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ARMS TRANSFERS TO VENEZUELA:
A CRITICAL ANALYSIS OF THE ACQUISITION PROCESS,
1962-1975

by
Manuel Suarez

June 1977

Thesis Advisor: E. Laurance

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Arms Transfers to Venezuela:
A Critical Analysis of the Acquisition Process, 1962-1975

by

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Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

Extensive research has been made regarding military expenditures and arms transfers in and to Latin America. Nevertheless, there was no available study focusing research on arms transfers from the perspective of a particular Latin American nation. The author analyzes Venezuela's arms transfers for 1962-1975 utilizing an "acquisition process" model. This arms acquisition model includes the initial considerations of having a defense establishment and needs for arms, the military requirement process, and the source selection process, the latter including the arms suppliers policies as related to Venezuela during the intervening period.

Venezuela, an oil producing nation, increased defense expenditures by 52% in 1974. New weapon systems were ordered by Venezuela in 1975 reflecting the availability of larger resources. Internal security missions, external projection, and a replacement pattern were the major factors influencing the Venezuelan arms requirement. A multipolar international system and the U.S. arms transfer policy were reflected in Venezuela's diversification of arms sources. A resurgence of regional arms control seems to be a factor influencing future arms acquisition patterns.

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I. INTRODUCTION

A. NATURE OF THE PROBLEM

Venezuela has historically relied on external sources for its arms requirements. Therefore, certain percentages of its annual defense expenditures, when arms procurement is involved for a particular fiscal year, is used as foreign exchange to pay for those arms.

This thesis is intended to present a critical analysis of the arms transfers to Venezuela for the time period 1962-1975. The analysis will be made by considering the arms transfers a part of a more complex process, the arms acquisition process, which includes the most relevant factors influencing the different stages from the appearance of the need until the selection of the source.

The less developed nations usually get others attention when they allocate part of their national resources, represented in the national budget or government expenditures, to purchase weapons in the international market.

Nevertheless, it is well known that Latin America is the developing region that spends less of its resources in arms imports, at least it was, for the period 1966-1977. Out of a total \$ 45,812 million worth of arms transferred to the less developed world in 1966-1977 a 5.4 percent corresponded to Latin America, Cuba excluded. This low key figure is representative of the unique stability that has existed in the region for the last three decades.

More internal conflicts have threatened the stability of certain countries than external defense has compromised the stable peace in Latin America.

Research done in the field of military expenditures and arms imports in and to Latin America has focused on trying to find the factors influencing or causing a generalized behavior. Most of all, the research criticizes nations which are spending a portion of their economic output in the sector of least or no productivity. Many scholars have often argued that since Latin American countries have no genuine military requirements for sophisticated and expensive armaments, they should be spending their scarce resources on schools and hospitals rather than in arms [Ref. 26, p. 189].

However, the justification for these opinions are seldom formulated in a clear and profound manner.

This thesis is an attempt to analyze the arms transfers to Venezuela over a period of 14 years using a model that corresponds to a rational arms acquisition process. Thus the assumption of rationality is taken as given and any contradiction to this assumption shall be appearing by itself as the analysis goes on.

This research effort will focus on one specific country, a study that apparently has not been done before since the available literature concentrates on Latin America as a whole rather than on specific situations.

Although most of Latin America presents similar cultural traits, language, and politically independent life, more or less economic development in certain countries make more difficult the adoption of assumptions to treat the whole region under one singular model.

Venezuela, as any other society, develops policies for achieving its foreign and domestic goals. Because implementing these separate policies requires economic and political resources, trade-offs are

inevitable. A major focus of these trade offs is military policy, which attempts to meet the demands made on its component by foreign policy with material and political resources supplied by domestic policy.

Using the foregoing statement as a philosophical basis for this analysis, the thesis begins with Chapter II presenting a brief background of the Venezuelan arms acquisition patterns for the years 1938-1961.

Chapter III continues with a broad discussion of the need for a defense establishment and in turn the need for arms, giving special emphasis to the question of arms control and self-reliance. This chapter represents the first stage of the arms acquisition process.

Military material procurement alternatives have to satisfy both military requirements and domestic goals. In peace time periods the emphasis of society is placed on domestic goals or a balance among the various objectives. The question is to determine a balance among the various military and domestic goals considering their relative importance and the impact on them of military material procurement.

Chapter IV is an attempt at presenting the factors that influenced or were considered to influence the issue of military requirements and the demands for arms, stage II in the arms acquisition process.

A nation does not need to become an arms manufacturer to satisfy its requirements for weapons that can not be procured from internal sources. Chapter V deals with the final stage, as treated in this model, of the arms acquisition process and that is the selection of the supplier once the needs for arms are assumed to be valid and the resources to procure them are authorized and/or allocated. Within the source selection process the interaction among recipient and suppliers is discussed covering the policies of the latter group as related to Venezuela.

The trends and implications of the arms transfers concerning the time period 1962-1975, and as inferred from the analysis developed from Chapter III to V are the conclusive part of the thesis.

It is of great concern for the author, as a Venezuelan military officer, to emphasize that this study is an individual work which does not reflect under any circumstances the policy or doctrine of the Venezuelan Armed Forces. The author's intention shall be rewarded if this paper has any significant value to the interested reader, particularly the American reader, to whom is addressed.

B. METHODOLOGY

1. Statistical Data

Once the decision of using "the acquisition process" as a model for describing the Venezuelan arms imports patterns was taken, the next difficulty came in finding available and reliable sources of information, particularly statistical data.

Since the primary statistical data the author was able to obtain from Venezuela covered the period 1962 to 1975, it was assumed that 14 years would make a reasonable and acceptable number of sample-data in case any correlation was necessary. All statistical data obtained from Venezuela was in local currency (Bolivares) and corresponded to government expenditures, defense expenditures, government income, and oil revenues.

It was accepted that the available data for the period 1962-1975 would represent valid information concerning the defense expenditures trends of a civilian democracy established since 1959. Thus, no reference is made to past military regimes with the exception of a brief comment in Chapter II.

The statistical data mentioned above was drawn from publications concerning the annual budgets available from the Ministry of the Treasury (Ministerio de Hacienda, Direccion Nacional de Presupuesto, Resumen del Presupuesto) and also from extracts of several Budget Laws corresponding to the intervening period (Gaceta Oficial de Venezuela, Ley del Presupuesto). The figures represent actual outlays or receipts as reconciled on subsequent budgets.

Other statistical data used in the paper were obtained from secondary sources including: gross domestic product (GDP) for 1962-1974, from the Yearbook of National Account Statistics, United Nations, and the GDP for 1975 from the International Financial Statistics, International Monetary Fund, both in Bolívares; the consumer price index and the exchange rate (selling rate) used to convert selected data to 1970 dollars were drawn from the International Financial Statistics.

Conversion to 1970 dollars was made by taking the figures in local currency, convert them to 1970 Bolívars and then dividing each value by the 1970 selling rate (4.49). The consumer price index was used as a deflator because it represents an acceptable measure of inflation of the national economy.

Difficulty in getting reliable monetary values of arms transfers to Venezuela from primary sources, has constrained the author to the use of available secondary sources in obtaining such information. The U.S. Arms Control and Disarmament Agency (USACDA) compiles the most timely figures after 1964 in its annually published World Military Expenditures, and for the period 1962-1964, from the same agency the 1974 Report to Congress, the International Transfer of Conventional Arms.

The values of arms transfers given by USACDA represent transfer under "...credit, or cash sales terms of military equipment usually referred to as "conventional," including weapons of war, parts thereof, ammunition, support equipment and other commodities considered primarily military in nature." [Ref. 61, p. 8] The USACDA statistics are estimates of the value of goods actually delivered during the reference year, in contrast to the value of programs, agreements, contracts or orders which may result in a future transfer of articles.

2. Terminology

The term "arms" as it is used throughout this paper represent major items of war: naval vessels, tanks, self-propelled guns, artillery, armored cars, aircraft, and missiles, including support parts. The "arms" term is used interchangeable with the following terms: weapons, weapon systems, materiel, hardware, and armament.

Defense expenditures do not include outlays assigned to the Armed Forces' social welfare and recreation functions, not to the autonomous agency administering the national shipyards which, until 1976 was under jurisdiction of the Ministry of Defense. National Guard expenditures have also been excluded from the defense expenditures. Although the National Guard forms part of Venezuelan Armed Forces, its mission falls more appropriately under the state security forces mission as will be explained in Chapter III. The defense expenditures expression will be used interchangeable with military spending, expenditures or outlays and also with Armed Forces expenditures.

Other terms that will be commonly interchanged are arms transfers and arms imports, referring both to the monetary value of the items actually received in a particular time period by the Venezuelan Armed Forces. The regional name of Latin America, as used in this thesis, consists of Central and South America, including Mexico in Central America.

II. BACKGROUND

A. ARMS ACQUISITION PATTERNS: 1938-1961

This thesis will focus on the acquisition pattern of Venezuela after 1961. Therefore, some background before that year is necessary.

Venezuela, as most of the Latin American nations, has depended on the industrialized world for its supply of arms.

Before the early 1950s Venezuela's weapons inventory was composed mainly of war surplus and aged materiel. Among the first supplier-nations were Canada, Italy, and the United States (U.S.). Normally, the military equipment had been transferred from their armed forces inventories thus consisting of used arms, sometimes refitted. The Italian Navy had transferred two gunboats while Canada had transferred six corvettes. From the U.S. the Venezuelan Navy had received one LST transport and some coast guard boats.

In 1950, the Venezuelan Air Force was equipped with its first jet-aircraft. DH Vampire fighters and refurbished Canberras bombers were transferred from the United Kingdom. The Army began to receive surplus armored fighting vehicles from the U.S., among these were: the M-3 Sherman, the M-2 and the M-9. With the second-generation of jet-fighters and fighter-bombers supplied by the United Kingdom, the Air Force had the newest equipment compared to that possessed by the Army and the Navy.

Understandably the Armed Forces' inventory was highly diversified and lacked standardization. The possession of such inadequate military equipment created severe limitations on the effectiveness of the defense establishment particularly for the Navy and the Army. In view of that

situation, the military government began to seek international suppliers in order to modernize the Armed Forces' inventory.

In 1955, after a reduction in defense expenditures, which had dropped 2.0 percent the year before, the military government increased defense spending to an unprecedented amount of \$105.3 million (see Table I page 91). This was the first time that military outlays had reached the one hundred million dollars level and, from there on it would stay over it. By 1961 Venezuela had spent, in aggregated value, since 1955, \$1.03 billion, an amount 67 percent larger than the one spent during the time period 1938-1954. The high defense expenditures for the years 1955-1961 may be explained, as being the result of the program of modernization began by the Armed Forces in the early 1950s.

The need for modernization called for new armament rather than surplus or used materiel.

New equipment, particularly major equipment, was transferred from the U.S., Italy, France, and the United Kingdom. For the Armed Forces, the renovation program brought about reorganization in its functional and tactical structure in order to adapt to new techniques and technology accompanying the military hardware. The Army complemented its ex-U.S. armored fighting cars with the French AMX-13 tank, a light and very versatile weapon, which had been one of the most successful post-war designs [Ref. 25, p. 208].

Perhaps the most visible change was for the Navy, from an old-generation of gunboats and corvettes the Navy obtained custom-order destroyers and frigates from the United Kingdom and Italy respectively. Those ships became integrated into the first modern squadron of the Venezuelan Navy, and were designed, primarily, for use in anti-submarine

operations (ASW). Coastal patrol crafts as well as a light personnel transport were built in French shipyards. These patrol boats were handed over to the National Guard for missions of port vigilance and anti-smuggling control.

The Air Force received most of its equipment from the U.S. such as light transports, trainers, fighters, and some light aircraft mainly through the U.S. Foreign Military Sales Program begun in 1950 [Ref. 14, p. 2]. Great Britain, the traditional European supplier of the Air Force equipment, transferred Venom and Vampire combat aircraft as well as Canberra light bombers and Canberra reconnaissance aircraft.

Venezuela, during the period 1950-1961, had arms imports valued at \$150 million.¹

Corresponding to a more highly technological inventory, the Armed Forces tried to develop better logistics support. Manpower development and material support (spares, maintenance and overhaul) increased the monetary value of military requirements and thus the defense budget. Even so, there were years in which military outlays decreased (1957, 1960, and 1961). The drop in 1957 is difficult to explain, given at that time the country was ruled by a military government. While, in 1960 and 1961, a civilian administration, which had been freely elected in 1959, gave priority to other sectors of the nation, thus decreasing the defense budget.

¹ The figure is an estimate obtained from the following sources: (1) U.S. Department of Defense, Office of the Assistant Secretary of Defense (ISA), Foreign Military Sales and Military Assistance Facts, December 1976; (2) U.S. Arms Control and Disarmament Agency, The International Transfer of Conventional Arms, April 1974; and (3) SIPRI, The Arms Trade with the Third World, Humanities Press, 1971.

The main point to be emphasized from the arms acquisition patterns of the Venezuelan Armed Forces up to 1961, is the arms transfers of the 1950s brought a new philosophy to the military organization. Not only was there possession of modern weapons but also a sense of professionalism and higher satisfaction within the Armed Forces establishment.

A second finding of Venezuela's arms acquisition trends during the years 1950-1961 is the diversification of sources which in turn created a lack of standardization in the Armed Forces' equipment, and therefore logistics constraints.

III. THE DEFENSE ESTABLISHMENT AND
THE NEEDS FOR ARMS

A. NATIONAL SECURITY

1. A Legal Instrument

Venezuela's Constitution proclaims the principles of national independence, security, peace, and stability. It advocates international cooperation, democracy, and self-determination of people and repudiates war, conquest and economic predominance as instruments of international policy.

National sovereignty is asserted over all of the land and air-space and over the territorial sea three nautical miles from the coast plus an additional nine-mile contiguous zone and the continental shelf.

The legal instrument to assure and to warrant the national defense is, according to the article 132 of the Constitution, the Armed Forces. They have been created by the state to protect its citizens and the inviolability of the national territory.

2. Internal Security

In its article 132 Venezuela's Constitution states:

The National Armed Forces form a nonpolitical, obedient and nondeliverative institution, organized by the State to insure the national defense, the stability of democratic institutions, and respect for the Constitution and the laws, the observance of which shall always be above any other obligation. The National Armed Forces shall be in the service of the Republic, and in no case in that of any person or political party.

The framers of the Constitution felt a need for stating therein that the role of the Armed Forces shall be in the service of the republic, and not in that of individuals or groups. Thus, the Armed Forces own loyalty to the republic and its legal powers.

By law the Armed Forces after its first constitutional obligation and *raison d'etre*, that of defending the integrity, independence and freedom of the nation, shall:

- (1) insure the fulfillment of the constitution and the laws;
- (2) maintain the public order;
- (3) protect legal traffic, industries and commerce;
- (4) support the legally constituted authorities and functionaries according to the laws and military regulations;
- (5) protect persons and their properties; and
- (6) prevent the infringement of laws and regulations of navigation, commerce and fishing, and international treaties.²

Commonly, the Armed Forces of Cooperation (also known as National Guard) has had a major share of the responsibilities for internal security throughout the country, particularly in times of political stability. The National Guard, which has been part of the National Armed Forces as a fourth service since 1937, is also supposed to cooperate in national defense, in cases of emergency, with the regular army units.

The National Guard has been working in close relationship with national and local police in keeping public order and has had additional assignments within other Ministries such as: Communications, Treasury, Agriculture and Livestock, Justice, and Mines and Hydrocarbons. Through such activities as: protecting custom duties in ports, airports and frontier posts; other enforcement functions with the Ministry of Treasury

² The Venezuelan Navy and a lesser extent the National Guard have carried out coast guard missions.

(liquor tax laws, salt tax laws, etc.); preventing smuggling; forest service; enforcement of hunting and fishing laws; police service in national penitentiaries; law enforcement in national highways; security service in areas of mineral exploitation; and protection of industrial facilities owned by the state (petrochemicals, electricity, water works and steel plants among others). According to the 1972 Budget Law, the regular forces assigned to the above mentioned duties amounted to a 45 percent of the National Guard. The remaining personnel had duties in defense and public security [Ref. 67, p. 23].

In the early 1960s during the first democratic and constitutional government after the fall of the military regime in 1958, a succession of attempts at overthrowing a new government were deterred by the state security forces and the Armed Forces. The insurgent groups were integrated from both right and left, whether civilian and/or military, and were dissidents who wanted to seize power by means other than electoral votes.

The hostile environment at that time demanded the legal intervention of the Armed Forces in supporting the government's effort to restrain the violence. From 1962 to 1968 the Armed Forces had to apportion its regular forces to deal with a domestic enemy. The internal threat was, primarily, represented by leftist guerrillas, particularly rural guerrillas, which were being motivated by Cuba.³

The intensity of the extremist internal threat decreased in 1969, and for the early 1970s was almost insignificant. In 1973 the guerrillas had virtually disappeared in Venezuela and with it any evidence of Cuban intervention.

³ Venezuela had broken diplomatic relations with Cuba in 1961, and on November 29, 1963, requested before the OAS measures against the Cuban Government under accusations of intervention and aggression affecting the territorial integrity and sovereignty of Venezuela.

B. DEFENSE AND FOREIGN POLICY

The military establishment constitutes an instrument at the disposal of the nation, just as diplomatic, economic, and other means are available and may be applied to achieve national objectives. The nature of defense planning is such that elements of the nation's defense posture tend to be sensitive in a number of respects to considerations of geopolitics. To the extent that the assumptions about those considerations evolve, the Venezuela defense posture may evolve as well. These considerations will be discussed in the next sections.

1. Political Factors

Venezuela, since independence, has never faced a serious threat of invasion by a foreign power, nor has it resorted to arms in any international dispute. However, this lack of belligerence, relatively speaking, does not imply an absence of external involvement in Venezuela's military affairs.

President Carlos Andres Perez said, addressing a military audience in 1976, that Venezuela did not create its Armed Forces doctrine for aggressive actions against any one nation and that no Venezuelan flag has ever been raised in foreign territory unless it had been as a confraternity gesture, to the other Latin American nations [Ref. 42, p. 68]. This policy, besides being implied in the Constitution, has been practiced by the Venezuelan Governments since independence.

But, the action of carrying out this type of foreign policy is not mutually exclusive with the nation's obligation of being able to deal with any threat or challenge to its own existence. As the President stated it: "...the arms of the Republic are for defending it, for exalting it and for warranting it in her progress and happiness." [Ref. 12, p. 3].

In another speech, the President noted that:

"Our enormous natural resources, the will of having a nationalistic policy that it shall make us authentic owners of our great national destiny, imply the formation of an armed force and of a defense capacity in which must participate, not only the divisions of our Army but all the Venezuelans..." [Ref. 42, p. 67]

Within the Organization of American States (OAS) charter Venezuela had sought external alliance with the American countries. The Rio Treaty has been an instrument of counterbalancing military interventions of extracontinental powers and a means of resolving promptly, if not peaceably, any regional conflict.

The mutual defense treaty in which Venezuela has had a membership is the Inter-American Treaty of Reciprocal Assistance, signed at Rio de Janeiro on September 2, 1947, under the auspices of the Organization of American States. This treaty constitutes the principal and unique defense mechanism of the American States (particularly for the Latin American nations) against external aggression, and also a means for dealing, expeditious, with regional conflicts (particularly for neighboring countries).

2. Arms Control and Self-Reliance

Venezuela, has been active in the campaign against the proliferation and use of nuclear energy for purposes of building weapons. It was one of the first signatories and parties of the Treaty for the Prohibition of Nuclear Weapons In Latin America, also known as Treaty of Tlatelolco, signed in 1967 and brought into force on April 22, 1968. The agreement was the first preventive measure to deal with a populated area. It commits the 22 Latin American signatory nations to prevent in their respective territories "the testing, use, manufacture, production, or acquisition by any means whatsoever of any nuclear weapons..." There

are two protocols to the treaty dealing with matters that concern non-Latin American countries. Protocol I calls on nations outside the treaty zone with territories in the zone to place them under the same restrictions as the treaty parties. From the nations having such territories, the United States and France have not signed the protocol. In protocol II, nuclear-weapons countries undertake to respect the denuclearized status of the zone. From those nations, the Soviet Union has not adhered to Protocol II [Ref. 59, p. 15]. Venezuela is also party of the following unilateral arms control agreements: Limited Test Ban Treaty, Outer Space Treaty, Nuclear Nonproliferation Treaty, Geneva Protocol and it has signed the Biological Weapons Convention.

The Venezuelan Minister of Foreign Affairs addressing the United Nation's General Assembly in 1976 pointed out that Venezuela was concerned at the proliferation of nuclear weapons. Existing treaties had not been fully subscribed to; it was disturbing to note that providing nuclear installations for peaceful purposes could be converted to using nuclear energy for war purposes [Ref. 56; p. 112].

Latin America was the only region that had shown signs of interest in limiting arms imports. In 1974 the six Andean Pact states⁴ plus Panama and Argentina agreed in the Declaration of Ayacucho to seek a cooperative means of limiting their arms acquisitions. Before 1974, Venezuela had joined in 1967 the other members of the OAS in a statement expressing their intention to limit military expenditures in proportion to the actual demands of national security, and in accordance with each country's constitutional provisions; but at the same time the nations recognized the importance of the armed forces in maintaining security [Ref. 5, p. 661].

⁴ Bolivia, Chile, Colombia, Ecuador, Peru, and Venezuela.

While Venezuela has shown an active interest in questions of disarmament and reduction of military expenditures not only regionally, within the OAS ,but internationally⁵ [Ref. 55, p. 28], it has rejected any attempt of arms control where the issue has been aimed at selective areas instead of being a collective goal.

In 1977, the Minister of Defense pointed out that the Venezuelan Armed Forces were doing a study about arms transfers (armamentismo) in Latin America. The study once completed would be considered by the President, who is responsible for setting the policy on the matter [Ref. 3, p. 1].

3. Economic Factors

Venezuela's Constitution rejects economic predominance as an instrument of international policy.

Since the advent of democratic governments into the political life of Venezuela in 1959, the various administrations have sought to promote the nation's independence in the economic field.

In 1960, a Venezuelan initiative was largely responsible for the formation of the Organization of Petroleum Exporting Countries (OPEC) with the Arab nations in order to maintain the export price of oil. The OPEC gave value to a resource that today has won global rank. It has played a significant role for Venezuela, mainly because the oil has represented the principal source of government income. In 1963 oil revenues reached \$1,406 million, 71 percent of the government income. In 1975 the share had increased to 79 percent of the government income

⁵ In November, 1976, President Perez, in a state visit to Moscow, said that the U.S. and the Soviet Union were not doing enough to end the armaments race [Ref. 75, p. 929].

and oil revenues were \$7,590 million (see Figure 1). Oil exports, for many years, have also inclined the balance of trade to the credits side.

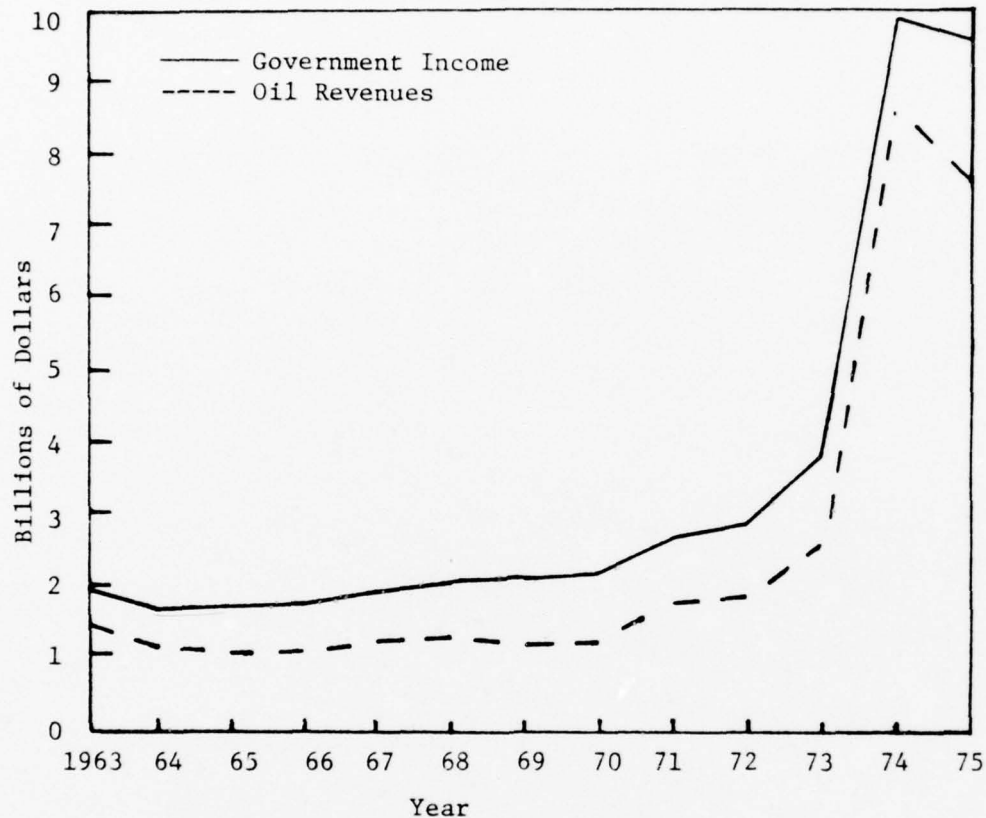


Figure 1. Oil Revenues and Government Income, 1963-1975.

Source: See Table II.

A greater dependence on oil and iron ore, the latter in lesser importance, has made Venezuela, blessed in having inherited a rich resource base in those valuable items, a leading defender of the less developed nations (particularly Latin American nations) in their attempt to change the global economic relationships [Ref. 76, p. 65]. From President Romulo Betancourt's involvement in 1960 to get international attention on the export prices for oil and iron ore to the nationalization

of the oil and iron industries by means of laws promulgated under President Perez administration,⁶ Venezuela has conducted an economic policy of less dependence.

Venezuela, in the interest of panamericanism has also promoted and supported regional agreements for economic cooperation such as: the Latin American Free Trade Association (LAFTA), the Andean Pact (similar to the European Common Market) and more recently the Latin American Economic System (LAES).

But the Venezuelan economic policy of less dependence from the industrialized nations has not disregarded the real situation of its economic development. Venezuela has maintained friendly and close commercial relationships with the U.S., Canada, Europe, Japan, and lately has initiated a movement to improve its trade with communist countries.⁷

Venezuela's nationalism symbolized by the administration of its own natural resources and a still incipient economic development has come to emphasize the need for a defense establishment, whose presence, mainly represented by the possession of a modern armaments, might act as an instrument of unity and motivation. A sense of security and solidarity ties citizens to a nation-state especially in times of national significance [Ref. 27, p. 28], and serves as a support for ambitious projects which might require the whole nation behind them.

"The Armed Institution is a symbol of the national sovereignty, and what at this time is important for the country, the responsibility

⁶ The iron and oil industries were nationalized on January 1, 1975, and on January 1, 1976, respectively.

⁷ Referring to his visit to the Soviet Union in 1977, the President said that Venezuela will increase trade with that country as a beneficial interest to both nations [Ref. 36, p. 1].

of all Venezuelans, is the affirmation of the economic sovereignty of Venezuela over its natural resources..." These words were expressed by the Venezuelan President on January 1976 at the swearing in ceremony of the new Minister of Defense [Ref. 29, p. 6]. They reflect the singular position that the Armed Forces have received in the context of national security and national development, a position of protection and defense of Venezuela's natural resources.

4. Strategic Factors

The nature of Venezuela's political and economic interests inevitably brings other interests in focus. Venezuela greatly depends on the seas for the bulk of its external commerce. At least where Venezuela proclaims authority and sovereignty it should be able to exert it. The freedom of communication on the Caribbean Sea and on the part of the Atlantic Ocean contiguous to the Venezuelan coast is essential to Venezuela. The nation has been vitally interested in this matter and its Navy, with conventional, but modern forces has played its role with a peaceful and quiet performance.

Not only Venezuela's individual action to protect its lines of communications but regional cooperation with other American nations have deployed the Venezuelan Navy to the seas. As far back as the Second World War (in support of the allied cause) the Venezuelan Navy has contributed to the free traffic and protection of lines of communication on the Caribbean Sea, including the quarantine patrol, with other American Navies, of Cuba in 1962 [Ref. 78, p. 261].

In a speech during a military ceremony in 1976 the Commanding General of the Venezuelan Navy said: "With the nationalization of the iron and the oil..., the protection to the sovereignty in our jurisdictional

maritime areas and inland waters is every day a more urgency imperative."⁸ Later in the same speech he added referring to the other American Navies, that he would promote combined exercises in order to improve their capability to the hemispheric defense and to unify and fortify the inter-american tactical-strategic doctrine [Ref. 16, p. 60].

Perhaps the biggest strategic significance of Venezuela, besides its access to important maritime lines of communication into the Caribbean, is its wealth of natural resources, many relatively untapped: petroleum and iron ore reserves, as well as the almost unexplored Federal Territory of the Amazonas which is part of the Guayana Highlands, a vast area of high plateaus and rolling plains south and east of the Orinoco River, comprising 45 percent of the national territory (see (1) in Figure 2). Among the resources of the latter area it is said that there are mineral deposits such as: oil, iron, probably bauxite, titanium, and uranium [Ref. 35, p.172].

5. Venezuela and Its Border

Venezuela's Constitution defined the nation's territory in article 7: "The national territory is the one that corresponded to the Captaincy General of Venezuela before the political transformation initiated in 1810 with the modifications resulted in the valid treaties concluded by the Republic."

Also, the Constitution has incorporated the country's commitment to the peaceful settlement of controversies. Article 129 states:

⁸ Venezuela's biggest lake is Lake Maracaibo which has been the main oil production area in the Northwestern part of the country. The Orinoco River flows, more than 1,300 miles to the Atlantic and as the Lake Maracaibo, both accept ocean going vessels (see Figure 2).

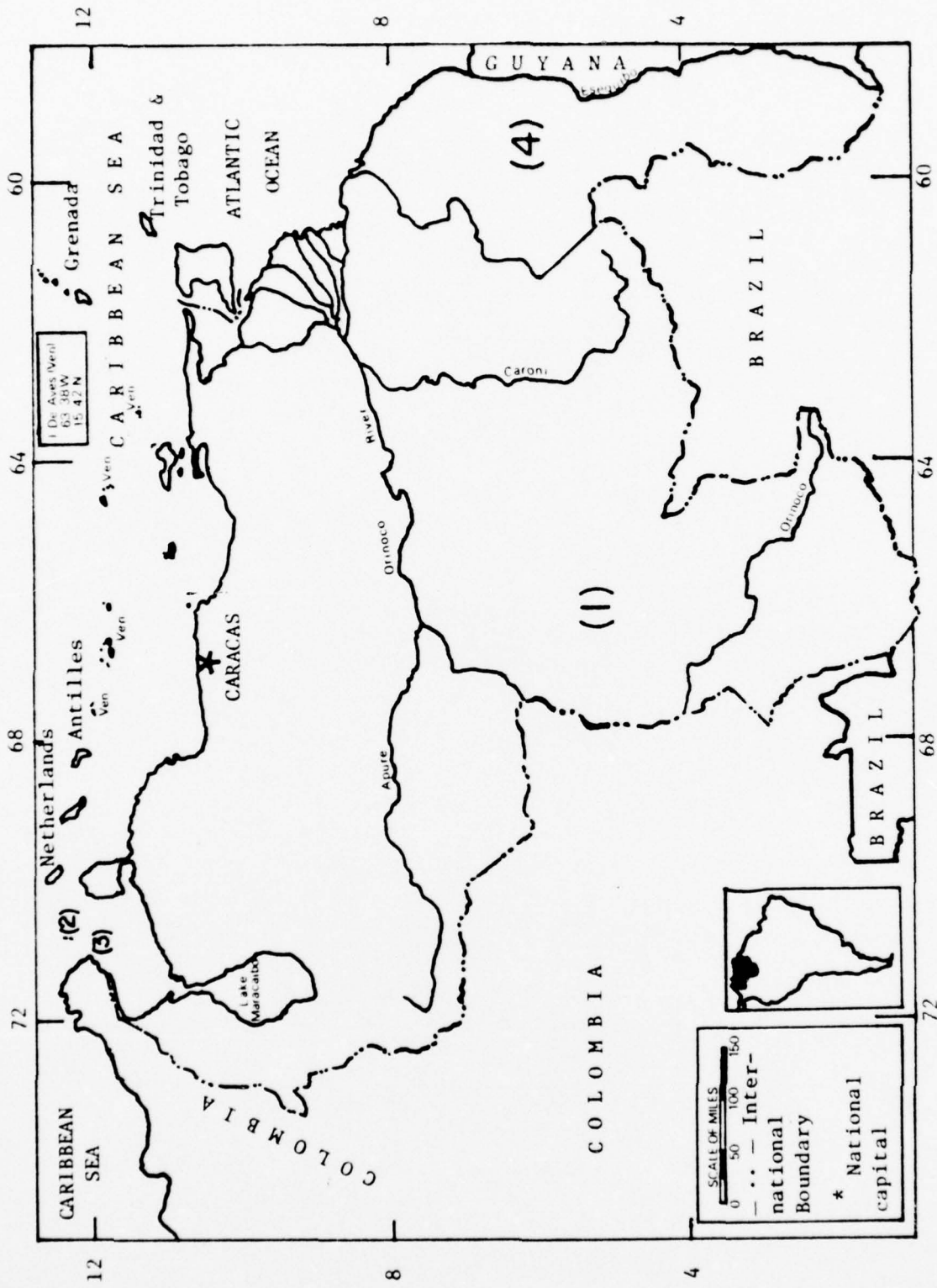


Figure 2. Venezuela

In international treaties, conventions, and agreements concluded by the Republic, there shall be inserted a clause by which the parties bind themselves to decide by peaceful means recognized by international law or previously agreed to by them, if such is the case, all controversies that may arise between the parties by reason of their interpretation or execution, if not inapplicable, and if permitted by the procedure followed in their conclusion.

Since the withdrawal from the Grand Colombia federation in 1830, Venezuelan Governments have frequently been occupied with boundary delimitations, and there still remain some controversies about the precise boundaries of the nation. These boundary problems were a consequence of the vagueness of the Spanish delineation of the boundaries of the former captaincy general [Ref. 32, p. 168].

Venezuela has been negotiating separate boundary agreements with Colombia in the west, Brazil in the south and Guyana, former British Guiana, in the east. Although there have been controversies, all cases hitherto have peaceably been settled.

With Brazil, limits were defined under the terms of agreements of 1852, 1859, 1905, and 1928. Most of the 1,243 mile boundary with Brazil, based almost entirely on watersheds and small rivers, were entirely delineated and marked by the members of mixed commissions in 1970.

Negotiations with Colombia have been more prolonged and involved. Both countries agreed that the boundary dividing their territories should be the line of the *Uti possidetis juris* of 1810. In 1941, after more than a century of negotiations, both parties finally reached a definitive agreement. The 1,274 miles of the Colombian frontier was totally delineated. Spain in 1891 and the Swiss Confederation in 1922 had been called to arbitrate the boundary. The decision handed down by both the Spain crown and Switzerland were accepted by Venezuela and Colombia. It was in 1941 when remaining demarcation questions were resolved.

In spite of the definitive territorial boundary with Colombia reached in 1941, there was still some controversy about the ownership of a small group of unoccupied islands, the Los Monjes Archipelago, just off the Guajira Peninsula (see (2) in Figure 2). It was not until 1952 when Colombia finally withdrew its claim in favor of Venezuela, thus ending the dispute.

While in 1976 no important questions remained unresolved concerning the continental boundary with Colombia, one that is proving to be difficult to resolve had emerged with respect to sovereignty over the waters of the Gulf of Venezuela (see (3) in Figure 2). Quiet diplomatic talks between the two nations had been held intermittently since 1970. In July, 1976 the Presidents of Colombia and Venezuela subscribed a communique where, among other points, they reiterated their decision to proceed with the promptly demarcation of the marine and submarine areas between Venezuela and Colombia [Ref. 49, p. 3].

The most difficult boundary delimitation has been on the east with Guyana.

Since independence Venezuela's boundary line on the east was the Esequibo River. On the other side of the river was Great Britain trying to extend its Guiana territory to the west of the Esequibo River during the years 1810-1821, years in which Venezuela was fighting the independence war against Spain. In effect, British Colonials settled westward of the Esequibo River. After unsuccessful discussions between Venezuela and Great Britain, and the intervention of U.S. asking for an arbitration to solve the problem, the Arbitral Award of 1899 established the boundary in such a way that Venezuela lost a substantial part of its territory in the Guayana Esequiba. This Arbitral Award has not been accepted by Venezuela, claiming it was illegal [Ref. 11, p. 7].

In 1962 Venezuela reopened the issue and in 1966 signed with Great Britain the Ginebra Agreement in which both nations shall look for satisfactory solutions to the controversy. Later on the same year (1966) the British Colony won its independence and under the name of Guyana entered also into the agreement. After four years of negotiations no solution was reached and Venezuela kept its claims on the territory west of the Esequibo River (see (4) in Figure 2), Guyana did not accept the claim. In 1970 Venezuela, Guyana, and Great Britain signed at Port-of-Spain, Trinidad, the so-called Protocol of Port-of-Spain. The Protocol stated that no claim shall be made during the time of its force (12 years) by either country, Venezuela and/or Guyana. In the meantime both nations should explore all the possibilities to improve the understanding of them and their people.

C. SUMMARY OF FINDINGS

Venezuela has historically been a pacific nation in the international and regional content. The principles of national independence, security, peace and stability are treated as constitutional mandates. A respect for those principles seems to be part of Venezuela itself and of its people and governments. The existence of the Armed Forces seems to give the nation a sense of security not only in the regional scenario, which might be the primordial consideration, but internally.

The Venezuelan Armed Forces has played a significant role in internal security, particularly during the 1960s, and it might be expected to play the same role in the future, as long as it is legally required in the Constitution.

Venezuela's foreign relations after 1958 have been governed by these principles:

- (1) the right of people for self determination;
- (2) contrary to any form of colonialism;
- (3) peaceful settlement of disputes between nations;
- (4) the right of all people to peace, security and stability;
- (5) support of arms control, regionally and internationally as well;
- (6) use of primary products particularly petroleum to dignify exchange between industrialized nations and the less developed countries;

and

- (7) economic integration of the Latin American nations.

On the regional content there are obligations to a defense treaty, Rio Treaty, and on the international scenario Venezuela has clearly defined a democratic orientation as its own and preferred way of living. It repudiates acts of aggression but at the same time recognizes the need to defend its sovereignty and natural resources.

IV. MILITARY REQUIREMENTS AND THE DEMAND FOR ARMS

A. FORCE STRUCTURE

In the preceding chapter internal and external points were discussed under the national security and foreign policy headings.

Both missions, internal security and external defense, the latter being more a dissuasive strength, are determinants of the composition of the Armed Forces. The responsibilities of national defense, external and domestic, have constitutionally been delegated to the main three services: Army, Navy and Air Force. A fourth service, the National Guard, has specific functions in internal security, customs and forestry. This paper will not discuss the National Guard organization nor its military expenditures.

Table III page 93 delineates the estimated composition of the Venezuelan Armed Forces for the year 1975.

The force structure is included to provide a reference for discussing the military requirements and arms demand.

B. THE DEFENSE DECISION-MAKING PROCESS

1. The Military Requirement Process

Requirements related to the national defense have fallen under the responsibility of the Ministry of Defense through the autonomous services Army, Navy, and Air Force. Since 1958, when by decree of the Junta de Gobierno the Joint Chiefs of Staff was created, the Commanding General of each Service (Service's Chief of Staff) has been responsible for the "command, organization, administration, and instruction" of his own branch. Each branch budget was separated by chapters and all of

them plus the organization of the Ministry of Defense, which included the administration of common services (e.g., Military Engineering Service), were grouped under the defense budget.

The Superior Junta of the Armed Forces, an advisory group to the Ministry of Defense, according to law is consulted when acquisition of new armament is involved. The Junta is integrated by the Minister of Defense who presides over it, the Chief of the Joint Chiefs of Staff, the Commanding General of each Service, four Officers General or Superior (one for each service) as appointed by the Minister of Defense, the General Counsel of the Ministry of Defense, and the Director of the Service of Military Justice who acts as its secretary [Ref. 4, p. 46].

The final decision over military requirements rests on the President of the Republic. He acts as the Commander-in-Chief of the National Armed Forces and also as the head administrator of the public treasury.⁹ This key position also allows the President, under constitutional mandate, to establish the size of the Armed Forces.

2. The Resource Allocation Process

The President oversees the budget preparation and expenditures process as it develops in the different ministries.

During the budget preparation the Ministry of the Treasury might influence the relative size of national funds to be allocated to the public administration, including the military budget. That influence is a result of constraints such as limited resources and the president's

⁹ See Venezuela, Constitucion de la Republica de Venezuela, Article 190, Sections 3,4 and 12 (Presidential powers) [Ref. 66].

budgetary policy, and is done through the Council of the Budget.¹⁰ The council can object to the expenditures submitted by the Ministry of Defense first, by a detailed objection in writing and subsequently by reporting to the Council of Ministers for final decision concerning the presentation of the budget to Congress.

At Congress, the Finance Committee of the Chamber of Deputies is responsible of receiving and discussing the budget. Congress, particularly the Finance Committee, can alter the amounts in budgetary entries but it cannot authorize expenditures which exceed the total expected revenues for the fiscal year in discussion. Thus, Congress also is able to influence the allocation of funds for defense procurements.

Once the resource allocation process is completed an auxiliary body of Congress, the Office of the Comptroller General, has the functions of inspecting and auditing governmental income and expenditures and the operations related to them. The Comptroller General can object to any defense acquisitions on basis of contractual conditions but his objections are not binding on the Ministry of Defense or the President.

The Constitution does not allow expenditures by the National Treasury unauthorized in the Budget Law. The President might decree additional credit laws to the budget to cover expenditures unforeseen or other expenditures for which the initial allocations resulted insufficient, and as long as the National Treasury has the monetary resources to finance the respective credit. The decree for additional

¹⁰ An advisory body presided over by the Minister of the Treasury and formed by him and thirteen other members, two appointed by the Minister of the Treasury, and one by each other Minister, and others appointed by the autonomous agencies.

credits has to be voted at the Council of Ministers and has to be authorized by Congress in a joint session. The credits opened in each budget might not be used for expenditures that have not arisen during the corresponding fiscal year.

For example, in September 29, 1976 Congress authorized nineteen additional credits for a total of U.S. \$1,246,968,828 (5,426,716,273 Bolivares). Of these credits two corresponded to arms procurement: (1) to cover expenditures caused by construction of six frigates for the Venezuelan Navy, U.S. \$86,411,372 (370,704,593 Bolivares); and (2) to finance the credit agreement with the United States Government, U.S. \$2,103,066 (9,022,153 Bolivares) [Ref. 9, p. 6]. The authorization of those credits may have reflected additional and available resources coming from the increases in oil prices.

It becomes apparent that the allocation process for defense expenditures may be influenced by more than one organization after it has been initiated in the respective service and before being passed by Congress. Nevertheless, once the funds are allocated the decision of what to buy and where to buy is more a decision of the military service consulting as deemed necessary with the Superior Junta of the Armed Forces and ultimately the President.

C. FACTORS INFLUENCING THE MILITARY REQUIREMENTS

Military requirements are defined as "the need or demand for personnel, equipment, supplies, resources, facilities, or services by specific quantities, for specific periods of time or at specific time." [Ref. 80, p. 57] Those needs or demands are more or less satisfied depending on the national conditions existing at the time they are requested. At a particular time, some factors may favor the total fulfillment of the

Armed Forces' needs (e.g., external conflict, internal instability, military influence, etc.) even where other national sectors (education, welfare, etc.) have to be affected. On the other hand, at any other time different factors may act against the total satisfaction of the Armed Forces' demands (political, economic, internal stability, etc.).

As the military requirements of the defense establishment include the demands for arms and since this thesis is more concerned with the latter variable, it is necessary to assume that the mention to the former factor implicitly refers also to the demands for arms.

At this point, another assumption is to be made. Whether partial or total military requirements are satisfied, they will be fully represented by the defense expenditures corresponded to any particular fiscal year. Thus, in discussing the factors that influenced the military requirements during the period 1962-1975, the military outlays for the same interval would be assumed to be representative of the former.

1. Budgetary Policy

Under the budgetary policy, military requirements are viewed as the outcome of fiscal and planning processes at the national level and the necessary division of scarce resources among the services of the Armed Forces at the Ministry of Defense level. Of course, other factors such as military lobbying before the political groups which integrate the budget decision-making process, and competition between services, may well be implicit parts of that process.

If military requirements were satisfied just by following a routine and bureaucratic process year after year, then it is reasonable to expect that certain relationship would have existed between defense expenditures and government expenditures for the intervening period.

Both, military and government expenditures are shown in Table IV page 95

A simple regression analysis, using government expenditures as the independent variable (X axis) and defense expenditures as the dependent variable (Y axis) was computed. The scattergram is shown in Figure 3. The graph seems to indicate, that as government expenditures

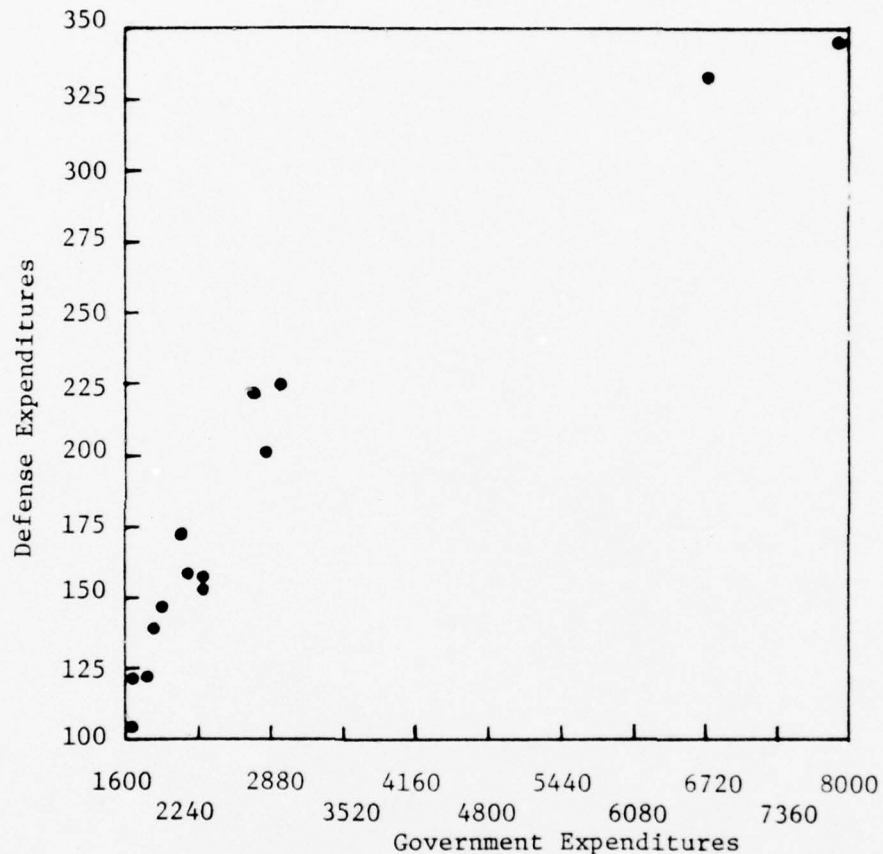


Figure 3. Scattergram of Defense Expenditures by Government Expenditures, 1962-1975. (In millions of 1970 dollars)

increased so did defense expenditures. The sample correlation coefficient r with a value of 0.95 points out that a relationship¹¹ between government

¹¹ The sample correlation coefficient r has always a value between -1 and +1 inclusive [Ref. 41, p. 279]. Like the population coefficient, an r close to +1 indicates a positive relationship and vice versa when r is close to -1. The relationship being stronger as closest the r is to either value.

expenditures and defense expenditures may exist. The dispersion of the two points at the upper right hand of the graph, may be explained with a look at the Table IV. As a result of the oil price increase in 1973 the national budget went up in 1974 and stayed at that level in 1975, actually there was a slight reduction. Because of the apparently positive association of defense expenditures with government expenditures the former also increased.

Nevertheless, the foregoing analysis using absolute values of defense expenditures, does not tell the reader how the increases were related to the level of other factors in the national budget. To account for those factors the changes in military spending as a percentage of government expenditures were computed.

From the data in Table IV, the regression analysis gave the scattergram shown in Figure 4, again government expenditures as the independent variable and defense expenditures as a percentage of government expenditures as the dependent variable. The dispersion of the points in the scattergram and the value of r , which dropped from 0.95 to -0.83, seems to indicate that the association existing in Figure 3 did not hold where defense expenditures were measured as a share of government expenditures. The correlation is probably overstated by the two outliers at the lower right hand of the graph.

The conclusion to be drawn from the first analysis is that the increase in government expenditures led to larger military expenditures only in the absolute value of money and also that both variables increased over time. According to the second analysis, changes in budgetary policy regarding the size of military expenditures were not substantial and decisively influential. The average military spending as a percentage of government expenditures was 7.01 percent.

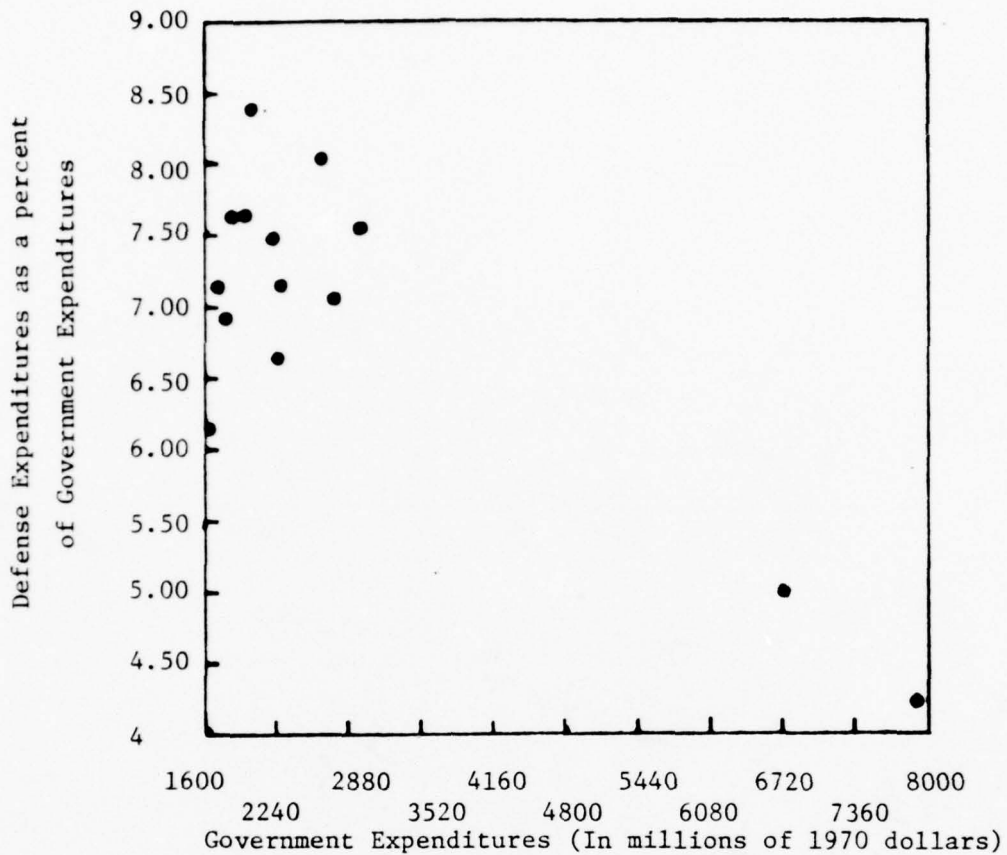


Figure 4. Scattergram of Defense Expenditures as a percentage of Government Expenditures, 1962-1975.

2. Economic Factors

The problem of national security might in theory be regarded as one big economic problem. The nation has certain resources: land, labor, and capital. These resources can be used to satisfy many objectives of the nation and its citizens; national security, improving standard of living, social security, economic growth, etc. These are, of course, competing objectives [Ref. 20, p. 3]. National policy, being the apex of the triangle to which economic policy, foreign policy and defense policy provide the base, shall determine the orientation of the national resources.

It is also assumed that the state of a nation's economy has always been a controlling factor in the size and shape of its Armed Forces.

O'Leary and Coplin included in their factors for analyzing the patterns of Latin American military expenditures, the economic conditions within the Latin American nations [Ref. 43, p. 114]. Schmitter found strong evidence supporting the existence of a close association between total economic resources and the level of domestic defense spending in Latin America [Ref. 45, p. 151].

Thus, it becomes apparent from the above studies that countries with less restrictive constraints in their economic output shall allocate a substantial portion of it to defense expenditures.

Before depicting the simple regression analysis, it seems appropriate to define the economic factors (constraints) influencing the nation's military strength. The GDP concept is preferred over the other known factor of national income, gross national product (GNP). Both are widely used, but perhaps the former, according to the literature, has been more frequently used when Latin American economies are involved. GDP seems to be more representative of the value of national production, free of duplication, than GNP.

The model used in evaluating the relationship of government expenditures and military expenditures is, again used with GDP and defense expenditures. Here, an assumption that GDP and government expenditures are not the same measure is necessary. Even, where a regression analysis between the two variables, GDP vs government expenditures, shows a strong correlation $r = 0.97$ (See Figure 5), both values represent

In the graph of Figure 6, the values of GDP (independent variable) and defense expenditures (dependent variable) are plotted on the X and Y axes respectively. The correlation between the variables is positive, with a r of 0.98. From the figure it may be inferred that the increase

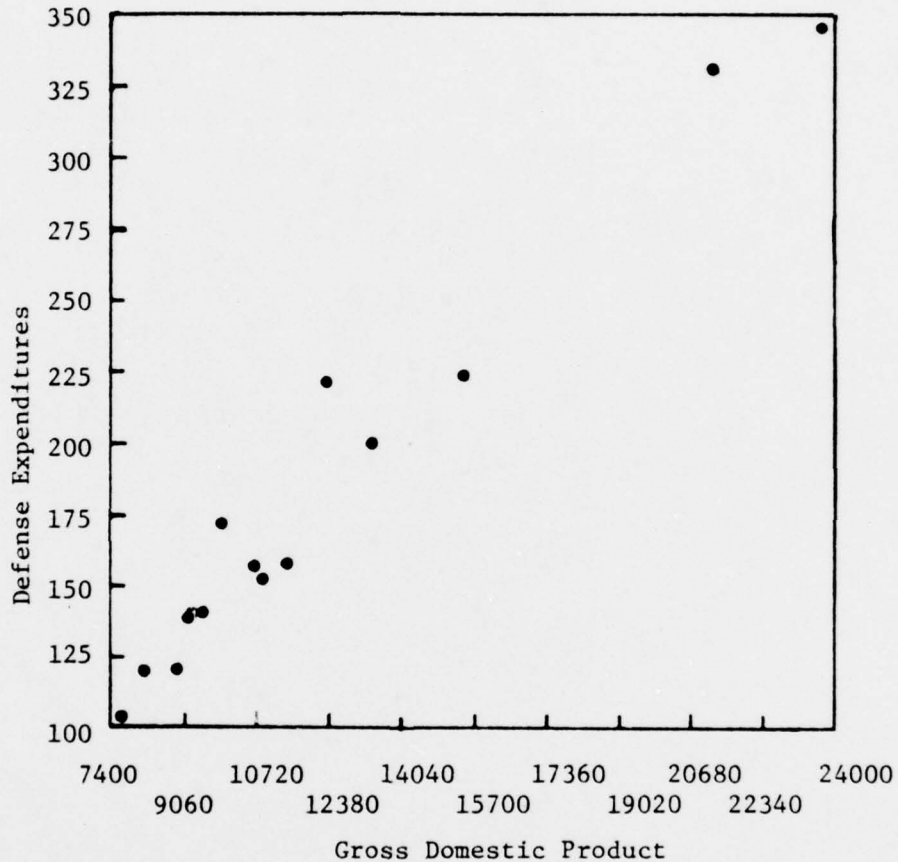


Figure 6. Scattergram of Defense Expenditures by Gross Domestic Product, 1962-1975. (In millions of 1970 dollars)

of GDP, during the period, led to an increase of military spending in dollar value. This positive relationship seems to be stronger, in terms of r^2 (0.96247 versus 0.90626) than the one of government expenditures and defense expenditures.

According to the foregoing analysis, fluctuations in the national economy have been a better determinant of absolute variations in defense

spending than the national budget, even where both seemed to have a similar constraining effect.

To complete the evaluation of relationship between GDP and military spending, it is necessary to analyze the effect of the fluctuations in the economy over the military requirements when the latter variable is measured as a percentage of GDP.

In the scattergram of Figure 7 the X axis, again represents the independent variable GDP and the Y axis represents defense expenditures as a percentage of GDP. The graph indicates that both variables were

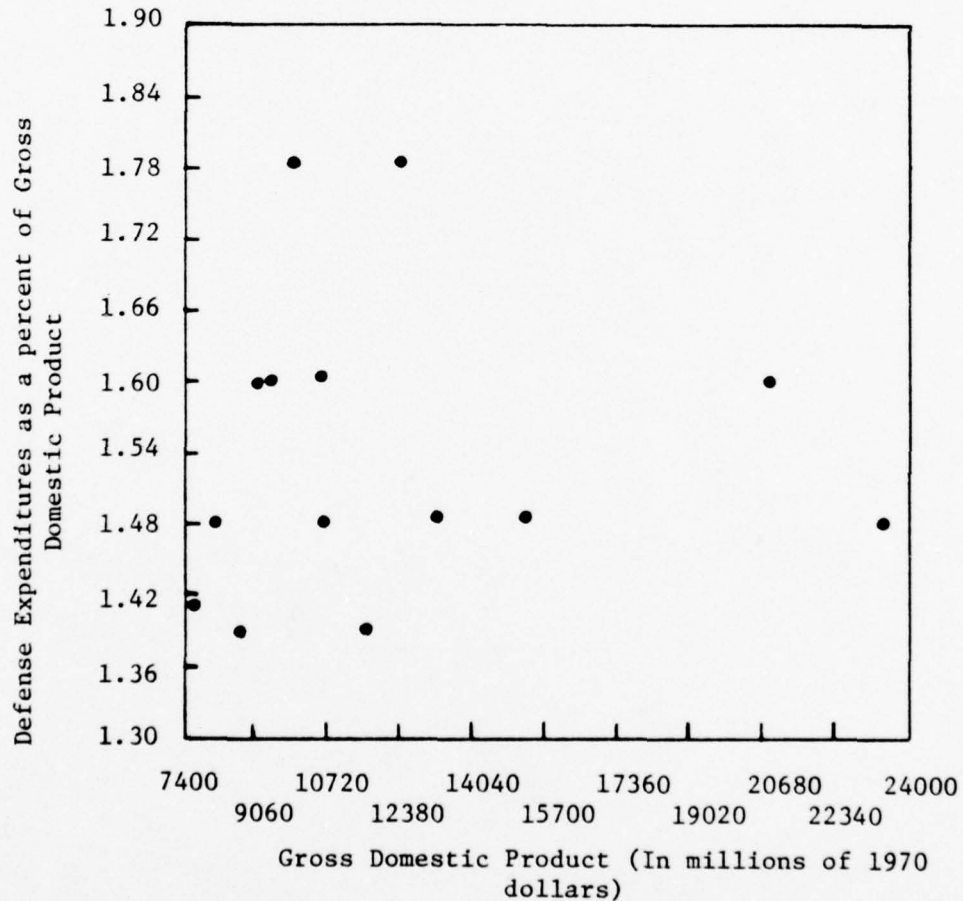


Figure 7. Scattergram of Defense Expenditures: as a percentage of Gross Domestic Product, 1962-1975.

independent. The sample correlation coefficient r is 0.0355 and the value of the slope (B) 0.00.

It becomes apparent that the economic conditions of Venezuela during the interval 1962-1975 did not have a significant influence over the defense expenditures when the latter was defined as a share of GDP, and thus taking into account other sectors at the national level.

Regarding the relationship of the economic factors with military requirements, it becomes apparent, as it was expected, that increases in the former sector corresponded with increases in the latter. There is no indication that the share of defense spending out of GDP was affected by the variations in the national economy. As an average, the share was 1.54 percent.

a. The Oil-Producing Nations and Their Defense Expenditures

The oil price increase in 1973 had a tremendous impact on the Venezuelan economy. The GDP increased from \$ 15,373 million in 1973 to \$ 23,574 million in 1974, a 53.4 percent increase.

The oil-producing nations, with sudden surpluses of foreign exchange, did not behave in a similar fashion. Some Arab nations were spending huge amounts of petrodollars in military hardware, each one under its own national policy. An author said that the oil-producing nations "...touched off a seemingly endless race to obtain the most sophisticated armament available in the world." [Ref. 39, p. 5] Whether the statement is applicable to all the OPEC nations is a question beyond the scope of this thesis. Nevertheless, an illustration with available data of four OPEC nations and two non-OPEC nations is provided below:

Military Expenditures and GNP
for Six Selected Nations, 1975

In millions of 1974 dollars

Country	Military Expenditures	Gross National Product (GNP)	Military Exp./GNP
Brazil	\$2,230	\$101,000	2.2%
Colombia	151	12,400	1.2
Ecuador*	68	3,650	1.9
Iran*	7,100	47,700	14.9
Saudi Arabia*	1,600	25,100	6.4
Venezuela*	493	27,300	1.8

*OPEC MEMBERS.

Source: U.S. Arms Control and Disarmament Agency [Ref. 61, pp. 22, 25, 27, 33, 45, and 52].

From the graph it is difficult to say, at least normatively this or that nation was spending more resources in military hardware than it should be. Each nation has its own national policy which is supposed to be the core of the foreign policy, the economic policy and the defense policy, established by its government.

In Venezuela's case, the Armed Forces because of the oil price increase spend more resources in 1974 and 1975 than it had spent in the period 1971-1973. It is very likely that part of those resources were used to pay already committed funds under credit purchases and to acquire replacements for aging material.

3. Political Factors

a. Military Influence

In 1977, Venezuela was one of the few civilian democracies still existing in Latin America. Since 1959¹², four civilians had constitutionally been elected by the people.

Much of the literature about military spending and arms acquisition in Latin America makes mention of military influence over the decision makers in order to gain supporters and thus facilitate the acceptance and approval of military requirements, particularly for arms procurement. The reasons for that tendency may be, in the proliferation of military governments and, when a civilian government exists, the general belief that the civilian administration will please the military planners with the sole purpose of keeping them out of politics [Ref. 32, p. 161].

There is no evidence that a strong military influence existed in Venezuela during 1962-1975; O'Leary and Coplin in a study of the six Latin American spenders, which included Venezuela, for 1960-1970, found no consistent variations in military spending with different roles of the military [Ref. 43, p. 121]. It is quite interesting, what another author said in 1968, about the involvement of the Venezuelan military in politics:

Today, the great majority of officers have realized there is much to be gained, both individually and institutionally, by moderation and obedience. Many examples could be offered from the experience of the last ten years that patient lobbying has produced the same results as threat or golpe, in terms of the advancement of military interests, and that it has done so with less trauma and often with more speed [Ref. 50, p. 70].

¹² After the fall of the military government in 1958, elections were held in the same year. The new civilian administration took office over in 1959.

In 1976, the Venezuelan President pointed out that the Armed Forces were an example of institution using stability, esprit de corps, and disciplined behavior, to improve their activities, which are fundamental for the nation [Ref. 29, p. 6].

Recently, there has been a trend towards the association of the Armed Forces with national development. In the 1974 Budget Law under the chapter corresponding to the Ministry of Defense, the Military Engineering Service (Servicio de Ingenieria Militar) justified its requirements for that year with the following statement:

Venezuela's development is a direct cause of the Armed Institution's growing, which demands for each final year greater budgetary resources. Over the last years the Engineering Service besides its specific functions has developed civic action activities in fulfillment of goals previously established by the Ministry of Defense [Ref. 67, p. 35].

In 1975, the President noted that the Air Force was an example of the Armed Forces' modernization. The Air Force's behavior he stated, was projecting itself beyond its military duties to become a firm supporter of the nation's integral development [Ref. 28, p. 69]. Thus, it becomes apparent, that any military influence was due more to the normally accepted lobbying and/or marketing through which the Ministry of Defense and the respective services had to conduct if they wanted to see their specific requirements.

Putting together pure missions and civic action functions seemed to be an approach increasingly used to justify some programs. It was particularly important at a time when the concept of intergral development seemed to be adopted.¹³

¹³ The concept of integral development involved the active participation of all national sectors, including the military, in the nation's development.

b. Internal Security

Venezuela in the early 1960s, as it was cited in the preceding chapter, had to deal with internal insurgency, coming from both military dissidents and communist guerrillas, the latter being primarily motivated by the Cuban government.

Thus, it would be reasonable to assume that military requirements and arms acquisition from 1962 to 1968 should have reflected the existing domestic situation in at least two major items:

- (1) training of military personnel in-country and in foreign nations, particularly the U.S., in counterinsurgency tactics; and
- (2) procurement of arms with main or side application in permissive counterinsurgency operations.

The first item will not be covered in this study. An attempt would be made to depict the acquisition patterns of the second item.

Since an increase in defense expenditures would be expected under the assumptions above made, a graphic illustration shall serve to point that out. Figure 8 shows the trends in military spending for Venezuela during the period 1962-1975. Drawing a divisory line through the year 1968 leaves, the left hand of the curve in Figure 8, as the zone corresponding to the period of internal insurgency in Venezuela (1962-1968). According to the graph defense expenditures increased from \$106 million in 1962 to \$ 172 million in 1967. In 1968, military spending dropped to \$ 164 million. This decrease could be an indication of lesser internal insurgency.

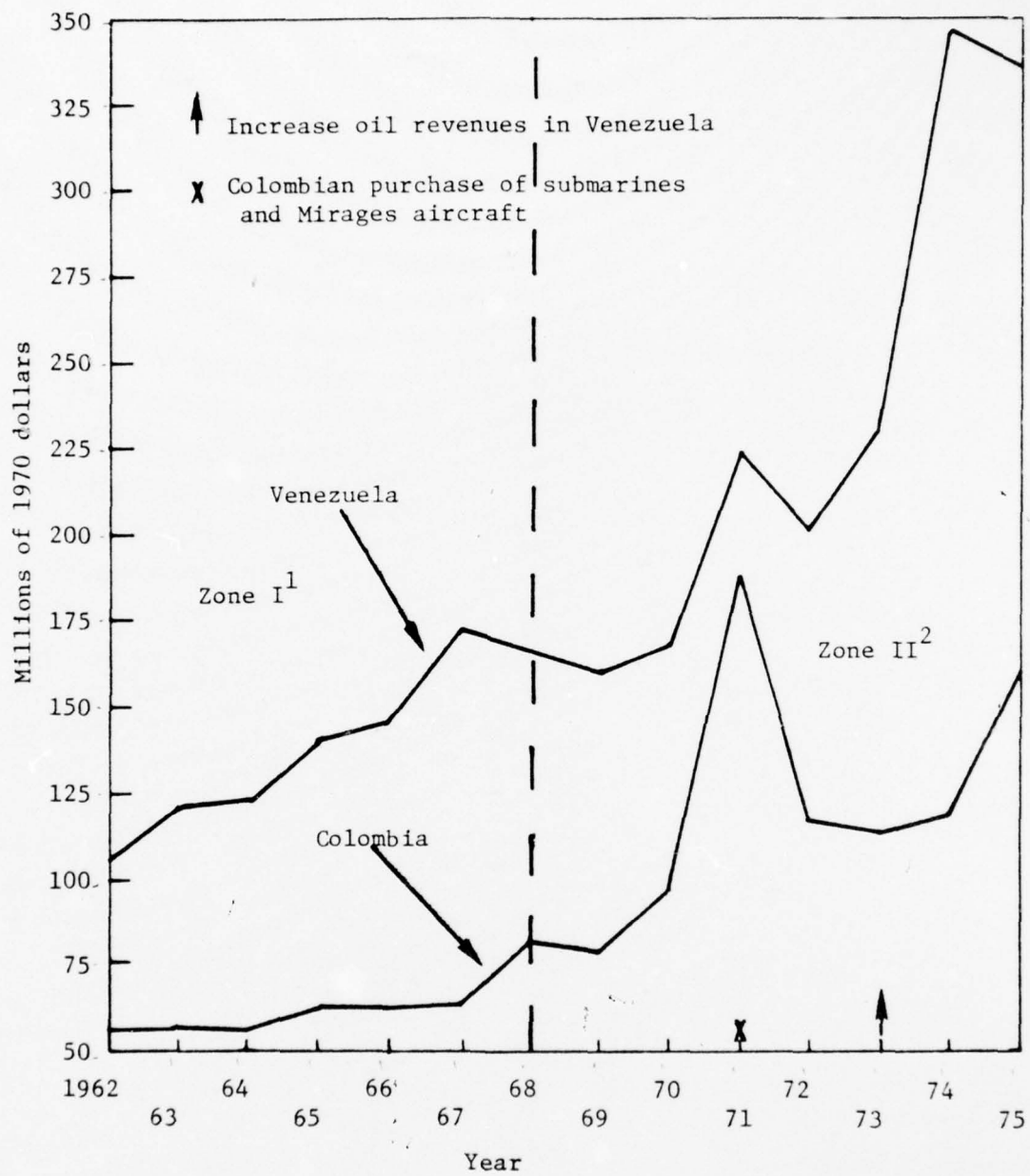


Figure 8. Trends In Defense Expenditures: Venezuela and Colombia, 1962-1975.

- 1 Internal insurgency in Venezuela.
- 2 Trends to external defense.

Source: See Table VI.

According to secondary sources, Venezuela received in arms transfers an estimated \$ 41.81 million for the 1962-1968 period, see data below:

Value of Arms Transfers to Venezuela, 1962-1975.
(In millions of 1970 dollars)

YEAR	\$	YEAR	\$	YEAR	\$
1962	5.1	1967	10.6	1972	59.1
1963	6.7	1968	3.2	1973	79.7
1964	5.5	1969	3.1	1974	68.5
1965	3.3	1970	3.0	1975	27.4
1966	7.4	1971	19.4	--	--

Source: Figures converted to 1970 dollars from: (1) 1962-1964: U.S. Arms Control and Disarmament Agency [Ref. 60, p. A-8]; and (2) 1966-1975: U.S. Arms Control and Disarmament Agency [Ref. 61, p. 75].

Thus, out of \$ 974 million corresponding to military outlays for the period 1962-1968, an estimate \$ 41.8 million went to arms procurement representing a 4.3 percent of total aggregated defense expenditures for the same period. The relatively small investment in military hardware during a time of internal insurgency indicates that the increase in military requirements was due more to other programs, such as: (1) civic action; (2) constructions; (3) training; (4) salary increase; and others.

The number of major weapons system transferred to Venezuela during that period, was not an indication of any major build-up of inventories. In terms of type of weapons during the 1960s, the emphasis was on helicopters (29) light armored cars (15), trainer aircraft (12) light bombers and reconnaissance aircraft (14), and combat aircraft (74 F86Ks, of which 36 were assumed to be operational).

Most of those systems were considered to fall into what has been described as a most preferred category for permissive counterinsurgency actions [Ref. 31, p. 319]. The Navy acquired its second ex-U.S. submarine in 1965 while the remaining Navy transfers were of the auxiliary type ships including some under loan agreement with the U.S. The Navy mission was focused in protecting the Venezuelan coast against external intrusion.

For the period 1969-1975, no discussion will be made about the influence of internal insurgency over the military requirements, the assumptions made earlier did not consider any significant internal insurgency for that interval. The graph in Figure 8 shows a decrease in military outlays in 1969 with a slightly increase in 1970. The increase in military spending started in the early 1970s would be treated in the next two sections.

4. External Factors

Venezuela and Colombia have frequently been cited as potential arms rivals, although not the only rivals, in Latin America.¹⁴ One study pointed that rivalry out by saying implicitly that "...the major South American armed forces perceive possible external conflicts with their neighbors, and seek some preparedness for conventional operations along their national frontiers and in defense of territorial waters." [Ref. 10, p. 27].

¹⁴ See Laurance, E. J., Arms Transfers and Influence in Latin America: 1961-1973, paper presented at International Studies Association, Annual meeting, Toronto, February 25-29, 1976, and Weaver, J. L., "Arms Transfers to Latin America: A Note on the Contagion Effect," Journal of Peace Research, v. XI, No. 3, pp. 213-219, 1974.

Terms such as: regional balance, arms race, and imitation are among the most used to suggest the arms acquisition behavior of Latin American countries.

The arms suppliers have perhaps been the most interested group in the open discussion of subjective hypotheses concerning the arms acquisition patterns of the Latin American nations. If the arms sellers' interest is to sell weapons then, a productive approach (for them) would be that of motivating arms acquisition through expressions such as "...arms sellers are actually salesmen of security." [Ref. 40, p. 14] Defenders of arms transfer say that the military balance in any geographical area makes adventurism less likely. They maintain that more wars would result if one nation were allowed to grow much more powerful than its neighbors [Ref. 40, p. 17]. The latter hypothesis is generally accepted as valid.

In 1975, Venezuela had not yet resolved boundary controversies with two neighboring countries, Colombia and Guyana. No military incident had been reported between Venezuela and its two neighbors. Nevertheless, in the early 1970s national and international press were openly speculating the controversial delimitation of maritime waters of Venezuela and Colombia.

A visual representation, shown in Figure 8, of the defense expenditures of both nations shall serve to illustrate how their trends looked for the period 1962-1975. The first conclusion to be drawn from the graph is that Venezuela spent more dollars in defense than Colombia did, and second, while the difference of military spending was about constant until 1972, it opened widely in 1973, the year in which Venezuela increased its oil revenues. From there on it may be expected

that the Venezuelan military expenditures would be greater than the Colombian, as a result of greater resources.

In 1971 Venezuela and Colombia had a noticeable increase in military outlays. Colombia had ordered two German submarines and 18 French Mirage fighters to be paid over 9 to 10 years [Ref. 19, p. 25]. In Venezuela, the increase was mainly because of the purchase of 16 OV-10 Bronco aircraft, 4 C-130 transports, and 12 Cessna 182 light transports.

If Venezuela in 1971, was influenced by the Colombian acquisition of the Mirages then, a rational behavior would have been, to try to balance that air power. By late 1971, Venezuela ordered 15 Mirages (III/5) with delivery date for 1973-1974 [Ref. 37, p. 19]. This purchase was a consequence of one or more of the following factors: (1) to balance the Colombian air power; (2) to replace the old F-86K squadron; and (3) regional air balance; in 1972 four of the Latin American big six had supersonic fighters Argentina, Brazil, Colombia and Peru.

The trend in defense expenditures observed from Figure 8 does not indicate a reaction by Venezuela after the increases in the Colombia's spending in 1968 and 1971. The military spending in Venezuela went down until 1969 from a high peak in 1967 and also decreased in 1972 from a high in 1971. From 1973 on the increases have corresponded to greater available resources.

The remaining major military equipment acquired by Venezuela during the period indicated as Zone II in Figure 8, was represented by: medium tanks, self-propelled guns, trainer aircraft, intermediate fighters, ex-U.S. destroyers, ex-U.S submarines, fast patrol boats, and ex-U.S. transports.

Much of that hardware was suitable for either external defense or internal security missions. The Navy was increasing its ASW and coastal

patrol capabilities, while the Army and Air Force were renovating their inventories. The aggregated expenditures in arms imports for the period 1969-1975 were in the order of \$ 260 million. This amount represented 15.6 percent of total military outlays for the same period, and an increase of 522 percent over the value of arms transfers between 1962 and 1968, see Table in page 54.

Based on internal and external factors (internal security and a minimum deterrence capability) Venezuela invested, in arms imports, an estimated \$ 302 million for the time period 1962-1975.

5. Logistic Factors

a. Technical Capability

Because of the existing international flow of weapons, the less developed countries are able to afford types of armament which they are unable to produce [Ref. 27, p. 94].

Venezuela is one of those nations. Its ample national resources have facilitated the procurement of modern and intermediate conventional weapons, thus responding to the Armed Forces' needs. At the same time the Venezuelan Armed Forces have been developing rigorous training programs to adapt to the complex technology that normally accompany those systems.

The Ministry of Defense and the military services have emphasized and have given priority to personnel development. The implementation of that policy has been carried out in service schools, particularly for petty officers and enlisted personnel, and postgraduate schools. In 1973, a common postgraduate institute was created and is under the jurisdiction of the Minister of Defense thus, grouping already existing schools of the Navy and Army.

Personnel development in the Armed Forces has been an important aspect of the logistic support of modern military equipment. This is particularly crucial when the user of that equipment is a nation that imports all of its major military equipment.

The acquisition of a new weapon usually requires training a group of people in order to acquire the skills to operate and maintain, up to certain levels, the system. To keep a major weapon in operational condition is expensive and absorbs a large quantity of skilled manpower.

The personal contact of the Venezuelan military personnel with foreign military schools particularly in the U.S., and at the factories of the foreign suppliers is being developed as a valuable technical asset. Thus, trained personnel capable of carrying on the technical operations which are called for, become part of the process or system which is being transferred. This may come to constitute the creation of human capital, the knowledge embodied in the people.

The demand for modern weapons seems to be related to a sense of technical capability within the Armed Forces. Since the early 1950s the Venezuelan Armed Forces have been advancing in levels of sophistication applied to its arms procurement. In little more than 20 years (1950-1975) the military services have come through several generations of weapons systems.

In 1975, each service possessed, at least, one weapon representative of one of the last generation of medium price items e.g., Mirages III/5 (fighter and trainer); AMX-30/155 (armored fighting vehicles and howitzers); and fast patrol boats armed with Otomat missiles. In 1975, the Navy ordered six frigates to be built in Italy armed with Otomat missiles [Ref. 54, p. 96] and in 1973 ordered two new conventional submarines from West Germany [Ref. 53, p. 93].

b. Generational Obsolescence

Even, when the Venezuelan Armed Forces in 1975 possessed some modern and relatively new weapon systems it also had in its inventory materiel which was already obsolete. The services, trying to do the best with the available resources, normally operated and maintained their inventories to the latest possible time.

The attempts to maintain, or just keep in an acceptable state of readiness, obsolescent weapons, created economic and logistic constraints. The possession of military hardware already discontinued by the original manufacturer or phased out by the foreign military service, in cases of used material, and whose life cycle has been prolonged more than the expected economic life, has frequently been a burden for the Armed Forces.

If, to the burden of obsolescence, one adds the lack of standardization or the extensive diversification in designs of weapons destined for the same purpose, and the requirement for different types of spares, and ammunition, then the economic and logistics problems simply multiply.

The high costs and logistics constraints of operating obsolescent equipment and at the same time the high costs for highly sophisticated new weapons have motivated two kinds of military planning: (1) to prolong, with the available resources, the life of the existing hardware; and (2) to replace aging and obsolete materiel by medium price weapons and of appropriate military value.

As for instance, during the period 1962-1975 the Navy implemented two replacement decision, 6 new fast patrol boats and 2 new submarines were to gradually replace the old ex-U.S. patrol boats and submarines. In 1975 the Navy had initiated the replacement of the 1950s English

and Italian destroyers with an order for production of 6 frigates to Italian shipbuilders.

Technical capability of the military personnel and generational obsolescence were considered to be the most relevant logistic factors influencing the military requirements in the period 1962-1975.

D. SUMMARY OF FINDINGS

An overview of the composition of the military establishment in Venezuela in 1975, indicates the presence of weapons that had been transferred into the respective service during the period 1950-1961. Also, it is noticeable the presence of modern intermediate weapons and some advanced ones as well. This mixture of weapons, not only in their generation but also in their source suggest the kind of problems a nation that imports all of its arms must confront and solve if it wants to keep its military forces at an acceptable level of readiness.

According to the regression analyses, both GDP and government expenditures were positively associated with the size of the defense budget. Where GDP and government receipts were expanding, expansions in the allocations for defense expenditures and arms procurement also occurred. The same reasoning did not hold where the military spending was analyzed as a share of GDP and of government expenditures. The low key figures representing the averages of the latter association as well as the total aggregated value of arms transfers during the intervening period, do not show that the acquisition of new or used weapons was detrimental to the growth of the civilian economy.

The availability of greater resources beyond 1973 had facilitated the replacement of aging and obsolescent military hardware, particularly

within the Navy. Nevertheless, it becomes apparent that Venezuela was not engaged in any arms inventory build up, other than replacing old materiel once more resources became available to the nation and in turn to the Armed Forces.

That pattern in arms acquisition was consistent with the foreign policy of arms control, which Venezuela was promoting, without debilitating the national defense position.

There was not strong evidence that Venezuela, during the period 1962-1975, designed its arms acquisition programs after the arms transfers' pattern of regional or neighboring nations. While the Mirages acquisition seems to negate the foregoing statement, the purchase of the same supersonic fighter (same brand name) might be, more of a consequence of availability of suppliers willing to sell that kind of weapon, than an imitative behavior.

Perhaps, the most influential factors in the demands for arms were the logistic factors. The increasing technical capability and professionalism of the military encouraged the procurement of modern, prestigious and advanced weapons which were supposed to replace the old materiel kept in inventory for more than two decades. Finally, while some of these factors facilitated the purchases from the international suppliers, others acted to constrain potential monetary allocation for arms procurement.

V. THE SOURCE SELECTION PROCESS
AND THE ARMS SUPPLIERS

The arms supply business is fraught with ideology, concepts of political influence, debates over militarism, and commercial pressures [Ref. 10, p. 45]. At least, that is what it seems to be according to the available literature about the international arms trade.

There are a number of different policies which govern the supply of weapons from different countries. Each policy represents a varying mix of rationales, a mix which reflects the position of the supplying nation in the international system [Ref. 46, p. 17]. For instance, a political rationale may be behind the policy of the U.S. when it supplies sophisticated conventional weapons to less developed nations in the Middle East (e.g., Iran and Saudi Arabia), and at the same time limits the access of certain intermediate arms to Latin American nations.

Each arms supplier has its own policy, whether it is based on political, economical, or ideological considerations. At times, that policy may be related to collective restrictive measures (embargos) agreed upon in international organizations or even to informal understandings among supplier countries.

Therefore, the arms supply rationale is going to have some impact on the source selection policy (formal or informal) adopted by the buyer or recipient. Because of that, it becomes apparent that nations like Venezuela, with almost no indigenous production of military hardware and therefore dependent on foreign suppliers to satisfy its defense requirements, need to have a firm and formal source selection policy. A firm source selection policy shall strengthen the negotiation position

of the arms recipient with the arms suppliers. Venezuela has, since 1975, formalized its policy concerning the acquisition of weapons systems and major military equipment.

A. THE SOURCE SELECTION PROCESS

Source selection is defined as "the process wherein the requirements, facts, recommendations, and government policy relevant to an award decision in a competitive procurement of a system are examined and the decision is made." [Ref. 7, p. 259]

The 1975's Ministry of Defense regulations for the source selection process of weapons system, requires that in order to select a contractor, the buying military service shall make formal evaluations of the proposals in the following areas: operational, technical, and financial. Evaluations of proposed weapons system are made by three separate Evaluation Committees named by the Commanding General of the Service. The committee members, both, civilian and military officials, are from the functional organizations involved in procuring the weapon system.

Each evaluation is given numeric factors according to a set of criteria established by the committees before the offers (proposals) are called for. The Financial Committee prepares a final report in coordination with the other two committees. The final report is made in terms of cost-effectiveness for each alternative and presented to the Commanding General of the Service.

The Commanding General of the Service, involved in the acquisition program, is the authority responsible for the decision over the selection of the proposal [Ref. 4, p. 182]. Nevertheless, he needs the approval of the Superior Junta of the Armed Forces [Ref. 4, p. 47] and, of the President of the Republic when it is believed that the program has economic

or political implications. If any controversy over the selection of a weapon system arise, at the decision stage of the source selection process, the President is invested to take a final decision [Ref. 4, p. 35].

A negotiation process begins, after the potential source is selected, between the buying service and the contractor. This process finishes when a contract, legally binding on both parties, is accorded. A third government organization enters the negotiation process with particular interest in the financial arrangements. Representatives of the Ministry of the Treasury are present at the time the terms of the contract are discussed. Also, as was mentioned earlier, Congress must approve any allocation of funds or agreements which effect the national treasury in future fiscal years.

The type of military procurement in which the Armed Forces are most involved, is the denominated "production program." This category of procurement corresponds to items or systems already developed by the industrialized nations but not available in stock. It is assumed the arms industry do not produce major items for exports without purchasing orders. The higher costs required in the production of a weapon system represent too much risk for a firm to manufacture it with no customers. This is one of the major differences with the commercial world, besides the source selection procedure itself.

1. Solicitation of Offers

The administrative office in charge of screening potential contractors is normally one concerned with the logistics support, at headquarters level, within the buying service. The officials involved in this stage of the source selection may or may not be members of the Evaluation Committees.

The screening of contractors is made before the offers are solicited from the contractors whose participation has been approved. It is the Ministry of Defense policy to call for (arms acquisition) the most number of contractors (firms) that are considered "responsible" (aptos) that is, capable of fulfilling the terms of the proposed procurement contract. This policy presumes, under such screening, that those contractors who constitute themselves just for occasional business and those who have failed in past performances, would not be present at the final list.

Other factors considered in screening the contractors are, in priority:

- (a) legal status;
- (b) integrity;
- (c) experience in producing the type of weapon to be procured;
- (d) quality of work;
- (e) past performances;
- (f) qualitative and quantitative availability of human resources;
- (g) labor-management relationship;
- (h) market stability;
- (i) cooperation with the customer; and
- (j) political conditions at the home-based nation.

The Commanding General of the Service approves the final list of contractors to whom official solicitations are issued. The solicitation contains basic information related to the operational and logistics specifications of the weapon system to be acquired and, based on the theoretical model approved by the Commanding General of the Service. The degree of accuracy and comprehensive or detailed definition of the equipment required is quite significant when dealing with arms suppliers.

Besides the basic information mentioned above the solicitation contains:

- (1) the pre-definition of contract;
- (2) set of criteria to be used for the evaluation of the proposals and their relative importance, in general terms; and
- (3) other administrative data.

Because Venezuela relies heavily on foreign military technology it utilizes its embassies (military attache) in the procurement process. Also, solicitation of offers may be requested through foreign firm representatives in Venezuela and foreign embassies in Venezuela. In the latter case, the marketing strategy of the arms seller may play an important role in divulging the available military technology.

When the offers are received, they are taken into consideration by the Commanding General of the Service for a preliminary analysis and a first decision stage: to continue with the evaluation or to reformulate the solicitation of offers.

Thus, it becomes apparent that the Venezuelan Government wants more competition at the time of acquiring new weapons not only to have more alternatives to compare but also to have more opportunity to negotiate reasonable deals for the national treasury. Of course, it may happen that where no competition exists the contract negotiations are made on a sole-source basis.

2. A Comparison with the United States Model

The source selection model adopted by the Venezuelan Armed Forces is similar, to some extent, to the model used by the U.S. Armed Forces. The latter is described by Fox [Ref. 7, pp. 259-285].

The extent of similarity, the author wishes to highlight, refers to the rationality of the whole arms acquisition process which is the goal of the Venezuelan military decision-makers. The adoption of a rational policy for the source selection process that complements the first two stages of the arms acquisition process, the needs for arms and the determination of requirements, give the Venezuelan Government some kind of shelter against the diverse policies and interests existing in the international arms trade and obviously a sound decision-making process.

Both models, the U.S. and the Venezuela's, implicitly have as a main objective the acquisition of the desired system under reasonable terms for the government. Also a desire for including more people within the decision process motivates the specific procedures.

While most Venezuela's arms acquisitions are of the production program type, in the U.S. the source selection is well used for both programs, development and production procurements. This is a natural consequence of being a world power and because of the characteristics of the U.S. arms industry.

One last observation on the Venezuelan model as compared to the U.S. model, is that the former does not include a weighting criteria for the three areas of evaluation, that means the relative importance of one area over the others (e.g., technical: 50%; operation: 30%; and financial: 20%).

B. THE ARMS SUPPLIERS: A BACKGROUND

As it was said earlier, the arms suppliers policies may have some kind of influence upon the arms recipient policy. This influence may last as long as and until, (not in all cases) the arms recipient does

not have a self-sufficient domestic military production. Even in this case, the industrialized nations have control upon the production equipment, which sometimes is more expensive than the weapon itself. They have also the right to license the technology to whoever they wish to and under conditions which may require more than the recipient is willing to give such as excessive royalties and economic concessions.

In the early part of the century, the international arms trade was principally in the hands of private manufacturers and dealers. The degree of governmental interest in this business has subsequently increased very sharply. Today virtually all conventional arms transfers are transacted on a government-to-government basis or are otherwise controlled by the governments of supplier and recipient nations [Ref. 60, p. 25].

Governmental controls over arms transfers vary widely from country to country. All governments impose some control and all military exports require government permission. Not only do governments generally control the defense industry, either through ownership or by virtue of their monopsonistic position, but they also bear a large share of the responsibility for organizing and promoting the exports of arms [Ref. 46, p. 4].

In 1975 the two major arms suppliers were U.S. and the Soviet Union with both having a share of 76.6 percent of world total arms transfers for that year. The U.S. being the leader with 49.8 percent of the world total.

Over the time period 1966-1975 a noticeable expansion in arms exports has been observed by some suppliers nations (non-communist) other than the U.S. and the Soviet Union; Italy: 20 percent; France:

18 percent; United Kingdom: 15 percent; and the Federal Republic of Germany: 10 percent. For the same period, France was the third large arms exporter, after U.S. and the Soviet Union, with \$ 3.2 billion [Ref. 61, p. 63].

On a broader scale the international resurgence of economic and political multipolarity has naturally stimulated the shifts in the supply and demand patterns [Ref. 10, p. 22]. For the developing nations, particularly Venezuela, it has been accompanied by the resurgence of more alternatives for the arms trade.

C. THE ARMS ACQUISITION PATTERNS: 1962-1975

1. Domestic Military Production

Venezuela relies heavily on foreign sources to satisfy its needs for arms and military equipment. Its indigenous military production has been limited to ammunition for small arms, production barely enough to satisfy internal demands.

In 1976, Venezuela began a first step in the attempts to develop a small domestic military industry. A recently created autonomous agency, under the jurisdiction of the Ministry of Defense (Compania Anonima Venezolana de Industrias Militares) received \$ 5 million of a estimated total of \$ 42 million to be allocated to the agency in three years. The short-range objectives of the agency are as follows:

- (1) to satisfy the national demand of ammunition caliber 7.62 mm, and 9 mm.
- (2) to develop the production of powder needed for the ammunitions domestically produced.
- (3) to promote national production of material related to the military industry [Ref. 74, p. V-E-9].

Besides this decision of getting into the ammunition and explosives business, it is very likely that Venezuela will enter into coproduction of helicopters with an Italian manufacturer through the government agency responsible of promoting the aeronautic industry. Also, coproduction ventures with Italy may be expected to occur in small naval constructions. No major coproduction deals are expected within the domestic arms industry.

It is clear that for the government, other sectors have higher priorities and that the efforts to develop a "real" arms industry shall wait for better times.

To develop a valuable arms industry requires enormous initial investment, availability of highly trained human resources, and existence of an able industry related to the military (e.g., electronics). Even having those resources the production costs when, only limited demands exists, may be prohibitive for an industry that requires economics of scale. The government, therefore, is taking a rational and conscious approach on the question of domestic military production.

2. Arms Imports Trend

Venezuela, since the early 20th century, has kept amicable foreign relations with the free industrialized world. This policy has permitted valuable foreign inputs for the nation's military sector, which substitutes for the lack of domestic military production.

Thus, by means of international trade, Venezuela has gained access to foreign military technology through the import of weapons. Similarly, Venezuela has received technical assistance from abroad which has meant new valuable administrative skills for the national military e.g., by means of: U.S. military advisers; military overseas training not only in the U.S. but also in Europe and South America.

Technological, administrative and economic resources imported from abroad are not, of course, strictly part of a nation's military potential. But they add to its military strength, and the ability to get such resources from abroad may be regarded as part of a nation's potential [Ref. 27, p. 31].

Venezuela's trend in arms imports for the period 1962-1975 are shown in Figure 9.

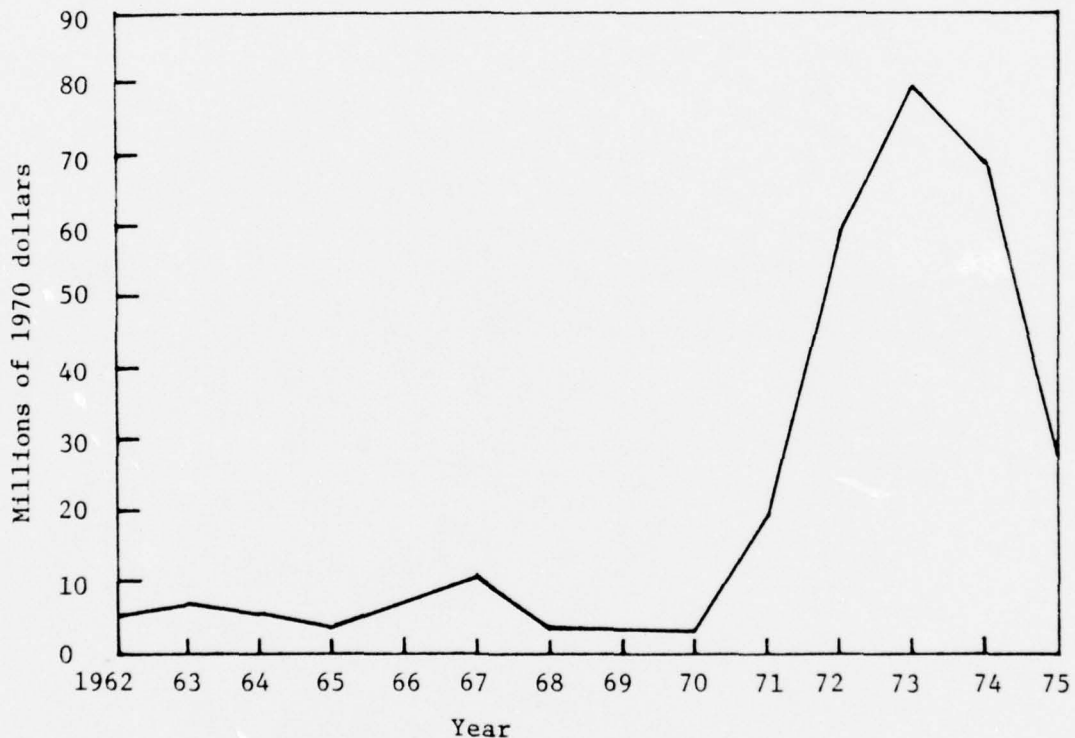


Figure 9. Venezuela: Trends in arms imports, 1962-1975

Source: Figures converted to 1970 dollars from: (1) 1962-1964: U.S. Arms Control and Disarmament Agency [Ref. 60, p. A-8]; and (2) 1966-1975: U.S. Arms Control and Disarmament Agency [Ref. 61, p. 75].

The low key values up to the late 1960s correspond to the period of internal insurgency activities. Therefore, a trend to acquire internal security related weapons, which are of low monetary cost per unit, was expected for the period 1962-1968. On the other hand after

the year 1970 a sharply increase, 2,556 percent between 1970 and 1973, in arms imports reflects the trend towards the purchasing of external defense related weapons which are of high cost values per unit.

The high jump in dollars of arms imports between 1971 and 1975 also reflects a replacement pattern, particularly when the description of the material is taken into account. The high-priced items transferred to Venezuela after 1970 were represented by: (1) AMX-30 tanks; (2) AMX-155 howitzers; (3) Mirage fighters; (4) fast patrol boats with Otomat missiles and (5) CF-5 fighters.

Around the 1980s it is reasonable to expect a decrease in the monetary value of the arms imports to Venezuela. More defense expenditures are expected in maintenance and overhauling of the existing inventory.

Even though some purchases for the period 1962-1975 cover used and surplus materiel e.g., F-86K fighters, some Canberra bombers, and particularly ex-U.S. naval vessels, the general trend has been toward the acquisition of new arms. The Navy had started to renovate its old inventory with new patrol boats from the United Kingdom, with conventional submarines from West Germany, and lately with frigates from Italy.

The Air Force, the other service with relatively recent acquisition of used materiel, F-86Ks, also followed the same trend of renovating its squadron of fighters.

a. A Multiple Source Pattern

Another significant characteristic of Venezuela's arms imports is, as it is shown in Table VII, page 98 , its diversification of sources.

Between 1962 and 1975, six major arms manufacturers transferred their products to Venezuela. Therefore the Venezuelan Armed Forces

inventory consists primarily of weapons with dissimilar sources. The arms may sometimes have similar purposes and design, as for instance fighters from France and Canada and destroyers and frigates from the U.S., Italy and the United Kingdom. A good point for the fighters is that they can use the U.S. Sidewinder missile.

The question of diversification reaches major levels when the logistics factors are taken into account. Managing thousands of spares, hundreds of parts, and hundreds of components with different specifications, manufacturers, etc., requires the existence of a very effective supply system. This logistic factor has been a limiting constraint, particularly within the Navy. A lack of standardization is a challenge that deserves a great amount of effort on the part of the Navy Command. Particularly important at times when modern and more sophisticated ships are being integrated into the fleet.

The logistics support becomes a very constraining factor for many years after receiving the new ship. For by that time the manufacturer or manufacturers of components integrating the ship usually have closed the production lines of those products. To keep the production lines opened the manufacturer depends, in most cases, on orders from its own Navy or military service plus foreign orders. Since, normally, the supplier's military structure phases its models or designs out faster than the recipient the manufacturer simply shuts uneconomic operations down. The start-up costs to reopen a closed production line, whether to build or produce repair parts, can be a burden for the recipient's budget.

These logistics constraints occur not only with new units as it was described above but also with old materiel already used by the supplier's

military force. For example, when Venezuela in the early 1970s, bought two 1945 ex-U.S. destroyers at prices relatively inexpensive (one DD's cost: \$ 229,500) [Ref. 47, p. 123], it seemed to be a very good deal. Nevertheless, in less than three years both ships were being refitted in U.S. commercial shipyards, therefore raising the costs of the destroyers and at the same time pouring money into the U.S. shipyards.

Looking at the problem of diversification of arms suppliers from the view of a recipient nation, the lack of a domestic military industry might have advantages and disadvantages when relying on either sole or multiple source.

A sole source means a better integrative logistics support not only for spares and ammunition but for maintenance, overhauling and training (military reasons). An easily integrated defense structure may be accomplished under a sole source reliance. In turn a stronger relationship is expected to be originated between the recipient and the supplier, particularly important if both nations share similar political orientations and responsibilities in an international defense treaty.

The main disadvantage in relying on a sole supplier is dependence. This dependence may be relevant when the political system of either supplier or recipient changes, commonly the latter. The possibility of embargo and/or refraining the flow of spares and ammunition may overshadow their relationship and create discomfort on the recipient's military organization.

When the recipient's reliance is on multiple source there are the advantages of competition, which in turn may give better deals for the recipient (a purely economic reason) and less dependence from a particular supplier (political and military reasons).

Logically, the disadvantages of diversification of sources are mainly logistics (military reasons). The logistics disadvantages of a multiple source pattern may also be a burden not only for the defense budget but for the readiness of the services.

Venezuela, as a recipient nation relying on multiple sources for its arms needs, falls within the last group discussed above. Nevertheless, a sole source pattern seems to be followed by the Army which has been consistent in the acquisition of French armored fighting vehicles since 1954 (AMX's series). The Air Force and the Navy, have still continued to rely on more than one source for replacing and re-equipping their inventories.

For a nation determined to have a military establishment but dependent on a foreign suppliers for its defense requirements the question of "where to buy" becomes very complex. This problem diminishes when resources are available and even so, it keeps relying on the suppliers willing to sell weapons designed to the recipient needs and not to the suppliers needs, and more important, in having a steady logistics support.

3. Venezuela's Arms Suppliers

Traditionally, Venezuela has imported the military hardware it requires rather than meet its requirement for defense equipment from internal sources. As it was treated earlier the Venezuelan military manufacturing has so far concentrated on the small caliber ammunition and explosives, mainly for internal consumption.

Table VIII, page 99 pictures the monetary value and percentages of arms imports, by suppliers, for the period 1962-1975. According to the table Venezuela's major suppliers for the period 1962-1975 were: France, U.S., U.K., Canada, and the Federal Republic of Germany. The

suppliers whose participation in total transfers was not large enough to be included within the major suppliers appear under the heading of Others. It is very likely that among the smaller suppliers were Italy (Otomat missiles and Oto/Melara guns), Belgium (small arms), Israel (small arms), and Sweden (anti-air guns).

From Tables VII and VIII it can be inferred that Venezuela during the intervening period relied, for specific weapons system, on European suppliers.

Assuming the "Others" suppliers are constituted of European nations (non-communist countries), Europe as a whole had a participation of 57 percent in the total value of arms transfers to Venezuela for the period 1962-1975. In dollar value, this percentage meant approximately \$ 199 million worth of military sales, compared to \$ 111 million for U.S. France, for the period 1962-1975, became the leader in arms exports to Venezuela, with a cumulative total of \$ 131 million, with U.S. in a second position.

Assuming the existence of interaction between the supplier's policy and the arms recipient's policy no arms transfer analysis will be completed if no consideration is made of the suppliers rationale.

a. The United States Policy

The United States is perhaps one of the few arms exporters, free world, whose policy is primarily political. This means that the United States considers the arms transfer a special extension of a network of political relationships. For that reason the U.S. government is deeply involved in any international arms transaction. So deeply involved, that the bureaucratic government machinery makes what it seems to be an easy transaction a lengthy and discouraging, for the customer, process.

More recently, it has been mentioned that economic reasons are also influencing U.S. sales agreements. It is said that arms sales reduce the nation's own defense costs. Foreign orders mean bigger production runs for arms manufacturers which in turn make each plane or tank rolling off the assembly line a little cheaper [Ref. 2, p. 42]. For example in 1974 it was estimated that the F-14 sales to Iran would reduce the cost of the total F-14 program by \$ 60.8 million [Ref. 6, p. 1].

At the same time foreign orders may help to keep production lines open thus keeping people employed. One former Secretary of defense pointed out that 100 jobs in American industry are sustained for each million dollars in foreign military sales [Ref. 40, p. 19].

While economic reasons along with the politics might be behind huge sales to *European and Middle East* nations, OPEC members, it is not the same when military sales to Latin America are involved.

The U.S. rationale, concerning arms supplies to Latin America, as a whole region has been termed as a unilateral sales policy, paternalistic in the extreme.

Out of a world total arms transfers estimated in \$ 34,923 million during the period 1966-1975, United States exported to Latin America only \$ 883 million (a 2.5 percent). Two hypothesis can be inferred from these figures: (1) that Latin America, in the arms trade, does not represent substantial business for the U.S.; and (2) that Latin America can not get the items of war it wishes from the U.S. market and therefore goes to other markets, which means that U.S. applies a political policy towards its arms trade with Latin America.

Though a few million of dollars may represent a useful sale for medium size firms like Cessna Aircraft, Rockwell International, or Bell

Helicopter (the major U.S. commercial arms sellers to Venezuela for the period 1962-1975), it is accepted that U.S. has applied a political rationale to its arms transfer trade with Venezuela (hypothesis 2).

The United States sees itself as the defender of the Americas against external aggression, primarily communist aggression, in fulfillment of the Rio Treaty. Thus, the U.S. does not justify large defense expenditures in sophisticated and unnecessary weapons, prestige items, where those monies could be used for better purposes in the less developed Latin America.

Following its commitment towards not selling highly technological weapons to Latin America the U.S. Government has permitted commercial sales to Venezuela of items such as helicopters, light and medium trainers, transports, utility aircraft, counter-insurgency aircraft and other minor equipment.

For the years 1962-1975 the Venezuelan Navy was the service that received most ex-U.S. weapons, represented by Second World War destroyers and submarines, refitted ASW aircraft, and some auxiliary vessels. The latter equipment was transferred to the Venezuelan Navy on loan agreements.

Venezuela, since 1950, has been able to import arms from U.S. under the U.S. Foreign Military Sales Program using both credit and cash type of payment.

Under the credit program the Venezuelan Armed Forces have received in military equipment, mainly utility equipment and excluding ammunition and explosives, about \$ 115 million from 1955 to 1975 [Ref. 62, p. 11]. The credit agreements are normally financed directly by the U.S. Department of Defense (DOD) or in very few cases through the Export/Import

Bank with DOD guarantee. The latter case is unusual because the Export/Import Bank credits are available only to industrial nations [Ref. 65, p. 6]. For example the last credit agreement using the Export/Import Bank credit was in 1966 for a value of \$ 8.8 million with DOD guarantee [Ref. 63, p. 13].

The United States credit program has been well received by the Venezuelan Armed Forces. It usually allows the acquisition of military equipment needed by the services available in U.S. The annual average credit available to Venezuela under the program has been \$ 7.5 million.

Since the annual credit agreement is funded under a separate chapter in Venezuela's Defense budget, the military services do not have to carry the burden of the payment on their specific budget. It is expected by the Venezuelan military that the U.S. Foreign Military Sales Credit Program be available in future years since it has represented an useful tool for the logistics support of the Armed Forces.

The United States Foreign Military Sales Agreements Program (cash sales) with Venezuela for the years 1950-1975 have reached \$ 226.9 million of which \$ 165.5 million had actually been delivered [Ref. 62, p. 15]. The difference may correspond to orders cancelled, material pending for delivery or final cost of some Letter of Offers less than the initial estimated.

Also, Venezuela uses commercial channels for major arms imports from U.S. which of course have to be authorized by the U.S. Government. This type of purchasing primarily has been utilized by the Venezuelan Air Force, because of the availability of materiel which do not face restrictions from the U.S. Government. During the period 1960-1975 an estimated of \$ 49.5 million worth of arms were transferred to Venezuela by means of commercial channels [Ref. 62, p. 17].

Venezuela, does not appear as a recipient of arms transfer under the U.S. Military Assistance Program. This program has however, been useful to the Venezuelan military as a source of training aid. During the period 1950-1975 a total of 5,378 Venezuelan military students received training in U.S. military schools. Expenditures for the training, \$ 13.3 million, were funded by U.S. through the International Military Education and Training Program. Nevertheless, the U.S. has been reducing the funds allocated for training assistance to Venezuela, from \$ 1.0 million in 1967 to \$ 699,000 in 1975, and for the fiscal year 1978 President Carter has requested to Congress \$ 100,000 as a military training assistance to the Venezuelan Armed Forces.

The drastic reduction in the Education and Training Program sponsored by the U.S. has resulted in a reduction of Venezuelan military personnel attending U.S. military schools. Nevertheless, there are students receiving postgraduate education and professional military training in the U.S. whose expenditures are being funded by Venezuela, through the U.S. Foreign Military Sales Program.

With all its pros and cons the U.S. Foreign Military Sales Program is regarded as worthy for certain purchases requiring administrative and technical skills, scarce in Venezuela but available in the U.S. military structure. The guarantee of buying military equipment with U.S. military specifications is another well appreciated advantage of going through that program.

It is very likely that Venezuela will continue to rely on U.S. as the best source for new light and medium aircraft, as long as their price is competitive with the European suppliers, particularly France and Italy. As a source of more advanced weapons, intermediate fighters

(e.g., the F-5E International Fighter), naval vessels, and tanks it is difficult to predict a certain procurement pattern since it depends more on U.S. politics and, by what it is seeing with President Carter's policy the uncertainty is much greater.

b. The European Policy

Venezuela has had strong trade ties with most European countries, especially those in the Common Market.

In the arms business, Venezuela has, since the 1950s kept an amicable customer-supplier relationship, primarily with the United Kingdom, Italy and France. These three countries were the first suppliers of new major military equipment to the Venezuelan Armed Forces (naval vessels, aircraft, and tanks).

The literature frequently refers to the European policy in the international arms trade as been purely economic although certain countries may also have political rationales. Strong reasons seem to support this behavior. The European arms industry operates within an economics of scale more constrained than that of the U.S.; the former, in order to survive, needs not only orders from their national military organizations which are much smaller than the U.S., but also from abroad.

Orders from abroad help to operate the industry's production lines, within acceptable profits. For example, France had exported, as of January, 1976, 161 Mirages out of 277 produced by that date [Ref. 38, p. 36]. France seemed to be the most active in marketing its Dassault Mirages in South America although Sweden and the United Kingdom tried also to sell the Saab J35 Draken and the Hawker Hunter respectively [Ref. 65, p. 10].

All European arms producers have government control of their arms exports but the involvement of the government seems to be more oriented towards facilitating the firms, of which many are owned by the state, through promoting the export of their products. This government-industry relationship reduces bureaucratic barriers which in turn gives the potential customer the kind of assurance that his requirements will be promptly processed.

Competitively, the European suppliers seem to have an advantage over the U.S. First of all, the major European suppliers try to design the weapons' specifications to fit not only their own military needs but their customers' needs, particularly the less developed nations'. This kind of policy, of producing weapons suitable for export, has won Europe Latin American customers who have not been able to fill their military requirements in the first instance from the region's natural supplier, the U.S.

For example, the commercial dynamism of the French Government organization in charge of assuring a competitive military-industrial complex has allowed the French arms exports to triple in the 1970s [Ref. 44, p. 7]. As of 1973 France has sold \$200 million worth of Mirage fighters in Latin America [Ref. 79, p. 138].

Since 1954 the Venezuelan Army has relied for its armored fighting vehicles supplies on France (AMX's series). In the mid 1960s France won its first Venezuelan contract for aircraft (helicopters) and in 1973 when the Air Force decided to enter the supersonic era, it also was awarded the production of fighters.

The United Kingdom has for the period 1962-1975 continued to be a supplier of light bombers and trainers to the Venezuelan Air Force.

Nevertheless its future sales in this field is dubious since the Canberra is beginning to lose its attractiveness in the light and medium bomber line.

The long experience in the construction of patrol boats has allowed the United Kingdom to win an order for six fast patrol boats in the early 1970s from the Venezuelan Navy. This deal shall permit the British industry to continue the supplier-recipient relationship with the Venezuelan navy started in the early 1950s.

The gradual removal of the Federal Republic of Germany's strict, self-imposed arms export restrictions has resulted in the export of defense equipment to Latin America. In naval construction the Federal Republic of Germany is limited to 1,000 ton vessels. Nevertheless, it seems that the German submarine 209 class (1,000 tons) is gaining acceptance as a true ocean going vessel [Ref. 13, p. 5]. Since U.S. no longer builds conventional submarines and their sales are limited to aged diesel hulls to those who need them, the Latin American nations are turning to European suppliers particularly the Federal Republic of Germany. Peru, Ecuador, Colombia, Argentina, and Venezuela have already ordered 209 class submarines.

Like other European countries, Italy's arms export policy results from its military procurement policy which, in turn, has determined the nature of its domestic defense industry. Its arms are primarily sold on a commercial basis. The Italian Naval Attaches are very active in promoting their products. Italy has successfully marketed some products in Venezuela, particularly from the naval industry. In 1975, Italy won the largest contract Venezuela has ever awarded to a foreign arms industry, \$ 507 million. Six (Lupo class) frigates, to be armed with Otomat missiles were ordered by the Venezuelan Government.

The commercial policies of the major European arms suppliers have allowed them to compete successfully for that portion of Venezuela's arms requirements which have not been fulfilled by the nation's natural supplier, the U.S. The continuation of this trend is obviously uncertain because of the many factors influencing the arms acquisition process.

D. SUMMARY OF FINDINGS

Venezuela learns most about how to deal with foreign arms suppliers at the time of discussing contract terms for arms procurement. The increasing volume of money spent in arms acquisition requires an institutional mechanism which allows the military services a more stringent and rational method to evaluate and select potential contractors. Availability of technically able personnel, although limited, and the experienced acquired in dealing with the arms industry since the acquisition of new weapons in the 1950s have allowed new procedures to be applied in the source selection process.

Whether a selection of a weapons system is made by considering political or economic factors with higher priority than military factors is a question of judgement. But what is really important is applying a rational approach at the initial stage of any arms acquisition project. The Venezuelan Armed Forces are at a mature stage in the complex process of major arms procurement programs.

The 1970s are witnessing a variety of industrialized nations eager for entering the international arms business. Different rationales are being adopted by old and new arms suppliers.

United States, the world's leading arms supplier and the champion of the political rationale in its arms exports policies seems lately to

be attracted by commercial purposes. Although, secondary, the U.S. is showing certain interest in arms deals which may act as economic impulses for certain segments of its arms industry.

Nevertheless, U.S. has shown a persistent and consistent policy in its arms business with Latin America and in turn with Venezuela. A political motive is clearly defined when U.S. limits the flow of intermediate new weapons to the Venezuelan market. The U.S. continues with its policy that the less developed Latin America should put the money it spends on unnecessary weapons to better uses.

At the same time U.S. does not consider the possibility of creating imbalances in the supply of arms to neighboring countries e.g., Venezuela and Colombia.

European arms producers are pushing their products towards Latin America and Venezuela already is a valuable customer. The U.S. does not seem to be disappointed as long as the European suppliers keep away the Russian arms.

Venezuela's arms procurement trend seems to be heading for a period of stabilization, after the renovation of the Armed Forces inventory started in 1971 is accomplished with the delivery of six frigates to the Navy.

In the short run Venezuela seems to be determined in building an ammunition and explosives industry aimed at supplying the internal demand although a few production ventures may occur in the light aircraft and naval industry. For major arms requirements Venezuela is likely to rely on foreign suppliers and in its ample monetary resources.

VI. CONCLUSION

A. TRENDS AND IMPLICATIONS

Venezuela throughout history has been characterized as being a nation committed to a peaceful existence with the other nations in the regional and international context. Nevertheless, Venezuela, as with many other countries, has created a military establishment with definite missions of external defense and internal security. The presence of a relatively modern equipped Armed Forces has represented an asset for a nation like Venezuela which is trying to develop a economic potential based on its wealth of natural resources.

The arms transfers to Venezuela during the time period 1962-1975 reflects a pattern of internal security missions and of external projection as well.

The internal security pattern corresponded to a time when the nation was resuming a democratic course in the early 1960s. From 1962 to 1968 the Venezuelan Armed Forces were partially committed to deter the illegal actions of armed dissidents who at the time represented a risk for the democratic institutions. The type of weapons and the aggregated monetary value of arms imports for the years 1962-1968 confirm the foregoing statement.

After 1968 the arms acquisition trend was oriented towards the renovation and reequipping of the Armed Forces inventory, with items of external defense projection rather than for internal security mission. High priced items such as supersonic fighters, tanks, conventional submarines, fast patrol boats and frigates equipped with surface-to-surface missiles were received and/or ordered between 1971 to 1975. This

period of sharp increase in the value of arms imports and in the type of weapons transferred also reflects a cyclical repetition of the early 1950s when the first modernization of the Venezuelan Armed Forces occurred.

The 20 years between the two high peaks correspond to a period of utilization, maintenance, training and other activities that usually consume the resources allocated to defense. Thus, a replacement pattern by lots started to take place in the early 1970s with an almost coincidental availability of larger national resources as a result of the increase in oil price exports in 1973. The arms acquisition trend may be expected to decrease in the early 1980s after the last lot of items ordered in the mid 1970s is received. If the same acquisition pattern is followed a period of lesser investment in major high priced weapons is expected for the 1980s and up to the mid 1990s. Of course, this assumes all other factors such as internal stability, regional climate, and international or regional arms control remain stable.

Among the factors that may vary the arms acquisition patterns of growing importance, is regional arms control. Following the pace set in 1974 by the declaration of intentions to limit arms imports made by the nation members of the Andean Pact, Venezuela in 1977 is working on a project related to this arms limitation. This project, could be a renovation and fresh impulse to the question of arms control in Latin America.

The Venezuelan Government, in its efforts to interact more efficiently with the international arms suppliers, has formally adopted procedures normally followed by the military services of the arms producer nations in their acquisition of major items. The use of different evaluation

committees and the separation of the evaluation and decision-making levels make the arms acquisition process less subject to non-military influences. This kind of effort, which in Venezuela is technically constrained, is a major step of the military in improving the arms procurement process, which already is a complex process with the variety of sources and sophistication in the arms industry.

The multipolarity of the international system in the 1970s as well as the increase of foreign exchange available to Venezuela after 1973, is introducing new suppliers into the arms trade. Among those suppliers are new arms producers and new weapons suitably designed for the recipient needs, which improves competences and better bargaining positions for both buyer and seller.

The above situation plus the persistence of the U.S. policy of limiting the access of selected areas of its arms industry to the Latin America market in contrast with the European suppliers policies, have resulted in a diversified weapons inventory for Venezuela.

Venezuela's first incursion into supersonic fighters made France a new supplier in that field, and the first order for two new conventional submarines went to the Federal Republic of Germany. Those two arms sellers were having noticeable success in marketing their armed products in the 1970s, the French Mirage and the German type 209 submarine.

Nevertheless, Venezuela's arms acquisition policy continues to rely on U.S. as a main source of light aircraft, even with France and Italy entrance into the helicopter segment. Traditionally the U.S. has been a reliable source of used military equipment for the Navy and new non-sophisticated items for the Air Force. Although Venezuela is

leaving aside its policy of procuring used combatant vessels, the U.S. still supplies, under loan agreements or sales, the auxiliary fleet of the Venezuelan Navy.

The arms inventory in 1975 shows the diversification of weapons manufacturers and lack of standardization as experienced in the 1950s. Therefore, it is expected that the Venezuelan Armed Forces will have to face significant logistics constraints later as the new materiel gets older and the multiple manufacturers realign their production lines for new products.

APPENDIX A

TABLES

TABLE I. Defense Expenditures, 1938-1961
(In millions of 1960 dollars)

Year	\$	Year	\$
1938	\$25.0	1950	\$58.2
1939	22.1	1951	59.2
1940	24.7	1952	65.2
1941	23.4	1953	67.9
1942	20.4	1954	65.9
1943	18.0	1955	105.3
1944	18.0	1956	131.6
1945	15.7	1957	106.7
1946	22.9	1958	174.2
1947	29.6	1959	191.7
1948	35.0	1960	174.6
1949	43.2	1961	147.6

Source: Loftus, J. E. [Ref. 34, p. 11].

TABLE II. Total Oil Revenues and Government
Income, 1963-1975
(In billions of dollars)

YEAR	OIL REVENUES	GOVERNMENT INCOME	OIL REVENUE/ GOVERNMENT INCOME
1963	\$ 1,406	\$ 1,969	71%
1964	1,112	1,585	70
1965	1,072	1,614	66
1966	1,109	1,723	64
1967	1,270	1,898	67
1968	1,297	1,950	67
1969	1,218	1,925	63
1970	1,292	2,115	61
1971	1,724	2,586	67
1972	1,811	2,771	65
1973	2,621	3,734	70
1974	8,601	9,952	86
1975	7,590	9,556	79

Source: Data prior to 1971, Venezuela [Ref. 71, p. 8]; for 1971-1972, Venezuela [Ref. 73, p. 47]; and for data subsequent to 1972, Venezuela [Ref. 68, p. IX-3] all data originally in Bolivares and converted to current dollars using the exchange rate (selling rate) from International Monetary Fund [Refs. 21 and 22].

TABLE III. Venezuela's Armed Forces:
Force Structure, 1975*

General

Population: 12,360,000
Military Service: Two years
Total Armed Forces: 43,500
National Guard (all volunteer force): 11,500
Defense Expenditures: \$ 494,000,000

Army

Total Strength: 28,000
11 Infantry Battalions
1 Cavalry Regiment
1 Tank Battalion Group
1 Armored Brigade
13 Ranger Battalions
6 Artillery Groups
5 Engineer and Anti-Aircraft Battalions

Equipment

Tanks (142 AMX-30, 40 AMX-13)
Armored Cars (12 M-8, 15 Shorland)
Artillery (M-101 105 Howitzers, 20 AMX-155)
Anti-Armor Weapons (35 M-18 76 mm)
Helicopters (5 Alouette III, 6 Bell 47)

Navy

Total Strength: 7,500 including 4,000 marines (4 battalions)

Fleet

4 Destroyers (1 with Seacat SAM) (2 "Nueva Esparta" class and 2 ex-U.S. "Allen M. Sumner" class)
6 Frigates ("Almirante Clemente" class)
3 Submarines, patrol (2 ex-U.S. "Guppy" class and 1 ex-U.S. "Balao" class)
6 Fast patrol boats, missile/gun (3/Otomat SSM, 3/127 mm Oto-Melara)
10 Large patrol craft (ex-U.S. PC class)
6 Landing ships (1 ex-U.S. LST type, 4 ex-U.S. LSM type, and 1 ex-U.S. transport)
1 Light transport ("Las Aves" class)

Naval Aviation

6 S-2 trackers (ex-U.S. Navy)
2 C-47 transports

Air Force

Total Strength: 8,000
1 bomber squadron (26 Canberra)
1 ground-attack squadron (16 OV-10)
3 fighter squadrons (20 CF-5, and 13 Mirage III/5)

TABLE III (continued)

Air Force

2 transport squadrons (4 C-130, 12 C-47, 12 C-123, and 1 HS-748)
46 trainers (2 Mirage III, 12 T-2, 12 Jet Provost, and 20 T-34)
30 Helicopters (15 SA II/III, 10 Bell 47, and 5 Sikorsky S-55)

* Not included: utility aircraft, auxiliary naval vessel, and minor military equipment.

Estimates from: (1) SIPRI, The Arms Trade Registers, [Ref. 47, pp. 121-123]; (2) The International Institute for Strategic Studies, The Military Balance 1976-1977, [Ref. 54, p. 68]; (3) Copley, G.R., ed., Defense Foreign Affairs Handbook 1976-1977, [Ref. 8, pp. 521-522]; and (4) Jane's Fighting Ships 1976-1977, [Ref. 24, p. 758].

TABLE IV. Defense Expenditures and
Government Expenditures, 1962-1975

(In millions of 1970 dollars)

YEAR	DEFENSE EXPENDITURES	GOVERNMENT EXPENDITURES	DEFENSE EXPENDITURES/ GOVERNMENT EXPENDITURES
1962	\$ 106	\$ 1668	6.29%
1963	121	1669	7.24
1964	123	1772	6.95
1965	141	1827	7.72
1966	147	1890	7.76
1967	172	2063	8.32
1968	164	2164	7.59
1969	158	2329	6.78
1970	165	2291	7.21
1971	224	2755	8.12
1972	202	2827	7.16
1973	228	2995	7.62
1974	347	7911	4.39
1975	338	6728	5.02
Mean =	188.2857	2920.6429	7.0121
Standard Deviation =	74.6586	1925.7227	1.1176

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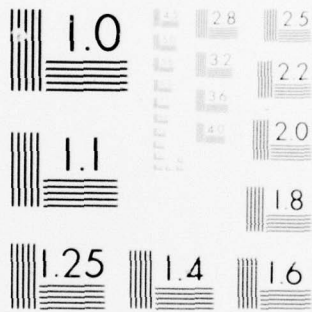
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TABLE V. Defense Expenditures and Gross Domestic Product, 1962-1975
(In millions of 1970 dollars)

YEAR	DEFENSE EXPENDITURES	GROSS DOMESTIC PRODUCT	DEFENSE EXPENDITURES/ GROSS DOMESTIC PRODUCT
1962	\$ 106	\$ 7,515	1.41%
1963	121	8,100	1.49
1964	123	8,770	1.40
1965	141	9,131	1.54
1966	147	9,313	1.58
1967	172	9,810	1.75
1968	164	10,489	1.56
1969	158	10,745	1.47
1970	165	11,579	1.42
1971	224	12,302	1.82
1972	202	13,276	1.52
1973	228	15,373	1.48
1974	347	23,574	1.47
1975	338	20,934	1.61
MEAN =	188.2857	12,207.9286	1.5371
STANDARD DEVIATION =	74.6586	4,774.1757	0.1229

TABLE VI. Defense Expenditures:
Venezuela and Colombia, 1962-1975
(In millions of 1970 dollars)

YEAR	DEFENSE EXPENDITURES	
	VENEZUELA	COLOMBIA
1962	\$ 106	\$ 56
1963	121	57
1964	123	56
1965	141	60
1966	147	60
1967	172	62
1968	164	81
1969	158	78
1970	165	98
1971	224	188
1972	202	118
1973	228	110
1974	347	118
1975	338	161

Source: Data for Colombia (in Pesos) and before 1971 drawn from Heare, G. E., [Ref. 18, p. 36]; data for Colombia subsequent to 1970 from U.S. Arms Control and Disarmament Agency [Ref. 61, p. 25]. Data for Colombia converted to 1970 dollars using the consumer price index and the 1970 market exchange rate, adjusted, from: International Monetary Fund, [Refs. 21 and 22]. Data for Venezuela drawn from Table IV.

TABLE VII. Major Arms Transfers to Venezuela,
by Suppliers, 1962-1975

Number	Supplier	Equipment	Remarks
<u>Aircraft</u>			
6	U.S.	Beech Queen Air 65	Utility/Liaison
7	U.S.	Grumman HU-16 Albatross	Amphibious
15	U.S.	Bell 47	Helicopter
6	U.S.	Sikorsky S-55	Helicopter
4	U.S.	Lockheed C-130	Medium transport
12	U.S.	Cessna 182	2 place trainer
16	U.S.	Rockwell OV-10	Light ground attack
12	U.S.	Rockwell T-2	Trainer
6	U.S.	Grumman S-2	Tracker ASW, ex-U.S.
15	U.K.	BAC jet provost	Trainer
14	U.K.	BAC Canberra B.2/PR.2	12 B.2 ex-RAF
1	U.K.	HS-748	Transport
74	F.R. Germany	F-86K	38 used for spare parts
20	France	Sud Alouette II/III	Helicopter
15	Canada	Dassault Mirage III/5	Trainer/Fighter
20	Canada	Canadair CF-5A/D	Trainer/Fighter
<u>Missiles</u>			
100	U.S.	NWC Sidewinder	To arm CF-5s
10	U.K.	Short Seacat	Surface-to-air
40	France/Italy	Matra/OTO Melara Otomat	Surface-to-surface
<u>Naval Vessels</u>			
2	U.S.	Destroyer, ex-U.S. "Allen M. Sumner" class	Foreign Military Sales (FMS)
2	U.S.	Submarine, ex-U.S. "Guppy" type	FMS
1	U.S.	Repair ship, ex-U.S. ARL	On Loan
1	U.S.	LST, ex-U.S.	FMS
2	U.S.	Ocean Tug, ex-U.S.	On Loan
2	U.S.	Survey Ship, ex-U.S.	On Loan
6	U.K.	Fast patrol boat "Vosper Thornycroft"	3 with Otomat missiles
2	F.R. Germany	Submarine, 209 type	On Order
6	Italy	Frigate, "Lupo" class	On Order; Otomat missiles
<u>Armored Fighting Vehicles</u>			
15	U.K.	Shorland	Armored personnel
142	France	AMX-30	Medium tank
20	France	AMX-155	Howitzers

Estimates from: (1) SIPRI, The Arms Trade Registers, [Ref. 47, pp. 121-123]; (2) Jane's Fighting Ships 1976-77, [Ref. 24, pp. 756-763]; and (3) Foreign Military Markets Market Intelligence Report, [Ref. 15].

TABLE VIII. Arms Transfers to Venezuela, by
Major Suppliers, 1962-1975
(In millions of dollars)

Supplier	1962-1975	
	Dollars	Percent*
Total	348	100.0
United States	111	31.9
France	131	37.6
United Kingdom	50	14.4
Canada	38	10.9
F.R. Germany	6	1.7
Others	12	3.4

* It does not add to 100 because of rounding.

Represents an estimate from: (1) U.S. Arms Control and Disarmament Agency, [Ref. 60, p. A-13]; and (2) U.S. Arms Control and Disarmament Agency, [Ref. 61, p. 80].

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