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DEPARTMENT OF STATE  
AGENCY FOR INTERNATIONAL DEVELOPMENT  
Washington, D.C. 20523

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AID-ILC/P-448  
June 29, 1966

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Paraguay - Asuncion Airport Rehabilitation

Attached are revised pages to be inserted in the subject Capital Assistance Paper. Please remove pages 7, 8, 9 and 10.

The recommendations for authorization of a loan in an amount not to exceed \$4,700,000 to the Government of Paraguay ("Borrower") to assist in financing U. S. dollar and Paraguayan guarani costs of the rehabilitation of the Asuncion Airport, Asuncion, Paraguay ("Project") were discussed at the meeting of the Development Loan Staff Committee on Friday, June 24, 1966.

Rachel C. Rogers  
Assistant Secretary  
Development Loan Committee

Attachments: (Revised June 29, 1966)  
Table of Contents  
Project Analysis, pp. 2, 3, 4, 11, 33, 36 and 37  
Annex II, Exhibit 4

Previously Distributed: June 17, 1966  
Summary and Recommendations  
Project Analysis  
Annexes I-IV

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June 17, 1966

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Paraguay - Asuncion Airport Rehabilitation

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed \$4,700,000 to the Government of Paraguay ("Borrower") to assist in financing U.S. dollar and Paraguayan guarani costs of the rehabilitation of the Asuncion Airport, Asuncion, Paraguay ("Project").

This loan proposal is scheduled for consideration by the Development Loan Staff Committee at a meeting in the near future.

Rachel C. Rogers  
Assistant Secretary  
Development Loan Committee

Attachments:

Summary and Recommendations  
Project Analysis  
Annexes I-IV

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PARAGUAY - ASUNCION AIRPORT REHABILITATION

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PARAGUAY - ASUNCION AIRPORT REHABILITATION

SUMMARY AND RECOMMENDATION

1. **BORROWER:** The Borrower is the Government of Paraguay (GOP). The responsible agency within the GOP is the Ministry of Public Works and Communications (MOPC) which has the responsibility for construction and maintenance of airports in Paraguay.
2. **AMOUNT:** Total cost of the project is estimated to be \$5,400,000. AID will finance \$4,700,000 of the project costs which include \$4,000,000 in foreign exchange and \$700,000 in local currency. The GOP will finance the other \$700,000 in local currency costs and a condition requiring such contribution will be contained in the loan authorization.
3. **LOAN TERMS:** Amortization in 40 years. Grace period 10 years. Interest at 1% during grace period, 2-1/2% thereafter, on outstanding balance.
4. **DESCRIPTION OF PROJECT:** Construction, 700 feet west of existing runway, of a new 9000-foot runway of sufficient strength and satisfactory drainage to handle all present and anticipated traffic; provision for extension of this runway to 11,600 feet when and as required; 500 x 1500-foot stopways at each end of this runway; reconstruction of the existing runway as a taxiway; connecting taxiways; and new approach, runway and taxiway lighting systems.
5. **PURPOSE OF PROJECT:** To assist in financing the engineering and construction costs for the necessary rehabilitation of Paraguay's only International Airport. Located near the capital city, Asuncion, and in the midst of the only heavily populated and industrialized area of the country, this airport is the gateway for the overwhelming majority of business visitors and tourists and the port of entry and exit for substantially all of the ever-growing volume of high-value, low-bulk goods shipped via air freight. Served by 2 United States, 6 Latin American and 2 Paraguayan International Carriers, it is serving to put an end to isolation and backwardness. Constituting the hub of Paraguay's domestic air network, it is essential to the sustained internal growth of the economy. And, as the only airfield in Central South America capable of providing safe emergency landing facilities for large commercial and military jets, it is vital to the safety of countless air travellers.

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6. **BACKGROUND OF PROJECT:** The present runway pavement is rapidly becoming unsafe for large jet aircraft. Lack of an adequate taxiway imposes limitations on the movement of aircraft which substantially reduces the capacity of the airport. Runway, approach and taxiway lighting is inadequate and unsafe for large jet aircraft under conditions of limited or poor visibility.
7. **ALTERNATE FINANCING:** IBRD advised A.I.D. on May 18, 1966, that it would not be in a position to consider a loan for this project at this time and IDB did likewise on .  
Additionally on Export-Import Bank advised that it was not interested in financing this project.
8. **VIEWS OF THE COUNTRY TEAM:** The U.S. Country Team strongly supports this project as a part of Paraguay's development program and as important to U.S. interests in Paraguay. The GOP assigns a high priority to the project.
9. **STATUTORY CRITERIA:** All statutory criteria relating to this loan have been satisfactorily met. (See Annex I for details).
10. **ISSUES:** The only issue involved herein concerns GOP debt delinquencies and is discussed in Classified Supplement to the Brazil Road Rehabilitation Capital Assistance Paper (AID-DLC/P-447/1).
11. **RECOMMENDATIONS:** Authorization of a loan to the Government of Paraguay for an amount not to exceed \$4,700,000.
  - a) Terms: Forty years, including a ten year grace period.
  - b) Interest: One percent (1%) per annum on the outstanding balance payable annually during the grace period and two and one-half percent ( $2\frac{1}{2}\%$ ) per annum thereafter.
  - c) Repayment Terms: Both principle and interest repayable in U.S. dollars.
  - d) Major Conditions:
    1. The Borrower will covenant to establish one central authority for the administration and maintenance of the airport, in accordance with a plan, satisfactory to A.I.D., within one year of the signing of the Loan Agreement.
    2. The Borrower will agree to provide sufficient budgeted funds from its own resources to the airport authority to assure the continuing maintenance and equipment of the airport.

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3. Standard Conditions.
4. Borrower will covenant to appropriate funds in its ordinary budget for repayment of principal and interest on all AID and predecessor agency credits.
5. Equipment, materials and services (except shipping and marine insurance) financed under the loan shall have their origin in and be procured from the United States or Paraguay. Shipping financed under the loan shall be procured from the United States, and marine insurance financed under the loan shall be placed in the United States.
6. United States dollars utilized under the loan to finance local currency costs shall be made available to Borrower or its designee through appropriate Special Letter of Credit procedures and shall be used only for procurement in the United States.
7. The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

Capital Assistance Committee

Loan Officer: Paul N. Wenger  
Engineer: Benjamin G. Watkins  
Counsel: Irwin A. Levy  
Economic Advisor: Joseph Pincus

Drafting Officers

Paul N. Wenger  
Joseph Pincus  
Benjamin G. Watkins

Mission Clearance

J. P. Wiley, Director

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SECTION I. DETAILED DESCRIPTION OF PROJECT

A. Borrower

1. Name and Description: The Borrower of this loan will be the Government of Paraguay ("GOP"). The administration of the construction contract will be the responsibility of the Ministry of Public Works and Communications (MOPC).
2. Organization and Experience of Administering Agency: The Ministry of Public Works and Communications has, in its present form, been the government agency in charge of airport construction and maintenance since 1947. MOPC has administered numerous loans and grants, both from A.I.D. and from other lending institutions, and is considered generally competent to perform its functions under this project. Airport maintenance will be under the control of the planned Airport Administrative Agency.
3. Previous U.S. and Other Assistance to Borrower: A.I.D. and its predecessor agencies, as well as Ex-Im Bank have carried out both grant and loan programs in Paraguay for over 25 years; for more than 5 years I.B.R.D./I.D.A., I.D.B. and other non-U.S. government units have also had comparable programs. Paraguay is considered well suited for external concessional development financing both because of the high degree of need and because the economic, financial, social, and political stability of the country make it probable that substantial beneficial effects will accrue from such financing.

B. History and Background of the Project

The original Asuncion International Airport was constructed in 1943 by a contractor for Pan American Airways who maintained and operated the airport until 1947. Subsequently, the Government of Paraguay assumed control of operations and maintenance. The G.O.P. placed the airport in a public status, and opened it to other international carriers. During the first four years of Government operation practically no maintenance was performed, although the pavement was four to eight years old and the drainage facilities became inoperative by growth of vegetation and silting.

In 1953, one of the international carriers changed to 4-engine equipment, and to alleviate the poor condition of the pavement an asphalt surface of about one inch thickness was placed on the runway (which also serves as a taxiway). The asphalt surface course proved inadequate since it failed to correct the inherent basic difficulties. Overloading of the already weak pavement, resulting from the use of the heavier aircraft, increased the frequency of pavement failures.

Because the 5,000 foot runway was rapidly deteriorating and inadequate in length for larger aircraft, the G.O.P. decided to take steps to develop an adequate airport. After preliminary studies in 1954, the G.O.P. negotiated a loan in 1955 from the Export-Import Bank for \$700,000 (later increased to \$800,000) to build a new 6,000 foot runway, provide connecting taxiways and overlay the existing terminal apron. A contract for consulting and design was signed with Airways Engineering Corporation and the construction contract was made to Morrison-Knudsen Company, Inc. in 1956. The contract was completed in May 1958. In that same month the G.O.P. obtained an additional loan of \$320,000 from the Export-Import Bank and this enabled the same work forces to continue and add 3,000 feet to the new 6,000 foot runway. The 9,000 foot runway was accepted by the G.O.P. in early November 1958.

Since the runway is used as a taxiway and for turnarounds, the entire runway must be subject to maximum load conditions. The runway began to show major distress when Pan American Airways and Braniff Airlines started operating DC-8s and 707-227s. Pavement failures became evident within a year after completion of the 9,000 foot runway. Deterioration continued and frequent repair patches had to be made.

In early 1962 a representative of the Regional Aviation Assistance Group/Latin America made an investigation of the cause of failures at the request of the Embassy/USAID Mission and recommended an extensive program of airport repair. Repairs and maintenance provided by the limited funds available to the G.O.P. did not prove sufficient and in October 1963, USAID provided the G.O.P. with a credit equivalent of \$143,000 in local currency funds, from PL-480 availabilities, to finance additional drainage installations in an effort to drain the runway subgrade and keep the installations in service until planning and financing of more extensive repairs could be effected.

In November 1963, before the emergency repairs could be effected, a serious failure occurred when a DC-8 jet aircraft was taxiing on the runway. Repair of this failure required the removal and replacement of pavement, base and subbase. While this work was in progress over a period of approximately two months, the airport was closed to all but single and twin engine aircraft.

At approximately the same time, a feasibility study and report for expansion and development of the airport was undertaken by the firm of Palmer and Baker Engineers, Inc.; this report with recommendations was delivered to the G.O.P. in April, 1964. The report proposed a four stage program including: I. - Repair and rehabilitation of existing

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runway and construction of clear zones, taxiways, and installation of runway, taxiway, and approach lighting systems; II. - Construction of Administration Building, terminal apron, and part of access road; III. - Construction of aircraft parking aprons and connecting roads; IV. - Construction of access road. (The G.O.P. was not successful in mobilizing the financing necessary to carry out these recommendations in full, and both the prior and present loan applications dealt only with the basic runway/taxiway/lighting aspects of the project.)

After an inspection trip, in mid-August 1964, the Chief Advisor of the Federal Aviation Agency's Bureau of Flight Standards expressed concern with regard to the potential hazard to Air Commerce that might be created if the deterioration of the runway were allowed to continue beyond its existing state and noted that he would be duty bound to recommend suspension of United States Air Carrier operations into Asuncion if this problem was not successfully resolved.

In November, 1964, the G.O.P. submitted an application to A.I.D. for financing of the major part of the repairs and rehabilitation then thought to be required. Intensive review of the application was authorized and initiated in December, 1964, and resulted in a Capital Assistance Paper which was approved by the Capital Assistance Executive Committee and the Development Loan Committee in March, 1965.

However, in May, 1965, the FAA required extensive changes in the Palmer and Baker runway reconstruction plan. This plan was, therefore, abandoned and Palmer and Baker were commissioned to revise the original feasibility study based upon the present new runway concept. The revisions to the feasibility study were paid for by a grant, which is to be reimbursed to the United States from the proceeds of this loan. The revised study was submitted by Palmer and Baker to the G.O.P. in January, 1966, and the G.O.P. filed a loan application based thereon in February, 1966. Intensive review commenced in March, 1966, based upon authorization granted in November, 1965.

C. Country Team Comments

The U.S. Country Team strongly supports this project as a part of Paraguay's development program and as important to U.S. interests in Paraguay. The G.O.P. assigns a high priority to the project.

D. Alternative Sources of Financing

I.B.R.D. advised A.I.D. on May 10, 1966, that it would not be in a position to consider a loan for this project at this time and I.D.B. did likewise on May 27, 1966. Additionally, on December 11, 1964, Export-Import Bank advised that it was not interested in financing this project.

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E. Engineering Analysis

1. General Project Description

The GOP has planned a modernization program for the Asuncion airport which will eventually encompass the four major recommendations from the Palmer and Baker report of April, 1964, as set forth on pages 2 and 3, above.

The project which is the subject of this Capital Assistance Paper will cover only recommendation I--it has been made clear that A.I.D. has no interest in financing II, III and IV--and will consist of the following elements:

- a. Construction of a new runway 700 feet west of the existing runway;
- b. Construction of connecting taxiways to the existing runway and to the terminal apron;
- c. Reconstruction of the center portion of the existing runway for use as a parallel taxiway;
- d. Construction of a new drainage system to serve the new runway area and modification of the existing drainage system as required;
- e. Construction of runway and approach lighting systems on the new runway;
- f. Constiuction of new lighting systems on connecting taxiways and modification of existing runway lighting system for use as parallel taxiway lighting.

Additionally, a system of VOR navigational aids will be installed at the expense of the carriers using the airport.

The new runway will have a paved length of 9,009 feet and a width of 150 feet with stopways, blast pads and clear zones at each end. All aircraft pavements, i.e., runway, taxiways and

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aprons will be flexible type and designed for use by 320,000 pound aircraft, using dual tandem landing gear. Provision has been made for extending the runway to 11,600 feet if this should become necessary at some future date. Complete design criteria are shown in Annex II, Exhibit 2.

The total cost of the project to be financed is estimated at \$5.4 million of which \$4.0 million is needed for foreign exchange costs and \$1.4 million for guarani costs. The loan requested is \$4.7 million, \$4.0 million of which is for the foreign exchange costs of the construction and engineering services and start-up of the airport authority. The remaining \$700,000 equivalent in guaranis will be used to pay a part of the local costs. The G.O.P. will contribute guaranis equivalent to \$700,000 to complete the local cost financing.

2. Engineering Plan for Execution of the Project

The loan request is based on a feasibility study completed by Palmer and Baker Inc., Consulting Engineers, of Mobile, Alabama, in April, 1964, and revised in January, 1966, to incorporate changes requested by the F.A.A. Palmer and Baker is already under contract to the G.O.P. to provide final designs and supervision of construction as soon as financing can be arranged. The consultant will provide all plans and specifications as well as bid and contract documents. They will also assist with the pre-qualification of construction contractors, bid opening, review, and with award of a construction contract. During construction, they will provide engineering supervision, inspection of work and material, certification of periodic work progress payments and quarterly progress reports.

Competitive bidding procedures will be followed in award of the construction contract. Prospective contractors will be pre-qualified and invited to submit bids for a unit price contract. Award will be made to the lowest responsible bidder. Bid, performance and payment bonds will be required in accordance with A.I.D.'s standard pf 10-50-50. Since there are no local contractors large enough to manage the prime construction contract, bidding will be limited to U.S. firms.

The construction period is estimated at 18 months as indicated by the schedule in Annex II, Exhibit 5.

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3. Technical Feasibility

The overriding technical justification for this project is flight safety. Continued use of the present runway can only lead to further deterioration and need for an increasing maintenance effort. While energetic maintenance may keep the runway within the bounds of safety for a time, this is extraordinarily expensive and is at best, an interim solution. Thus, if the new runway is not constructed, the airport will eventually have to be closed to jet aircraft of the 707 and DC-8 class.

The project, as presented, is technically feasible and poses no difficult engineering problems. If constructed as planned, the new runway and taxiways will provide structural stability under increased frequency of operations by aircraft up to and including the 707 or DC-8 class. Current flight schedules will not be disrupted by the pavement construction.

4. Operation and Maintenance

The G.O.P. intends to contract with a consulting engineer firm to plan and assist with the development of an airport authority. This authority will be responsible for administration and operation of the airport including maintenance of the facilities with its own force.

Landing and other user charges will be set at a level to do all possible to make the airport self-sustaining.

Maintenance equipment as recommended by the consultant would be owned by the airport authority and would be procured to the greatest possible extent from U.S. Government excess property stocks. Necessary equipment items not available from excess stocks would be purchased directly from suppliers in the U.S. or in Paraguay.

5. Compliance with Section 611

The engineering, financial and other planning which have been done indicate that this project is viable. The cost estimates have been prepared on a rational basis and are sufficiently firm to indicate the probable cost to the United States. Contracts for construction will be made on a competitive bid basis.

In view of these factors, it is determined that the pertinent requirements of Section 611 of the Foreign Assistance Act have been complied with.

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F. Economic Analysis

A report on civic action by the GGP Ministry of Defense is attached as Annex III Exhibit 4.

3. Present Economic Situation

Paraguay is a virtually landlocked country in central South America whose only access to the sea is via the thousand mile-long Paraguay-Parana-Plata river system, which is subject to seasonal and unseasonal declines, compounded by shifting shoals. It has an area of 157,000 square miles (roughly the size of the State of California) and a population of about 2,000,000. Paraguay is one of the least developed countries of Latin America; its per capita product --- estimated at \$231 for 1965 --- is roughly comparable to that of Honduras or Nicaragua. The known natural resources of the country are grazing and agricultural lands and forest products. These natural resources are substantially under-utilized at present and could support a much higher standard of living if they were developed.

The proposed project will contribute toward high priority economic, political, and social objectives in this country's development program by providing for safe international passenger and cargo traffic through isolated Paraguay's only modern gateway to the world. Although roads recently have been and continue to be extended to Paraguay's national frontiers, the bulk of passenger traffic into and out of the country will continue to be by air. Railroad facilities in the country are limited in extent, badly deteriorated, and diminishing in economic importance.

The pattern of transportation development in most underdeveloped countries in modern times has been for airlines to pioneer the opening of otherwise inaccessible areas of a country and to serve for some time as the principal socio-economic means of both internal and international contact, until other forms of transportation (roads, railroads, ports) could be developed economically. Paraguay has been no exception to this pattern. While Paraguay has continued to expand its road network and its merchant marine, the effect has been to vastly increase the volume of both passenger and cargo movement on airlines serving the country. In fact, the number of foreign airlines serving Asuncion has been growing steadily, as shown below:

1937 Pan American Airway, Inc.

1939 Panair Do Brasil S.A.

1940 Braniff International

1941 Aerolíneas Argentinas, S.A.

1942 PLUNA (Uruguay)

1951 Transportes Aereos Real, S.A. (Brazilian)

1964 Aerolíneas Peruanas, S.A. (APSA)

As Paraguay pursues a program of increasing and diversifying its exports, with emphasis on the exportation of semi-processed and finished products rather than raw materials, larger amounts of cargo, having higher unit values, become suitable for transportation by air. In addition, Paraguay's urgent need to develop new markets, to attract foreign capital to the country, and to increase its earnings from tourism, make a safe, well-developed system of air communications vital to the economic growth of the country. The Presidente Stroessner Airport is the only one serving the capital city area, handling domestic and all international flights, and the only one at which large jets can land. Thus, for economic, social, and strategic reasons, the improvement of the country's only jet airport is clearly of the highest national priority.

4. Specific Contribution of the Activity to the Economic Development of Paraguay

The activity contemplated under this loan will facilitate the growth of other sectors of the economy. Transportation of cargo and passengers from area to area within Paraguay and to the exterior will become easier and more rapid. The results of more and better air service for the past five years have been that incoming passenger traffic has almost doubled and air cargo in 1965 was five times greater than in 1961. There is every reason to believe that these trends will continue.

Paraguay has a large tourist potential in its resources for hunting and fishing, which are accessible a short distance from Asuncion. Also the people are pleasant and amiable, and the climate is sub-tropical, with an average high of 93°F. and an average low of 55°F. The Yguazu Falls, just across the border in Brazil, some 250 miles from Asuncion, are world renowned for their beauty and size; there is regularly scheduled air service from Asuncion to Yguazu, as well as highway travel. A modern hotel with gambling facilities has recently been opened at Puerto Presidente Stroessner on the Parana River, near the Brazilian border; air and road communications likewise link this city with Asuncion.

The arrival of Tourists in Paraguay calculated over periods of 5 years is as follows:

1950 - 1955	Number of Tourists	3,291
1956 - 1960	" "	21,875
1961 - 1965	" "	54,747

During the year 1965 the number of Tourist arriving in Paraguay was 13,336; this is the largest number recorded during the period 1950-1965.

When the number of business visitors are added to those of tourists, the flow of travellers to Asuncion alone is over 50% greater than the number of tourists nationwide. According to Asuncion hotel listings, they had 10,751 visitors in 1960; 11,931 in 1961; 13,060 in 1962; 15,925 in 1963; 21,934 in 1964; and 25,281 in 1965 for a 6 year total of 98,882. The accelerated rate of growth in the last 2 years attests to the growing importance of and interest in Paraguay. In order to cash in on this trend, construction of a new airconditioned casino-hotel, requiring an investment of ₡s 82 million (US\$ 650,000), has just been begun at Ita Enramada on the Paraguay River near Asuncion. It lies across the river from Clorinda, Argentina, and is an important connecting point between the two countries, being situated along the Pan American Highway.

The U.S. carriers, Pan American Airways and Braniff International Airways, have also invested considerable time and money in developing and increasing the commercial traffic between Asuncion and the United States and other countries (See Annex III, Exhibit 7). It was estimated by Palmer and Baker that, largely as a result of dependable international air service, Paraguay's tourist traffic contributed approximately \$4 million to its economy in 1963, and that this income will increase to \$8 million by 1975.

The National program for airport development centers around the airport of Asuncion, which is the hub of all air activity in Paraguay; improvements to both the Asuncion airport and other airports in the country are constantly being made with local funds. Although airport rehabilitation is a capital-intensive project which will take some years to directly show much profit, it is a necessary development in order for Paraguay to continue to be served by both domestic air service and the international jet traffic which facilitates international trade and tourism.

5. Effect on Development in the Project Area

The area immediately served by the project is primarily the capital city, but as this is the center of almost all economic activity, the entire country is strongly affected. Asuncion is located at the confluence of the two principal rivers, it is the hub of all main highways, the terminus of the only significant railway, the center of government, communications, transportation, finance, commerce, industry, education, and culture. It has a population of approximately 300,000, nearly ten times that of the next largest city, and nearby areas are densely populated.

As reported in an economic study for the USAID Mission to Paraguay, substantial public and private investment in productive areas is essential to the development of the economy. This project will permit more regular and rapid service to Asuncion and the entire country. Industrial and commercial operations are closely related to airport activity as indicated by the rapid growth of this activity over the past several years, and the absence of other efficient transportation suggests that business transactions and industrial processes are dependent on air transport. A survey made by Palmer and Baker Engineers, Inc., during the month of September 1963, revealed that of 1,427 persons visiting Paraguay during that month, approximately 1,100 came for business reasons. With the new hotel in Asuncion, and with the projected improvement in facilities and flight service at the Asuncion airport, more businessmen and tourists will stop in Paraguay to establish contacts, to investigate investment potentials, or to enjoy a holiday in the country.

As estimated by Palmer and Baker the number of passengers arriving and departing via the Asuncion airport should increase to 64,000 domestic and 84,000 international, and air cargo to 4200 tons by 1975, assuming the facilities will be expanded to accommodate this traffic. The proposed improvements will be adequate for this traffic volume, but if not undertaken, congestion will soon cause the amount of cargo and number of passengers to level off. Since development of the country depends so much on air transport, all sectors of the national economy will be affected by either its growth or its stagnation.

6. Traffic Capacity of Airport.

Asuncion Airport is used by planes of widely varying characteristics, from the largest jet aircraft to light private planes. There are, at the present time, five large foreign-owned international airlines providing scheduled service to Paraguay. In addition, there are three smaller foreign-owned airlines providing similar service. Also, there are two Paraguayan-owned airlines providing international service, making a total of ten airlines giving international service. In 1965 these airlines made a total of 3384 landings and takeoffs using the Asuncion Airport. At present there are three Paraguayan airlines serving the interior of Paraguay from Asuncion. (The air network within the country of Paraguay is illustrated on Annex II, Exhibit 1; one may travel to all the principal cities of the country by air). These airlines made a total of 6,976 flights in 1965. Unscheduled aircraft conducted an additional 13,405 operations at the Asuncion Airport during this period. Military planes from various foreign countries used the airport another 874 times that year.

In summary, the total number of flights to and from Asuncion during 1965 totalled 24,639. This averages over 2,000 operations per month with daily operations varying from as few as 30 to well over 100. Peak hourly operations during this period have been recorded as high as 18.

Because of the unusual configuration of the airport, the usual and accepted methods of estimating capacity are not applicable. There is no parallel taxiway to accommodate movement of the larger planes. They taxi to and from the terminal apron on the runway. From observation, this requires up to five minutes per movement and prevents use of the runway by other aircraft during this time. There is a short taxiway which is usable by the light craft with corresponding reduction of time on the runway; hence, capacity of the runway depends largely on what type of aircraft is landing or departing. However, in any event, lack of an adequate taxiway imposes limitations on the movement of aircraft which substantially reduce the capacity of the airport.

One of the most significant benefits of this project will be the greater flexibility in scheduling airline stops at Asuncion. The present peak-hour capacity and instrument-landing and night landing facilities are inadequate and discourage the scheduling of stops at Asuncion except at certain hours. Improved service will certainly improve economic conditions. Commercial passenger growth is expected to reach a volume of 149,500 annually by 1975, which will impose a passenger aircraft traffic load of 18,600 scheduled movements annually. Unscheduled traffic is expected to increase at a rapid rate, reaching a volume of 24,000 movements in 1975, due primarily to the greatly increasing growth in air cargo. The combined total annual aircraft movements in 1975 is expected to reach 42,600, with a peak hourly volume of thirty-eight movements, which is the required runway capacity in 1975. It is apparent that the present airport facilities cannot accommodate this capacity.

The proposed parallel taxiway with its high speed lateral connections will permit rapid clearance of landing aircraft from the runway and a much faster acceptance rate of the airport. On the basis of studies and experience at other airfields, the proposed facility should accommodate the peak hour aircraft movement of thirty-eight operations with a maximum delay time of two and one-half minutes. With a delay time of four minutes, the runway capacity will increase to approximately forty-three operations per hour. The above capacities are predicated on jet aircraft composing up to twenty percent of total traffic. With a lesser percentage of jet aircraft traffic, the capacity will further increase to fifty or more operations per hour.

Without the project improvements, the ability of the runway to accommodate the jet aircraft traffic it currently does will diminish because of deterioration to such a degree in two or three years that it will be considered a hazard to jet operations. In any event, the present facility is approaching its peak hour operating capacity and further increase in peak hour traffic will create burdensome scheduling of traffic and long delay time for arriving and departing aircraft.

7. Justification of Improvements.

Presidente Stroessner International Airport is the only international airport in Paraguay, with all international air-passenger and air-cargo traffic entering and leaving the country. There are numerous smaller airfields located in the surrounding area which form a contributing network of traffic generators for passengers and cargo into the Asuncion airport. The airport is in an excellent location, with only one obstruction to air navigation and with adequate room for expansion. Also, there is adequate space available for the development of light industry in the vicinity of the airport. Because of the satisfactory location of the present airport and the capital investment it represents, it is not feasible to consider relocation to an alternate site.

International flights of substantial length which are scheduled or likely to be scheduled are:

Asuncion to Caracas	2400 Miles
Asuncion to Lima	1600 Miles
Asuncion to Santiago	1000 Miles
Asuncion to Rio de Janeiro	900 Miles
Asuncion to Sao Paulo	700 Miles
Asuncion to Buenos Aires	675 Miles

The performance curves for the largest aircraft operating from this airport on the longest scheduled flight indicate a required runway length of 11,600 feet (3560 meters) corrected for temperature and elevation. The present runway length of 9009 feet (2746 meters) permits the Caracas flight to be made at somewhat less than maximum pay-load with all other flights being made at approximately maximum operating efficiency.

Because of the infrequency of the longer flights, it is not economically feasible presently to lengthen the runway. It is to be noted, however, that, because of the possibility of more frequent long range flights and in order to accommodate the super-sonic jet aircraft, now in the development stage, provision has been made for the future extension of the runway, as shown on the Master Plan.

8. Relationship to Other Transport Systems.

It is impossible to present formal statistical information on the distribution of passenger and cargo traffic among the various means of transportation, as these figures are not available. The physical structure of the transportation system, however, gives a general indication of this distribution.

The railroad connecting Asuncion and Encarnacion, the two largest cities in Paraguay, was built by the Paraguayan Government in 1861 and is badly deteriorated. Due to the poor condition of the roadbed and the equipment, the maximum safe speed on this railroad is about 20 mph. The trip to Encarnacion, a distance of approximately 230 miles, requires from sixteen to eighteen hours; a recent study by the International Bank for Reconstruction and Development has recommended that this railroad be discontinued.

Highway transportation is increasing due to the improvements and additions to the road system in the past ten years. Annex II, Exhibit 1 also shows the highway system of Paraguay. At present there are 421 miles of all-weather paved roads, 898 miles of gravel roads in varying conditions, and some 4959 miles of dirt roads which are generally unusable in wet weather; some new paved highways are under construction. The new international bridge over the Parana River at Puerto Presidente Stroessner combined with the rehabilitation of Paraguay's Brazil road and the IDB paving of the Brazilian connecting road will connect Asuncion by modern highway with the Atlantic Ocean at the City of Paranaguá, Brazil, a distance of 682 miles, and will also provide land travel to Sao Paulo and Rio. Highway travel from Asuncion to Buenos Aires, approximately 1000 miles, is possible with a ferry crossing of the river at the border.

A recent study by the USAID Mission to Paraguay recommends further investment in secondary roads in those areas where productive activity is to be encouraged. In addition to spurring the development of such areas, the improvement of such roads will help the general economy by reducing the difficulties of bringing agricultural and forest products closer to the center of population and the export terminals, principally Asuncion. Since a very large majority of international and domestic inter-city passenger transportation must use the Asuncion airport, the effect of such road improvement will be to increase traffic at this airport through stimulation of general commerce, rather than to diminish it through competition.

River transportation has historically been Paraguay's most important link with the exterior. Even today, water transportation is vital to cargo movement for this country; the greater share of cargo, perhaps 90% of all exports and imports, is moved by river. However, the time required for a cargo ship to navigate the 1018 miles from Asuncion to Buenos Aires is eight days downstream and fourteen days upstream, and the difficulties encountered in the river, such as low water (as little as 3.5 foot depth of water in places), obsolete equipment, and foreign controlled equipment, make river transportation inefficient and costly. Passenger transportation by water is not very popular, except for a holiday, since passenger ship requires a minimum of three days downstream to Buenos Aires and four days upstream, as compared to less than two hours by jet.

Traditionally, the geographic location of Paraguay and consequent transportation difficulties have confined meat exports to canned beef and meat extract. These relatively low value products have imposed severe limitations on the development of the cattle industry. During 1964 and 1965, however, a dramatic change began with Paraguay entering the international trade in frozen cuts of boneless beef. Small but increasing shipments by river and sea to Europe and by

air to west coast South American countries were made. Exporting companies have installed the necessary new facilities for this trade and are anxious to expand it. The present and likely future status of the international meat trade provides a favorable climate for such expansion. The international transportation problems associated with the Parana and La Plata Rivers, hitherto the only access to the Atlantic available to Paraguay, will decrease in significance with the expansion of the port facilities at Asuncion, the expected improvement of navigation on the Paraguay River, the completion of the overland route via Brazil to Paranagua, and the growing usefulness of air transport.

9. Financial Position of Airport.

During the 12-year period 1954-1965, airport operations in Paraguay resulted in six years of surpluses and six years of deficits (see Table 1). The deficits coincided with years in which large outlays for construction took place (see Table 2). With the proposed improvement of the Asuncion Airport, revenues from all sources, shown in Table 3, should rise substantially and should produce much larger operating surpluses than heretofore. The improvement of the airport should serve to stabilize the number of employees and the outlays for wages and salaries. The latter have increased more than six fold between 1954 and 1964.

TABLE

Paraguay: Airport Income and Expenses, 1954 - 1965  
(In thousands of guaranies)

<u>Year</u>	<u>Income</u>	<u>Expenses</u>	<u>Surplus or Deficit</u>
1954	2,233	2,596	- 363
1955	4,926	5,884	- 958
1956	5,845	6,771	- 926
1957	6,083	7,642	-1,559
1958	8,268	6,570	1,698
1959	10,122	6,886	3,236
1960	13,689	11,724	1,965
1961	12,861	12,224	637
1962	17,794	15,604	2,190
1963	18,789	19,947	-1,158
1964	19,303	19,596	- 293
1965 *	14,938	12,390	2,548

\*January - September.

TABLE 2  
PARAGUAY: Airport Expenses, 1954-1965

(In thousands of guaranies)

Year	1 Constructions	2 Repairs and Maintenance	3 Installations	4 Wages and Salaries	5 Consumption Material	6 Assets (Equipment)	7 Disbursements	8 Total
1954	400	457	25	1,404	294	16	-	2,596
1955	1,649	538	326	2,421	547	403	-	5,884
1956	1,806	473	120	3,269	786	317	-	6,771
1957	1,070	1,350	254	3,830	872	266	-	7,642
1958	730	219	55	4,416	957	193	-	6,570
1959	705	476	490	3,817	1,252	146	-	6,886
1960	1,038	657	84	4,139	1,607	1,695	2,504	11,724
1961	407	890	204	5,030	2,080	434	3,179	12,224
1962	1,302	835	338	5,956	2,678	422	4,073	15,604
1963	3,274	713	125	7,953	2,282	601	4,999	19,947
1964	2,720	411	60	8,594	2,481	585	4,745	19,596
1965 (Up to Sept. 30)	411	541	30	6,402	1,941	113	2,952	12,390

RES:

1. Investments, real estate, and constructions.
2. Cleaning of drainage -- Landing strips -- Buildings and others.
3. Electric installations and others
4. Salaries, Wages, Family Welfare and Social Security.
5. Electricity, Fuel, Lubricants, Telephone, Insurance, Maintenance and repair of vehicles.
6. Vehicles, Equipment, Machinery, tools, etc.
7. Payments to the Ministry of Finance: 25% of rates collected
  - a. Deficits from 1954 up to 1957 were covered with loans in a total amount of \$3.1 million in installments of \$1,500,000; 800,000; 500,000 and 300,000 respectively.

TABLE 3  
PARAGUAY: Airport Income, 1954-1965

(In thousands of guaraníes)

Year	I Operations	II Sales	III Rentals	IV Miscellaneous Services	V Tower Central <sup>a/</sup>	VI Rate per passenger <sup>b/</sup>	VII Total
1954	1,563	361	56	253	—	—	2,213
1955	3,501	678	134	369	244	—	4,826
1956	4,088	553	229	495	480	—	5,845
1957	4,199	630	252	561	441	—	6,083
1958	5,967	779	352	665	505	—	8,268
1959	7,220	1,651	398	317	536	—	10,122
1960	9,266	2,757	549	497	620	—	13,689
1961	8,849	1,863	758	301	112	978	12,861
1962	11,670	2,066	1,196	351	—	2,511	17,788
1963	11,792	2,296	1,159	284	—	3,258	18,789
1964	11,962	2,325	1,505	290	—	3,221	19,283
1965	9,317	2,121	1,190	discontinued	—	2,310	14,938

(Up to  
Sept.30)

NOTES:

I. Landing and take-off fees.

II. Rates for fuel and lubricants.

III. Restaurant, store, counter, office, warehouse.

IV. Electric power, parking, signs, and others.

a/ Collection of charges started in August 1955 and ran through March 1961. Since April 1961

b/ Begun in April 1961.

/this has been included in "Operations"

10. Ability to Repay the Loan

- a) Balance of Payments - Paraguay's balance of payments situation has historically tended to fluctuate with the ups and downs of her economy. (So, too, has her gold/foreign exchange reserve position; Annex III, Exhibit 2). Exports and imports for the years 1954-1965, based on the Central Bank's balance of payments data, have been as follows, in millions of U.S. dollars:

<u>Year</u>	<u>Exports, F.O.B.</u>	<u>Imports, F.O.B.</u>	<u>Balance</u>
1954	34.8		
1955	38.2	34.4	0.4
1956	36.3	30.9	7.3
1957	36.1	30.6	5.7
1958	33.6	37.9	- 1.8
1959	35.4	42.3	8.7
1960	36.5	36.5	- 1.1
1961	43.1	43.9	- 7.4
1962	39.6	47.8	- 4.7
1963	38.7	40.3	- 0.7
1964	45.4	40.6	- 1.9
1965 (P)	60.0	44.4	1.0
		51.0	9.0

(P - Preliminary estimates of the Central Bank of Paraguay - January 1966)

However, the effects of the Alliance for Progress in focusing both external and internal attention upon the requisites of orderly growth through the rationalization of economic processes have given rise to a degree of cautious optimism for the future. In their thorough and searching analysis of the Economic Position and Prospects of Paraguay, the IBERD Mission estimated a growth in the value of exports (in constant prices) of 6% a year between 1965 and 1970; (The increase was 7% between 1963 and 1964, and 32% between 1964 and 1965). This estimate was based on their views of domestic production prospects of exports commodities, on long-term market prospects, on the likely availability of transport facilities, and on present and proposed Paraguayan measures to promote exports.

With respect to imports, the IBERD Mission projects an annual expansion of 7% between 1965 and 1970, as compared with 5% a year during 1962-1964 and 15% between 1964 and 1965. The projections are based on import requirements by the public sector and on the estimated import complement necessary to bring about a growth of 5-6% a year in GNP during 1965-1970. (Projections of import requirements of investment goods can only be rough approximations, of course; they will fluctuate with disbursements on project loans on ongoing and possible new projects). Inasmuch as the IBERD Mission had the most staff and time to devote to trade projections, compared to the USAID and CIAP, we may use the IBERD data for purposes

of analysis. The balance of payments situation accordingly is expected to be as follows during 1966-1970, in millions of dollars:

	1966	1967	1968	1969	1970
Current Account Balance	-28.5	-29.6	-19.4	-14.7	-12.8
Capital Account	35.3	34.2	19.9	15.4	12.9
Increase in Reserves	6.8	4.6	0.5	0.7	0.1

The result of the above operations would produce an increase of \$12.7 million in Paraguay's exchange reserves during the years 1966-1970. The projections are premised upon the continuation of internal and external monetary stability, and upon the development of institutions for preparing adequate feasibility studies of high priority projects and for implementing development projects and programs.

b) External Public Foreign Exchange Debt.

The external public foreign exchange debt of Paraguay, outstanding as of January 1965, was equivalent to \$65.3 million. The interest and principal payments are estimated at \$6.8 million in 1965 and \$5.3 million in 1966, and are scheduled to remain under \$6 million during the remainder of the 1960s. These service payments represent about 13% of estimated exchange earnings in 1965, 10% in 1966, and will decline to around 9% in 1970. In addition, service payments on external private debt are roughly \$1 million a year during the remainder of the 1960s.

If programmed new borrowing were to take place, there would be a modest rise in these service payments in 1966, by \$0.3 million. By 1970, these service payments would rise \$2.7 million, and the combined foreign exchange service on new and outstanding external public debt would approach 13% of projected export earnings in 1970. An additional one third of the external debt of Paraguay is repayable in local currency. The outstanding amount of this debt is equivalent to US\$ 34 million, and service payments in 1965 amounted to the equivalent of almost US\$ 2 million. Combined external debt service payments due in foreign exchange and in guarantees absorbed about 30% of gross public saving in 1965, and even with the projected rise in public sector savings may still absorb almost 40% of these savings in 1966. This high ratio derives from Paraguay's extensive need for external resources to match its limited domestic savings in carrying out its development efforts.

Paraguay currently has a favorable external debt structure: the average length of maturities on the outstanding debt is between 15 and 20 years, and grace periods average about 5 years. The average interest rate on outstanding loans is more than one third repayable in local currency and less than two-thirds in foreign exchange.

It is imperative that this favorable debt structure be maintained since any significant departure could generate an unmanageable debt service burden and adversely affect Paraguay's credit worthiness. Thus, short - and medium - term borrowing should be avoided. Paraguay needs to obtain its loans on a very long term basis to maintain its creditworthiness, and such loans should provide substantial financing for local cost requirement as well. Under such terms Paraguay will be able to service its external debt.

Estimated External Debt Services Payments in Foreign Exchange  
1965 - 1970 (In thousands of U.S. dollars)

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
<u>Central Government:</u>	<u>1,090</u>	<u>471</u>	<u>524</u>	<u>428</u>	<u>562</u>	<u>763</u>
Amortization	852	220	265	156	254	417
Interest	238	251	259	272	308	346
<u>Autonomous Agencies:</u>	<u>4,425</u>	<u>4,665</u>	<u>4,958</u>	<u>5,213</u>	<u>5,265</u>	<u>5,320</u>
Amortization	3,386	3,401	3,180	3,209	3,271	3,320
Interest	1,039	1,264	1,778	2,004	1,994	1,730
<u>Central Bank:</u>	<u>1,297</u>	<u>187</u>	<u>178</u>	<u>170</u>	<u>10</u>	<u>12</u>
Amortization	1,250	150	150	150	—	—
Interest	47	37	28	20	10	12
<u>Private Sector:</u>	<u>2,200</u>	<u>1,160</u>	<u>1,011</u>	<u>968</u>	<u>928</u>	<u>900</u>
Amortization	1,793	862	757	758	774	798
Interest	407	298	254	210	154	102
<b>TOTAL:</b>	<b>9,012</b>	<b>6,483</b>	<b>6,671</b>	<b>6,779</b>	<b>6,765</b>	<b>6,995</b>

External Public Debt Outstanding as of December

31, 1964 \*

	<u>Disbursed</u>	<u>TOTAL</u>
<u>Repayable in Foreign Exchange</u>	<u>22,343</u>	<u>65,264</u>
IBRD Loans	-	2,200
IDA	528	9,600
IDB	1,719	13,450
Purchase of British-owned railroad	490	490
Privately placed debt	3,735	6,907
a) Suppliers' credits	(2,061)	(5,233)
b) Other	(1,674)	(1,674)
Government loans:		
United States	<u>12,094</u>	<u>15,840</u>
a) Export-Import Bank	7,503	7,503
b) AID	4,591	8,337
Other Western governments	<u>3,754</u>	<u>7,754</u>
Argentina	130	130
Brazil	61	61
Japan	2,588	2,588
Spain	975	1,975
Germany	-	3,000
Loan from Czechoslovakia	23	23
<u>Repayable in Local Currency</u>	<u>14,081</u>	<u>34,138</u>
AID	10,571	12,321
IDB	3,510	17,317
SPAIN	-	4,500
<u>Total External Debt</u>	<u>36,424</u>	<u>99,402</u>

\* Debt with an original or extended maturity of one year or more.

SOURCE: IBRD, Economic Department, July 13, 1965.

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G. Financial Analysis

1. Financial Plan

The total cost of the project proposed herein is estimated by Palmer and Baker to be \$5.4 million. Of this amount A.I.D. will finance \$4.7 million, which includes \$4.0 million in dollar costs and \$700,000 in guaranties. The G.O.P. is to finance the remaining \$700,000 in guarani costs; the G.O.P. will also furnish land worth \$188,000. Their agreement to undertake all such financing will be required in the Loan Authorization. Said G.O.P. contribution may include up to \$40 million (\$320,000) out of the \$80 million of PL 480 generated loan funds which were originally allotted by A.I.D. to the Central Bank and National Development Bank (by Project Agreement No. 526-A-14-AD, dated October 25, 1962) for short term agricultural credit use and subsequent re-allocation by mutual consent; A.I.D. and G.O.P. had previously tentatively agreed to use the full \$80 million as the entire G.O.P. contribution hereto but the G.O.P. has now requested that \$40 million of said funds be used as a portion of the G.O.P. contribution hereto and the remaining \$40 million be used as a portion of the G.O.P. contribution to the Brazil Road Rehabilitation; USAID/P recommends A.I.D. acquiescence. The remainder of said G.O.P. contribution hereto, plus any additional funds that may be required pursuant to the covenants and conditions of the Loan Agreement, shall be internal public savings generated in conformity with the self-help provisions of the Alliance for Progress.

In addition the above elements of the project itself, the Capital Assistance Committee has been informed that Pan American International Airways, Braniff International Airways and four other carriers have arranged to finance the installation of a VOR system at a cost of approximately \$25,000.

The consulting engineer estimates the construction time on this project as being 18 months (following upon a 10 month period for engineering and bidding). An estimated schedule of disbursements based upon the Feasibility Study herein would be (expressed in US\$).

CY 1966	\$ 100,000
CY 1967	1,600,000
CY 1968	3,000,000

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2. Proposed Terms

Terms recommended for this loan are:

Amortization - 40 years  
Grace Period - 10 years  
Interest - 1% during grace period  
          2½% during payoff period

3. Reasonableness of Proposed Terms and Financial Plan

The financial plan which contemplates A.I.D. financing of 50% of the local currency cost of the project, and the terms which are the most concessional offered by A.I.D., are deemed reasonable under the circumstances. As shown in the Economic Analysis (Section F), Paraguay's urgent need is for developmental financing with the minimum possible requirement for G.O.P. local cost contributions and on the most concessional terms available: Current and projected G.O.P. revenue budget deficits are in the neighborhood of 20% and the chances of near-term amelioration of this situation are dim; projected annual debt service requirements may reach 13 percent of projected export exchange earnings and approach 40% of gross public savings; the need for development capital is both long-term and immediate; the project is one of basic infrastructure rather than income producing; per capita annual income in Paraguay is estimated at only \$231 for 1965. Therefore, harder terms and a larger local cost contribution would only serve to weaken the country's ability to carry out the necessary over-all program of economic development.

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H. Safety Considerations.

An overriding reason for preserving the ability of the Asuncion Airport to handle jet traffic is its essentiality to the safety of all air travellers in southern South America. As the accompanying map shows, most of the major air routes in the area pass within two to four hundred miles of Asuncion - from there it is 675 miles to Buenos Aires, 700 to Sao Paulo, 900 to La Paz, 1000 to Santiago and 1600 to Lima. Moreover, save for lofty La Paz, Asuncion is the only truly inland jet airport in the southern part of the continent - thus if ocean-borne storms were to close the littoral fields there would be absolutely no other place to land the big jets with safety.

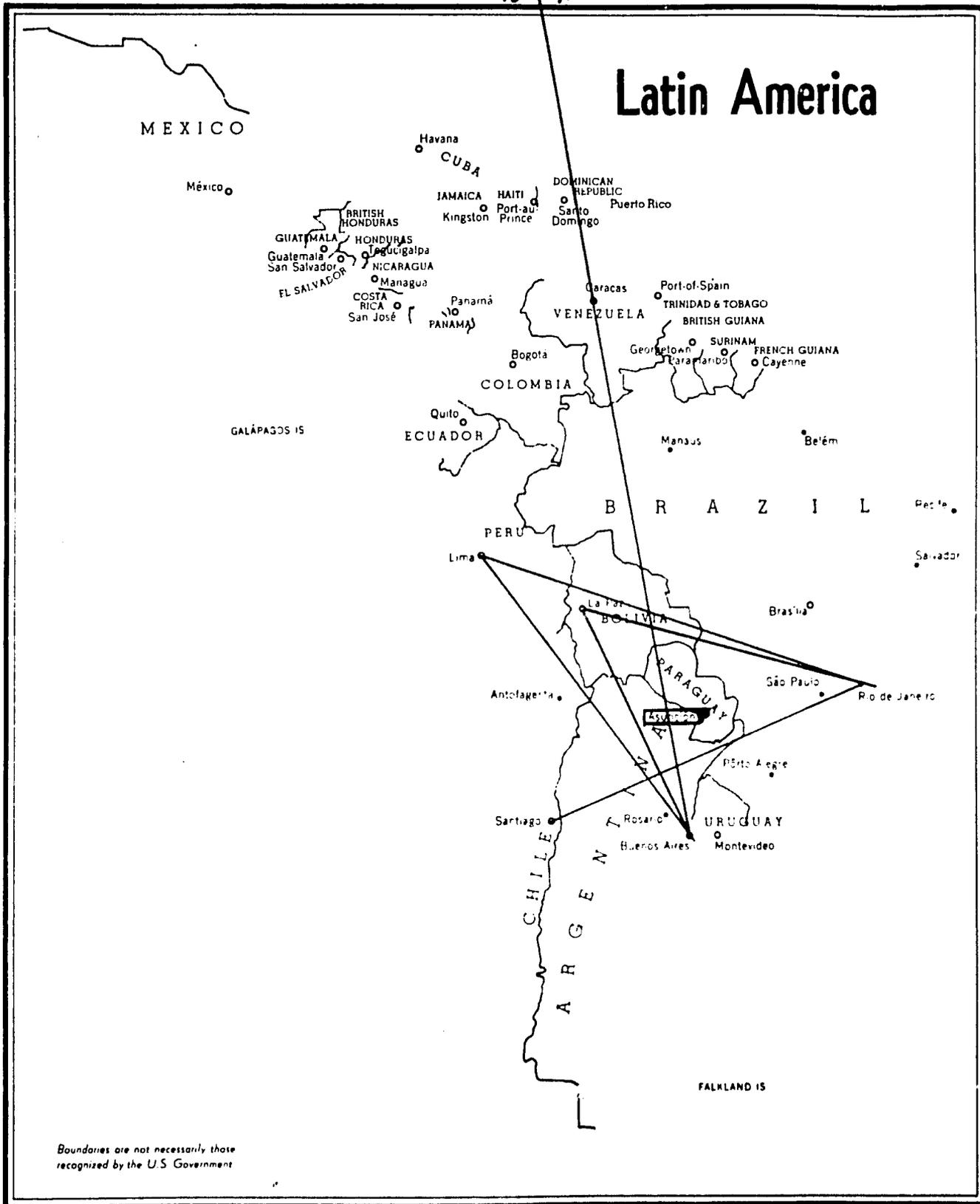
In practice, Pan American's "non-stop" New York - Buenos Aires flight refuels in Asuncion whenever there is a question about the Buenos Aires weather (this has happened three times within the last month), and a recent Braniff flight from Lima developed engine trouble less than half an hour from the midway point between Lima and Asuncion.

Furthermore, the following features of the projected improvements are directly related to the safety, regularity, and security of persons, flights and property actually utilizing the airport on a non-emergency basis:

1. Repair of structurally unsound runway surface and subbase.
2. Added taxiway to remove aircraft from the runway and to relieve congestion both on the ground and in the air near the airport.
3. Added overrun areas for aircraft in difficulty.
4. Improved runway and approach lighting. Presently night operations are very limited.

To N.Y.

# Latin America



Boundaries are not necessarily those recognized by the U.S. Government

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SECTION II - IMPACT ON U. S. ECONOMY

A. Competition with U. S. Enterprise

No competition with U.S. enterprise will arise from this project. On the contrary, U.S. firms will have their markets expanded thereby since the growth of Paraguay's economy will enable Paraguay to buy more U.S. products and since the facilitation of air freight operations resulting from the project will increase the accessibility of the Paraguayan market to U. S. enterprises, thereby improving their competitive position. Moreover, 2 U.S. airlines are major users of the facility and will benefit directly from its rehabilitation in terms of passengers, mail and air freight carried, as contrasted with the losses they would suffer were the airport allowed to deteriorate to the point where the big jets they fly could no longer safely use it. Moreover the improvements in the Asuncion airport will further benefit these U.S. airlines by providing greater safety to U.S. nationals and others aboard U.S. carriers landing in Paraguay or overflying its territory. Improved regularity of flights will provide greater security for baggage and cargo. Such greater safety of U.S. aircraft flying over southern South America and greater facilities for U.S. commercial travellers should facilitate U.S. private enterprise in the entire area. The U.S. national interest in this project thus ranges far beyond the facility itself.

B. Source/Origin Procurement of Goods and Services

The loan provisions will limit procurement to the United States and Paraguay.

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SECTION III - COVENANTS AND CONDITIONS

In addition to the usual covenants and conditions, the Loan Authorization and Agreement will require, in substance that:

1. Airport Administration and Operations Authority: The Borrower enter into a contract for a study by an engineering firm or other agency satisfactory to A.I.D. which will result in a plan and recommendations for the organization, management and budgeting of an autonomous Authority to administer and operate the airport. Provision shall be made in the plan for the Authority to employ its own work force and to own equipment for the maintenance of the airport. The contract will also provide management training services on a diminishing responsibility basis under which the contractor will provide management personnel who will train Paraguayan counterparts and progressively turn over management responsibilities to these trainees. The Borrower will, within one year of signing the loan agreement, agree to such of these plans and recommendations as shall also be acceptable to A.I.D., for establishing such Airport Authority including the composition of the Authority, its budget for operating the airport and a schedule for its implementation.
2. Maintenance Plan: Borrower will cause its consultant engineers to prepare in form and substance satisfactory to A.I.D., a plan to assure that the airport facilities are maintained in good operating condition on a permanent basis. The GOP will include or cause to be included in its future annual budgets provisions of government funds to the airport authority for this purpose, sufficient to carry out the program.
3. Prior to the first disbursement or issuance of the first commitment document, other than to finance engineering services, Borrower shall furnish A.I.D., in form and substance satisfactory to A.I.D., a commitment to allocate through its regular budgetary procedures all necessary monies for the payment, as scheduled, of all GOP debts to A.I.D. or its predecessor agencies.
4. Equipment, materials and services (except shipping and marine insurance) financed under the loan shall have their origin in and be procured from the United States or Paraguay. Shipping financed under the loan shall be procured from the United States, and marine insurance financed under the loan shall be placed in the United States.

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5. United States dollars utilized under the loan to finance local currency costs shall be made available to Borrower or its designee through appropriate Special Letter of Credit procedures and shall be used only for procurement in the United States.
6. The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

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SECTION IV - ISSUES

The only issue involved herein concerns GOP debt delinquencies and is discussed in Classified Supplement to the Brazil Road Rehabilitation Capital Assistance Paper (AID-DLC/P-447/1).

Revised June 29, 1966

SECTION V - IMPLEMENTATION PLAN

Now that USAID/Paraguay has both a permanent Capital Development Officer and a Transportation Officer plus ready access to the services of AID/W Engineering and the Regional Counsel, it is recommended that the Mission Director be granted implementation authority on this loan, in conjunction with AID/W Engineering and/or the Regional Counsel as necessary, except for approval of bid documents and addenda and except for approval of engineering and construction contracts.

It is expected that this loan will be authorized before the end of June 1966 and that the Loan Agreement will be signed within a 30-60 day period thereafter. The GOP-Palmer and Baker contract for consulting engineering services having already been submitted for AID approval and the other conditions precedent to first disbursement being strictly formal, the Capital Assistance Committee estimates such conditions precedent will be satisfied contemporaneously with the signing of the Loan Agreement.

The consulting engineer will be required to prepare construction plans and contract documents, advertise and receive bids, evaluate bids received, and make an award recommendation to the GOP. This together with review and approval of a construction schedule prepared by the consulting engineer, evidence of creation of and budget support for the airport administrative agency plus approval of its maintenance plans will require an estimated one year.

It is, therefore, estimated that one year will be needed to meet all conditions precedent. Thus, the construction contractor could begin mobilization by mid CY 1967. Loan disbursements could have already commenced in favor of the consulting engineer in mid CY 1966 and would start in favor of the contractor in mid CY 1967. The table under Financial Analysis presents the projected disbursement schedule.

Loan funds, not to exceed \$80,000, may be used for the financing of an engineering firm or other agency to prepare a plan for a central airport authority and provide "start up" management assistance for the authority. An additional \$127,000 in loan funds are to be used to provide such authority with essential maintenance equipment to be purchased from U.S. excess and surplus property stocks to the extent possible and otherwise from sources within the U.S. or Paraguay. The Loan Agreement will include a covenant requiring the GOP to actually establish such agency to administer and operate the airport, according to a plan satisfactory to A.I.D., within one year after the signing of this loan. A further covenant will require the Borrower to obtain from its consultants plans for a systematic and comprehensive maintenance program for the airport within a period specified by A.I.D. and to cause the inclusion in the next Paraguayan national budget of government funds to the airport authority for this purpose, sufficient to carry out the program.

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Revised June 29, 1966

During the course of construction, the GOP will be required to submit monthly narrative and quarterly program reports. These reports may be prepared on their behalf by the consulting engineer. In such event, the GOP must indicate its acceptance of the report.

Upon conclusion of construction of the project, including any needed clean-up, the consulting engineer will prepare a final report and certify to the GOP that it accepts the work of the contractor, and that the project covered by this A.I.D. loan is finished. A site inspection by A.I.D. and the GOP will be then carried out. If the project is accepted, the contractor and consulting engineer, in that order, will be paid the remaining amounts under their contracts and released. The USAID/Paraguay will then submit a final report to AID/W.

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PARAGUAY - ASUNCION AIRPORT REHABILITATION

June 17, 1966

CHECK LIST OF STATUTORY CRITERIA (ALLIANCE FOR PROGRESS)

1. Foreign Assistance Act of 1961, as amended (hereinafter FAA), Section 102. Precautions that have been or are being taken to assure that loan proceeds are not diverted to short-term emergency purpose (such as budgetary, balance of payments, or military purposes) or any other purpose not essential to the country's long-range economic development.

The proceeds of this loan will be used exclusively on the project as set forth hereinbefore and all disbursements will be made pursuant to applicable AID regulations.

2. FAA Section 102. Information on measures taken to utilize United States Government excess personal property in lieu of the procurement of new items.

The loan agreement and implementation letters will require compliance with prescribed procedures; purchase of a substantial amount of such property is contemplated.

3. FAA Section 102. Information whether the country permits, or fails to take adequate measures to prevent, the damage or destruction by mob action of United States property.

4. FAA Section 101 (d). Information and conclusion on legality (under laws of country and United States) and reasonableness of lending and relending terms of the loan.

Loan terms are consistent with United States and Paraguay laws.

5. FAA Section 251(a). Manner in which loan will promote country's economic development and contribute to the welfare of its people.

Rehabilitation of this airport will be of great economic and social benefit to Paraguay as set forth hereinbefore.

6. FAA Section 251 (b)(1). Extent to which country is adhering to the principles of the Act of Bogota and Charter of Punta del este and is showing a responsiveness to the vital economic, political, and social concerns of its people, and extent to which country has demonstrated a clear determination to take effective self-help measures.

Starting from an extremely modest economic base, Paraguay has made moderate progress since the inception of the Alliance and has supported the economic and social goals thereof. Possessed of a turbulent and undemocratic history, the country has nevertheless taken significant steps in recent years toward tranquillity, stability and personal and political freedom. Although hindered by the inadequacy of its resources, Paraguay is seeking, with at least some success, to attain an increasing level of self-help.

7. FAA Section 251(b)(2). Information and conclusion on activity's economic and technical soundness.

See Section F and F.

8. FAA Section 251(b)(3). Information and conclusion on activity's relationship to and consistency with other development activities, and its contribution to realizable long-range objectives.

9. FAA Section 251(b)(4). Information and conclusion on possible effects on U. S. economy, with special reference to areas of substantial labor surplus.

There will be no adverse effect on the U. S. economy as a result of this project; in fact, this project will benefit the U. S. economy both directly through the use of U. S. commodities and services therein and indirectly through the increased purchases of U. S. products by a more prosperous Paraguay.

10. FAA Section 251(b). Information and conclusion on availability of financing from other free-world sources, including private sources within the United States.

Other free-world financial sources are not interested in financing this project.

11. FAA Section 251(b). Information and conclusion on capacity of the country to repay the loan.

It is believed that Paraguay has the capacity to repay this loan. See Section F.

12. FAA Section 251(b). Information and conclusion on country's efforts to repatriate capital invested in other countries by its own citizens.

Capital flight is considered not to be a major problem in Paraguay at this time.

13. FAA Section 251(b). Information and conclusion on reasonable prospects of repayment.

It is believed that there are reasonable prospects of repayment of this loan. See Section F.

14. FAA Section 251(e). Information and conclusion on availability of an application together with sufficient information and assurance to indicate reasonably that funds will be used in an economically and technically sound manner.

There is sufficient information to indicate that the funds under this loan will be used in an economically and technically sound manner.

15. FAA Section 251(g). Information and conclusion on use of loan to assist in promoting the cooperative movement in Latin America.

16. FAA Section 252(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources.

The major portion of the funds under this loan will be used to procure goods and services from private sources.

17. FAA Section 601(a). Information and conclusions whether loan will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture, and commerce; and (f) strengthen free labor unions.

The loan funds will be used to rehabilitate an airport that is a vital link in Paraguay's internal and foreign trade, that is of great benefit to free, competitive private enterprise both within and without the country and that is a major factor in promoting improved technical and economic efficiency of industry, commerce and agriculture.

18. FAA Section 601(b). Information and conclusion on how the loan will encourage U.S. private trade and investment abroad and how it will encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

This loan will encourage private trade and participation through its use of U.S. goods and services. Moreover, two U.S. airlines are major users of this airport.

19. FAA Section 601(d). Conclusion and supporting information on compliance with the Congressional policy that engineering and professional services of U.S. firms and their affiliates are to be used in connection with capital projects to the maximum extent consistent with the national interest.

This policy will be complied with.

20. FAA Section 602. Information and conclusions whether loan will permit American small business to participate equitably in the furnishing of goods and services financed by it.

American small business will have the opportunity to furnish goods and services.

21. FAA Section 604(a); App. Section 108. Compliance with restriction of commodity procurement to U.S. except as otherwise determined by the President and subject to statutory reporting requirements.

Will be complied with.

22. FAA Section 604(b). Compliance with bulk commodity procurement restriction to prices no higher than the market price prevailing in the U.S. at time of purchase.

Will be complied with.

23. FAA Section 604(d). Compliance with requirement that marine insurance be purchased on commodities if the host country discriminates, and that such insurance be placed in the U.S.

Will be complied with.

24. FAA Section 611(a)(1). Information and conclusion on availability of engineering, financial, and other plans necessary to carry out the assistance and of a reasonably firm estimate of the cost of the assistance to the United States.

Necessary substantive technical and financial planning for the project has been completed and a reasonably firm estimate of cost for the project has been obtained.

25. FAA Section 611(a)(2). Necessary legislative action required within recipient country and basis for reasonable anticipation such action will be completed in time to permit orderly accomplishment of purposes of loan. Legislation will be required to establish the airport authority; however high GOP officials have indicated that this relatively minor administrative reorganization should be authorized without substantial difficulty or delay.

26. FAA Section 611(b); App. Section 101. If water or water-related land resource construction project or program, information and conclusion on benefit-cost computation.

Not Applicable.

27. FAA Section 611(c). Compliance with requirement that contracts for construction be let on competitive basis to maximum extent practicable.

Will be complied with.

28. FAA Section 612(b) and 636(h). Appropriate steps that have been taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.

Borrower is contributing 50% of the local cost financing to this project. For discussion see Section I.G.

29. FAA Section 619. Compliance with requirement that assistance to newly independent countries be furnished through multilateral organizations or plans to maximum extent appropriate.

Not Applicable.

30. FAA Section 620(a); App. Section 107(a). Compliance with prohibitions against assistance to Cuba and any country (a) which furnishes assistance to Cuba or failed to take appropriate steps by February 14, 1964, to prevent ships or aircraft under its registry from carrying equipment, materials, or supplies from or to Cuba; or (b) which sells, furnishes, or permits any ships under its registry from carrying items of primary strategic significance, or items of economic assistance to Cuba.

Paraguay provides no assistance to Cuba.

31. FAA Section 620(b). If assistance to the government of a country, existence of determination it is not controlled by the international Communist movement.

Paraguay is not controlled by the international Communist movement.

32. FAA Section 620(c). If assistance to the government of a country, existence of indebtedness to a U.S. citizen for goods or services furnished or ordered where such citizen has exhausted available legal remedies or where the debt is not denied or contested by such government or the indebtedness arises

under an unconditional guaranty given by such government.

Not Applicable.

33. FAA Section 620(d). If assistance for any productive enterprise which will compete in the U.S. with U.S. enterprise, existence of agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan.

Not Applicable.

34. FAA Section 620(e)(1). If assistance to the government of a country, extent to which it (including government agencies or subdivisions) has, after January 1, 1962, taken steps to repudiate or nullify contracts or taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking appropriate steps to discharge its obligations.

Paraguay has taken no such action.

35. FAA Section 620(f); App. Section 109. Compliance with prohibitions against assistance to any Communist country.

Paraguay is not a Communist country.

36. FAA Section 620(g). Compliance with prohibition against use of assistance to compensate owners for expropriated or nationalized property.

Will be complied with.

37. FAA Section 620(h). Compliance with regulations and procedures adopted to insure against use of assistance in a manner which, contrary to the best interests of the U.S., promotes or assists the foreign aid projects or activities of the Communist-bloc countries.

This project will not promote or assist the foreign assistance aid projects or activities of the Communist-bloc countries.

38. FAA Section 620(i). Existence of determination that the country is engaging in or preparing for aggressive military efforts.

Paraguay is not engaging in such activity.

39. FAA Section 620(k). If construction of productive enterprise where aggregate value of assistance to be furnished by U.S. will exceed \$100 million,

identification of statutory authority.

Not Applicable.

40. FAA Section 620(l). Compliance with prohibition against assistance after December 31, 1966, for the government of a country which fails to institute investment guaranty program.

Paraguay has an investment guaranty program.

41. FAA Section 620(n); App. 107(b). Compliance with prohibition against assistance to countries which traffic or permit trafficking with North Vietnam.

Paraguay neither traffics nor permits trafficking with North Vietnam.

42. FAA Section 620(o). If country has seized, or imposed any penalty or sanction against, any U.S. fishing vessel on account of its fishing activities in international waters, information on the consideration which has been given to excluding the country from assistance.

Not Applicable.

43. FAA Section 621. Information and conclusion on how the loan in providing technical assistance will utilize to the fullest extent practicable goods and professional and other services from private enterprise on a contract basis. If the facilities of other Federal agencies will be utilized, information and conclusion on whether they are particularly suitable, are not competitive with private enterprise, and can be made available without undue interference with domestic programs.

The project will be completely carried out by private contractors.

44. App. (Section unnumbered). Use of funds to carry out FAA Section 205, which pertains to IDA.

Not Applicable.

45. App. Section 102. Compliance with requirement that payments in excess of \$25,000 for architectural and engineering services on any one project be reported to Congress.

Will be complied with.

46. App. Section 104. Compliance with bar against funds to pay pensions, etc., for military personnel.

Will be complied with.

47. App. Section 106. If country attempts to create distinctions because of their race or religion among Americans in granting personal or commercial access or other rights otherwise available to U.S. citizens generally, application which will be made in negotiations of contrary principles as expressed by Congress.

Paraguay does not make any such distinctions.

48. App. Section 111. Compliance with existing requirements for security clearance of personnel.

Security clearance of personnel under contract for services will be obtained.

49. App. Section 112. Compliance with requirement for approval of contractors and contract terms for capital projects.

Contractors and contract terms will be approved by AID.

50. App. Section 114. Compliance with bar against use of funds to pay assessments, etc., of U.N. member.

No funds under this loan will be used to pay assessments, etc., of U.N.

51. App. Section 115. Compliance with regulations on employment of U.S. and local personnel for funds obligated after April 30, 1964 (Regulation 7).

This requirement will be complied with.'

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AID-DLC/P-448

ANNEX II.

June 17, 1966

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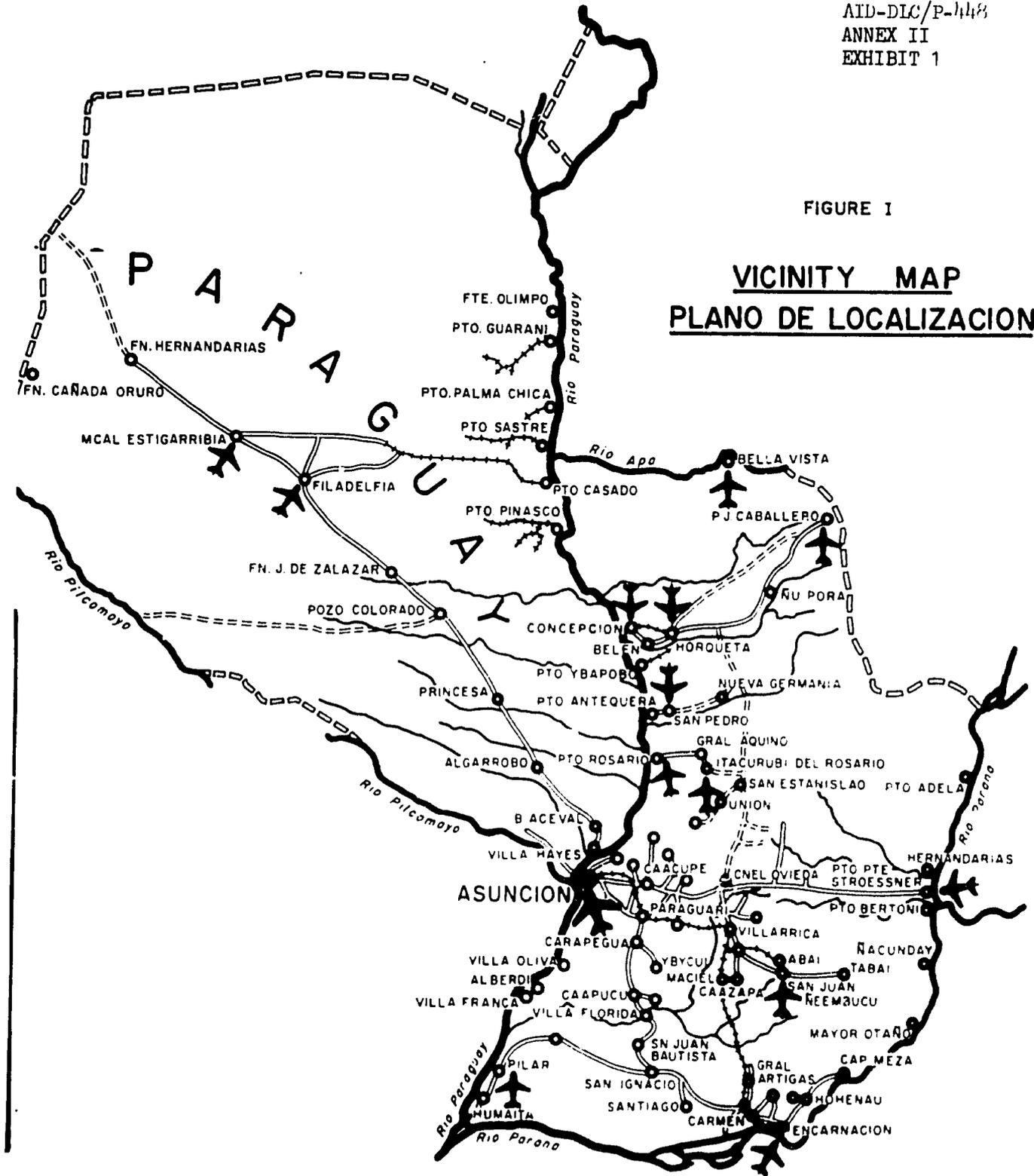
Exhibit

1. Vicinity Map
2. Detailed Description of Project  
(Including Design Standards)
3. Plan of Airport
4. Estimate of Construction Cost
5. Implementation Schedule
6. Typical Cross-Sections

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FIGURE I

VICINITY MAP  
PLANO DE LOCALIZACION



PRESIDENT STROESSNER INTERNATIONAL AIR  
AEROPUERTO INTERNACIONAL PRESIDENTE STROE:

## DETAILED DESCRIPTION OF PROJECT

### General Site Description:

The airport site is about 10 miles northeast of Asuncion and is connected to the city by a winding bituminous surfaced highway. The terrain is marked by low rolling hills, none of which present any hazard to air traffic.

There is an existing runway 9,009 feet in length and 150 feet in width. It is composed of a 3 inch asphaltic concrete surface with a crushed stone base course and a variable material subbase course. Extensive repairs have been made during the past two years to correct base and surface failures which have occurred primarily in the middle one third of the runway length. A major repair was made in 1963 between Station 29+50 and Station 33 and many other small failures have been corrected, generally between Station 33 and Station 38, by the airport maintenance forces since that time. Due to the plasticity and generally inadequate depth of the base and subbase materials, failures are continuing to appear in this area. This condition exists in a much lesser degree between Station 20+00 to 28+00 and from Station 38+00 to Station 47+46.

An excavation into the existing runway was made during repair operations at approximately Station 54, and samples of the pavement structure and subgrade were taken. The asphalt pavement was 5 centimeters thick. The base course material was crushed stone (basalt), 20 centimeters thick, with a gradation curve almost equal to the average curve shown in the April, 1964 report. The subbase was a 24 centimeter thick mixture consisting of a very moist sandy clay and crushed stone. The subgrade was a moist, firm sandy clay. Free water was found standing on the hard clay surface at a depth of approximately 1.8 meters.

Perforated drain tile is in place alongside the edge of the pavement from Station 22+06 to Station 47+46 on the east side and from Station 29+63 to Station 47+46 on the west side of the runway with interceptor drains under the pavement at 45° at variable intervals. A paved shoulder about 2 meters in width covers the subdrain trench to prevent surface water infiltration.

The perforated drain tile has proven generally effective in collecting and removing the surplus moisture from the base and subbase courses except in localized areas where the plasticity of the materials will not permit a flow of water to the interceptor drains.

The asphaltic concrete surface of the runway has recently been sealed with an application of cut back asphalt and leakage of water into the base from the surface has been reduced substantially.

The surface of the runway is rough due to the numerous repaired areas, settlements and the installation of subdrains. A maintenance leveling program now under way is correcting some of these irregularities.

#### The New Runway:

The location selected for the new runway is 214 M west of the centerline and parallel to the present runway. The ends of the new runway will coincide with the ends of the present runway, with overrun areas extending beyond the runway ends. The terrain along the centerline is generally sloping downward to an elevation about three meters lower than the present runway and is generally rolling in the longitudinal direction. With the exception of a section from Station 31+00 to Station 37+00, the new runway will be on low embankment with an average height of two meters at the centerline and along the west shoulder line. The east shoulder elevation will, in some areas, penetrate the side hill and will have an interceptor ditch at a minimum depth of one meter below the shoulder elevation to collect ground and surface water.

The entire area east of the existing runway rises gradually upward for a distance of about 2000 meters and is covered with a silty sand material above an impermeable strata of hard sandy clay material. Rainfall is absorbed by this overlaying friable silty sand material and then gradually descends westerly into the area east of the present runway where some of the ground water reaches the surface and is carried off in an interceptor ditch approximately 80 meters east of the present runway. There is a large marshy area just east of Station 30+00 where no drainage ditches have been provided to remove the surplus water.

An interceptor ditch approximately 240 meters east of the present runway, which was constructed along with the present runway, is not completely effective due to its shallow depth and because it does not extend southerly into the wet area.

The water table was found to be near the surface in the borings along the centerline of the new runway lying west of this area. Ground water has also been found immediately above the impermeable strata in excavations for repair operations where existing runway surface failures have occurred. These excavations were generally to a depth of about five feet below the runway surface and in two observed instances, several gallons of free water were released.

An extensive subsurface investigation was carried out to define the soils and drainage conditions in the proposed locations of the new runway and extension, connecting taxiways, administration building and borrow areas.

The soils in this area are generally divisible into three distinct strata; an upper stratum averaging about 0.5 meter thick and consisting of a moist, firm, brown silty sand; a stratum of varying thickness of moist, firm to stiff sandy clay; and an underlying dry, hard sandy clay material.

The silty sand is of variable depth or entirely absent due to past stripping of this material from Station 18 to 23. It averages approximately 0.3 meter in depth from Station 23 to 30; 0.7 meter from Station 30 to 38; 0.4 meter from Station 38 to 44; and 0.3 meter or less than Station 44 to 57. This soil is non-plastic and is classified as E-2 to E-4 according to the FAA system or as A-1-3 or A-2-4 according to the AASHTO system. The material averages 30% coarse sand, 43% fine sand, with the remaining 27% grading rather smoothly into the silt and clay sizes. Samples of this soil have an average optimum moisture content of 7% and a maximum density of 132 pounds per cubic foot, as determined by AASHTO T-180 and a soaked California Bearing Ratio (CBR) of over 40. The natural water content of this soil averages 13%.

These silty sand soils are dense when compacted at the proper moisture content and have a high bearing capacity. They have a subgrade class by the FAA system of Fa to F2, depending on the drainage conditions.

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The moist, firm to stiff sandy clay stratum underlying the silty sand was encountered to the bottom of the borings, over two meters in depth, from Station 18 to 31. It was of varying depth, averaging about two meters, from Station 31 to 37; of slight thickness or entirely absent from Station 37 to 45 and 46 to 57; and to a depth of about two meters from Station 45 to 46. The liquid limit averages 27, the plasticity index 15 and the natural water content 15%. It is classified as E-7, with some E-5, according to the FAA system or as A-6 according to the AASHO system. The material averaged 25% coarse sand, 25% fine sand, 6% silt and 44% clay. Samples of this soil have an average optimum moisture content of 10% and a maximum density of 127 pounds per cubic foot, as determined by AASHO T-180 and a soaked California Bearing Ratio (CBR) of 11.

These sandy clay soils are very stiff when compacted at the proper moisture content and make a good fill material under conditions of good drainage. However, due to the clay content, they are sensitive to changes in moisture content. This material had a soaked CBR of only 4 when compacted at a moisture content of 3% above optimum. They have a subgrade class by the FAA system of F-3 to F-5, depending on the drainage conditions.

The dry, hard sandy clay underlying the moist soils is entirely impermeable and forms a surface for a considerable amount of underground water flow. This surface is gently sloping down at about the same grade as the ground surface from the east to the west. "Paths" of particularly concentrated water flow are found at Station 30, 33 and 43 to 46. The depth to water readings taken in the open boring holes showed a considerable variation in the water elevation and were dependent on the location of the hard sandy clay surface and on the amount of runoff taking place from recent rainfall. The water surface was generally located within the limits of the moist sandy clay stratum. Individual "pockets" of water standing on the surface of the hard sandy clay were also found with some of the borings. This hard material could not be penetrated by more than a few centimeters by the hand auger equipment. It can be expected to be difficult to excavate and can be compared in consistency to a soft sandstone. It tends to expand and become unstable when pulverized and allowed to take on water. For this reason it should not be placed as a fill material under the runway or other areas requiring a high bearing capacity. The subgrade of the pavement structure should be a minimum of two feet above this soil strata.

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Runway and Taxiway pavement Structure:

The design loading on the pavement structure, as shown in the Design Criteria, is 320,000 pounds gross aircraft weight on dual-tandem gear.

The required pavement thicknesses for the design loading, based on an eighteen inch layer of E-4 or better soil overlaying an E-7 subsoil with poor draining conditions, is derived from procedures set forth in Section 15, Chapter 3, of FAA Advisory Circular AC 150/5320-6 for Critical and Non-Critical Areas as follows:

Critical Areas - All Taxiways and  
500 Feet at Each End of Runway

Bituminous Surfacing:	3 inches; 7.62 cm
Crushed Stone Base Course:	11 inches; 27.9 cm
Granular Subbase Course:	9 inches; 22.8 cm
Selected Subgrade:	18 inches; 45.7 cm

Non-Critical Areas - Center Section  
of Runway Exclusive of 500 Feet at Each End

Bituminous Surfacing:	3 inches; 7.62 cm
Crushed Stone Base Course:	9 inches; 22.8 cm
Granular Subbase Course:	3 inches; 7.62 cm
Selected Subgrade:	18 inches; 45.7 cm

The construction procedure, however, requires that the new runway be used for taxiway purposes for a 6 to 8 month period during the reconstruction of the existing runway as a taxiway. During this period it will be possible that excessive stresses may be produced in the non-critical thickness of the center section of the new runway pavement from the taxiing operation.

It has been determined from the airlines using the Asuncion Airport that the present maximum gross aircraft loading is 270,000 pounds on dual-tandem gear assembly.

Accordingly, a critical area pavement thickness based on 270,000 pounds gross load has been analyzed which produces the following required pavement thickness:

**Critical Area - Center Section of Runway**

Bituminous Surfacing:	3 inches; 7.62 cm
Crushed Stone Base Course:	10 inches; 25.4 cm
Granular Subbase Course:	6 inches; 15.2 cm
Selected Subgrade:	18 inches; 45.7 cm

The critical pavement thickness required for the 270,000 pound gross aircraft load requires a slightly greater thickness base and subbase course than the non-critical thickness required for the design loading of 320,000 pounds gross weight. Because of the minor difference of approximately \$58,000.00 in cost of the two pavement designs, the critical pavement thickness design for 270,000 pound gross loading will be adopted for the center portion of the runway and all other runway and taxiway areas will be constructed to the required critical thickness of the 320,000 pound design loading.

After the new runway is completed and put in service, the present runway can then be rehabilitated to a structurally sound parallel taxiway. In order to accomplish this it was found to be more economical to remove the center 23 meters from the entire length of the present runway for a depth of forty inches or more below the present pavement surface, to place and compact selected subgrade material for a depth of eighteen inches and to reconstruct the subbase and base courses to the proper depths, using materials that conform to the specification requirements. Perforated tile subdrains will be installed on both sides of the excavated area for the entire length of the taxiway, at a depth below the recompacted subgrade. The surface course will consist of three inches of asphaltic concrete placed in two layers, with the top layer overlapping the old asphaltic surface. The finished surface of the reconstructed taxiway will be at a 1.5% slope from the centerline to the edges of the new construction.

In the existing terminal area, a new connecting taxiway is needed to eliminate congestion and will be provided at the north end of the present terminal apron. After this new taxiway has

been constructed, the present taxiway will then be removed and reconstructed in the same manner proposed for the parallel taxiway. Construction in this area must be coordinated so as to permit access to the terminal area from the runway at all times.

Storm Drainage and Erosion Control:

All runoff water east of the present runway is collected and passed under the present runway pavement in pipe culverts or around the ends of the present runway in open ditches. Some of the existing pipe culverts are of inadequate size for the planned future Terminal Area development. The new runway is located on the downhill side of the present runway and must provide outlets for all of the runoff water now passing under the old runway, together with the water that will be collected in the Terminal Area and in the area between the centerlines of the present runway and the new runway.

The connecting taxiways divide this area into four sections. Each of these sections will have drainage openings with a capacity as determined for a five year design storm using the rational equation formula, together with capacity for the storm water now passing or to be passed under the present runway. The system will be designed to provide capacity for the additional runoff expected when the planned development of paved parking aprons and new administrative area is accomplished.

The storm water that now passes the ends of the present runway will continue to be carried in open ditches beyond the ends of the new runway and stopways. A channel change will be constructed where Ytay Creek encroaches on the stopway area.

Paved ditches will be constructed along the east side of the present runway and along the east side of the new runway where needed to prevent erosion, or as necessary to provide a free draining condition where flat ditch gradients exist.

headwalls or inlets will be provided on both ends of all drainage culverts.

All graded areas of the airfield will be sprigged or seeded with a stable grass of local variety.

Airport Lighting:

The planning and estimate for the Airport Lighting Systems are based primarily on the U. S. Federal Aviation Agency (FAA) standards. Consideration was also given to standards and recommendations of the International Civil Aviation Organization. It was determined that the FAA requirements provide a system of illumination which will more clearly define the layout and pattern of the runways and taxiways, although the ICAO recommends some landing aids not required by FAA.

High intensity lighting will be provided for the runway and approach systems with sequenced flashing lights on the approach. In addition, a high intensity Visual Approach Slope Indicator will be provided on the north end of the runway. Medium intensity taxiway lighting will be provided.

The runway lighting will be installed in accordance with FAA Advisory Circular 150/5340-13 using 200 watt, bidirectional runway lights and bases per FAA Advisory Circular 150/5345-9, located as specified in Technical Standard Order N1c, and controlled by a saturable reactor type constant current regulator with stepless brightness control per FAA Specification L-828.

The taxiway lighting will be installed in accordance with FAA Advisory Circular 150/5340-15 and Technical Standard Order N3b, using a base mounted blue taxiway fixture per FAA Specification L-822, with a 30 watt, series, lamp in accordance with requirements of Advisory Circular 150/5345-23 and masked as specified in Advisory Circular 150/5340-15. Taxiway guidance signs will be installed where required. Series regulators will be in accordance with FAA Specification L-812.

The approach lighting will include a high intensity approach lighting system and a sequenced flashing light system, all in accordance with FAA Technical Standard Order N24a.

The Visual Approach Slope Indicator system will be installed as a landing aid in addition to the requirements of the U. S. Federal Aviation Agency as recommended by the International Civil Aviation Organization and in accordance with their standards.

Power for the lighting will be obtained from the National Power Company (ANDE). Their 6000 volt line will be extended to the area of the Airport Maintenance Shop, where, in addition to shops, an appropriate building will be located to house the equipment for regulating the runway and taxiway lights and also an emergency diesel engine driven generator set of sufficient capacity to operate the approach, runway and taxiway lights if the normal power supply fails. Transformers will be provided to transform the 6000 volts down to proper voltage for airport lighting and shop power. A power feeder will be installed from this area to a substation located near the approach lighting. This substation will include all regulators and control for the approach lighting system.

A new control panel with control of runway, taxiway and approach lighting will be provided in the existing control tower. Control circuits will be arranged for efficient transfer to the future new control tower.

Runway and Taxiway Marking:

The runway will be provided with runway direction number marking, threshold marking, landing zone marking, centerline marking and side stripe marking. Taxiways will be provided with centerline stripe marking and holding line markings. All areas such as paved shoulders, blast pads and other paved areas not intended for aircraft use will be marked with the standard markings for deceptive or hazardous areas.

Design Criteria:

The design criteria for the proposed construction is taken primarily from U. S. Federal Aviation Agency standards with considerations given to requirements of the International Civil Aviation Organization wherever possible.

The governing criteria are set forth below:

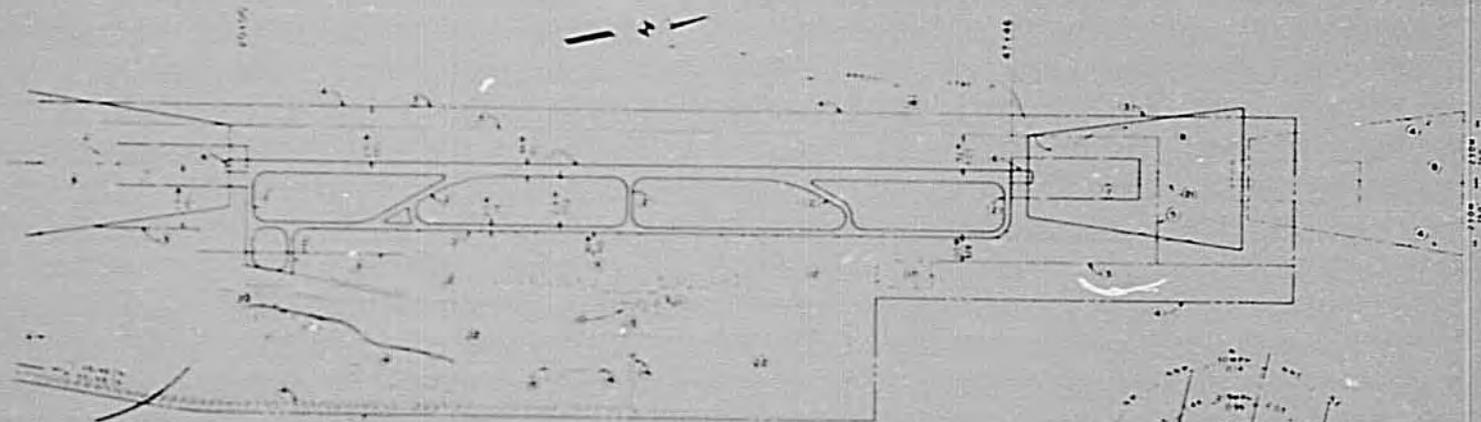
Airport Classification, FAA	Intercontinental
Airport Classification, ICAO	Class A
Normal Maximum Temperature	94°F.; 34°C.
Airport Elevation, MSL	300 Ft.; 91/3 M.
Largest Operating Aircraft	707 - 300 B

Maximum Gross Aircraft Weight	320,000 Pounds
Maximum Design Trip	2600 Miles
Runway Length Proposed	9009 Ft.; 2746 M.
Runway Length Future	11,600 Ft.; 3536 M.
Landing Strip Width (Cleared)	1000 Ft.; 304 M.
Runway Width	150 Ft.; 46 M.
Runway Shoulder Width	175 Ft.; 53.4 M.
Maximum Longitudinal Grade	1.25%
Maximum Effective Grade (Runway)	1.0%
Maximum Transverse Grade	1.5%
Shoulder Transverse Grade (Runway)	5% for 12 Ft.; then 2%
Maximum Rate of Grade Change (Runway)	0.1% per 100 Ft.
Sight Distance	Any two points 10 Ft. above pavement visible for 1/2 runway length
Stopway	1500 Ft. x 500 Ft.
Blast Pad	150 Ft. x 250 Ft.
Taxiway Width	75 Ft.; 23 M.
Maximum Rate of Grade Change (Taxiway)	1.0% per 100 Ft.
Maximum Transverse Slope	1.5%
Shoulder Width (Taxiway)	50 Ft.; 15.2 M.
Shoulder Pavement (Taxiway)	25 Ft.; 7.6 M.
Shoulder Slope	2%
Design Pavement Critical Loading (500 Ft. runway ends and taxi- ways)	320,000 Pounds Gross on Dual-Tandem Gear
Design Pavement Critical Loading (center section of runway)	270,000 Pounds Gross on Dual-Tandem Gear
Pavement Type - Runway	Flexible
Pavement Type - Taxiways	Flexible
Runway Lighting	High Intensity
Taxiway Lighting	Medium Intensity
Approach Lighting	High Intensity, Sequenced Flashing
Air Navigation Obstruction	FAA TSO-N18

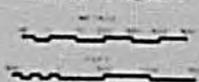
GENERAL PLAN OF AIRPORT DEVELOPMENT  
PLANO GENERAL PARA EL FOMENTO DEL AEROPUERTO

AIRPORT  
EXHIBIT

PLATE  
DIBUJO



PLANO DEL AEROPUERTO  
AIRPORT PLAN



WIND ROSE  
ROSA DE LOS VIENTOS

LEGEND

- 1 NEW RUNWAY 46M X 2746M
- 2 TAXIWAY
- 3 OBSTRUCTION CLEARANCE LINE
- 4 AIRPORT BOUNDARY LINE
- 5 BOUNDARY OF CLEARED AREA
- 6 BLAST PAD 30 X 250
- 7 STORAGE 300 X 300
- 8 SO APPROACH-DEPARTURE SURFACE
- 9 FUTURE TERMINAL APRON AND PARKING APRON
- 10 FUTURE ADMINISTRATION AND TERMINAL BUILDING
- 11 FIRE STATION

EXISTING FACILITIES  
PROJECT FACILITIES  
FUTURE FACILITIES

LEGEND

- 12 FUTURE AIRCRAFT HANGAR AND MAINTENANCE APRON
- 13 VEHICULAR PARKING AREA
- 14 FUTURE ACCESS ROAD
- 15 GASOLINE STORAGE AREA
- 16 ELEVATED WATER TANK
- 17 AIRPORT MAINTENANCE SHOPS
- 18 SEWAGE TREATMENT AREA
- 19 EXISTING AIRCRAFT SERVICE SHOPS
- 20 EXISTING TERMINAL AREA
- 21 FUTURE RUNWAY EXTENSION 150 X 225M
- 22 AREA OF FUTURE DEVELOPMENT

LEYENDA

- 1 PISTA NUEVA 46M X 2746M
- 2 PISTA DE CARRETEO
- 3 LINEA LIBRE DE OBSTACULOS
- 4 LIMITES DEL AEROPUERTO
- 5 LIMITES ZONA DESPEJADA
- 6 PLATAFORMA RESISTENTE AL ESCAPE DE MOTORES A CHORRO 46M X 250M
- 7 ZONA DE PARADA 152M X 457M
- 8 SUPERFICIE DE ACERCAMIENTO Y SALIDA SO
- 9 PLATAFORMAS TERMINAL Y DE ESTACIONAMIENTO FUTURAS
- 10 EDIFICIO ADMINISTRACION Y TERMINAL FUTURO
- 11 ESTACION DE BOMBEO

CONSTRUCCIONES EXISTENTES  
CONSTRUCCIONES A EJECUTARSE  
CONSTRUCCIONES FUTURAS

LEYENDA

- 12 HANGAR Y PLATAFORMA DE CONSERVACION FUTURO
- 13 ZONA ESTACIONAMIENTO DE VEHICULOS
- 14 CARRETERA DE ACCESO FUTURO
- 15 ZONA ALMACENAMIENTO GASOLINA
- 16 TANQUE DE AGUA ELEVADO
- 17 TALLERES DE CONSERVACION
- 18 ZONA TRATAMIENTO AGUAS SERVIDAS
- 19 TALLERES EXISTENTES PARA SERVICIO AVIONES
- 20 ZONA TERMINAL EXISTENTE
- 21 EXTENSION FUTURA DE LA PISTA 46M X 250M
- 22 ZONA PARA FOMENTO FUTURO

ESTIMATE OF CONSTRUCTION COST

ITEM	Quantity	Local Expenditures		Foreign Expenditures		Total Expenditures	
		Unit Price \$ in US \$	Total \$ in US \$	Unit Price \$ in US \$	Total \$ in US \$	Unit Price \$ in US \$	Total \$ in US \$
Site Preparation			16,294.00		31,397.00		47,691.00
Rem. & Salvage Exist. Bit. Pav't.	72,310	0.50	36,155.00	0.50	36,155.00	1.00	72,310.00
Rem. & Salvage Exist. Base Course	14,700	0.28	4,116.00	1.92	28,224.00	2.20	32,340.00
Strip & Stockpile Select Mat'l	70,534	0.10	7,053.40	0.70	47,373.80	0.80	56,427.20
Common Excavation	335,872	0.14	47,022.08	0.96	322,437.12	1.10	369,459.20
Borrow Excavation	221,334	0.16	35,413.44	1.09	241,254.06	1.25	276,667.50
Compacted Selected Subgrade Mat'l	164,954	0.14	23,093.56	0.96	158,355.84	1.10	181,449.40
Compacted Granular Sub-base	55,190	2.44	134,663.60	1.06	58,501.40	3.50	193,165.00
Compacted Crushed Stone Base	73,653	2.80	206,228.40	7.20	530,301.60	10.00	736,530.00
Prime Coat	113,670	0.05	5,683.50	0.35	39,784.50	0.40	45,468.00
Tack Coat	49,730	0.05	2,486.50	0.35	17,405.50	0.40	19,892.00
Asphaltic Concrete	53,600	5.10	273,360.00	15.30	820,080.00	20.40	1,093,440.00
Underdrain System	14,950	2.50	37,375.00	2.50	37,375.00	5.00	74,750.00
24" Bitum. Coated C.M. Pipe	68	6.60	448.80	18.70	1,271.60	25.30	1,720.40
30" Bitum. Coated C.M. Pipe	120	8.80	1,056.00	26.00	3,120.00	34.80	4,176.00
42" Bitum. Coated C.M. Pipe	540	14.30	9,152.00	43.00	27,520.00	57.30	36,672.00
48" Bitum. Coated C.M. Pipe	320	18.15	5,808.00	55.00	17,600.00	73.15	23,408.00
72" x 44" Bitum. Coated C.M. Arch	320	40.00	12,800.00	120.00	38,400.00	160.00	51,200.00
Brick Headwalls and Inlets	17	55.00	935.00	20.00	340.00	75.00	1,275.00
Concrete for Ditches and Inlets	11,100	2.10	23,310.00	4.90	54,390.00	7.00	77,700.00
Sodding	17,612	0.67	11,800.04	0.33	5,811.96	1.00	17,612.00
Seeding, Fertilizing and Mulching	1,076,000	0.08	86,080.00	0.06	64,560.00	0.14	150,640.00
Runway and Taxiway Marking			10,000.00		5,000.00		15,000.00
Fencing	7,820	0.36	2,815.20	0.54	4,222.80	0.90	7,038.00
Power Transmission Line					13,000.00		13,000.00
Runway and Taxiway Lighting			124,822.63		223,177.37		348,000.00
Approach Lighting			56,000.00		139,000.00		195,000.00
Maintenance and Repair Exist. Runway			14,400.00		43,200.00		57,600.00
Maintenance Building			16,200.00		16,200.00		32,400.00
Equip. Soil & Material Testing Lab.			500.00		14,500.00		15,000.00
<b>Total Construction Cost</b>			<b>1,205,072.15</b>		<b>3,041,958.55</b>		<b>4,247,030.70</b>
<b>ENGINEERING COST (Design and Construction)</b>			<b>73,239.00</b>		<b>363,318.00</b>		<b>436,557.00</b>
<b>TOTAL ENGINEERING AND CONSTRUCTION COST</b>			<b>1,278,311.15</b>		<b>3,405,276.55</b>		<b>4,683,587.70</b>
<b>CONTINGENCIES</b>			<b>127,831.12</b>		<b>340,527.65</b>		<b>468,358.77</b>
<b>TOTAL COST OF AIRPORT PROJECT</b>			<b>1,406,142.27</b>		<b>3,745,804.20</b>		<b>5,151,946.47</b>
<b>ORGANIZATION AND OPERATION STUDY</b>					<b>80,000.00</b>		<b>80,000.00</b>
<b>AIRPORT MAINTENANCE EQUIPMENT</b>					<b>127,000.00</b>		<b>127,000.00</b>
<b>TRAINING COST</b>					<b>51,000.00</b>		<b>51,000.00</b>
<b>GRAND TOTAL</b>			<b>1,406,142.27</b>		<b>3,964,804.20</b>		<b>5,370,946.47</b>

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ASUNCION AIRPORT  
IMPLEMENTATION SCHEDULE

M O N T H S

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Final design and preparation  
of bid documents

\_\_\_\_\_

Prequalification of  
contracts

\_\_\_\_\_

Bidding period

\_\_\_\_\_

Analysis of bids and  
contract awards

\_\_\_\_\_

Mobilization period

\_\_\_\_\_

Construction period

\_\_\_\_\_



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ANNEX III

June 17, 1966

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Exhibit

1. IBRD Analysis of Local Currency Financing Needs
2. Basic Economic Data on Paraguay
3. Paraguayan Self-Help
4. GOP Armed Services Civic Action Report
5. Related Economic Planning
6. Airport Operations Data
7. Activity of Braniff Airways

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EXCERPTS FROM IBRD REPORT "ECONOMIC POSITION AND PROSPECTS OF PARAGUAY"

The financing of the ongoing public sector investment projects will continue to present a difficult problem in 1966. The Mission estimates the overall investment deficit of the Central Government at  $\$258$  million and of the autonomous agencies at  $\$26$  million, or a combined deficit of  $\$284$  million. In arriving at these figures, the Mission made allowance for reasonable growth in revenues resulting from an expanding economy and improved tax administration. No consideration was given to new taxes or to new tax rates since the Minister of Finance indicated that none are contemplated for 1966. The Mission also made allowance for a reasonable growth in current expenditures by the Government. In the case of the autonomous agencies, both revenues and expenditures were projected on the basis of the experience and/or prospects for each one of the agencies and they are believed to be quite realistic. Recourse to the Central Bank for the above amount plus the unblocking of some  $\$165$  million of previously sterilized deposits for the Paraguari-Encarnacion Road and PL-480 funds would raise the monetary issue by the Central Bank to  $\$450$  million and would again be incompatible with the Government's determination to maintain internal and external stability. Thus unless further increases in revenues and/or reduction in current expenditures materialize, the authorities may be faced with the necessity for again stretching out the pace of projected disbursements on ongoing public investments.

A serious problem is likely to exist in the near-term (1965-66) in connection with attaching external loans to public sector investment projects, unless the external lenders are prepared to finance both the foreign exchange and the local expenditure component of the new project. The foregoing analysis of the ongoing public sector projects conclusively demonstrates that the major problem facing Paraguay is to generate an adequate volume of internal resources necessary to match the external component already in the pipeline. At the very best, public sector savings over the near-term can be raised to the level required by the ongoing projects. The financing of the external component only of possible new projects which would require the generation of additional internal resources by the Central Government would merely serve to aggravate the already existing serious problem.

The problem of determining the respective shares of financing from

external and from internal sources can obviously be answered best only in the context of each individual loan made for specific projects. Nevertheless, it appears desirable to set out some average cost-sharing principles for the total public investment effort to which external financing is attached. In setting forth such broad guidelines, two major considerations are relevant. The first is the balance of payments outlook and the amount of external capital that must be relied upon to meet balance of payments objectives. The second is the fiscal and monetary policy to be followed in achieving the Government's objective of growth under conditions of relative stability. The total volume of external capital already in the pipeline and its projected rate of utilization fully meets the requirements of the balance of payments during 1965-67. Thus, the capital inflow in 1966-67 projected under possible new loans and credits does not need to give primary consideration to its balance of payments implications.

The situation is, however, completely different from the standpoint of the second criterion mentioned above. Given the maximum improvements in the government's savings efforts which it is reasonable to expect, the projected capital inflows would necessitate a greater recourse by the government of borrowing from the Central Bank than would be consistent with its policy of maintaining relative monetary and price stability. It follows that the government will be able to achieve its fiscal, monetary and balance of payments objectives only if the inflow of external capital in 1965-67 is greater than the direct import content of the investment effort. This implies that project loans will need to cover at least part of the domestic costs of the projects they are intended to finance. The Mission believes that in the near-term project loans need on the average to cover the direct import component of public investment which in Paraguay is very high-possibly as much as two-thirds, plus the full amount of the domestic component in all instances where local resources must be supplied by the Central Government. Project loans which can rely on other sources for the local currency financing, need not cover more than the foreign exchange component.

PARAGUAY

I. BASIC DATA

Area:	157,052 sq. miles	
<u>Population:mid- 1964</u>	1,900,000	
Rate of growth, 1955-64:	2.65% p.a.	
Population density per sq. mile	12.1	
<u>Gross national product 1964:</u>	¢49,641 million-US\$394 million	
Rate of growth, 1955-1964:	2.9% p.a.	
1964:	3.0% p.a.	
Per capita(1964):	US\$208 (at Official Exchange rate)	
<u>Gross domestic product at 1962 market prices:</u>	¢ 47 billion	
of which, in percent, Agriculture:	22.3	
Cattle:	10.9	
Mining	0.1	
Forestry:	3.7	
Manufacturing:		
Industry:	17.4	
Services:	38.0	
<u>Percent of GDP at market prices</u>	<u>1964</u>	<u>1957-1964</u>
Gross investment	15.7%	16.1%
Gross savings	13.2%	12.9%
Balance of payments current account deficit	2.5%	3.2%
Investment income payments	0.6%	0.5%
Government taxation revenue (or current revenues)	8.7%	8.9%(1963-1964)
<u>Resources gap as % of investment</u>	16.9%	19.8%
Relationship to large monetary or customs area:	Member of ALALC	
		Overall rate of change in
	<u>1964</u>	<u>1957-1964</u>
Total money supply	million ¢ 4473	124%
Time and savings deposits	" ¢ 1724	1034%
Commercial bank credit to private sector	" ¢ 2622	518%
Other lending to private sector (BNF)	" ¢ 1215	-35%
Rate of change in prices	2%	9% p.a.

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<u>Public sector operations</u>	<u>1964</u>	<u>Rate of change, 1963-64</u>
Government current receipts mill.	¢ 4,366	3.5%
Govt. current expenditures mill.	¢ 4,092	3.9%
Surplus on current account mill.	¢ 274	-2.0%
Govt. capital expenditures 1/m	¢ 914	24.8%
Public investment expenditures 1/ million	¢ 1,978	31.3%
Total external assistance to public sector 2/ million	¢ 849	29.8%
<u>*External public debt (in US\$)</u>	<u>1963</u>	<u>Most recent year</u>
Total debt	US\$46.1 million	US\$ 56.3 million (12/31/64)
Total annual debt service	US\$ 3.3 million	US\$ 5.2 million (1964)
Debt service ratio	9%	11.4% (1964)
<u>Balance of payments (in US\$)</u>	<u>Most recent year</u>	<u>Overall rate of change</u>
Total exports	US\$45.4 million(1964)	- 14.6%(1962-64)
Total imports	US\$44.3 million(1964)	- 9.9%(1962-64)
Net invisibles 3/	US\$11.6 million(1964)	- 68.9%(1962-64)
Net current account balance	US\$10.6 million(1964)	- 38.5%(1962-64)
	<u>Past Average</u>	<u>Most recent year</u>
Commodity concentration of exports (oustoms data)	Livestock 31% (1957-1964)	Livestock 33% (1964)
Gross foreign exchange reserves of the Central Bank	US\$ 3.0 million (1958-1964) (or less than one months' imports)	April 1965 US\$ 9.0 million (or less than two months' imports)

- 
- 1/ Real and financial investment (see Table 9a)  
2/ External Financing in the Public Sector Investment Program.  
3/ Private donations are included.

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**GROSS DOMESTIC PRODUCT, BY SECTORS OF PRODUCTION 1955-1964**  
(Millions of guaranies constant 1962 prices)

	1955	1956	1957	1958	1959	1960	1961	1962	1963 (Estimated)	1964 (Estimated)
Agriculture	7,904	7,852	8,189	8,504	8,733	8,908	9,204	9,813	10,454	10,500
Cattle	4,286	4,365	4,305	4,709	4,427	4,388	5,015	4,630	4,955	5,120
Forestry	1,397	1,614	1,584	1,568	1,551	1,511	1,611	1,628	1,535	1,730
Hunting and fishing	33	33	28	26	35	37	43	40	42	44
<u>Sub-total</u>	<u>13,620</u>	<u>13,864</u>	<u>14,106</u>	<u>14,807</u>	<u>14,746</u>	<u>14,844</u>	<u>15,873</u>	<u>16,111</u>	<u>16,786</u>	<u>17,394</u>
Mining	38	37	50	47	31	57	57	46	70 1/2	70 1/2
Industry	6,102	6,069	6,421	6,647	6,886	6,494	7,112	7,169	7,656	8,180
Construction	613	617	668	679	742	995	900	1,015	1,039	1,086
<u>Sub-total</u>	<u>6,753</u>	<u>6,723</u>	<u>7,139</u>	<u>7,373</u>	<u>7,659</u>	<u>7,546</u>	<u>8,069</u>	<u>8,236</u>	<u>8,765</u>	<u>9,336</u>
Electricity	167	185	195	215	234	226	233	253	254	271
Water and San. Servs.	5	10	32	57	48	75	76	30	84	88
Trans. & Comm.	1,552	1,637	1,670	1,636	1,591	1,621	1,788	1,822	1,934	2,019
<u>Sub-total</u>	<u>1,724</u>	<u>1,832</u>	<u>1,897</u>	<u>1,908</u>	<u>1,873</u>	<u>1,922</u>	<u>2,097</u>	<u>2,155</u>	<u>2,282</u>	<u>2,378</u>
Commerce, finance	7,741	6,931	8,229	8,950	8,380	8,984	9,324	9,435	9,600	9,750
Government	1,635	1,698	1,759	1,785	1,805	1,849	1,807	1,820	1,820	1,840
Housing	1,308	1,343	1,381	1,416	1,454	1,500	1,545	1,591	1,600	1,650
Other services	3,395	3,455	3,722	4,024	4,217	4,158	4,403	4,443	4,500	4,600
<u>Sub-total</u>	<u>14,079</u>	<u>13,327</u>	<u>15,091</u>	<u>15,175</u>	<u>15,856</u>	<u>16,491</u>	<u>17,079</u>	<u>17,291</u>	<u>17,520</u>	<u>17,842</u>
<u>Total</u>	<u>36,176</u>	<u>35,746</u>	<u>38,233</u>	<u>40,263</u>	<u>41,134</u>	<u>40,803</u>	<u>43,119</u>	<u>43,787</u>	<u>45,553</u>	<u>46,948</u>

Note: Details may not add due to rounding

1/ Piedra Triturada 22.0 para I (Nota 11)

Sources: Cuentas Nacionales de la República del Paraguay y otros antecedentes estadísticos, Tomo I; Requerimientos Financieros Externos en el Bienio 1965-1966, Parte Ia.

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GROSS DOMESTIC PRODUCT, BY SECTORS OF PRODUCTION, 1964-1970  
(Millions of guaranies constant 1962 prices)

Sector	1964 (estimated)	1965	1966	1967	1968	1969	1970	% Increase 1964-70
Agriculture	10,500	11,207	11,882	12,581	13,370	14,231	15,149	44
Cattle	5,120	5,216	5,332	5,656	6,011	6,398	6,809	33
Forestry	1,730	1,800	1,880	1,986	2,112	2,247	2,391	38
Hunting and Fishing	44	46	48	50	53	56	58	32
<u>Sub-total</u>	<u>17,394</u>	<u>18,269</u>	<u>19,142</u>	<u>20,273</u>	<u>21,546</u>	<u>22,932</u>	<u>24,407</u>	<u>40</u>
Mining	70 <sup>1/</sup>	72	74	85	90	95	101 <sup>2/</sup>	44
Industry	8,180	8,740	9,634	10,394	11,046	11,757	12,513	53
Construction	1,086	1,257	1,324	1,428	1,518	1,616	1,720	58
<u>Sub-total</u>	<u>9,336</u>	<u>10,069</u>	<u>11,032</u>	<u>11,907</u>	<u>12,654</u>	<u>13,468</u>	<u>14,334</u>	<u>54</u>
Electricity	271	286	308	333	358	383	409 <sup>3/</sup>	51
Water and Sanitary Services	88	94	100	108	116	124	132 <sup>4/</sup>	50
Transportation & Communications	2,019	2,102	2,297	2,486	2,671	2,858	3,050 <sup>5/</sup>	51
<u>Sub-total</u>	<u>2,378</u>	<u>2,482</u>	<u>2,705</u>	<u>2,927</u>	<u>3,145</u>	<u>3,365</u>	<u>3,591</u>	<u>51</u>
Commerce, Finance	9,750	9,950	10,200	10,673	11,241	11,184	12,048	24
Government	1,840	1,850	1,900	1,981	2,087	2,194	2,307	25
Housing	1,650	1,720	1,800	1,883	1,983	2,085	2,193	33
Other Services	4,600	4,700	4,850	5,083	5,354	6,262	6,300	37
<u>Sub-total</u>	<u>17,840</u>	<u>18,220</u>	<u>18,750</u>	<u>19,620</u>	<u>20,665</u>	<u>21,725</u>	<u>22,848</u>	<u>28</u>
<u>TOTAL</u>	<u>46,948</u>	<u>49,040</u>	<u>51,629</u>	<u>54,727</u>	<u>58,010</u>	<u>61,490</u>	<u>65,180</u>	<u>39</u>

Note: Detail may not add due to rounding

1/Piedra triturada 22.0 para X (Ruta 11)

2/Con Valle-mi ampliado; no se exporta piedra.

3/Se estima en función de la demanda proyectada por ANDE y en 1970 el de incremento por electrificación rural.

4/Se estima pasar de 16,000 a 21,000 usuarios según proyecto de ampliación CORPOSANA.

5/Se proyecta aparte (vnr anexos)

Source: Requerimientos Financieros Externos en el Bienio 1965-1966, parte la.

GOLD AND FOREIGN EXCHANGE RESERVES,

1953 - 1965  
(In thousand of U.S. dollars)

Year	Gold	Convertible Bilateral		Gross Reserves	Liabilities		Net IMF position	Net Reserves		Total Net Reserves
		foreign exchange	AGREE - MENT		Short-term	Bilateral Agreements		Central Bank	Private BANKS	
1952	190	4,616	2,757	7,563	-	1,374		6,189	3,987	10,176
1953	190	3,747	1,900	5,837	-	3,567		2,270	5,031	7,301
1954	190	3,322	855	4,367	- 52	- 3,571	375	1,119	4,705	5,824
1955	190	1,002	4,371	5,563	- 353	- 1,711	375	3,874	4,700	8,574
1956	181	1,062	6,787	8,030	- 120	- 700	- 1,125	6,085	3,189	9,274
1957	136	1,419	4,880	6,435	- 23	- 368	- 3,625	2,419	1,057	3,476
1958	86	272	7,023	7,381	- 589	- 40	- 4,375	2,377	- 63	2,314
1959	108	2,751	1,077	3,936	6	- 941	- 2,563	426	- 1,261	- 835
1960	95	372	542	1,009	-	- 1,044	- 2,375	-2,410	- 1,070	- 3,480
1961	82	2,357	79	2,518	-	- 1,433	- 438	647	- 2,468	- 1,821
1962	81	698	41	820	- 764	- 743	1,312	625	- 1,693	- 1,068
1963	81	1,318	429	1,828	-1,500	- 134	1,812	2,006	- 735	1,271
1964	81	3,066	476	3,623	- 600	- 19	2,312	5,316	- 778	4,538
1965	1,018 a/	6,440 b/	1,176	8,632	-	- 9	2,812	11,435	- 2,521	8,914

a/ Includes purchase of \$ 937,000 in gold that will be paid to the IMF as the gold contribution to increasing Paraguay's quota in the Fund.

b/ Since September 1965, includes an investment of \$250,000 in BRD bonds.

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GOVERNMENT FINANCES, 1960-64  
(In millions of guaranias)

	1960	1961	1962	1963	1964	1964 January- March	1965 January- March
<u>Cash revenues</u>							
Ordinary	2,586.8	2,842.9	3,424.7	3,496.7	3,658.5	868.4	1,119.2
Special Laws	732.0	788.8	903.8	871.3	897.7	182.6	263.1
Total	3,318.8	3,631.7	4,328.5	4,368.0	4,556.2	1,051.0	1,382.3
<u>Authorized expenditures</u>							
Ordinary	2,671.3	2,942.9	3,542.0	3,844.5	4,140.3	781.5	932.4
Special Laws	684.0	812.9	910.3	889.2	890.5	175.5	198.5
	3,355.3	3,755.8	4,452.3	4,733.7	5,030.8	956.9	1,130.9
Redemption of debt held by Central Bank (net)	-36.6	—	-2.6 <sup>1/</sup>	-47.1 <sup>1/</sup>	-33.4	-76.5	-167.2
Changes in departmental balances (increase -)	} 33.4 <sup>1/</sup> }	36.2 <sup>1/</sup>	-116.0	-11.4	-32.7	38.0	7.3
Check float			-30.9	3.2	-31.0	8.5	81.6
<u>Adjusted cash expenditure</u>	3,352.1	3,792.0	4,337.7	4,677.7	4,933.7	926.9	1,052.6
<u>Treasury surplus or deficit (-)</u>	-36.5	-124.1	-158.7	-365.7	-474.6	94.1	251.4
<u>Cash surplus or deficit (-)</u>	-33.3	-160.3	-9.1	-309.8	-377.5	124.1	329.7
<u>Central Bank financing</u>							
Loans	22.3	94.4	149.1	309.0	485.6	-70.0	-174.8
Transfer of profits	50.4	—	—	—	—	—	—
Change in government deposits (increase -) 2/	-39.4	65.9	-140.0	0.8	-108.1	-54.1	-154.9

Sources: Ministry of Finance, and Central Bank of Paraguay.  
1/Estimates.

2/Excluding P.L. 480 counterpart fund balances.

Note: Totals may not add owing to rounding.

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CENTRAL GOVERNMENT REVENUES AND EXPENDITURES, 1963-1970  
(in millions of guaranies)

	1963	1964	1965	1966	1967	1968	1969	1970
1. Wages and Salaries	1833	1990	2195	2195	2267	2368	2453	2561
2. Purchases	1456	2159	1356	1401	1461	1534	1501	1681
3. Transfers	587	661	661	725	742	771	823	861
a. Persons (Pensions, etc.)	376	415 <sup>1/</sup>	415 <sup>1/</sup>	465	480	500	550	577
b. Agencies	211	246	246	260	262	271	273	284
1) Public Enterprises	51	75	75	80	82	84	86	86
2) Decentralized Agencies	160	169	169	177	177	183	183	193
3) Municipalities	—	2	2	3	2	4	4	5
4. Interest on Public Debt	63	86	86	99	101	114	117	110
a. Internal	11	19						
b. External	52	67						
5. Total Current Expenditures (1 + 2 + 3 + 4)	3939	4092	4262	4420	4571	4787	4994	5213
6. Amortizations	176 <sup>2/</sup>	213 <sup>3/</sup>	303	143	146	147	151	156
a) Domestic	24	59						
b) external	152	154						
7. Transfers on Capital Account	191	267	339	355	382	400	420	441
8. Real Investment	541	647	1221	1144	798	867	1054	800
9. Total Expenditures (5+6+7+8)	4847 <sup>2/</sup>	5219	6125	6062	5897	6201	6619	6710
10. Current Revenues	4219	4366	4896	5114	5615 <sup>B</sup>	5897 <sup>B</sup>	6178 <sup>B</sup>	6477 <sup>B</sup>
11. Deficit or Surplus (9-10)	-628	-853	808	-948	-282	-304	-441	-233
12. Inflow of External Funds	362	397	75	615	352	376	571	455
13. Changes in Accumulated Saving or Reserve	-73	-75		75	—	—	—	—
14. Domestic Borrowing	339	531						
15. Gap to be Financed (-) or Surplus(+)	—	—	-346	-258	70	72	130	212

<sup>1/</sup>Contributions to International organizations and non-pension payments to individuals are expected to decline.

<sup>2/</sup>Includes \$ 63 million registered by the Central Bank

<sup>3/</sup>Includes \$ 46 million registered by the Central Bank

Source: Actual data from Treasury, projections by IBRD mission.

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CENTRAL GOVERNMENT REVENUES AND EXPENDITURES, 1963-1970

(In millions of guaranies)

	1963	1964	1965	1966		1967		1968		1969		1970	
	(Actual)	(Actual)	(Budget Estimates)			A	B	A	B	A	B	A	B
<b>TOTAL</b>	<u>4219</u>	<u>4366</u>	<u>4896</u>	<u>5114</u>	<u>5370</u>	<u>5615</u>	<u>5635</u>	<u>5947</u>	<u>5916</u>	<u>6178</u>	<u>6215</u>	<u>6477</u>	
<b>I. Foreign Trade</b>	<u>1764</u>	<u>1861</u>	<u>2055</u>	<u>2121</u>	<u>2199</u>	<u>2199</u>	<u>2280</u>	<u>2280</u>	<u>2368</u>	<u>2368</u>	<u>2460</u>	<u>2460</u>	
1. Customs duties	816	880	924	970	1020	1020	1070	1070	1125	1125	1181	1181	
2. Import surcharges	411	556	725	761	799	799	840	840	882	882	926	926	
3. Export taxes	295	237	210	190	170	170	150	150	130	130	110	110	
4. Consular fees	241	188	196	200	210	210	220	220	231	231	243	243	
<b>II. Internal Trade</b>	<u>994</u>	<u>958</u>	<u>1149</u>	<u>1207</u>	<u>1267</u>	<u>1267</u>	<u>1331</u>	<u>1331</u>	<u>1398</u>	<u>1398</u>	<u>1470</u>	<u>1470</u>	
1. General sales tax	345	350	395	415	435	435	457	457	480	480	504	504	
2. Petroleum taxes	170	177	188	197	207	207	217	217	227	227	238	238	
3. Alcohol taxes	180	108	144	149	154	154	155	155	165	165	170	170	
4. Cattle taxes	118	148	242	257	272	272	288	288	305	305	326	326	
5. General consumption taxes	181	175	180	189	199	199	210	210	221	221	232	232	
<b>III. Stamp Taxes</b>	<u>308</u>	<u>320</u>	<u>349</u>	<u>367</u>	<u>365</u>	<u>385</u>	<u>404</u>	<u>404</u>	<u>424</u>	<u>424</u>	<u>445</u>	<u>445</u>	
<b>IV. Income Taxes</b>	<u>437</u>	<u>430</u>	<u>493</u>	<u>543</u>	<u>597</u>	<u>697</u>	<u>657</u>	<u>767</u>	<u>722</u>	<u>832</u>	<u>794</u>	<u>904</u>	
<b>V. Inheritance</b>	<u>13</u>	<u>15</u>	<u>20</u>	<u>21</u>	<u>22</u>	<u>87</u>	<u>23</u>	<u>91</u>	<u>24</u>	<u>92</u>	<u>25</u>	<u>93</u>	
<b>VI. Real Estate Taxes</b>	<u>194</u>	<u>217</u>	<u>270</u>	<u>283</u>	<u>297</u>	<u>377</u>	<u>313</u>	<u>397</u>	<u>328</u>	<u>412</u>	<u>344</u>	<u>428</u>	
<b>VII. Other</b>	<u>131</u>	<u>239</u>	<u>251</u>	<u>261</u>	<u>271</u>	<u>271</u>	<u>282</u>	<u>282</u>	<u>293</u>	<u>293</u>	<u>304</u>	<u>304</u>	
<b>VIII. Non-tax Revenues</b>	<u>378</u>	<u>326</u>	<u>309</u>	<u>311</u>	<u>332</u>	<u>332</u>	<u>345</u>	<u>345</u>	<u>355</u>	<u>359</u>	<u>373</u>	<u>373</u>	
1. Pension fund	158	187	200	210	23	230	242	242	254	254	267	267	
2. Post office	10	22	25	26	27	27	28	28	29	29	30	30	
3. Other	110	117	74	75	75	75	75	75	76	76	86	76	

Source: Actual data from Treasury, Projections by IERD mission.

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ANNEX III

PARAGUAYAN SELF-HELP  
G.O.P. Report to I.A.Eco.Soc. Meeting  
(EXCERPTS)

3. OUTSTANDING ASPECTS OF THE SOCIAL-ECONOMIC SITUATION OF THE COUNTRY

During the period 1961-1965 the Paraguayan economy recorded a development greater than that of prior years owing to a general improvement in production conditions.

Among the fundamental causes of this development the following basic achievements should be mentioned:

- (a) The construction of more than 2,080 kilometers of highways which not only render possible the incorporation of vast zones into the national economy but also bring the inhabitants social benefits, medical attention etc.
- (b) Distribution of land to farmers by which the title deeds of an average of 6,244 properties have been legally registered during each of the past five years.
- (c) The formation of new colonies which tend to solve the problems arising from requests for land.
- (d) The construction of airports which fill a long felt need of air transportation.
- (e) The building and equipping of hospitals in various parts of the country; these institutions facilitate preventive and curative medical treatment of peasants, maintaining the health of farm workers and inhabitants in general.
- (f) The purchase of several vessels that have given a notable impulse to the National Merchant Fleet. By complying with the national policy to increase transport capacity, fulfillment is also being given to one of the fundamental objectives of the National Development Plan. The State Merchant Fleet has increased the number of its units with various types of vessels -- gasoline tankers, oil barges, cold storage vessels, cattle transports, passenger ships and tugs. The State Merchant Fleet transported 35% of a total

(Pages 12-14 Continued)

of 606,804 tons of foreign trade merchandise; the net capacity of the FLOMERE alone is 18,471 tons.

- (g) Improvement in the administration of ports, which has simplified operations and reduced loading and unloading costs.
- (h) Establishment of the National Development Bank which provides development credits to the basic sectors of national economy.

All these briefly outlined achievements are rooted in a firmly established fiscal policy and have brought about a greater economic development in the various sectors of national economy.

Owing to the increase in production, exports have steadily increased. In 1961 exports stood at US\$ 30,677,000; in 1964 they totalled US\$ 49,771,000 and in 1965 they reached US\$ 57,197,000 an annual accumulative increase of 16.8%.

Exports per inhabitant rose from US\$ 17.40 in 1961 to US\$ 29.50 in 1965.

Exports per production sector compared as follows:

Sector	1961 (US\$)	1965 (US\$)
Agriculture	6,856,000	16,190,000
Cattle	10,803,000	20,385,000
Lumber	6,462,000	9,765,000
Industry	6,399,000	10,068,000
Various	157,000	789,000

Imports also increased considerably between 1961 and 1965, though it should be mentioned that this increase occurred only during the last year. During the years 1961 to 1964 imports were maintained at approximately US\$ 33,500,000, but in 1965 they rose to US\$ 44,009,000 an increase of 30%.

In this respect there was an important variation which favors development; imports of consumable goods fell from 43.8% to 40.7% while materials attributable to capital increased from 35.6% to 38.4%. Imports of fuel and oil increased from 10% to 11% during the same period.

(Pages 12-14 Continued)

The Credit Policy in general and its expansion in particular have played a predominant part in the development of the afore-mentioned sectors.

Credit granted by the joint Banks operated in the Country in 1961 totalled  $\$$ 3,134 million; in 1962 credits rose to  $\$$ 5,294.5 million; in 1963 to  $\$$ 6,852 million; in 1964 and 1965 credits totalled  $\$$ 9,714.5 and 11,870 million respectively. These figures show a credit increase of 37.8% during the 5 years.

It is worthy of mention that, in spite of the afore-mentioned increase in credits, Paraguay suffered no inflation, and the rate of exchange with the dollar remained unaltered.

Credits to production sectors were granted in the first place to Agriculture with an increase of 521%; in the second place to Building with 419%; then to Stock Raising with 308% and lastly to Trade and Industry with 287% and 259% respectively.

With regard to Highways and Roads the undertaking has been commendable. During the period 1961 to 1965, 2,080 kilometers of roads have been built; included in this total are 275 kilometers that have been asphalted.

During the previous 5 year period (1956-1960) a total of 999 kilometers of road was built; only about 10% was asphalted.

Paraguay has a total of 4,246 kilometers of highways and roads; it should be mentioned that no less than 3,079 kilometers of this total have been built during the past 10 years and 2,080 kilometers during the 5 year period now under comment.

Investments in Schools during the past 5 years have been considerable; accommodation for 31,520 new pupils in 394 new classrooms has been provided during the period.

This means that the number of school buildings constructed during the period represent no less than 7.5% of the total school buildings that exist in the Country.

8. PUBLIC FINANCE AND TAX REFORM

8.1 FISCAL POLICY

During the past 4 years of the "Alliance for Progress" the action of the Ministry of Finance in matters of Fiscal Policy has brought about some fiscal, economic and social improvements; for their furtherance the Government has undertaken to give impulse to the following basic objectives:

- (a) Modifications to the taxation system in successive stages and introduction of moderate and partial reforms, endeavoring to simplify application of the laws and to adjust rates to the capacity of the taxpayer.
- (b) Modifications to the administrative structure of the Department with the principal objective of maintaining a permanent control on offices receiving revenue from taxation and to insure that amounts collected are promptly deposited in banking institutions.
- (c) Preparation of a Tax Control Plan, while continuing with a program of minimum training for inspectors, preparation and execution of inspection plans etc; special attention would be given to income tax.
- (d) Adoption of more effective measures to repress operations that conflict with established regulations.
- (e) Organizational improvements which would tighten the control of budgetary expenditure, establishing priorities for such disbursements as: Salaries, Pensions and other Public Administration expenses, Amortization of Internal and Foreign Public Debt, State purchases and other expenditure necessary to Public Institutions for their operation.
- (f) Adoption of a fiscal system appropriate for frontier trade with exclusive attention to requirements of the respective zones.
- (g) Creation of necessary means, together with non-inflationist measures, for obtaining internal revenue to defray additional Paraguayan State contributions of loans granted by International Organizations for Agricultural Development, Stock Raising and Industrial programs.

(Pages 40-41 Continued)

- (h) The carrying into effect of programs whose objectives are Educational Development, Public Health and the maintenance of suitable relations between Capital and Labor.
- (i) Strengthening of financial resources for the execution of Agricultural, Forestry and Industrial programs.
- (j) Coordination of the Fiscal Policy with Currency Stability.
- (k) Defense of the Balance of Payments on the basis of an increase of the sources that furnish foreign exchange.
- (l) Carrying into effect investment in basic social capital necessary for economic and social development.

10. <sup>10 3 69</sup> AGRARIAN REFORMS AS AN INSTRUMENT OF DEVELOPMENT

10.1 LAND DISTRIBUTION POLICY

Distribution of land and occupation of new areas were continued on the basis of programs already initiated; new plans were also prepared such as the entire colonization of the San Estanislao - Itacurubi del Rosario - Lima zone, known as the Northward March of the Agrarian Reform.

The specific colonization programs on a large scale during 1965 were as follows:

(a) EASTWARD MARCH

This movement was initiated 4 years ago and is presently in a stage of consolidation. It covers the Department of Caaguazu and Alto Parana traversed by the modern International Highway which connects Coronel Oviedo with Presidente Stroessner. Numerous colonies have been incorporated into the economy of the Nation. The most important of these are: Dr. Juan Leon Mallorquin colony; Presidente Stroessner (ex-Pastoreo); Repatriacion; Dr. Domingo Montanaro; Yguazu; Paraguasil; Guayaquicua etc. The total colonized area exceeds 300,000 hectares on which have been settled some 30,000 families.

Consolidation of the Eastward March Program has been centered on the colonies Dr. Juan Leon Mallorquin, Presidente Stroessner, Repatriacion and Dr. Domingo Montanaro.

The OEA in Paraguay, through Project 39 of IIAA has made socio-economic studies in the Dr. Juan Leon Mallorquin colony; the afore-mentioned studies had as their object the organization and development of production as well as its primary industrialization and commercialization.

Teams of Experts are preparing social assistance, technical and credit services which are complemented with medical attention given by Doctors of the Medical Department of the Institution.

Teams of Agronomists have performed organizational work tending to community development in the Doctor Montanaro colony.

(Pages 55-73 Continued)

Experiments in cooperative work are giving excellent results. By means of the organizational system known as "Minga Guazu" (the name arises from aboriginal traditions of the race) basic work, such as the opening of roads and the building of schools, has been effectively performed. Another system called "Minga-i" has been adopted to solve individual problems such as the preparation of land for cultivation, harvesting clearing, etc.

- (b) The great colonization movement initiated simultaneously with the opening of the important net of highways, which connects Coronel Oviedo, through Carayao, with San Estanislao and the River Jejui, covers an extensive zone both fertile and rich in natural resources. This new highway offered immense and unparalleled opportunities for colonization of vast regions, till then excluded from all possibility of economic development. On the basis of some existing colonies, the Institute of Rural Welfare planned and put into effect an extensive program of land sub-division. These colonies cover a total area of 68,785 hectares or 3,482 lots already assigned to families; out of these totals 17,559 hectares and 878 assigned lots correspond to the work of this year. In accordance with the Program it is expected to sub-divide a minimum area of 150,000 hectares.

Colonization Highway No. 5 (East to West)

This Program includes the entire sub-division of the land traversed by the important and strategic highway that connects Concepcion with Pedro Juan Caballero. This program is presently in a stage of active development, and the work will be intensified in the immediate future. Nevertheless, there are already numerous colonies in the zone such as the recently established "Dr. Juan Manuel Frutos", "Ex-Combatientes de la Guerra del Chaco", "Cerro Memby" (totally occupied by repatriated agriculturists and pensioners of the "Chaco War"), and "Cocue Pyujhu."

(c) THE CHACO MARCH

The recently finished seven hundred kilometer Trans-Chaco Highway will make possible the integration into national economy of the vast plains suitable for cattle raising located

(Pages 55-73 Continued)

at the extreme northeast of the Chaco. This highway will enable the Government to colonize more than 3,000,000 hectares. The Projects for immediate action include the sub-division of 400,000 hectares, of which 105,000 hectares have already been measured. The sub-division of 10,000 hectares in the district of Filadelfia, Department of Boqueron, is presently in progress; this future agricultural colony is adjacent to the Mennonite colony in the area.

(a) SOUTHWARD MARCH

The Southward March is presently in formation and is being organized with a view to solving the problems of Agriculturists without land in the Department of Itapua, Misiones and Neembucu. A census of landowners located along the banks of the River Parana to a width of 30 kilometers is being prepared; each case will be studied with the object of applying Law 662 or other legal measures applicable for colonization. A project is also being prepared for the sub-division of 50,000 hectares owned by the successors of Barthe in the Department of Itapua (Resolution P. No. 3242 dated 11/26/65). Lastly 38,864 hectares in the Department of Itapua, Caazapa, Misiones and Neembucu were sub-divided into 1,683 lots during the year 1965.

10.2 LAND PROGRAM FOR DISCHARGED CONSCRIPTS

This policy was initiated in 1962 and has been extended and improved during successive years. This was the first time a program of this kind had been put into practice in the continent; the experience and the satisfactions obtained from the results demand it be given more and more importance. Statistics show the growing interest in this program; every year there is a greater number of discharged men interested in acquiring land. In 1962 there were 1,072; in 1963: 1,204; in 1964: 2,610 and in 1965: 4,913.

Development of this program consists not only in permits to occupy land but also in the provision of agricultural implements and first credits. In 1965, the Government granted 4,913 permits to occupy land more than 6,000 agricultural implements to Soldiers and Policemen of 50 units. These soldiers, after completing their

(Pages 55-73 Continued)

obligatory military service and fulfilling their obligations with their Country, returned to civil life in healthy and optimistic spirits and with the hope of a prosperous future.

### 10.3 DEMOGRAPHIC POLICY

Repatriation and Internal Migration, related activities that make up the Demographic Policy of the Institute, have had normal activity in accordance with the conditions and programs previously established. Internal Migration deals with the redistribution of rural populations. It is one of the consequences and one of the objectives of colonization on a large scale and enables those living in superpopulated zones, without economic possibilities, to look for new and better prospects in areas both fertile and virgin.

Repatriation: Repatriation services rendered by the Institute include reception in the Capital and assignment of lodgings for families, transportation to their destinations and a supply of provisions until they settle down. The service also includes complete medical examinations of all members of the family and essential medicines; as far as possible agricultural implements are also provided.

The Institute in Asuncion received and attended to 227 families, comprising 960 persons, during the year 1965; the average number of members in each family was 4.29 and the frequency of arrival was approximately 2 families every 3 days throughout the year. No fewer than 202 families came from Argentina; 8 from Brazil; 3 from Uruguay; 1 from the United States (Texas); 1 from Colombia (Cartagena); 1 from Puerto Rico and 1 from Germany.

It is worthy of mention that the numbers furnished by statistics do not reflect either the total migrational movement or the number of persons repatriated, since thousands of persons have crossed the frontier without their entry being recorded in the statistics.

### 10.4 TECHNICAL, ECONOMIC AND SOCIAL ASSISTANCE

Law No. 854, passed in March 1963, is not confined to the equitable redistribution of land; it is also designed to transform the agrarian framework of the country tending to (1) increase the quantity

(Page 11-13 Continued)

and quality of production by means of a system of timely and adequate credits and technical assistance to improve methods of cultivation; (2) the establishment of more advanced systems for the commercialization of agricultural and agro-industrial products that will defend the producer from the exploitation of intermediaries and monopolizers and obtain better prices in the market; (3) raise the cultural level of the peasants by cooperating with Official Institutions and private enterprise entrusted with teaching in civic centers and sporting and cultural associations, and by strengthening the health and morale of the rural populations in order to prepare them for great undertakings.

In this order of ideas the achievements of the Institute of Rural Welfare during the year 1965 were as follows:

Technical Assistance: This service was attended by teams of Agronomists and Veterinarians in performance of the following work:

1. Courses in "Repatriation" colony on agricultural subjects such as (a) Soil Preservation; (b) Plant Health; (c) Fertilization Tests; (d) Use of Agricultural Implements. Vegetable gardens for pupils were organized in the 4 districts that divide the colony.
2. Studies were made of Animal and Plant Health in the colony "President Stroessner". As a result of technical assistance there has been an increase of 35% in the cultivated area. Considerable improvement was also noted in living quarters, sheds, chicken runs, pig sties, valls, etc. Five Rural Welfare Committees and five pupil vegetable gardens were also organized.
3. Courses on Plant Health and Soil Preservation were given in the colony "Doctor Juan Leon Mallorquin" and five Rural Welfare Committees were created.
4. In "Doctor Domingo Montasero" colony, Agricultural Specialists gave numerous talks and organized experimental farms.
5. In the Freedom Highway colonies instruction in breaking virgin land and the cultivation of 160 hectares was given to 167 families settled in September, 1964. These new areas have been provided with pre-fabricated houses which serve as living quarters for officials assigned to

(Pages 55-73 Continued)

the zone, as also for storage of food and medicines for use of the colonists.

#### 10.5 ECONOMIC AND CREDIT ASSISTANCE

In accordance with Section VII, Heading I of the Agrarian Statute, credit assistance has been granted to colonists by two means:

1. Direct Credits: These originate from institution funds provided for in the Ordinary Budget. A total of \$s. 2,597,662 in Direct Credits were granted to 375 families, an average of about \$s. 2,400 per family. Also, by the system of credits a tractor was made available to the San Pablo Cooperative of the "Repatriacion" colony and another to the Juan XXIII Cooperative of "Domingo Montanero". The cost of the tractors was \$s. 1,700,000 which, added to the above-mentioned figures, totals \$s. 2,597,662 paid out of institution funds in direct credits. It should be mentioned that these credits were granted in kind (agricultural implements, wire, sprayers, chickens, pigs, fodder etc.) as well as the aforementioned tractors.
2. Indirect Credits: These credits were granted by the Institute through the National Development Bank by means of an agreement by which specialized officials undertook to select borrowers and advise them on investment plans. Loans totalling \$s. 46,165,095 were granted to 937 families, an average of \$s. 34,815 per family. Credits amounting to \$s. 30,241,896 were also granted to 14 Cattle Breeders with an average of \$s. 2,160,000 per borrower.

#### RESUME

Direct Credits	375 Beneficiaries	\$s. 2,597,662
Indirect Credits	937 Cattle Breeders	46,165,095
	14 Cattle Breeders	<u>30,241,896</u>
		\$s. 79,004,653

Cooperatives and Market: A service for the development of Cooperatives in national colonies is attended by the Cooperative Division and by specialized Technicians. In the year 1965, four (4)

(Pages 55--7) Continued)

Cooperatives were organized in Repatriacion colony; these were later amalgamated into a Central Cooperative. Today this Cooperative has a saw mill, a warehouse and 2 large sheds. As a result of a patient process of cooperative education, the Cooperative Juan XIII in the Doctor Domingo Montanaro colony is firmly consolidated.

The Market: Commenced operations during the month of July 1965; the corresponding Division purchased agricultural produce from colonies located in the Encarnación, San Juan Bautista, Ybytini and Caaguazú zones. Purchases consisted of 37,575 kilos of unshelled rice and 1,105 kilos of corn to a total value of \$307,775.00. The "Market" is still in an experimental stage; the future of this activity will depend upon an evaluation of the results obtained. This service is performed with 3 trucks, each with 8 tons capacity.

#### 10.6 SOCIAL ASSISTANCE

The Institute employs 7 Social Assistants who work effectively in various colonies (Repatriación, Doctor Juan Leon Mallorquin, Presidente Stroessner and Defensores del Chaco). Thanks to their efforts it has been possible to create 14 Clubs of Mothers, 8 Youth Clubs, 8 Children's Clubs and 7 Sporting Groups. The establishment of social relations and development of a community spirit are the benefits which are clearly evidenced. Some 1,250 rural families were benefitted by these activities.

Schools: The Institute has overlooked no source of community development in the new occupied areas. Primary education was under the responsibility of the Supervisor of the Rural Schools Division. The team of Social Assistants, together with the members of local commissions, established and developed various Rural Schools. In 1965 the Institute attended to 20 Schools in which classes were given to 4,026 pupils. Salaries for a total of \$648,420.00 were paid to 48 teachers.

Medical Assistance: The work performed by the Medical Department during the year was as follows:

1. Medical attention with dispensation of medicines in the colonies. For this purpose a team of Doctors made monthly visits to the colonies, remaining the number of days considered necessary to treat the patients.

(Pages 55-7) Continued)

2. Doctors have attended to numberless repatriated persons in the consulting rooms of the Institute in Asunción (see headings Repatriation and Internal Immigrants). The above-mentioned persons were subjected to a complete medical examination which resulted in the detection of certain infectious and contagious diseases. Immediate measures were adopted to prevent such cases entering the new communities; in 1965 the doctors diagnosed and isolated about 27 malignant cases.

Numerous colonists from the interior of the Country received medical attention; in spite of difficulties of every kind a considerable number of these patients were hospitalized in Asunción. The IIR in all these cases defrayed the cost of medicines and X-rays.

3. Urgent medical attention in the colonies. During 1965 there were outbreaks of influenza with pulmonary complications and malaria.
4. In collaboration with the Ministry of Health a total of 6,914 persons (including indians) were vaccinated in the colonies of Freedom Highway during 1965.

#### 10.7 HIGHWAYS

The building of roads of access is essential to the colonization of new areas; by this means the colonist can place his produce in the principal markets of the Country. Road-building has for this reason been considered one of the most important activities of the Institute. During the year 1965 road-building activities were concentrated in the Department of Paraguari and San Pedro. In the Department of Paraguari a stretch of 79,5 kilometers of the Highway Coronel Stroessner was built between the city of Paraguari and a junction of the highway with the branch of the Tebicuary Sugar Mills. More than \$3,500,000 were invested in the construction of the afore-mentioned stretch, an approximate cost of \$45,000 per kilometer.

Freedom Highway was commenced on August 1, 1965 in the Department of San Pedro; the target was the San Pablo colony in order to provide the zone with an access from Highway III. In 1965 the engineers finished a 32 kilometer stretch that included a branch to the "Nina" colony. The work was accomplished with road equipment hired from the Engineering Command; the total investment

(Pages 55--73 Continued)

was \$2,500,000 including hire of equipment, payment of salaries and the cost culverts.

#### 10.8 VETERANS OF THE CHACO WAR

By law No. 1087, dated 9/28/65, Veterans of the Chaco War were granted legal right to decorations, pensions and certain privileges; among these privileges is the right to free land. During the year 1965 title deeds of land totaling 5,081 hectares were registered in favor of 226 Veterans.

#### 10.9 DISTRIBUTION OF LAND

A total of 356,049 hectares were distributed with 6,500 title deeds in the year 1965. This figure is less than in 1961 when 7,250 title deeds were registered or in 1962 with 10,016 title deeds; nevertheless the figures for 1965 are amply compensated by the total area granted to new owners, especially to cattle breeders. With the figures corresponding to 1965 the organization, operating under different names since 1915, has granted 56,018 title deeds with 1,612,738 hectares.

#### 10.D REPATRIACION

In 1965 a total of 227 families, comprising 960 members, returned to the Country through repatriation activities of the IBR. This number does not include those persons who returned spontaneously and settle in various parts of the Country. By adding the 1965 figures to prior years, it is seen that IBR has facilitated the return of 1,636 families, comprising 7,709 persons since 1962.

SUMMARY: The Agrarian Reform undertaken by the Government is being carried out with its own funds; the IBR budget of 25 millions in 1960 reached 126 millions in 1965.

The problems at the present time are:

1. Scarcity of experienced Technicians
2. Insufficient funds to finance the increasingly extensive programs that must be accomplished in order to avoid stagnation and decline of the Agrarian Reform. Progress during

(Pages 55-73 Continued)

the past 10 years is evident; it suffices to quote that 45,000 title deeds covering 1,300,000 hectares have been granted during the period.

3. Inadequate credits to settle new colonists on the land assigned to them (this system of credits is not used by B.I.D.)

STATISTICS OF TITLE DEEDS GRANTED BETWEEN

1954 and 1965

<u>YEAR</u>	<u>No. TITLE DEEDS</u>	<u>No. HECTARES</u>
1954	437	49.334
1955	1.107	22.201
1956	822	44.038
1957	655	14.261
1958	1.298	31.888
1959	2.710	75.954
1960	3.205	101.795
1961	7.250	165.808
1962	10.016	209.191
1963	4.500	156.949
1964	6.250	165.280
1965	6.500	356.349
<hr/>		
TOTALS	44.750	1.393.048

Source: Statistical Division

(Pages 55-73 Continued)

12. EDUCATIONAL DEVELOPMENT DURING THE PERIOD 1961 - 1965:

The Republic of Paraguay, as other underdeveloped countries, is passing through a process of social and economic evolution which requires acceleration; with this object in view both the Government and the people have taken action tending to make education available to the greatest number of persons, so as to insure an effective development compatible with the new demands for social justice and economic equilibrium.

1. GENERAL OBJECTIVE

The principal objective is to achieve a gradual and effectual improvement in the conditions of life and work, not only in the rural but also in urban communities. The improvement can be obtained through a comprehensive educative action tending to make each individual realize his own potentialities and helping to instill qualities that dignify him as a free and responsible human being capable of living in peace and cooperating in a positive socio-economic and cultural development of the Country. On these bases the following general objectives should be borne in mind when preparing specific programs for the various educational levels:

- (a) Impart fundamental knowledge of general culture and inborn qualities by which the pupil may feel as one with his spiritual inheritance and be aware of his part in a universal civilization.
- (b) Give a moral and social education which will form citizens conscious of the use of their rights as also of compliance with their duties.
- (c) Actualize and extend the knowledge of technical and scientific achievements that will allow them to enjoy their benefits and help them to produce both better and more in relation to the environment in which they live.
- (d) Impart more positive knowledge of the socio-economic conditions of the country, contributing in this manner to a better understanding and adaptation of the pupil to his environment.

2. PRIMARY EDUCATION

- 2.1 Present System: Primary Education consists of 2 levels: the noncompulsory kindergarten for children of 5 to 6 years of age and the obligatory and gratuitous primary level for children of

(Pages 55-73 Continued)

7 to 14.

The age of 7 years established by Law for the primary level is higher than the normal teaching age which is established at 6.

2.2 Pupil Growth: Analysing information relating to matriculation, number of teachers and pupils, it is observed that Primary Education has constantly increased during the 5 year period 1961 - 1965.

The total matriculation of 311,833 pupils in 1961 rose to 363,261, an increase of 16.2%; the number of teachers increased from 10,998 to 12,791, an increase of 16.3%. The number of school buildings also registered an increase; in 1961 there existed 2316 buildings compared with 2662 in 1965, an increase of 15%.

The number of primary grade matriculated pupils in 1965 (363,261) represent 86% of the school age population.

NUMBER OF SCHOOLS, TEACHERS AND PUPILS

Year	Schools	Teachers	Pupils
1961	2.316	10.998	311.833
1962	2.383	11.218	327.059
1963	2.501	12.358	334.678
1964	2.605	12.611	349.143
1965	2.662	12.791	362.261

2.3 Scholastic Equipment: By means of contributions made by the parents of children, the Communities provide some school supplies. The Ministry has the responsibility of providing furniture and teaching material.

The Psychopedagogic Department of the Ministry evaluates and revises the textbooks for pupils; since 1957 there has been in existence a section with the name "Teaching Material Production Services". Up to June 1963 the Service had produced 280,000 copies of 29 different books covering a number of subjects for children, teachers and study programs.

(Pages 55-73 Continued)

Another didactic contribution is made by the Technical Assistance Department, created with the assistance of UNESCO in 1962. Its objectives may be summarized as follows: (a) Study, preparation and editing of texts, monographs, booklets and pamphlets for primary, secondary and teacher education; (b) audio-visual aids, production of films and views showing the facts of Paraguayan teaching.

3. DEVELOPMENT OF SECONDARY EDUCATION

<u>Years</u>	<u>Institutions</u>	<u>Teachers</u>	<u>Pupils</u>
1961	178	3.385	26.559
1962	198	3.580	28.562
1963	207	3.470	28.870
1964	244	4.039	31.590
1965	277	4.500	35.402

(Corresponds to Public and Private Institutions)

MATRICULATION

	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>
Básico	17.528	18.964	19.475	22.434	24.205
Bachillerato	3.620	4.267	4.610	4.710	6.205
Comercio	1.543	1.242	1.345	1.304	1.703
Normal	3.868	4.089	3.440	3.142	3.285
Técnica Vocacional	834	624	746	903	1.082
Técnica Industrial	438	428	394	431	450
Agrícola	346	325	341	335	350

Growth of Secondary Education: It will be seen from the afore-going figures that Secondary Education in all its branches has also gradually but constantly increased to the point of absorbing about 62.4% of the pupils completing their primary studies. The following are the increase percentages for each branch during the 5 year period 1961-1965; the Basic cycle matriculation increased by 38.1%; the Baccalaureate by 71.5%; Commercial by 10.4% and Professional Technical Teaching by 16.3%.

(Pages 55-73 Continued)

Regional Education Centers: The Regional Education Centers constitute large scholastic units located in appropriate regions of the country; they comprise a group of buildings which are suitably equipped and a staff of teachers specialized in various subjects.

These Centers afford advantageous conditions for carrying into effect both ordinary and special programs for primary, secondary and higher teacher education.

In principle it has been decided to build 6 of the afore-mentioned Centers; at the time of issuing this report 2 of them are in operation and another 2 are in the process of building. These Centers were constructed through the Rural Education Development Program and have received assistance from A.I.D. and GOP.

#### 4. HIGHER TEACHING

Higher education in Paraguay is given in the National University (official) and in the recently created Catholic University "Nuestra Señora de la Asunción" (private).

Admittance to the University is granted to students who are in possession of a Baccalaureate diploma, or its equivalent, and who comply with other prerequisites that are established by its respective branches. (entrance examination etc).

##### 4.1 UNIVERSITY MATRICULATION

1961 . . . . .	.4.030
1962 . . . . .	.4.573
1963 . . . . .	.4.885
1964 . . . . .	.5.258
1965 . . . . .	.5.917

#### 5. FINANCING OF EDUCATION

5.1 The financing of Paraguayan education originates an especial from public funds. These resources are furnished in accordance with the General Budget of the Nation.

The amounts assigned to Education in the budgets of 1961 and 1965 represent 15.2% and 15.7% respectively. Taking into consideration the constant rate of exchange, the educational budget for 1965 increased by 143% compared with that of 1961.

(Pages 55-73 Continued)

5.2 OFFICIAL EXPENDITURE FOR EDUCATION

(1961 -- 1965)

(In thousands of Guaranies)

	1961	1962	1963	1964	1965
Primary	273.792	316.988	393.195	450.576	489.107
Adult Education	-----	885	1.448	1.643	1.379
Secondary Ed. General	27.377	29.816	37.393	40.649	48.375
Secondary Ed. Tec.	30.977	38.002	40.408	42.534	44.537
Normal	47.688	54.419	65.091	72.770	75.748
Prof. Feminine	1.936	3.063	2.296	2.498	3.503
University	95.422	113.935	128.605	147.131	155.863
Adm & Other Serv.	52.233	52.809	64.006	75.134	100.950
<b>TOTAL :</b>	<b>529.425</b>	<b>609.917</b>	<b>732.442</b>	<b>832.935</b>	<b>919.462</b>

5.3 Reasons for the constant increase in Government Education Expenditure are the following:

- a) Primary Education is gratuitous and obligatory; almost its entire cost is borne by the Government.
- b) Between 53 and 60% of the total number of secondary pupils are paid for by the State.
- c) University Education is also gratuitous in the National University.

6. ELEMENTAL EDUCATION CAMPAIGN

As part of adult education, this typical and well-planned program will require new financial efforts.

The teaching of soldiers with Ministry-paid professional teachers is already in progress in the barracks.

Some barracks are not limited to primary education. The soldier gratuitously attends the basic cycle or the first part of secondary education. In addition to the primary schools, an entire National College operates in Mariscal Estigarribia, capital of the Paraguayan military territory, in the middle of the Chaco.

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7. AUDIOVISUAL AIDS

An effort is being made to modernize teaching; in conflict with privileges of the cities the best methods are being taken to rural areas.

A traveling library mounted on a vehicle chassis, a small traveling museum and a mobile cinematographic projector circulate between school and school.

G.O.P. ARMED SERVICES CIVIC ACTION REPORT

For the consignment of all the information stated on the respective chart, the most severe scrupulosity has been recommended.

For the determination of costs, minimum current costs have been taken as a basis, and in many cases, quantities have been changed in order to state an adequate current cost.

All activities stated on the chart were obtained from collaboration rendered in several manners by the Armed Forces to the people, prescindin; of those activities obtained due to necessities.

Due to the lack of an adequate system, any other activity is not included on this chart, such as scholar teaching within the headquarters, instruction of cadets at Military Colleges and Schools, where they obtain a military title and a high school level education; training for light and heavy equipment operators such as trucks, tractors, etc. at the Tractor Operators School; different professions such as mechanic, electrician, carpenter, etc. at the Specialty School, and some others like: shoemaker, belt-maker, tailor, baker, etc. at the Quartermaster Service Apprentice School. Groups of students are annually promoted at these schools.

For a better comprehension of the chart, remarks on different activities are stated as follows:

CONSTRUCTIONS: Includes construction of schools, hospitals or adjacent rooms, churches, police stations, courts and houses in general for private or public utilization. During 1964, total cost is ₡s.22,387,604, at a rate of exchange of ₡s.130 to 1 dollar, it amounts a total of US\$ 172,212. For the first semester of 1965, the amount covers ₡s.9,870,769 equivalent of US\$ 75,929.

CONSTRUCTION MATERIAL: Includes donation of stones, bricks, tiles, lime, sand, cement, wood, palms, paints, irons, frames, doors, windows, electrical and sanitary appliances. Total amount in 1964 covers: ₡s.1,171,745, equivalent of US\$ 9,013. For the first semester of 1965 the amount covers ₡s.492,080, equivalent of US\$ 3,785.

ROAD CONSTRUCTION: Construction of repair works on any type of road or bridges construction with cement or wood, pavement construction or repair works on streets; during 1964 the amount covers ₡s.47,020,379, which represent US\$ 361,695. For the first semester of 1965 the amount covers ₡s.20,547,445, equivalent of US\$ 158,057.

OTHER CONSTRUCTIONS: Construction of land strips, children's recreation fields, sports fields, swimming pools, repair works on telegraph lines, telephone lines; total amount in 1964 covers ₡s.5,677,751, which represent US\$ 43,675. For the first semester of 1965 the amount covers ₡s.2,750,480, equivalent of US\$ 21,158.

TRANSPORTATION: Free service of vehicles for carrying materials like wood, charcoal, construction material, furniture, tools, for welfare or insolvent institutions; transportation of poor families and people, student and sports delegations, by water, air or roads; total amount during 1964 covers ₡s.3,860,910, which represent US\$ 29,699. For the first semester of 1965 the amount covers ₡s.1,744,200, equivalent of US\$ 13,417.

SANITARY SERVICE: It covers medical and odontological care, pharmacy and hospital, and medicine supply. The volume of sanitary service is remarked due to the special attention rendered this service by the Armed Forces. Rural professional tariff and amount of cost for medicine supply were taken in order to prepare an estimate of costs. During 1964, costs covered ₡s.46,464,075, which represents US\$ 357,416. For the first semester 1965, the amount covers ₡s.27,980,105, equivalent of US\$ 215,232.

ASSISTANCE AND DONATIONS: Money, food supply, clothes, blankets and POL costs during 1964 amount a total of ₡s.8,568,184, which represent US\$ 65,909. For the first semester in 1965 the amount covers ₡s.4,335,210, equivalent to US\$ 33,348.

OTHER ACTIVITIES: This section was inserted in order to cover any blank that could occur in case of omission; it also covers all miscellaneous items in the field of minor or "sui generis" collaborations which are less common. We find that during 1964 costs amount to ₡s.2,343,982 which represent US\$ 18,031. For the first semester in 1965 the amount covers ₡s.1,933,442 equivalent of US\$ 14,796.

The total sum of costs for different activities during 1964 amount to ₡s.137,494,630, at a rate of ₡s.130 per one (1) dollar, makes a total of US\$ 1,057,150. For the first semester in 1965 the amount covers ₡s.69,643,731, equivalent to US\$ 535,722. Total amount assigned by the General Budget of the Nation to the Ministry of National Defense during 1964 is ₡s.857,696,030; total cost of Armed Forces activities, that is ₡s.137,494,630 stated above, represents 16% of the budget or, the percentage that overflows in benefit and services for the people.

If the amount assigned for salaries is subtracted from the general budget, the balance obtained represents the amount assigned to the development and maintenance of the specific activities of military institutions. General Budget: \$857,696,030. Salaries subtracted: \$408,449,680. Balance: \$449,246,450; on this amount, Social Action worth during 1964 represents 30 percent.

In closing, we remark that all actions were accomplished in a voluntary manner by all units, or, which is the same, not as a fulfillment of orders received from High Command - except road construction works - as a consequence, all works were accomplished without the advantages of an adequately prepared planning, which is expected for the near future.

RELATED ECONOMIC PLANNING

The Paraguayan economy is basically agrarian. Its principal export products are meat, lumber, cotton, quebracho extract, oilseeds, hides, and tobacco. For internal consumption it produces a wide variety of fruits and vegetables. Its main food import is wheat, coming almost entirely from Argentina and the United States. Industry is in its incipency, being handicapped by a small national market, an insufficiency of executive and managerial personnel, and inadequate credit for medium and long-term lending. The USAID program in private sector development aims at establishing the institutional framework to eliminate these bottlenecks. The production of canned meat, and meat by-products, flour, essential oils, and cotton textiles are the principal manufacturing activities in Paraguay.

Tourism has been expanding rapidly during the past five years as a result of new hotel, highway, and airline facilities established in Paraguay and neighboring countries. An even greater influx of tourists is projected upon completion of paving of the connecting portions of the Brazilian highway system, compounded by increased prosperity and expanded leisure time in Paraguay's giant neighbor.

The GOP adopted a 2-year (1965-1966) development plan in July 1965, but the CIAP has recommended the extension of the plan to the year 1967. While the plan is poorly drawn, statistically weak, and poorly projectized, it does contain certain policy recommendations that are worth implementing, particularly with respect to fiscal and administrative reforms. The plan for Paraguay's economic development is export oriented, this being considered the quickest way of raising domestic income.

Accordingly, priority is given to opening the interior of the country to increase the output of traditional export products and to develop new ones. Also, transportation from interior producing centers to Asunción and other export points on the nation's borders is given major importance in the plan. Not only are new export markets to be sought south in Brazil, Bolivia, and northern Argentina, but the costs of transport are to be reduced to improve the competitiveness of Paraguayan products in domestic and more distant foreign markets.

Paraguay's development potential rests in its land, animals, and forests, in its hydroelectric power potential, and in its hardworking people. The basic problem of development in this country is to transform

its disadvantageous geographic position, limited resources, and tropical climate into positive growth factors. This requires opening the interior of the country to productive activities and providing the new producing areas with relatively cheap transportation and marketing facilities; the problem of Paraguayan agriculture is not land shortage, but rather to discover projects offering high rates of return per unit of (scarce) capital invested. The cost of transportation is an important factor affecting this rate of return.

After almost a century and a half of virtual political and economic isolation, Paraguay, during the past ten years, has emerged from its self-imposed cocoon and has embarked on a strenuous program of public works that have provided it with access to neighboring countries and to those abroad. The construction of the Asunción Airport and the development of a national road program have been undertaken during this decade, as well as the modernization of the national merchant fleet and of certain port facilities. The development of modern international communications facilities has also occurred within the past few years. This communications revolution has brought Paraguay almost overnight from the era of the oxcart and mule to the jet age. The symbol and psychological stimulus of this transformation is the Asunción Airport.

The proposed loan to the GOP for the expansion and improvement of the Presidente Stroessner Airport will contribute toward high priority economic, political and social objectives in the country by providing for safe international cargo and passenger traffic through mediteranean Paraguay's only modern gateway to the world. Although roads recently have been and continue to be extended to Paraguay's national frontiers, the bulk of passenger traffic entering and leaving the country will continue to be by air. Railroad facilities in Paraguay are limited in extent, badly deteriorated, and diminishing in economic importance. The whole railway operation is expected to be phased out within the next five years as it is replaced by an asphalted road network from Paraguari to Encarnación and the connecting Coronel Oviedo-Villarrica road.

The predominance of infrastructure expenditures among the public sector investments is shown clearly in Table 1. Within the infrastructure, transportation has been and continues to be the largest single

TABLE 1

PARAGUAY: Percentage distribution of public sector  
project financing, by field of investment, 1963-1966.

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	1963 *			1964 *			1965 *			1966 *		
	Internal	External	Total									
Agriculture	18.9	19.3	19.1	11.2	22.8	16.4	14.8	16.4	15.9	19.8	20.4	20.2
Education	1.3	8.8	4.3	3.3	6.4	4.7	4.1	1.1	2.2	4.4	1.9	2.6
Housing	--	--	--	0.2	--	0.1	0.2	--	0.1	0.2	--	0.5
Industry	5.6	8.1	6.6	2.5	4.0	3.2	6.4	16.3	12.8	5.2	11.5	9.5
Electric power	5.9	5.8	5.4	4.8	16.4	10.0	10.5	22.8	18.5	10.7	30.1	24.1
Public Health	33.6	--	20.1	48.4	--	26.6	29.4	1.5	11.1	28.7	7.0	13.6
Telecommunication	2.9	4.6	3.6	2.9	10.1	6.2	5.6	3.3	4.1	3.9	2.0	2.5
Tourism**	10.8	--	6.5	5.8	--	3.2	--	--	--	--	--	--
Transportation	18.0	50.0	30.7	16.7	40.3	27.3	26.3	37.5	33.6	26.0	27.1	26.7
Water-Supply	3.6	3.4	3.6	4.1	--	2.3	2.7	1.1	1.7	1.1	--	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

\*Projected by IBRD

\*\*Represents investment in constructing the Hotel Acaray at Puerto Presidente Stroessner to handle tourists visiting Iguazú Falls.

claimant on investment resources; it has held this position among public sector investments since the beginning of the accelerated public investment effort of the late fifties. The present Administration is dedicated to "opening up" the country for political and economic purposes.

The airport authority (Administración Nacional de Aeropuertos Civiles), which has registered modest operating surpluses in recent years, has built and maintains a series of small airstrips throughout the country. An integral part of the authority's program is the addition of a satisfactory jet landing strip to the Asuncion airport and the rehabilitation of the existing inadequate strip for use as a taxiway.

Under the plan prepared by the Technical Planning Secretariat and adopted by the GOP, total gross investment in Paraguay over the period 1966-1970 is estimated at \$ 452 million (equivalent). Some 58% of the total is to come from the private sector. Of total gross savings during this period, it is estimated that the domestic private sector will account for 52%, the public sector for 23%, and 25% will come from abroad (see Table 2).

TABLE 2

PARAGUAY: Planned pattern of financing national investment needs, 1966-1970

(In millions of 1962 guaraníes)

	1966	1967	1968	1969	1970	Total 1965-1970	Percent 1965-1970
A. <u>Public Sector Financing:</u>	<u>4,816</u>	<u>5,785</u>	<u>4,912</u>	<u>4,446</u>	<u>4,142</u>	<u>24,101</u>	<u>42.3</u>
Internal	2,006	2,475	2,664	2,938	3,240	13,323	23.4
External	2,810	3,310	2,248	1,508	902	10,778	18.9
B. <u>Private Sector Financing:</u>	<u>6,326</u>	<u>6,438</u>	<u>6,542</u>	<u>6,666</u>	<u>6,934</u>	<u>32,906</u>	<u>57.7</u>
Internal	5,232	5,433	5,869	6,293	6,749	29,576	51.9
External	1,094	1,005	673	373	185	3,330	5.8
C. <u>Total Investment:</u>	<u>11,142</u>	<u>12,223</u>	<u>11,454</u>	<u>11,112</u>	<u>11,076</u>	<u>57,007</u>	<u>100.0</u>
Internal	7,238	7,908	8,533	9,231	9,989	42,899	75.3
External	3,904	4,315	2,921	1,881	1,087	14,108	24.7

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ANNEX III

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Source: Technical Planning Secretariat,

Plan Nacional De Desarrollo Economico, y Social

Volume I, page 190.

To obtain the 25% external input into its economy during 1966-1970 equivalent to \$ 113 million--Paraguay obviously requires easy access to world capital markets. More importantly, and particularly with respect to foreign private investment in Paraguay, foreign businessmen must have modern facilities for doing business with this landlocked country. Competition for foreign investment is acute among the underdeveloped countries of the world. Hence, accessibility becomes a crucial factor to the potential outside investor in making his investment decision, barring any unusual expectation of windfall profits.

Paraguay has a sizeable array of possibilities for industrial projects worthy of foreign investors' attention. The Ministry of Industry and Commerce has listed 32 of these as follows:

I. Having immediate possibilities:

1. Milk pastuerization
2. Sugar (refined)
3. Frozen meat.
4. Industrial oils (coconut and tung)
5. Hard fibers (kenaf, jute, ramie, sisal).
6. Hard fiber cloth (saks)
7. Petroleum refining
8. Cement
9. Fruit essences (citrus, pineapple)
10. Pineapple canning.

II. Having immediate possibilities, but requires market study:

1. Canned fruit juices.
2. Canned hearts of palm (palmito)
3. Edible oils (soy, peanut)
4. Canned tomatoes and tomato sauces.
5. Margarine
6. Essential oils (petitgrain, Palo Santo, Cedron, Menthol)
7. Lime
8. Soap (coconut oil)
9. Tapioca flour and starch
10. Wood, lumber drying kilns

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11. Lumber, plywood, etc.
12. Fruit wine (pineapple, orange, mandarin)
13. Fertilizers.

III. Requires market and technical studies:

1. Cellulose and paper
2. Glass containers
3. Plate glass
4. Tanning of hides and skins
5. Agricultural tools

IV. Requires study of raw material supply:

1. Oil of yatai.
2. Oil from coconut meat.
3. Caranday wax.
4. Hard fiber (caraguata, mbocaya).

FIGURE IX

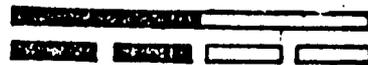
# TOTAL AIRCRAFT OPERATIONS

Presidente Stroessner Airport -- Asunción, Paraguay

# TOTAL OPERACIONES DE AVIONES

Aeropuerto Presidente Stroessner-Asunción, Paraguay

Total Aircraft - Total Aviones  
Passenger Aircraft - Aviones de Pasaje



Total Operations  
Total Operaciones

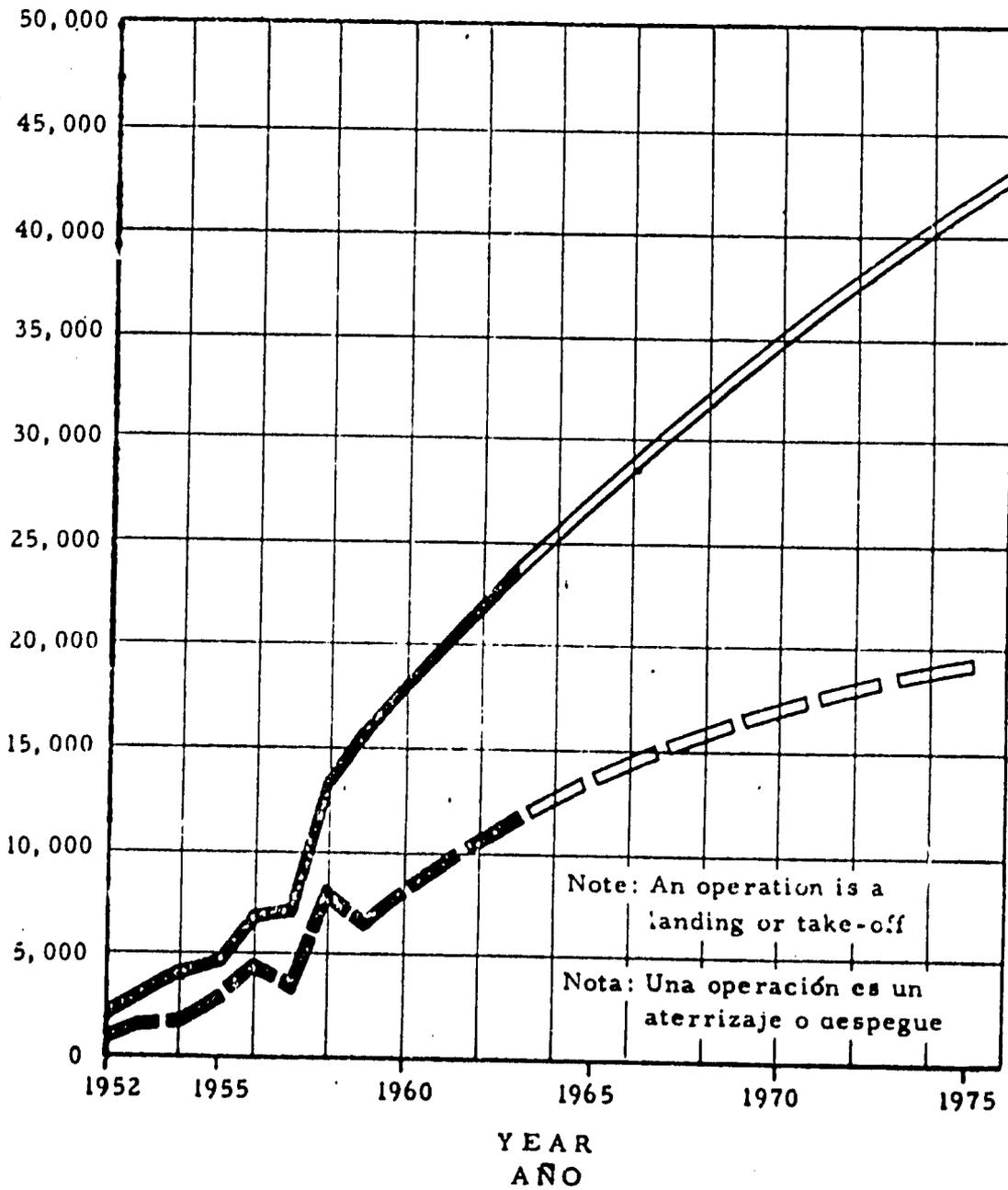


FIGURE X

### TOTAL AIR CARGO THROUGH ASUNCION AIRPORT

President Stroessner Airport - Asunción, Paraguay

### CARGA AEREA TOTAL A TRAVES DEL AEROPUERTO DE ASUNCION

Aeropuerto Presidente Stroessner-Asunción, Paraguay

- Domestic Air Cargo - Carga Aerea Nacional  
International Air Cargo-Carga Aerea Internacional

Air Cargo (U.S. Tons)  
Carga Aerea (Toneladas EE.UU.)

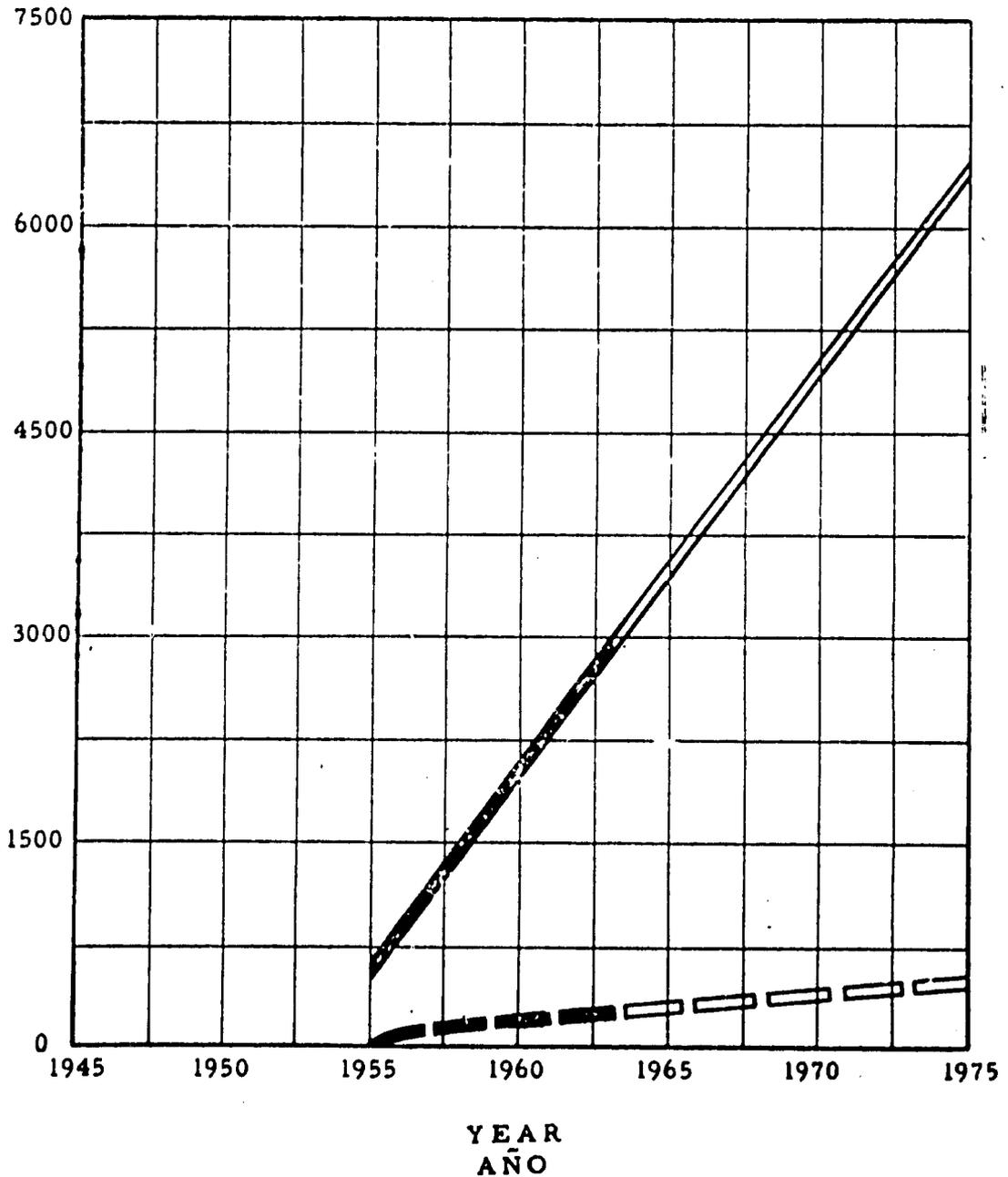


FIGURE VI

# PASSENGERS ARRIVING AND DEPARTING ASUNCION BY AIR

Presidente Stroessner Airport — Asunción, Paraguay

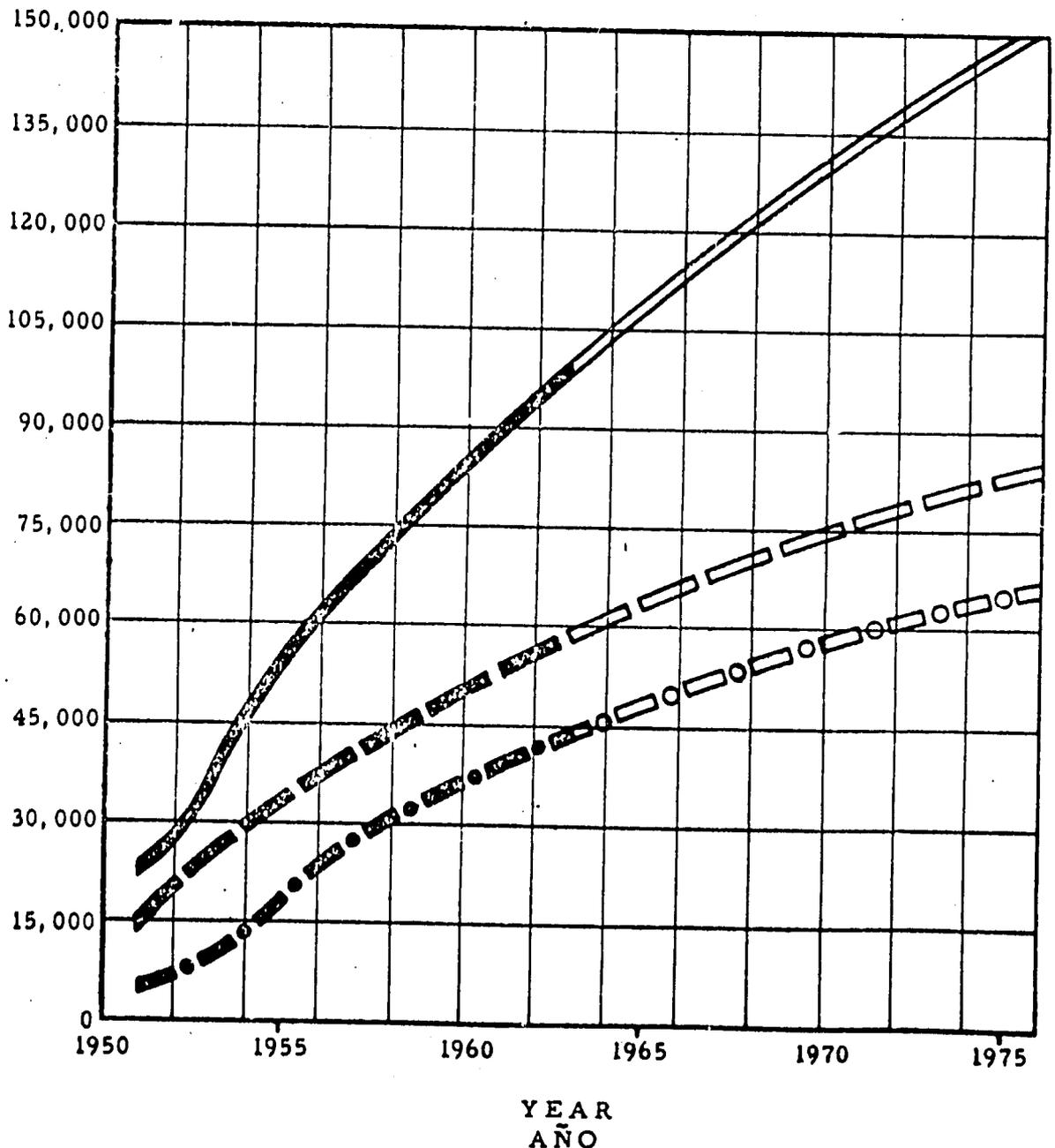
# PASAJEROS QUE LLEGAN Y SALEN DE ASUNCION POR AVION

Aeropuerto Presidente Stroessner-Asunción, Paraguay

Total Passengers - Total Pasajeros  
International Passengers - Pasajeros Internacional  
National Passengers - Pasajeros Nacional



Passengers  
Pasajeros





Administración Nacional de Aeropuertos Civiles (A.N.A.C.)  
ASUNCION - PARAGUAY

MINDEFENSA - 2o. Piso  
Teléfono 4291  
Interno 88

AEROPUERTO:  
Teléfonos 2168 y 2070

MOVIMIENTOS DE VUELOS INTERNACIONALES  
DEL AÑO 1.964.-

COMPANIAS AEREAS	NACIONALIDAD	TIPO DE AVION	OPERACIONES Total - Promedio mens.	
Pan American W. A.	U. S. A.	Boeing 707 - 300	194.-	16.-
Braniff Internac.	U. S. A.	Boeing 707 - 227	226.-	18.-
Aerolineas Argentinas	Argentina	Caravelle Avro 748	834.-	69.-
Panair do Brasil	Brasil	Caravelle DC- 8	256.-	21.-
P. L. U. N. A.	Uruguay	Viscount	168.-	14.-
Varig-Real S. A.	Brasil	DC-3; C-46 Convair 240	308.-	25.-
L. A. P. S. A.	Paraguay	C-46 y DC-4	268.-	22.-
Aerotransp.Lit.Argentino	Argentina	DC- 3	302.-	25.-
Lineas Aereas Paraguayas	Paraguay	Convair 240	720.-	60.-
Lineas Aereas Peruanas	Peru	DC- 6	54.-	18.-
<u>VUELOS MILITARES REGULARES</u>				
Transportes Aereo Militar	Paraguay	DC- 3	3.104.-	256.-
<u>VUELOS EXTRAORDINARIOS</u>				
Rolando Degli Uberti	Paraguay	C-170;172 175;182	2.158.-	179.-
L. A. T. N.	Paraguay	C-45; Bonza C-185;Catalina	2.555.-	212.-
Aeronaves irregulares			12.040.-	1.003.-
M.O.P.y C.;Aeroclubes (Par,Arg,Brasil,Uruguay)			904.-	75.-
<u>VUELOS MILITARES EXTRAORDINARIOS</u>				
Fuerza Aerea Paraguaya	Paraguay		120.-	10.-
Fuerza Aerea Argentina	Argentina		218.-	18.-
Fuerza Aerea Uruguaya	Uruguay		96.-	8.-
Fuerza Aerea Brasilera	Brasil		136.-	11.-
Fuerza Aerea Estado Unido	U. S. A.		296.-	24.-
Fuerza Aerea Chilena	Chile		12.-	1.-
Fuerza Aerea Boliviana	Bolivia		2.-	--
Fuerza Aerea Francesa	Francia		6.-	--



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MOVIMIENTOS DE VUELOS INTERNACIONALES

DEL AÑO 1.965.-

COMPAÑIAS AEREAS	NACIONALIDAD	TIPO DE AVION	OPERACIONES	
			Total	Promedio mens.
Pan American W.A.	U.S.A.	Boeing 707-300	208.-	17.-
Braniff Internac.	U.S.A.	Boeing 707-227	416.-	34.-
Aerolineas Argentinas	Argentinas	Caravelle Avro 748	742.-	61.-
Panair do Brasil	Brasil	DC-8	24.-	2.-
P. L. U. N. A.	Uruguay	Viscount	184.-	15.-
Variag-neal S.A.	Brasil	Boeing 707-227 DC-8; DC-3; Conv. 590	480.-	40.-
L.A.P.S.A.	Paraguay	C-46; y DC-4	32.-	3.-
Aerotransp. Lit. Argentino	Argentinas	DC-3	304.-	25.-
Lineas Aereas Paraguayas	Paraguay	Convair 240	806.-	67.-
Lineas Aereas Peruanas	Peru	DC-6	188.-	20.-
<u>VUELOS MILITARES REGULARES</u>				
Transportes Aereo Militar	Paraguay	DC-3	2.740.-	227.-
<u>VUELOS EXTRAORDINARIOS</u>				
Roland Degli Uberti	Paraguay	C-170; 172 175; 182	1.034.-	86.-
M.O.P. y C. y Aeroclubes (Arg.; Brasil, Uruguay y Par.)			880.-	73.-
Aeronaves irregulares			12.520.-	1.043.-
L.A.T.H.	Paraguay	C-45; Catalina C-135; Bonga	3.194.-	260.-
<u>VUELOS MILITARES EXTRAORDINARIOS</u>				
Fuerza Aerea Paraguaya	Paraguay		14.-	1.-
Fuerza Aerea Argentina	Argentina		230.-	19.-
Fuerza Aerea Uruguaya	Uruguay		130.-	11.-
Fuerza Aerea Brasileira	Brasil		152.-	13.-
Fuerza Aerea Estado Unido	USA		314.-	27.-
Fuerza Aerea Chilena	Chile		8	--
Fuerza Aerea Boliviana	Bolivia		10	--
Fuerza Aerea Francesa	Francia		2	--
Fuerza Aerea Ecuatoriana	Ecuador		2	--



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AEROPUERTO  
Telefonos 2168 y 2070

MOVIMIENTOS DE PASAJEROS Y OPERACIONES EFECTUADAS POR LAS DISTINTAS COMPANIAS AERIAS, CORRESPONDIENTES A LOS AÑOS 1.964-1965.

C O M P A N I A S	O P E R A C I O N E S (Aterrizaje-despegue)	P A S A J E R O S -		
		Llegada	salida	Totales
Ban American s.a.	194.-	2222	1538	3760.
Braniff Internac.	226.-	3630	3011	7447.
Aerolineas Argentinas	834.-	11896	11408	23304.
Panair do Brasil	256.-	1871	1896	3767.
P. L. U. N. A.	168.-	1867	2186	4073.
Varig-real s. a.	308.-	2020	2347	4367.
L. A. P. S. A.	268.-	1719	1240	2959.
Aerotransp. Lit. Argentino	302.-	2265	2069	4334.
Roland Degli Uberti	2.158.-	----	271	271.
Aerolineas Peruanas	54.-	179	165	344.
Aeronaves irregulares	12.040.-	1010	1453	2463.
L. A. T. N.	2.555.-	18	128	146.
Aeronaves exonerada de pago	5.014.-	16077	21298	38155.
T O T A L	24.977.-	45620	49810	95430.

1965

Ban American s. a.	208.-	1600	1238	2838.
Braniff Internac.	410.-	7539	6890	14429.
Aerolineas Argentinas	742.-	11018	14444	26062.
Panair do Brasil	24.-	242	209	511.
P. L. U. N. A.	184.-	2308	2714	5022.
Varig-real s. a.	480.-	3704	4112	7816.
L. A. P. S. A.	32.-	182	128	310.
Aerotransp. Lit. Argentino	304.-	2345	2416	4761.
Aerolineas Peruanas	146.-	428	905	1333.
Roland Degli Uberti	1.024.-	3	23	26.
Aeronaves irregulares	12.520.-	724	1087	1811.
L. A. T. N.	3.194.-	---	39	39.
Aeronaves exonerada de pago	5.307.-	17448	22098	40146.
T O T A L	24.639.-	48543	50963	105506.

FORECAST OF PEAK HOUR PASSENGERS PER DEPARTURE PRONOSTICO DE PASAJEROS DURANTE HORA DE MAYOR ACTIVIDAD				
YEAR	Arriving and Departing Passengers	ANNUAL DEPARTURES		Passenger Per Departure
		Total Aircraft	Passenger Aircraft	
AÑO	Pasajeros de Llegada y Salida	SAIDAS ANUALES		Pasajeros por Salida
		Total de Aviones	Aviones de Pasaje	
1960	70,000	7,000	3,000	14.7
1965	87,000	9,700	4,200	14.0
1970	95,000	10,000	5,200	12.5
1975	98,000	11,000	5,400	17.5
1960	100,000	11,000	6,200	16.5
1965	107,000	14,000	6,400	16.3
1970	129,000	18,000	8,000	16.3
1975	148,000	23,000	8,300	14.0

FORECAST OF PEAK DAY PASSENGERS - Arriving and departing PRONOSTICO DE PASAJEROS DURANTE HORA DE MAYOR ACTIVIDAD - Llegada y salida					
YEAR	Annual Passengers	Ratio %	Peak Month Passengers	Ratio %	Peak Day Passengers
AÑO	Pasajeros al Año	Porcentaje	Pasajeros Mes Mayor Actividad	Porcentaje	Pasajeros Día Mayor Actividad
1960	107,000	50	28,000	4.0	428
1970	129,000	50	32,000	4.0	505
1975	148,000	50	38,000	4.0	505

FORECAST OF PEAK HOUR PASSENGER AIRCRAFT PRONOSTICO DE AVIONES DE PASAJEROS DURANTE HORA DE MAYOR ACTIVIDAD			
YEAR	Annual Movements	Factor	Peak Hour* Movements
AÑO	Movimiento Anual	Factor	Movimientos Hora Mayor Actividad
1960	11,000	0.0006	7.0
1970	17,000	0.00065	10.0
1975	24,000	0.0009	14.0

FORECAST OF PEAK HOUR PASSENGERS Arriving and departing on scheduled aircraft PRONOSTICO DE PASAJEROS DURANTE HORA DE MAYOR ACTIVIDAD Llegada y salida de aviones regulares			
YEAR	Peak Hour Movement	Passengers Per Movement	Peak Hour Passengers
AÑO	Movimiento Hora Mayor Actividad	Pasajeros por Movimiento	Pasajeros Hora Mayor Actividad
1965	7.9	16.3	129
1970	10.3	16.2	167
1975	11.1	16.0	178

FORECAST OF PEAK HOUR AIRCRAFT TRAFFIC SCHEDULED AND NON-SCHEDULED OPERATIONS PRONOSTICO TRAFICO AVIONES DURANTE HORA DE MAYOR ACTIVIDAD OPERACIONES REGULARES E IRREGULARES					
YEAR	AIRCRAFT MOVEMENTS			Factor	Peak Hour Movement
	Total	Passenger	Other**		
AÑO	MOVIMIENTO DE AVIONES			Factor	Movimiento Hora Mayor Actividad
	Total	Pasajeros	Otros**		
1960	23,800	12,400	11,400	0.0006	14
1965	28,000	13,200	14,800	0.00065	18
1970	38,000	17,200	18,800	0.0008	29
1975	42,400	18,400	24,000	0.0009	36

NOTES  
NOTAS

- \* Arrivals and departures passenger aircraft only.  
\* Llegadas y salidas aviones pasajeros solamente.

- \*\* Includes general aviation, military and cargo aircraft operations.  
\*\* Incluye operaciones aviones en general, militares y de carga.

ACTIVITY OF BRANIFF AIRWAYS

1. For each year, 1960 - 1965:

(a) Outbound freight; tonnage and principal classes of items.

Year 1960	10 tons	(samples, clothes, spare parts).
" 1961	13 "	(samples, clothes, spare parts).
" 1962	23 "	(household effects, spare parts, samples, clothes)
" 1963	42 "	(household effects, diplomatic pouches, samples, fruit)
" 1964	77 "	(household effects, chilled meat, skins)
" 1965	326 "	(chilled meat, household effects, skins)

(b) Inbound freight; tonnage and principal classes of items

Year 1960	17 tons	(spare parts, medicals).
" 1961	30 tons	(spare parts, pharmaceutical, clothes)
" 1962	50 tons	(spare parts, clothes, personal effects, samples)
" 1963	100 tons	(foodstuff)
" 1964	100 tons	(spare parts, clothes, personal effects, samples)
" 1965	150 tons	(spare parts, clothes, personal effects, samples, television sets).

(c) Outbound passengers traffic.

Year 1960	1.720 passengers
" 1961	3.661 passengers
" 1962	4.335 passengers
" 1963	4.037 passengers
" 1964	3.781 passengers
" 1965	6.618 passengers

(d) Inbound passengers traffic.

Year 1960	1.548 passengers
" 1961	3.295 "
" 1962	4.118 "
" 1963	3.835 "
" 1964	3.403 "
" 1965	7.611 "

(e) Volume (or weight) of mail (including diplomatic pouches) handled, both inbound and outbound and origin; destination (if known)

Year	In tons	Out tons
1960	4	3
" 1961	4	4
" 1962	5	4
" 1963	6	7
" 1964	7	6
" 1965	10	6

2. Taxes paid to GOP, annually 1960-1965

<u>Income Tax</u>	<u>Year</u>	<u>Municipal Fees</u>	<u>Legal Stamps</u>	<u>Other</u>
\$260.000	1960	\$20.000	\$10.000	\$2.400.000.-
564.000	1961	20.000	12.000	3.000.000.-
856.000	1962	20.000	11.000	3.860.000.-
1.210.000	1963	20.000	13.000	2.170.000.-
1.333.000	1964	20.000	15.000	2.090.000.-
2.378.000	1965	20.000	40.000	No info. available

3. Other Taxes or Charges.

<u>ANTELCO (VHF)</u>	<u>Year</u>	<u>Social Security Tax</u>	<u>Airport Charges</u>
From \$ 30.000 to \$ 40.000 per annum	(1960	\$ 440.000	\$ 1.517.000
	(1961	490.000	2.030.000
	(1962	424.000	2.568.000
	(1963	520.900	2.682.000
	(1964	554.000	1.819.000
	(1965	635.000	3.720.000

4. Investments in Paraguay

\$ 6.775.000.- (acciones en RAPSA)

5. Employments of Paraguayan nationals

<u>Year</u>	<u>Number</u>	<u>Payroll</u>
1960	Average of 25 employees	\$ 4.400.000
1961		4.984.000
1962		3.981.000
1963		4.462.000
1964		4.807.000
1965		5.384.000

6. Purchases made in Paraguay

<u>Year</u>	<u>Fuel</u>	<u>Other</u>
1960	Average of 30 to 40 millions \$ per annum	6.000.000
1961		7.000.000
1962		10.000.000
1963		7.000.000
1964		6.073.000
1965		10.089.000

7. Airline revenue - Gross Sale

<u>Year</u>	<u>Amount</u>
1960	¢ 13.660.000
1961	28.197.000
1962	49.788.000
1963	48.381.000
1964	53.333.000
1965	95.000.000

LOAN AUTHORIZATION

Provided from: Alliance for Progress Funds  
PARAGUAY: Asuncion Airport Rehabilitation

Pursuant to the authority vested in the Deputy U. S. Coordinator, Agency for International Development ("A.I.D."), by the Foreign Assistance Act of 1961, as amended, and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan ("Loan") pursuant to Part 1, Chapter 2, Title VI, Alliance for Progress, to the Government of Paraguay ("Borrower") of not to exceed four million seven hundred thousand United States dollars (\$4,700,000) to assist in financing U.S. dollar and Paraguayan guarani costs of of the rehabilitation of the Asuncion Airport, Asuncion, Paraguay ("Project"), this loan to be subject to the following terms and conditions:

A. Interest and Terms of Repayment

Borrower shall repay the loan to A.I.D. in United States dollars within forty (40) years from the first disbursement under the loan, including a grace period of not to exceed ten (10) years. Borrower shall pay to A.I.D. in United States dollars on the disbursed balance of the loan interest of one (1) percent per annum during the grace period and two and one-half ( $2\frac{1}{2}$ ) percent per annum thereafter.

B. Other Terms and Conditions

1. The Borrower will covenant to establish one central authority for the administration and maintenance of the airport, in accordance with a plan, satisfactory to A.I.D., within one year of the signing of the Loan Agreement.
2. The Borrower will agree to provide sufficient budgeted funds from its own resources to the airport authority to assure the continuing maintenance and equipment of the airport.
3. Prior to the first disbursement or issuance of the first commitment document, other than to finance engineering services, Borrower shall furnish AID, in form and substance satisfactory to AID:
  - (a) a commitment to allocate through its regular budgetary procedures all necessary monies for the payment, as scheduled, of all GOP debts to AID or its predecessor agencies;

- (b) evidence that Borrower has available or will have available when necessary, from sources acceptable to A.I.D., the guarani equivalent of at least seven hundred thousand United States dollars (\$700,000) for use on the Project.
4. Borrower shall contribute to the Project, from sources acceptable to A.I.D., the guarani equivalent of at least seven hundred thousand United States dollars (\$700,000), and Borrower shall also provide, or cause to be provided, any additional resources which are necessary for the timely completion of the Project.
  5. Equipment, materials and services (except shipping and marine insurance) financed under the loan shall have their origin in and be procured from the United States or Paraguay. Shipping financed under the loan shall be procured from the United States, and marine insurance financed under the loan shall be placed in the United States.
  6. United States dollars utilized under the loan to finance local currency costs shall be made available to Borrower or its designee through appropriate Special Letter of Credit procedures and shall be used only for procurement in the United States.
  7. The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

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Deputy U. S. Coordinator

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Date