effect shot down. Second, because of reduced maintenance capabilities, less and less planes were available for operation. In addition, signal intelligence also became scarcer because the enemy used less radio and more wire.

The control of enemy infiltrations by sea also suffered a marked decline because coastal patrol planes were not turned over to the RVNAF. Radar stations and ships, meanwhile, could not cover the entire coastal zone. This was a vital area which the Vietnamization program had simply overlooked.

For all its merits, the Vietnamization process did not last long enough for the RVNAF to fully develop their capabilities. While the training of infantry combat units could be performed in a relatively short time, the training and qualification of service specialists or technicians demanded a much longer time. The on-the-job training of VNNAV crew aboard US ships was a case in point. Many US ships were of a new type or prototype which had not been thoroughly tested, hence they were more prone to all kinds of technical trouble. A few months of intensive training were just not enough to make qualified technicians out of Vietnamese sailors.

The Air Force also ran into the same problem. US-established schedules of turnover were usually overloaded and hardly gave the VNAF time to make necessary preparations. Equipment and weapon systems, meanwhile, were new and too varied. The overall result of these accelerated turnover programs was that the RVNAF technical services did not have enough qualified specialists to operate and maintain US-transferred equipment. As a result, the serviceability rates were low for ships, aircraft, and tanks. Meanwhile, the backlog of unserviceable items of equipment continued to build up in repair shops. Air force pilots, and in particular, aircraft commanders, were woefully short in experience.

Because of these reductions in force and in facilities, the RVNAF inevitably ran into many difficulties when assuming the major combat role. In 1970 and 1971, the cross-border operations conducted by ARVN major units were made possible by the additional support provided by US Army and Air Force units. As soon as US forces redeployed from South
Vietnam, however, these operations became difficult to mount and seemed to be beyond RVNAF capabilities.

Despite increased sacrifices, willingness and expediency, operations were not the same as they had been. With at least a 40% reduction in infantry forces, with the greater part of firepower and mobility lost, now RVNAF units were just capable of protecting national priority areas. Enemy bases and infiltration routes located deep in the Truong Son range became objectives that were out of the RVNAF reach. The VNAF was not even equipped to fly reconnaissance missions along this corridor after the cease-fire because the enemy anti-aircraft network had become so dense. Remote areas such as A Shau, A Luoi, Nam Dong, Kham Duc and bases such as Do Xa and War Zones C and D now became impenetrable because the ARVN did not have enough troops.

Within the confines of populated areas, however, the RVNAF performed their task quite well, at the price of greater sacrifices. Population centers were kept pacified and security was well maintained. And around them, there was the protection belt made up of advanced outposts that were defended. The biggest performance, however, was the containment of enemy advance during his 1972 offensive and the reoccupation of almost all lost territory. During late 1972 when the cease-fire first failed to materialize, and then in early 1973 when it went into effect, ARVN units, regular and territorial alike, outdid themselves by holding firm their defense lines and positions. And despite the enemy effort, in 1973 he lost more land and population than he first set out to grab. All these things were achieved with losses greater than when there was support by US forces.

The RVN Air Force was reasonably capable of providing close support for Army units and aerial observation when fighting was at a moderate level. The Navy, meanwhile, was fully capable of patrolling inland waterways. But its sea interdiction capabilities were limited because its assets did not permit full coverage of the long and rugged coastline. In transportation alone, naval and air facilities were not enough to meet requirements. Based on 1972 experience, the US delivered 32 C-130A cargo planes to the VNAF but they were old planes whose serviceability was low,
especially when maintenance funds were cut. Plans to replace them with the more modern C-130E failed because of aid cuts. Also, the RVN request for an increase in LST's was ignored.

Thus with limited means and resources, responsible unit commanders of the RVNAF had to make ends meet by exercising maximum economy and relying on initiatives to carry out their mission. Human resources were used more widely than before. Since reconnaissance planes and helicopters were inadequate, greater emphasis was placed on ground reconnaissance by infantry or Ranger troops. But there were no longer eagle flights or massive heliborne assaults. Thus the trend was kept moving toward achieving quality in every aspect and developing innovations in order to increase work efficiency without greater expense.

Logistics was the branch of service which faced the most problems in achieving maximum performance at reduced costs. During the years preceding the cease-fire, the US had increased military aid in an effort to equip and support the RVNAF and to implement the Vietnamization program. After the cease-fire, however, this aid was reduced and the logistics branch had to make greater efforts to overcome difficulties. Economy was now the foremost objective, and operational costs were cut down. Ammunition and fuel became scarcer and had to be distributed by fixed allocations. And the price of every cartridge, every item of war materiel was disseminated to troops with a view to make them conscious of economy. Vehicles and other equipment were carefully maintained to cut down on costs. In late 1974, the ammunition supply rate for the RVNAF soldier was as presented in the table below:

Table 6 — Ammunition Supply Rate Comparison (Rounds/weapon/day)

<table>
<thead>
<tr>
<th>Weapons</th>
<th>US Forces</th>
<th>RVNAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rifle, 5.56-mm</td>
<td>13</td>
<td>1.6</td>
</tr>
<tr>
<td>Machine gun, 7.62-mm</td>
<td>165</td>
<td>10.6</td>
</tr>
<tr>
<td>Mortar, 81-mm</td>
<td>16.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Howitzer, 105-mm</td>
<td>36.5</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Notes: 1. Comparison as of end of 1974
        2. US experience, Vietnam theater of operation
A quick glance at the table shows that the US soldier was issued six to fifteen times the amount of ammunition made available to the RVN soldier at the end of 1974. As a result, the RVNAF had to shed more blood in order to make up for the shortages caused by aid cuts.

The withdrawal of US forces also left behind another void, US advisers and advisory staffs assigned to RVN units. During the period of US participation, the presence of US advisers was beneficial in many respects. First of all, their presence meant the ready availability of support facilities, whether they were strategic or tactical air, air cavalry teams or fast medical evacuation. US advisers were also tremendously helpful in staff studies and planning as well as in monitoring and evaluating the performance of units; this assistance was most valuable to large units, i.e., divisions and corps, and to their commanders in particular. The presence of US advisers throughout the RVNAF hierarchy was also beneficial in that it induced and instilled good working habits and responsiveness among certain Vietnamese unit commanders.

What happened then when US advisers were no longer there? What was the effect of their absence? As far as support facilities were concerned, the problem was largely inconsequential because, after all, US forces were no longer there. But there was a significant deficiency in staff planning and evaluation, chiefly because Vietnamese staffs did not have the experience and training required in this respect. At sector and district headquarters, the absence of US advisers was most acutely felt. For one thing, district chiefs were generally young. Although they were capable as combat troop commanders, they were inexperienced in the employment of forces and the complex business of managing and controlling resources. Sectors staffs also ran into the same difficulties because they were generally weak, and province chiefs usually were very busy.

Thus the absence of US advisers at these levels resulted in the loss of valuable assistance, such as unit performance and hamlet security evaluation, and follow-up on force improvement and other programs relating to pacification. At the central echelon, removal of the extensive US
advisory machinery also meant that the RVNAF no longer enjoyed the valuable contributions of innovative ideas in organization, operation, management, planning, and the results of research, analysis and evaluation in which US staffs were so efficient. In addition, US mobile training teams were no longer available to provide for emergency requirements.

With regard to major ARVN field units, the problem was, the author thinks, the commanders themselves. During the period when US advisers and US support assets were still available, III and IV Corps commands performed extremely well in the 1970 cross-border operation. In 1971, with the same assistance and support, I Corps direction of the Lam Son 719 operation into lower Laos, however, failed to offer any exemplary model. Vietnamese high ranking command cadres were partly selected without reference to real talent and ethics. Others had never been thoroughly tried and tested. In those cases, the absence of the US adviser became a great loss indeed. The improvement in this respect would certainly take the RVN more time, demand more sacrifices and still more recognition of the problem.

In brief, the RVN made several efforts militarily, overcame many difficulties and incurred more sacrifices in order to take over the combat burden. The RVN mobilized its manpower, built up morale, endured more sacrifices, perfected organization, training, tactics, and improved administration, logistics, support, and personnel in order to achieve the capabilities required for facilitating a smooth, uneventful US troop withdrawal. But the war being fought was primarily a protracted ideological conflict which pitted the Free World and World Communism against each other. Such being the case, the RVN definitely needed a determined material and spiritual support from the US as well as from other free countries.

Pacification Achievements

A tally of the Vietnam war casualties for the year of 1968 showed that US forces suffered more than 14,000 killed in action, the RVNAF, over 17,000 and the enemy, nearly 200,000 killed, 21,000 captured and 18,000 returnees. After three waves of attacks, our adversary lost
nearly 240,000 men, a casualty figure hard to imagine. As a consequence, most Communist units in South Vietnam were exhausted and paralyzed. The majority of enemy infrastructure cadres who surfaced from the underground in the hope of organizing an ever-elusive "General Uprising" were sacrificed. Also heavily dented were the major NVA units which fought most of the major battles.

When regrouping regular units for the relief of major cities and towns, the RVNAF left behind a countryside that was largely unguarded but still the enemy was unable to take advantage of it because his ranks were decimated. As a matter of fact, as soon as the third wave of the offensive subsided in August 1968, security in rural areas immediately upgraded to pre-Tet levels. This was confirmed by Hamlet Evaluation System (HES) results. In January 1968, population of A, B, and C (secure) hamlets was 67.2%. This percentage lowered somewhat during the heavy fighting months but jumped to 66.8% in September, and by October had regained its January value and even surpassed it in the following months. The RVN government quickly took advantage of this situation by launching a special 3-month pacification campaign, from November 1968 to January 1969. As its designation indicated, this was a short-term campaign primarily designed to make coordinated and concerted use of all military, governmental and police resources to bring about maximum security for the rural areas. Provinces and military and para-military forces competed among themselves to attain the objectives set forth. Communist counteraction, meanwhile, was almost non-existent.

No sooner had the Special Campaign ended than the 1969 Pacification and Development plan began to be implemented with a view to exploit the gains of 1968. What was most remarkable about this plan was that it commanded, for the first time, a perfect combination and coordination of all efforts for the purposes of securing and developing the rural areas, maintaining law and order, and building the local economy. It was during this time that the force structure increase in RF and PF units made its salutary impact felt the most. The pacification objectives of 1969 were met in October two months ahead of schedule.
50% of hamlets were termed secure (A and B class) and 40%, relatively secure (C-class), for a total of 90% falling into A, B, and C categories. By the end of 1969, a record had been achieved. 5 million more people lived in government-controlled secure areas than in 1967. 71% of the population lived in A and B areas; 92% in A, B, and C areas.²

This was an achievement nobody had dreamed of attaining in the previous year. The enemy "high-points" of activities during the year hardly had any adverse impact on the pacification gains. In the meantime, the number of enemy troops and cadre who returned to our ranks also reached the record figure of 47,000, as compared to 18,000 in 1968. This unusual increase of returnees proved beyond any doubt that the enemy had been dealt a resounding defeat in 1968 and that the RVN government influence and prestige were spreading throughout the country. Most noteworthy was the return of some high-ranking Communist cadres.

With the assistance of CORDS/MACV, "the open-arms" campaign was now conducted on a country-wide scale and became the backbone of the newly proclaimed policy of "Great Solidarity of the People". In keeping with the implementation of this policy, the Communist returnees underwent a period of re-education, then were given vocational training in a number of specially established centers, and ultimately, upon release, were re-integrated into social life with full citizen rights. Several returnees served in the Phoenix program and in armed propaganda teams where they were most effective, and most high-ranking returnees were employed by the Ministry of Open-Arms in responsible positions. Those returnees who turned in weapons or gave information leading to the recovery of hidden weapons were appropriately rewarded with money. About 60% of returnees were military and 30% were political cadre representing all echelons. So damaging was the Open-Arms policy to the enemy that it might well have become the least expensive and easiest way to win the subversive war.

²The population of South Vietnam in 1969 was estimated at 17.6 million. By year end, 12.5 million lived in A and B areas, and 3.8 million in C area.
Another remarkable achievement of the post-Tet 1968 period was the organization of People's Self Defense Force (PSDF). Ever since the Communists began their war of subversion, the South Vietnam government had at times contemplated a people's organization to counteract sabotages, threats, assassinations and repressions directed against the population. Efforts at organizing and arming a people's self-defense force during the past had been crowned by success. The inviolable Catholic diocesan areas of Bui Chu and Phat Diem and several other individual self-defense villages that were in North Vietnam during the first Indochina war were outstanding examples of effective PSDF.

Based on these experiences, the government of the Republic of Vietnam initiated the PSDF program within the framework of Pacification and Development, but the program did not work out as expected at first. It developed significantly only in the aftermath of the 1968 Tet offensive as a result of brutal massacres by the enemy in Hue and extensive damages caused to the population in other places. For the first time during the war, the entire civilian population became conscious of the fatal dangers of Communism. At Hue, immediately after the city was delivered from Communist occupation, the population expressly demanded weapons to fight the Communists. The same happened in other cities, towns, villages and hamlets.

The movement soon gained momentum and the PSDF truly came of age during 1969 when over 3 million members volunteered for duties by year end, and were armed with 399,000 individual weapons. This success surpassed the government-set objective by 1 million. The PSDF was truly a people's organization in that it included citizens from all walks of life and from both sexes. The young, the old, and women served in PSDF support elements and were trained in first-aid, medical evacuation, supply, etc. Combat PSDF members consisted of 16 and 17-year old youths of both sexes and adults from 38 to 50 years of age; the age classes in between constituted the manpower earmarked for the RVNAF.

The PSDF was organized into teams (squad strength) and groups (platoon strength) whose members received basic military training and were issued weapons. Military training centers of the RVNAF assisted
effectively in PSDF training. In secure areas, PSDF members were assigned guard duties day and night. Hamlets in rural areas were generally protected by a security hedge with points of entrance controlled by PSDF members. In several hamlets, internal security was assured by PSDF members while PF troops were deployed on the outside. All in all, the PSDF movement succeeded in rallying the popular masses and contributed greatly in maintaining local security. The situation in the first half of 1969, therefore, was such that it considerably favored the initiation of Vietnamization.

In 1970 and 1971, pacification achievements were even greater as a result of the improving military situation. The sizable RVNAF force structure increase, particularly in territorial forces, provided more support for the pacification program. A host of other forces also participated, including national police, rural (or revolutionary) development (RD) cadre, Truong Son cadre, Provincial Reconnaissance Units (PRU), armed propaganda teams, and PSDF. The enemy, meanwhile, continued to decline in strength and activities. As a result of successful cross-border operations which drove major enemy units over the border, the proportion of population living in A, B, and C hamlets was continually on the rise: up to 95% in 1970 and 97% by the end of 1971.

While this rise in percentage remained modest, the extent of rural security was truly encompassing. The results thus achieved in the pacification process during these two years were characterized more by quality than by quantity. During the previous years, it was true that the high percentage of population living under government control was chiefly due to the fact that inhabitants left their villages and hamlets for secure areas. Now that security had been restored, the refugees returned to their villages, and so the populated and secure areas kept expanding. Indeed, during those years, about 2 million of refugees either returned to their home villages or were resettled elsewhere with government assistance. It should also be noted that during 1970 the government also helped resettle about 200,000 Vietnamese who fled Cambodia.
While regular units of the RVNAF and US forces continued search-and-destroy operations into major enemy bases such as the Parrot's Beak area, War Zones C and D, and other mountain redoubts along the central coastal plains, the RF and PF became more and more combat effective. Besides usual patrol and ambush missions to ensure territorial security, RF and PF units now also participated in mobile operations and became more aggressive. Various RF and PF improvement programs, which were assisted, monitored, and closely evaluated by US advisory staffs at every echelon, paid off handsomely. An outstanding example was the "Rise Together" campaigns conducted in each province and military region, in which objectives were selected and studied and operational plans prepared expressly for each RF and PF unit. When the orders were given for the start of the campaign, all RF, PF, police and PSDF in the province or military region simultaneously passed to the offensive, attacking objectives that had been selected. The overall effect was impressive because the sizable number of units deployed at the same time created an unusually dominating pressure on the enemy, and the results achieved were equally impressive.

Another remarkable feat achieved by territorial forces was the elimination of the enemy's "mini-bases". These bases were usually jungle or swampy staging areas that enemy guerrilla units had long established along rivers, canals or in abandoned hamlets. They were mostly located near inhabited villages and hamlets but previously had been impenetrable because they were rigged with innumerable mines and booby traps. These bases were necessary for the survival of small guerrilla bands just as major bases were for larger units. The tropical vegetation provided cover for the enemy to expand these small bases into a complete base system. In many areas, these bases bordered on important provincial capitals, cities and district towns (such as My Tho city and the district towns around it).

As a result, MR-4 initiated a program to relocate RF units, i.e. to deploy them from pacified provinces to those provinces that needed them for the task. During the space of two years, the RF of MR-4, by their own hands, succeeded in eliminating almost all guerrilla bases
but it was at the cost of tremendous losses caused by mines and booby traps. This task was carried out at about the same time that the 21st Infantry Division penetrated and destroyed the U-Minh base area. The 9th Infantry Division, meanwhile, cleared the That Son (Seven mountain) area and the 7th Infantry Division completely annihilated other enemy bases such as Dong Thap, Tri Phap, and Ba Vat.

By early 1972, MR-4 had relocated out of their original provinces a total of 17 RF battalions or groups, a combat force roughly equivalent to two infantry divisions. This allowed MR-4 to make available its 21st Infantry Division, 4th Ranger Group and one infantry regiment to reinforce other Military Regions during the 1972 summer offensive.

A noteworthy development of the 1970-1972 period was the expansion of the National Police (NP) which up to that time had been denied the chance to develop, perhaps because of the high priority given the RVNAF. However, when pacification and development were raised to the level of a national policy, the National Police began to receive due attention and grew up, though very slowly at first. From a strength of 79,000 in 1969 the RVN National Police increased to 88,000 in 1970, then 121,000 by the end of 1972. Up to 1968, the NP operated only in cities, provincial capitals and district towns which were secure areas. There were two NP components responsible for collecting intelligence on and destroying the Communist infrastructure, the Special Police (SP) and the Field Police forces (FP). The development of the national police, therefore, was deemed vital for the improvement of security.

As of 1969, in view of the markedly improved situation in rural areas and in keeping with the pacification effort, the NP began to be assigned to rural areas. Each village was assigned a NP post whose personnel varied depending on its size. By the end of 1969, there were already 6,000 policemen serving in 1,600 villages. Three years later, in December 1972, 95% of villages had a NP post. NP forces at all levels, and in particular the Special Police and Field Police were assigned the primary responsibility in the Phoenix program, which was an organization designed to coordinate all NP forces and activities for the collection of intelligence on and identification of enemy infra-
structure personnel and the conduct of operations to arrest or destroy them. This task was extremely important in the anti-subversion effort against the enemy because all his activities and growth depended on certain key cadres of his infrastructure. Once this infrastructure was eliminated or neutralized, local enemy activities automatically abated or ceased altogether.

The RVN government had been concerned about the Communist infrastructure for a long time but never before had there been a concerted effort to bring every resource available to bear on that elusive objective. In 1967, upon recommendation of US specialists, the RVN had set up a coordinating system which was known as the Phoenix program. In each province and district, there was established an Intelligence Operation and Coordination Center (IOCC) whose backbone was the NP. In general, the Phoenix campaign was not as successful as had been expected because it eliminated only low-level members of the Communist infrastructure who were easily replaced. Key enemy cadres remained almost intact. And even then, the NP only accounted for about 20% of results achieved. The remaining results were attributable to other forces such as the RF and PF, PRU's, PSDF, etc.

The number of returnees, however, still remained high, although somewhat reduced as compared to 1969 figures. In 1970, more than 32,000, and in 1971, more than 20,000 enemy elected to choose freedom and came over to our side. Certain high-ranking enemy returnees attested to the deteriorating status of enemy forces since 1968. The provincial force commander of Kien Hoa who returned to our side in 1970 disclosed, for example, that his militia forces which previously numbered 10,000 had decreased to about 3,000. Because of insurmountable difficulties, he finally surrendered to the RVN government. Another enemy cadre was the chief of staff of My Tho provincial forces who returned in 1971. He told of the risky situation of his fugitive command, a situation which was instrumental in his decision to flee the enemy ranks with his wife.

The PSDF, meanwhile, continued to grow: in 1971, its membership reached a total of nearly 4 million, armed with 600,000 weapons. This
was a massive popular force by any standards. In several A-class hamlets, PSDF members entirely replaced PF troops and their number was on the rise. This helped release PF platoons for other more important security tasks. A report of December 1972 recorded that 90% of the South Vietnamese population lived in hamlets guarded by armed PSDF, whose increasingly improved performance in patrols and ambushes demonstrated that they were PF equals.

Sir Robert Thompson, in his capacity as special adviser, reported to President Nixon on December 3, 1969 after a visit to South VN:

I was very impressed by the improvement in the military and political situation in Vietnam as compared with all previous visits, and especially in the security situation, both in Saigon and the rural areas. A winning position, in the sense of obtaining a just peace, whether negotiated or not, and of maintaining an independent non-Communist South Vietnam has been achieved, but we are not yet through. 3

This was an assessment of the situation in late 1969. Indeed, only two years later, by early 1972, the security situation in South Vietnam had improved to such extent that the US was able to withdraw the great majority of its combat forces without either endangering the situation or impeding the improvement of the RVN.

Pacification and development progress, however, depended on a basic condition: security. This condition was brought about by the post-1968 improved military situation. Without the guarantee of security, achievements in pacification were uncertain indeed, because sabotage was much easier than construction. The assassination of a hamlet chief, for example, was enough to create a feeling of insecurity among cadres and the population throughout the locality. It might also generate other guerilla activities. A wave of such enemy attacks would suffice to undo years of achievement in pacification and cause great psychological damage if not physical destruction. Thus, in order to obtain lasting results, the problem for the RVN was how to motivate and rally

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the popular masses in a determined ideological warfare against Communism. The national cause, therefore, would have to be enhanced, and leadership, way of life and institutions would have to be improved. This demanded a long, long time and most particularly, the unflinching support of the Free World of which the US was the representative.

Toward Self-Reliance

As the security situation improved and refugees returned to their home villages, the most visible progress was the prospering aspect of rural areas. As the percentage of A, B, and C hamlets kept rising on HES charts in staff offices, the refreshing green surface of rice seedlings also gradually expanded everywhere. Rice production in 1969 increased by 700,000 metric tons as compared to the previous year. In 1970, it increased by another 400,000 tons, reaching a total of 5.5 million tons. This production figure even surpassed that of 1964 which was the year of highest rice production after World War II. In 1971 and 1972, rice production rose again to 6.1 million tons, or an increase of 42% over the 1966-67 period. Rice-cultivated farmland in 1971 expanded to 2,650,000 hectares, 42% of which grew "miracle" rice. Miracle rice is an improved, high-yield hybrid which was cultivated in South Vietnam beginning in 1967. Other subsequently introduced variants of miracle rice such as IR-8, R-20, RD-1; RD-3 adapted perfectly to the Vietnamese environment and allowed three crops per year with a yield two to three times greater than ordinary rice.

This substantial increase in agricultural production was also due to improved farming methods now that the use of fertilizers and farming machines became more and more widespread. In addition to rice, other crops with higher production were corn, soy beans, tobacco, tea, coffee, cotton, etc. Foodstuffs became more abundant as more poultry and cattle were raised. Inland rivers, canals, and the coastal waters were a major source of fish and shrimp. With the increase of motorized boats, the

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4 One hectare equals 2.5 acres.
fishing industry developed rapidly. As a result, throughout the rural areas of South Vietnam during 1970 and 1971, there was a proliferation of motorbicycles on roads, TV antennas on rooftops, and outboard-motored fishing sampans on rivers. All this represented a phenomenal change in the outlook of rural life. Cities, by contrast, began to feel the grips of inflation and city living became much more difficult.

The agrarian reform which was officially launched by the "Land to the Tiller" Act on March 26, 1970, received favorable response from farmers despite complaints of big land owners. The same reform had been attempted by the Ngo Dinh Diem government earlier with a view to win over the rural population to the national cause. But his program was low-keyed and too slowly implemented to produce any good results. This time, however, with the devoted assistance of the US, the RVN government was determined to make its "Land to the Tiller" program a success. The program planned to distribute, within a period of 3 years, 1 million hectares (equivalent to 2.5 million acres) to farmers who actually tilled their land but had to lease it from land owners. This program was implemented boldly and rapidly under close governmental supervision. Scientific methods were used to survey land and helped speed up procedural paperwork. By April 1973, due to efficient operation, most of the 1,000,000 hectares of farmland had been distributed. The success of the program added considerably to the prosperity of rural areas.

Besides the effort at winning the people's hearts and minds and developing the national economy, the RVN government also addressed itself to other developmental projects such as road building, river and canal dredging, hospital and school building, information, etc. In 1961, only 61% of children attended school; by 1971 this percentage reached 94%. The number of teachers, which stood at 39,600 in 1961, increased to 60,721 in 1971. Almost all districts now had a high school.

The organization of village and hamlet elections also contributed greatly to bringing about enthusiastic participation in community life. Elected village councils designated a village administration committee and directed village affairs. To nurture democracy and encourage contributions by the villagers themselves, the government initiated the
"village self-development program". Depending on local needs, the village population selected development projects which were funded partly by the government, partly by private and public contributions. Each participating village also received a VN $1 million grant from CORDS/MACV. By 1974, when this grant was no longer available, the great majority of South Vietnam’s 2,100 villages had participated in this program.

US assistance with regard to pacification, economic and social programs during this period was aimed at five major goals:

1. To stem inflation and alleviate economic difficulties.
2. To bring relief to refugees and war victims.
3. To assist the RVN government in broadening its influence and protecting the population, chiefly in rural areas.
4. To assist in economic development wherever it was possible and within the limitations of wartime conditions.
5. To assist the RVN government in increasing economic and social developments and preparing a basis for future development.

The withdrawal of US troops, however, edged South Vietnam toward a difficult economic period of transition. The substantial foreign currency income earned through the dollar exchange program which helped the RVN finance its imports during the previous years now gradually dwindled during the US redeployment. In 1971, the RVN earned 403 million dollars; in 1972, this income was reduced to 213 million. US economic aid also decreased gradually: 575 million dollars in 1971, 454 million in 1972. In the meantime, consumer prices went up 15% in 1971, a mild increase as compared to previous years, which was largely due to restored rural production.

At the end of 1971, departing from the practice of previous years, the RVN government initiated a four-year pacification plan called "Community Defense and Local Development". It was to be implemented during

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5 Data on US overseas loans and grants, and assistance from international organizations, July 1, 1945 to June 30, 1975, Department of State, p. 82.
the period from 1972 to 1975. Apparently, this was a great step forward since plans were initiated only annually up to that time. The new long-term plan was made possible by the stabilized situation of 1970 and 1971. At the end of 1971, the government was able to look far ahead rather than confining itself to solving immediate problems.

This four-year plan was aimed at achieving three basic goals: self-defense, self-management, and self-reliant development. It reflected the near total government control over villages and hamlets and the confidence of pacification planners. Even the term "pacification" was not used in the plan and the new effort was directed toward granting more authority to local governments and letting the villages and hamlets contribute their share of responsibility and nation building. Through the plan the RVN government really set about to consolidate the national foundation by providing guidance and assistance to local governments and enabling them to achieve self-defense, self-administration, and self-development. That was a tremendous effort and great progress in the right direction. The contemplated objective, however, was still a long distance away, because the Communists would not sit still and allow the RVN to achieve its goals. The Communists did what they were forced to do in the face of their dwindling control of the population. That was how the summer offensive of 1972 came about; the enemy was intent on redressing the situation to his advantage.

Despite its limited scope, the enemy 1972 summer offensive resulted in extensive damage by its sheer intensity. In its aftermath, the RVN government had to care for 1,200,000 homeless refugees. And so, despite austerity measures, exchange rate, tax and tariff reforms, and the assistance of US advisers, the RVN government found it hard to overcome its financial burden. Rice production faltered in 1972 because of adverse weather. Rubber production, which increased from 27,000 metric tons in 1969 to 37,500 tons in 1971, plummeted 40% as a result of war damages caused to rubber plantations. A total of 47,000 workers became jobless as US bases closed down operation during 1972. Economic hardship began to surface, particularly in areas where US units had been located. In the face of all this, the RVN government stepped up measures to boost
taxes. Inflation in 1972 soared to 25%, up 10% from the previous year, and pointed toward a decline of the national economy. The RVNAF, meanwhile, braced themselves for a counterattack effort to reoccupy lost territory.

The economic and financial picture of 1973 was even darker. Total unemployment, directly or indirectly generated by the standoff and withdrawal of US forces, was estimated at 300,000. The world energy crisis and its ensuing inflationary impact on all industrial countries added to the degenerating economy of South Vietnam which, subsisting on imports alone, became one of the most tragic victims. Total value of imports increased nominally 6% over the previous year but in real terms, decreased 22%. Unemployment was continually on the rise and the economic decline became a reality. Consumer prices rose 62.5% in Saigon in 1973 and the newly imposed Valued Added Tax (VAT) created additional miseries for the people, including servicemen and civil servants who were contributing more than a fair share of sacrifices.

Ever since the Vietnamization program was initiated, it had been the firm belief of South Vietnamese military leaders that despite US disengagement from the war, the US would continue to provide aid to South Vietnam to fight the Communists as long as aid was required. This belief was cemented by President Nixon's doctrinal proclamation of the partnership concept which guaranteed the continued provision of US resources for the partner who actually did the fighting. Many realized, however, that US capabilities in this regard were not without limitations. Hence foresight and wisdom dictated that South VN had better strive for self-reliance as early as possible.

Economically, South Vietnam was ravaged by a vicious war of subversion for so long that its capabilities had been overextended to the breaking point and its people had exhausted itself in the long process of endurance and sacrifices. With regard to manpower, the drain which had widened year after year seemed impossible to be plugged as long as a conclusion to the war was not in sight. Spiritually, it had become obvious that to be able to continue the protracted struggle, the people should be motivated by a sincere desire and determination to oppose Communism as long as
necessary. Internal difficulties, however, whether arising from personalities, traditions, heritage, friendly constraints, or enemy influence still precluded an ideal combat force from materializing. South Vietnam was unable to do better, but it continued to strive in many ways.

In anticipation of the dwindling US military aid, the RVN initiated several measures to fight the war by its own means and resources. Another attempt was made to develop a military doctrine which faithfully reflected Vietnamese purposes, resources, and abilities as opposed to the one borrowed from Western countries. In the field, many units, either on their own initiatives or under JCS instructions, began to concentrate troop training on three combat aspects, march, sniper fire, and close combat. March was going to be needed in case trucks and helicopters were no longer available. Also it was the only combat means the Vietnamese infantryman possessed. Sniper training was aimed at improving markmanship and instilling the single shot habit, so that ammunition consumption would be reduced. Finally, close combat training was a much needed shot in the arm to enhance combat prowess among troops.

Vietnamese infantry divisions became more concerned with marching their troops, whether into operations or in normal displacements and deliberately cut down on the use of trucks. Competitions in marching were organized among units to encourage the habit. In combat, strict coordination of firepower and maneuver were stressed. Obviously, when firepower becomes less abundant, maneuver ought to be timely and quick. Trained as they were through combined action with US units, the RVNAF unit commander was used to the employment of massive firepower, which in a few instance amounted to sheer waste. But the habit had been ingrained and was hard to relinquish. B-52 strategic bombers had been used in tactical support, and tactical air, artillery and gunships could be summoned in a matter of minutes, and some Vietnamese units had shunned altogether from bringing along their own mortars. After all, why should one bother with this nuisance when other support means could provide more than that. It had become common practice for infantry units to hold back, wait for the target to be torn apart by fire and then just move in to count enemy bodies and take possession of war booties.
Wasteful firepower practice, it was felt, should be changed and by all means, combat units should learn how to fight a "poor man's war". They should learn how to maneuver to bring about maximum shock effect while firepower was missing. This was the only way an infantry unit could prove its combat value. In the face of diminishing ammunition supply rates, artillerymen should learn how to moderate their fire without reducing effectiveness, and that required firing only when the target could be observed. To destroy an enemy blocking position, only one 105-mm or one 155-mm piece should be needed if its fire was accurate. Against other targets that required accurate but lesser fire, the 81-mm mortar should be enough. These were things that ARVN troops were taught in the field with a view to bring the Vietnamization process another step forward.

During the 1972 summer offensive, the enemy began to make proliferated use of artillery, and in time his artillery was augmented by an extensive and particularly dense network of anti-aircraft weapons. Beginning in the summer of 1974, this tremendous firepower made a big difference in battles. VNAF observation planes flew fewer and fewer sorties and, since they were kept at a high altitude by enemy anti-aircraft fire, they no longer proved as effective as they had been. As a result, infantry units were compelled to use field observation posts and small reconnaissance teams for the acquisition of targets.

Also, in the face of a scarcer supply of barrier materiel, units became ingenious in the exploitation of local resources. Trees and wood were widely used to repair barracks or fortifications; pointed sticks of bamboo and bamboo hedges came to replace barbed wire; trenches and underground shelters took the place of surface fortifications. In this respect, the RF and PF were really the pioneers and for all practical purposes became entirely self-sufficient in organizing for defense.

The inflationary economy and prohibitive costs of living, meanwhile, resulted in further privations for the serviceman and his dependents. Efforts were made by units to grow vegetables and to raise poultry and cattle to provide additional food for the soldiers at lower costs. Dependents were also encouraged to participate in food production, and