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

CAPITAL ASSISTANCE PAPER

Proposal and Recommendations
For the Review of the
Development Loan Committee

PARAGUAY - ASUNCION AIRPORT PROJECT

*1 - 116
(Approved to present
to the Development Loan Committee)*

AID-ILC/P-308 2-216

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

PDAAN-457

AID-DLC/P-308
March 25, 1965

MEMORANDUM FOR THE DEVELOPMENT LOAN COMMITTEE

SUBJECT: Paraguay - Asuncion Airport Project

Attached for your review are the recommendations for authorization of a loan in an amount not to exceed \$3,000,000 to the Government of Paraguay to assist in financing the costs of rehabilitation and improving the President Stroessner International Airport in Asuncion ("Airport")

This loan proposal is scheduled for consideration by the Development Loan Staff Committee at its meeting on March 30, 1965.

Helen E. Nelson
Secretary
Development Loan Committee

Attachments:
Summary and Recommendations
Project Analysis
Annexes I-IV

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PARAGUAY - ASUNCION AIRPORT PROJECT

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY AND RECOMMENDATIONS.....	i
HISTORY AND BACKGROUND.....	1
PLACE OF PROJECT IN PROGAM.....	4
ENGINEERING ANALYSIS.....	5
ECONOMIC ANALYSIS.....	9
TOTAL FINANCING REQUIREMENTS.....	15
IMPACT ON U. S. ECONOMY.....	18
IMPLEMENTATION PLAN.....	19
ISSUES.....	23
SPECIAL LOAN CONDITIONS AND COVENANTS.....	28
ANNEX I - A.I.D. Program in Paraguay	
ANNEX II - Statutory Criteria	
ANNEX III - Detailed Description of Project	
ANNEX IV - Loan Authorization (Draft)	

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PARAGUAY - ASUNCION AIRPORT PROJECT

SUMMARY AND RECOMMENDATIONS

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:** An amount not to exceed \$3,000,000.
3. **PURPOSE:** To provide the bulk of the financing requirements to rehabilitate and improve the President Stroessner International Airport at Asuncion.
4. **BACKGROUND:** 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.
5. **PROJECT DESCRIPTION:** Rehabilitation and improvement of the existing 9000 foot runway, construction of clear zones and overruns extending 1500 feet at each end of the runway, a complete new taxiway system, improvement of existing runway lighting and the addition of approach lighting and taxiway lighting.
6. **EXIMBANK CLEARANCE:** Eximbank indicated on December 11, 1964, that it was not interested in financing this project.
7. **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 United States interests in Paraguay. The GOP assigns a high priority to the project.

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8. **TOTAL COST OF THE PROJECT:** The total cost of the program (the project plus preliminary engineering financed by GOP) is budgeted at \$3,648,000 including a PL 480 loan and GOP contribution of \$355,400. All non-Paraguayan procurement for the project will be of United States source and origin, except as A.I.D. may otherwise agree in writing.
9. **STATUTORY CRITERIA:** All statutory criteria relating to this loan have been satisfactorily met. (See Annex II for details.)
10. **OTHER CONTRIBUTIONS:** None.
11. **ISSUES:**

- a. Administration and Operation of the Airport: Should A.I.D. insist upon the establishment of one central authority for the administration and maintenance of the airport? If so, (1) should this be made a condition precedent to disbursement or, (2) a covenant, and, if a covenant, what time schedule for accomplishment should be established?

Borrower will be asked to establish a central authority in accordance with a plan, satisfactory to A.I.D. Provision is made in the loan for the funding of contractual services to set up a control authority.

- b. Procurement: Should loan funds be used for the procurement of asphalt and petroleum products having their source and origin in countries that are members of the Alliance for Progress?

A waiver of the United States source and origin requirement should be granted to effect a savings of an estimated \$78,000.

- c. Engineering Services: Should loan fund disbursements be authorized to compensate consultant engineers for services rendered to the Borrower in the preparation of final plans, specification and bid documents prior to the authorization of the loan?

The Capital Assistance Committee recommends that disbursements from this loan be authorized for services rendered subsequent to February 1, 1965, to expedite the implementation given the emergency nature of the project.

- d. Design Alternatives: Should proposal presented by R.A.A.G./Fazenda Airport be used, submitted as attachment to FOAID A-456 from Assistance by Railroad. Alternative calls for construction of new runway parallel to the existing runway, which would be converted to a taxiway.

LA/AD and RAA/IA/AFU have agreed that rehabilitation of the existing runway is preferable to construction of a new runway because both alternatives will accomplish the job, but the time element is not equal and rehabilitation can proceed with little delay. For details see Annex III.

12. RECOMMENDATIONS: Authorization of a loan to the Government of Paraguay for an amount not to exceed \$3,000,000:

- a. Term: Forty years, including a ten-year grace period.
- b. Interest: Six months after the first disbursement and until the borrower takes the action described in paragraph (2) of "a. Major Conditions;" below. Interest will be two and one-half percent (2½%) per annum payable annually on the outstanding balance. When that action is taken, interest will be one (1%) per annum on the outstanding balance payable annually during the grace period and two and one-half percent (2½%) per annum thereafter.

- c. Repayment: Both principal and interest repayable in U. S. dollars.

1. Major Conditions:

(1) The borrower shall continue to provide sufficient budgeted funds to IDG from its own resources to assure the continuing maintenance and equipment of the airport.

(2) The borrower shall endeavor to establish one central authority for the administration and maintenance of the airport, in accordance with a plan, satisfactory to A. I. B.

- (3) Standard Conditions.
- (4) Borrower will covenant to budget funds in its regular budget for repayment of principal and interest on this credit.

Project Committee:

Loan Officer : Clarence T. Foley, CDO, US AID/Argentina
Engineer : Carl M. Fuschberg, Chief Engineer (Regional)(in draft)
Counsel : Erwin A. Levy, Regional Counsel (in draft, subject
to completion of statutory criteria clearance
by IA/DO)
Program : Charles Williams, IA, W
: Raphael R. Fernandez, Development Officer,
US AID/Paraguay
: Joseph Pinson, Development Economist, US AID/Paraguay

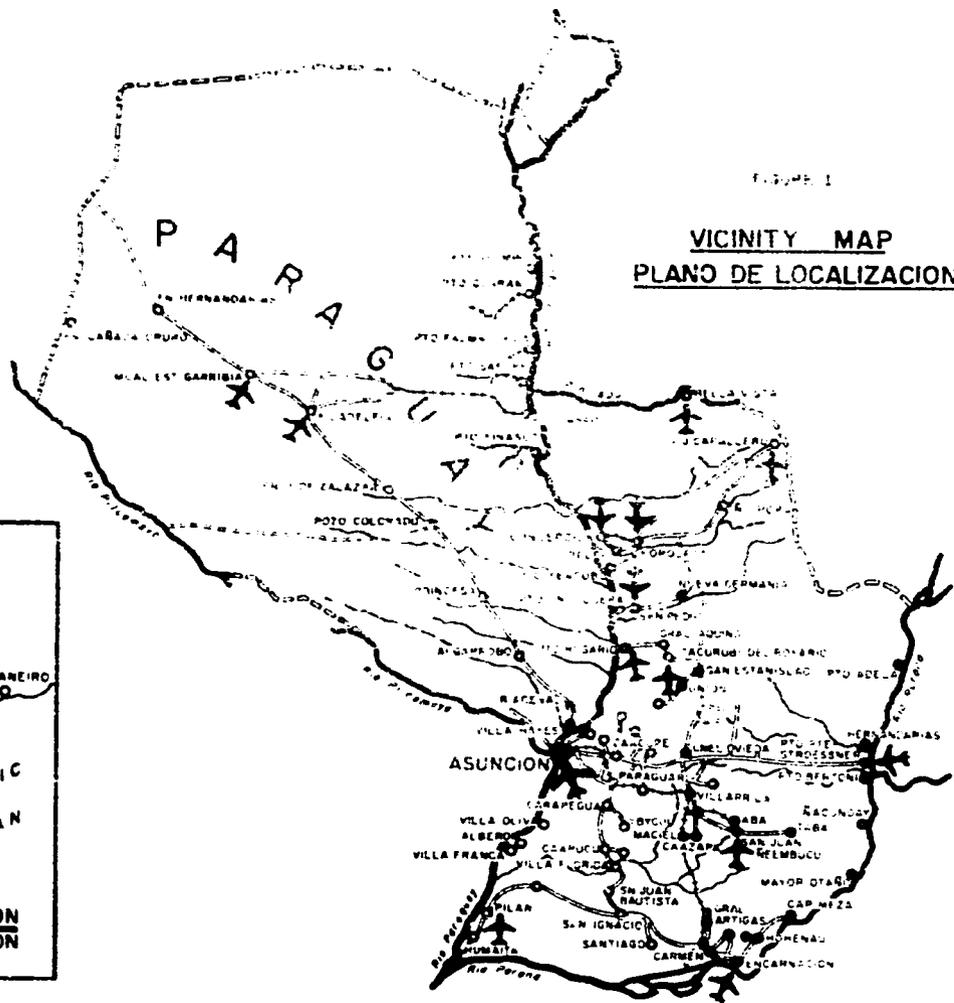
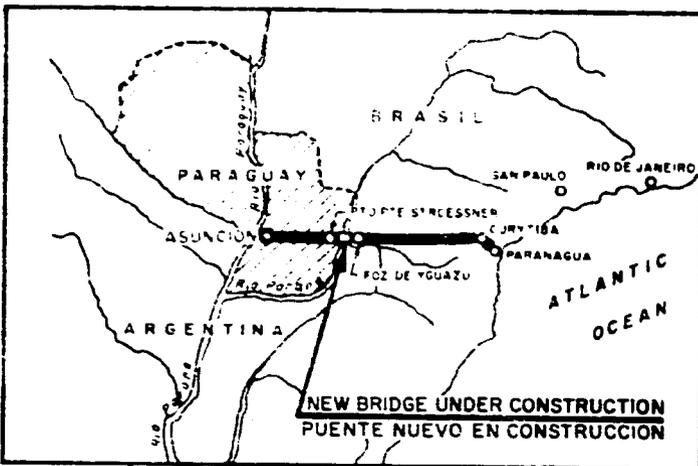
Drafting Officer : Clarence T. Foley, US AID/Argentina

Mission Clearance: John P. Wiley, Director

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LEGEND
REFERENCIAS

- MAIN ROADS
RUTAS PRINCIPALES
- ROADS UNDER CONSTRUCTION
RUTAS EN CONSTRUCCION
- AIRFIELDS
AEROPORTOS
- CITIES
CIUDADES
- RAILROADS
FERROCARRILES
- RIVERS
RIOS
- BOUNDARY LINES
LINEA INTERNACIONAL



VICINITY MAP
PLANO DE LOCALIZACION

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7

HISTORY AND BACKGROUND

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 GOP placed the airport in a public status, and opened the airport 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 GOP decided to take steps to develop an adequate airport. After preliminary studies in 1954, the GOP 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 GOP 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 GOP in early November 1958.

Since the runway is used as a taxiway and for turnarounds, the entire runway must be subjected to maximum load conditions. The runway began to show major distress when Pan American Airways and Braniff Airlines started operating DC-8's and 707-227's, respectively. Pavement failures became evident within a year after completion of the 4000 foot runway, because of improper maintenance of surface and drainage, as well as inadequate design and construction. Deterioration continued and frequent repair patches had to be made.

In early 1962 a representative of the Regional Aviation Assistance Group/Lebanon 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 GOP did not prove sufficient and in October 1962 USAID provided the GOP with a grant equivalent of \$400,000 in local currency funds, from PI-420 available funds, to finance additional drainage installation in an effort to stabilize 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 for 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 improvement of the airport was undertaken by the firm of Palmer and Sizer Engineers, Inc., and this report with recommendations was delivered to the GOP in April, 1964. The report presented the following program including: I- Repair and rehabilitation of existing runway and construction of clear zones, taxiways, and construction of curbs, taxiway, and approach lighting systems; II- Construction of Air Identification Building, terminal, apron, and part of access road; III- Construction of aircraft parking apron and taxiway roads; IV- Construction of access road. The total cost of the total program was \$6.5 million, but the GOP was unable to finance the program primarily stage I only. The GOP was not successful in obtaining the financing necessary to carry out these recommendations.

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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 may be created if the deterioration of the runway is allowed to continue beyond its present 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 GOP submitted its application to AID for financing of the major part of the repairs and rehabilitation required. Intensive review of the application was authorized and initiated in December 1964 and processing of this review revealed that additional preliminary engineering and cost studies would have to be made in order to comply with the requirements of Section 611. A representative of the consulting engineering firm which had made the feasibility study, a staff engineer from AID/W, the Chief Engineer (Regional) and MOPC engineers combined forces in Asuncion on January 20 (the earliest date on which the consulting engineer was available) to resolve the engineering issues.

PLACE OF PROJECT IN PROGRAM

1. Description of Sector Goal and Its Relation to Other Sector Goals

The Mission is presently promoting projects designed to improve Paraguay's transportation and communication facilities, stimulate production activity and to maximize the country's foreign exchange earnings. The National Economic Planning Secretariat's comprehensive country development program for 1965 and 1966 also emphasized that priority must be given to such efforts.

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 be served by International jet traffic which facilitates international trade and tourism.

2. Relation of Project to Sector Goal and Other Sector Projects

Rehabilitation and improvement of the Asuncion airport is an emergency project which must be undertaken and completed as soon as possible if the airport is to continue to serve international jet traffic. The need for this funding was not foreseen at the time of the preparation of the original FY-65 CAP. However, it was proposed for funding in FY-65, in the Part III of the CAP for FY-66 which was prepared in January 1965.

3. Project Contribution to Country's Economic Development

Air transportation is particularly important to Paraguay which must rely on the long Parana-Paraguay river system for contact with most other countries. It has been estimated that 42,600 landings will be made annually by 1975, at the Asuncion Airport. This would represent an 80% increase over the 1963 traffic.

In recognition of the importance of the airport, the Planning Secretariat's public investment budget proposes a total of \$ 850 million for Stage I, of which \$ 48 million, plus \$ 24 million for maintenance is to come from domestic resources.

ENGINEERING ANALYSIS

1. General Project Description

The modernization program currently anticipated by the GGP for the Amador International Airport consists of re-facilitating and improvement of the existing landing strip, and construction of a taxiway, aircraft parking aprons, a new administration building and a new access road to the City of Amador. The project includes only the landing strip rehabilitation and taxiway and taxiway construction phases of the overall modernization program. The project is designed to remedy the present unsatisfactory condition of the landing strip and add safety, measured in keeping with modern day jet transportation requirements.

Briefly, improvements of the landing strip include the following:

- a. Rehabilitation of the existing runway
- b. Construction of safety zones at each end of the runway
- c. Modification of runway and approach lighting system
- d. Improvement and extension of the drainage system

A taxiway will be constructed to relieve loading conditions now imposed on the runway when large jets taxi to and from the terminal building on the runway, and to permit more efficient use of the airport facilities in the future. The existing apron at the terminal building will be widened to accommodate at least one more jet aircraft. The layout of the taxiway will be in accordance with other requirements of the overall airport modernization program.

The total cost of the project to be financed is estimated at \$2,440,000. Thereof \$1,700,000 is needed for foreign exchange costs and \$740,000 for general costs. The loan requested is \$1,700,000, \$400,000 of which is for construction and engineering services and starting airport activity and \$300,000 equivalent in foreign currency for part of local cost. The GGP will contribute \$300,000 equivalent for the remainder of the local currency, which represents 33% of the total local currency costs.

2. Engineering Plan

a. Technical Feasibility

The loan request is based on a Feasibility Study Report dated April 1964 by Palmer and Baker, Inc., of Mobile, Ala. This report represents a generally comprehensive technical and economic study for the overall airport modernization program. Due to the development of several areas of severe structural distress in the runway after the above report was prepared additional field investigations were conducted in January 1965 and the cost estimate revised.

The project is technically feasible. The only technically difficult problem presented is that of rehabilitation of the runway so as to insure future structural stability under increased frequency of large jet aircraft traffic with normal maintenance procedures and with the least possible disruption of current flight schedules.

While economic feasibility cannot be demonstrated by a cost-benefit ratio, the overriding safety aspects are a critical consideration. If the runway repair work is not initiated within the next few months the airport will no doubt have to be closed to jet aircraft of the 707 and DC-8 class. The loss of revenue to the airport from this class of aircraft can be computed with reasonable accuracy and the upset to the general economy and normal business operations would be widespread.

The cost estimates are reasonable and reflect current construction costs in Paraguay. Inflation is not anticipated to be a problem as the local currency is generally stable. Direct financing by the Central Bank of any part of the local contribution is not contemplated, and funds for the airport program are expected to be provided through the regular budgetary process for the next calendar year.

b. Engineering Plan for Project Implementation

Preparation of detailed engineering plans and specifications, and supervision of construction will be carried out by a

competent private U. S. consulting engineering firm under contract to the GOP. These consultants will be responsible for all construction plans, specifications, bid documents, reviewing bids and assistance in awarding the construction contract. During construction they will be responsible for ~~engineering supervision~~ of construction, inspection of work and material, certification of periodic work progress payments, and monthly progress reports. It is the intention of the GOP to retain Palmer and Baker, Inc. as their engineering consultant.

Competitive bidding procedures will be followed for the construction contract. There are no local contractors available for the prime construction contract, thus bidding will be limited to U. S. firms. Due to the critical time factor of starting construction at the earliest possible date, the Borrower proposes to follow A.I.D.'s regular procedure for prequalification of construction contractors and to announce in advance that accelerated mobilization will be a requirement. Local regulations on advertising, bid review and contract award allow sufficient flexibility so that the most efficient time phasing can be set up. The construction period is estimated at 12 calendar months.

An alternate plan was submitted for consideration by the FAA, R.A.A.G./Panama Airport Engineer, which proposed construction of a completely new runway with conversion of the existing runway to a taxiway. However, this alternative had previously been considered and rejected by the LA/CD Engineers. Nevertheless, the FAA engineer proceeded to the U. S. for discussions with Palmer and Baker, and his findings and FAA's comment are incorporated in Annex III.

3. Maintenance

Maintenance of the airport is under the administration of the General Directorate of Highways of the Ministry of Public Works and Communications (MOPC). Specifically, a separate sub-section of the Highway Directorate, composed of a supervising engineer and a labor force, is responsible for all maintenance operations. Equipment owned by MOPC such as trucks, graders, rollers, a small asphalt mix plant, etc., are stationed at the airport for general maintenance operations.

Lack of adequate and timely maintenance is reported to have been one of the contributing factors to serious structural failures which developed in the runway. General maintenance operations have improved during the past 12 to 18 months but lack of sufficient funds has been a problem. Maintenance personnel currently assigned to the airport are considered to be capable.

The scope of work for the consulting engineering contract will contain a provision for preparation of a continuing maintenance program to include: operations, organization and personnel, equipment and budget.

5

ECONOMIC ANALYSIS

1. Relationship of Activity to the GOP's Development Program and to the U. S. Assistance Strategy

Paraguay is a landlocked country. Its major commercial and social contacts with the outside world are by means of its international airport near Asuncion and the Paraguay-Parana-La Plata river system. Although the river system is the major avenue of Paraguay's international commerce, the system historically has been inefficient and unreliable; moreover, much of its extent is outside the national jurisdiction of the country.

The proposed \$5.0 million loan to the GOP will contribute toward high priority economic, political, and social objectives in the 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 under-developed 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 international and intercontinental 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 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 Airways, Inc. (built the airport serving Asuncion)
- 1939 - Pansair Do Brasil, S. A.
- 1943 - Brazil-EE International Airways, Inc.
- 1944 - Aerolineas Argentinas, S.A.
- 1948 - P.A.M.I.A. (Uruguayan)
- 1951 - Transportes Aereos Reais, S.A. (Brazilian)
- 1960 - Aerolineas 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, it may be expected that larger amounts of cargo, having higher unit values, will 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 the 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. Thus, from economic, social, and strategic viewpoints, the improvement of the country's only jet airport is of the highest national priority. It is included in the national development plan for 1955-1960.

2. 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 seven years have been that incoming passenger traffic has doubled, and air cargo is 60 times greater than in 1954.

Paraguay has a large tourist potential in its resources for hunting and fishing. These resources are accessible a short distance from Asuncion. And the people are pleasant and amiable, and the climate is subtropical, with an average high of 95°F and an average low of 55°F. The Yacua Falls, just across the border in Brazil at some 20 miles from Asuncion, are world renowned for their beauty and size. There is regularly scheduled air service from Asuncion to Yacua, and a good airplane travel. A modern hotel with gambling facilities has just been opened at Puerto Presidente Stroessner on the Parana River, near the Brazilian border. Air and road connections with other cities of the world.

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Improved air transportation facilities will aid commercial and industrial activity in Paraguay. 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.

The United States carriers, Pan American International Airways and Braniff International Airways, have invested considerable time and money in developing and increasing the commercial traffic between Asuncion and the United States and other countries. It has been established 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.

Direct benefits to the national economy derive from the expenditure of some 27% of the project's total cost within the country. These outlays (about \$998,000) will be for wages and salaries, construction materials, machinery rentals, food and shelter, and other items available locally.

3. Repayment Prospects

The Ministry of Finance has undertaken to assume the responsibility of paying the interest and amortizing the loan. As explained below foreign exchange receipts should increase sufficiently to permit servicing this debt.

a) Balance of Payments

The Technical Planning Secretariat has made minimum and maximum projections of the balance of payments for Paraguay for the years 1966-70. The minimum projections are shown in the following table:

PARAGUAY: BALANCE OF PAYMENTS, PROJECTED 1964-70

(In Millions of U. S. Dollars)

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
<u>Current Account</u>							
Exports of goods and services	54.3	61.2	70.6	79.0	88.1	104.4	111.6
Imports of goods and services	<u>59.6</u>	<u>73.5</u>	<u>90.3</u>	<u>100.7</u>	<u>110.3</u>	<u>117.8</u>	<u>120.2</u>
Commercial Balance	-5.2	-12.3	-19.7	-21.7	-22.2	-13.4	- 8.6
Remittances (net)	-0.2	0.2	-	-0.5	-1.3	-3.0	-3.2
Current Acct. Balance	-5.5	-12.1	-19.7	-22.2	-23.5	-16.4	-11.8
<u>Capital Account: Inflows</u>							
Credits	<u>8.0</u>	<u>15.4</u>	<u>22.4</u>	<u>25.1</u>	<u>25.6</u>	<u>24.5</u>	<u>20.2</u>
Direct Investments	4.5	5.0	6.0	6.0	6.0	6.0	6.0
IMF Standby	-	5.0	-	-	-	-	-
<u>Amortizations (net)</u>	-4.1	-6.0	- 6.5	-9.5	-10.2	-8.9	-10.6
<u>Change in Reserves</u>	+2.9	+7.3	+2.2	-0.6	-2.1	+5.2	+3.8

Source: Technical Planning Secretariat, with addition of IMF Standby drawing. Repayment of IMF Standby included in net amortization as follows:

1966, \$1.6 million; 1967, \$1.7 million;
1968, \$1.7 million.

According to these projections, even at the minimum level, net amortization will account for less than 10% of exports of goods and services during 1964-70, and will permit an over-all rise in Paraguay's foreign exchange reserves of \$18.7 million for the period as a whole, however it should be noted that the above model is based on a short-term investment budget for 1965 and 1966 under which public investment includes approved loans, credits under negotiation, approved projects and new projects by the Secretariat to accelerate economic development. Although the two-year program was published late last November, it is the subject of considerable controversy and has not yet been approved by the Council of State. The utilization of external credit will depend largely on the celerity with which Paraguay can complete the projects in preparation incorporated in the short term plan of the Planning Secretariat.

In October 1964, the COP requested the International Monetary Fund to negotiate a stand-by arrangement believing that the balance of payments situation and international reserve position required the financial support of the Fund in 1965. The stand-by arrangement agreed upon of \$5 million established control of Central Bank credit through an over-all ceiling on the Central Bank's net domestic assets, but does not limit the use of external development loans channelled through the Bank.

As of December 1964, outstanding foreign credits to both the public and private sectors of Paraguay amounted to \$84.6 million, of which about \$43 million had not yet been utilized. In the second half of 1964 new loans contracted included \$14.3 million for the hydropower project, \$750,000 from the Chase Manhattan Bank and \$3 million from A.I.D. for agricultural credit to middle income farmers. Servicing of the foreign debt rose to a peak of \$5.5 million in 1965 or about 12% of estimated export revenue.

b) Budget Situation

A virtually balanced budget in 1962 deteriorated rapidly and government finances registered cash deficits of \$2.5 million and \$2.9 million in 1963 and 1964, respectively. Total cash revenues rose from \$34.7 million in 1963, \$36.2 million in 1964, while authorized expenditures increased from \$37.6 million

to \$40 million. The 1965 ordinary budget includes a deficit for the ten months' period of \$3 million because of an authorized increase in wages of 5%. The GOP is fully cognizant that a determined effort must be made to mobilize additional resources for financing of economic development projects. Tax reform and improved collection procedures should produce additional revenues. The Government is strengthening its budgetary and expenditure control methods with foreign technical assistance and should be able to reduce deficits in the ordinary budget to manageable proportions.

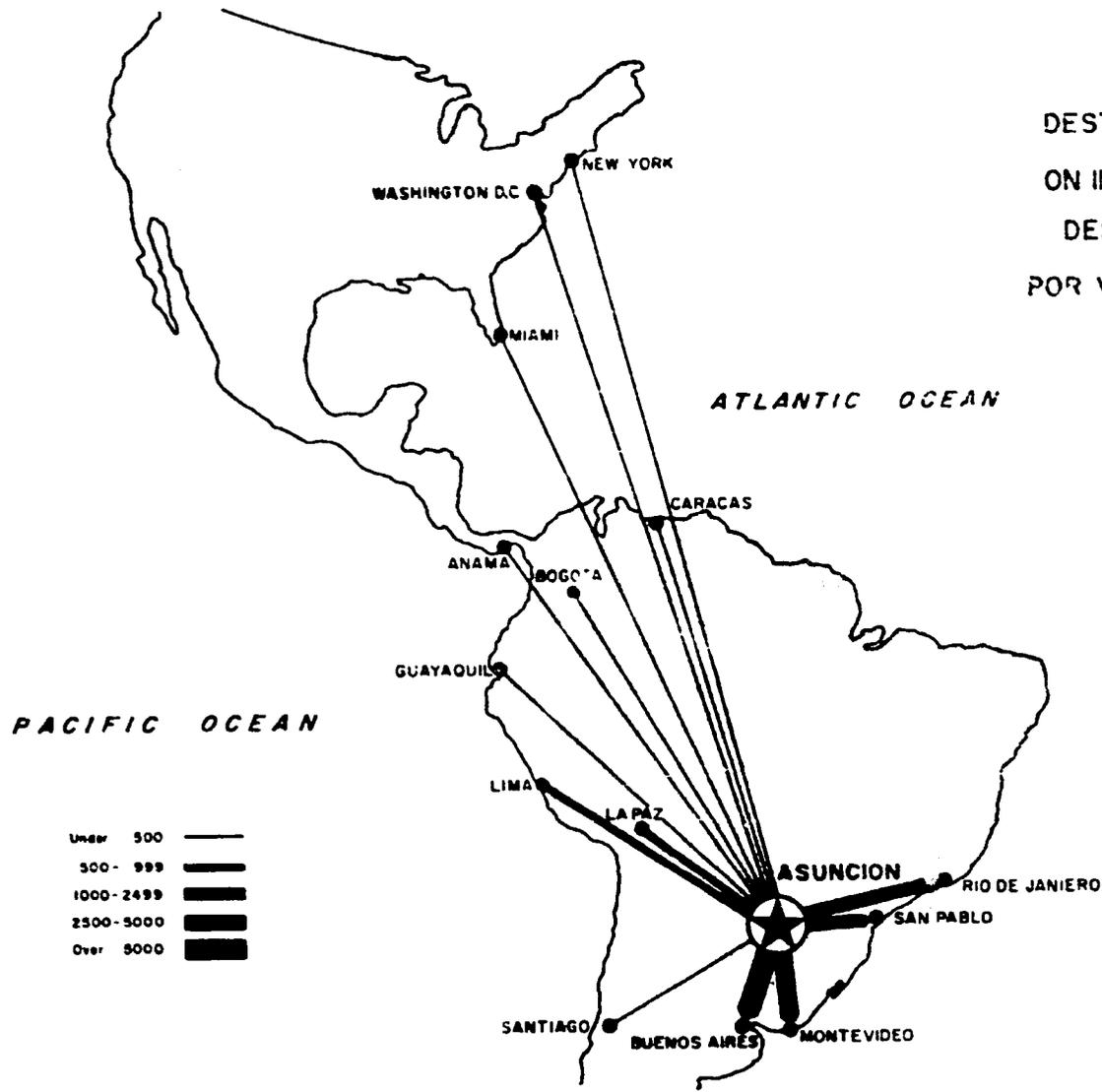
Revenues have been strong in the first two months of this year (\$100 million above the same period last year), due in part to the fact that the River Paraguay is again fully navigable, so that held over exports are moving freely with corresponding increases in customs duties. Short-term borrowing in 1965 has been matched by amortization so that the net position of the Central Bank remains unchanged.

c) Arrears

The GOP temporarily is in arrears on four A.I.D. loans (the first and second Brazil Road loans; the PL-480 loan of 1957, and the PL-480 loan of 1961) to the extent of some U.S. \$317,000, equivalent, including interest and principal. All of these loans call for repayment in local currency. The GOP's efforts to reduce the fiscal deficit and to pursue monetary policies directed toward the maintenance of internal and external equilibrium, should facilitate the problem of bringing its debt servicing obligations to a current basis in the near future.

Additionally, if the payment to the Minister of Finance of 25% of the rates collected for amortization of the Export-Import Bank loan of 1957-8, is deducted, operation of the airport should show a surplus. Thus, the probability exists that the airport revenues will be able to provide exchange and guaranties for amortization of the loan.

FIGURE II
DESTINATION OF PASSENGERS
FROM ASUNCION
ON INTERNATIONAL FLIGHTS*
DESTINO DE PASAJEROS
DESDE ASUNCION
POR VUELOS INTERNACIONALES



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-14 a -

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22

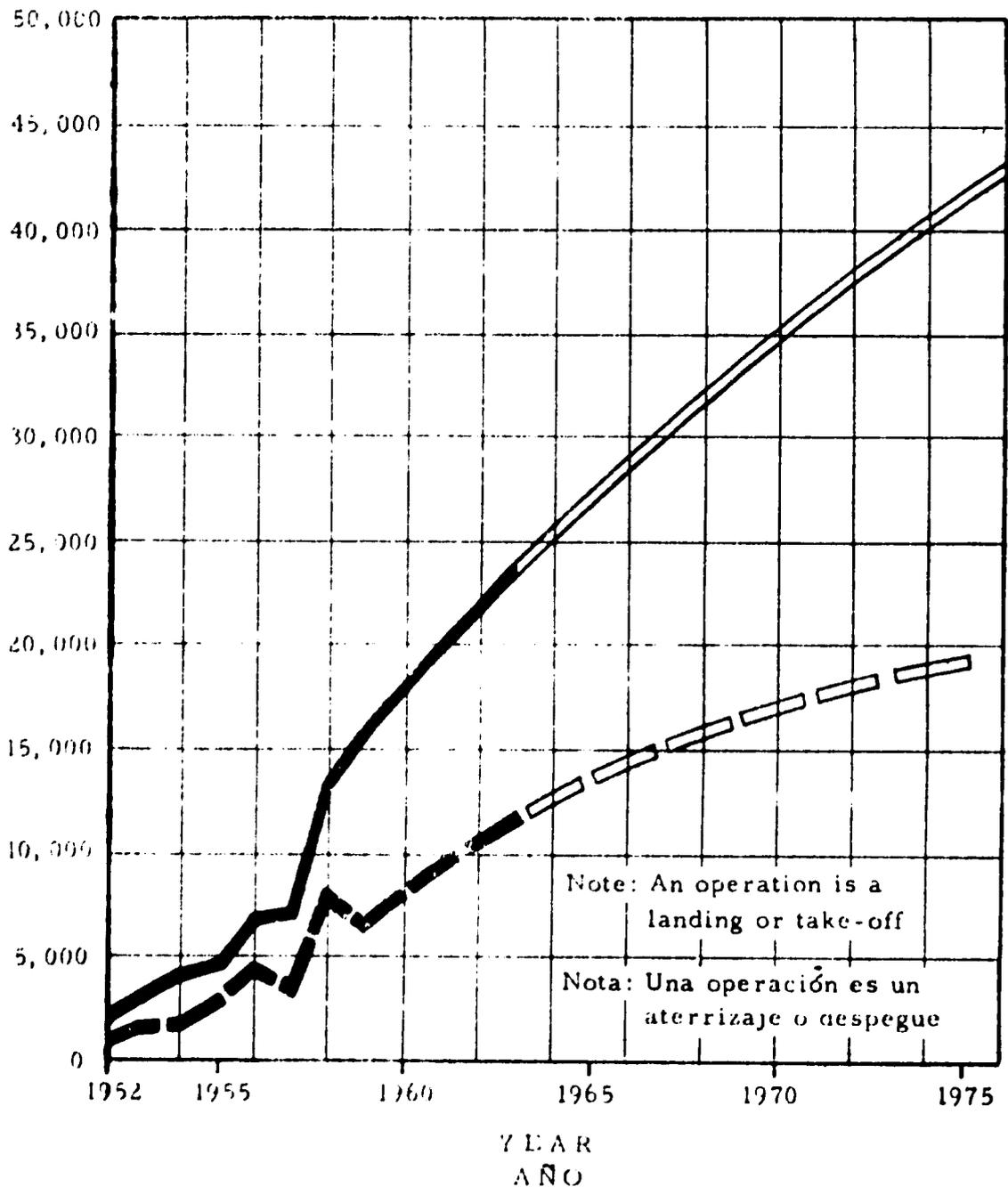
FIGURE IV

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



23

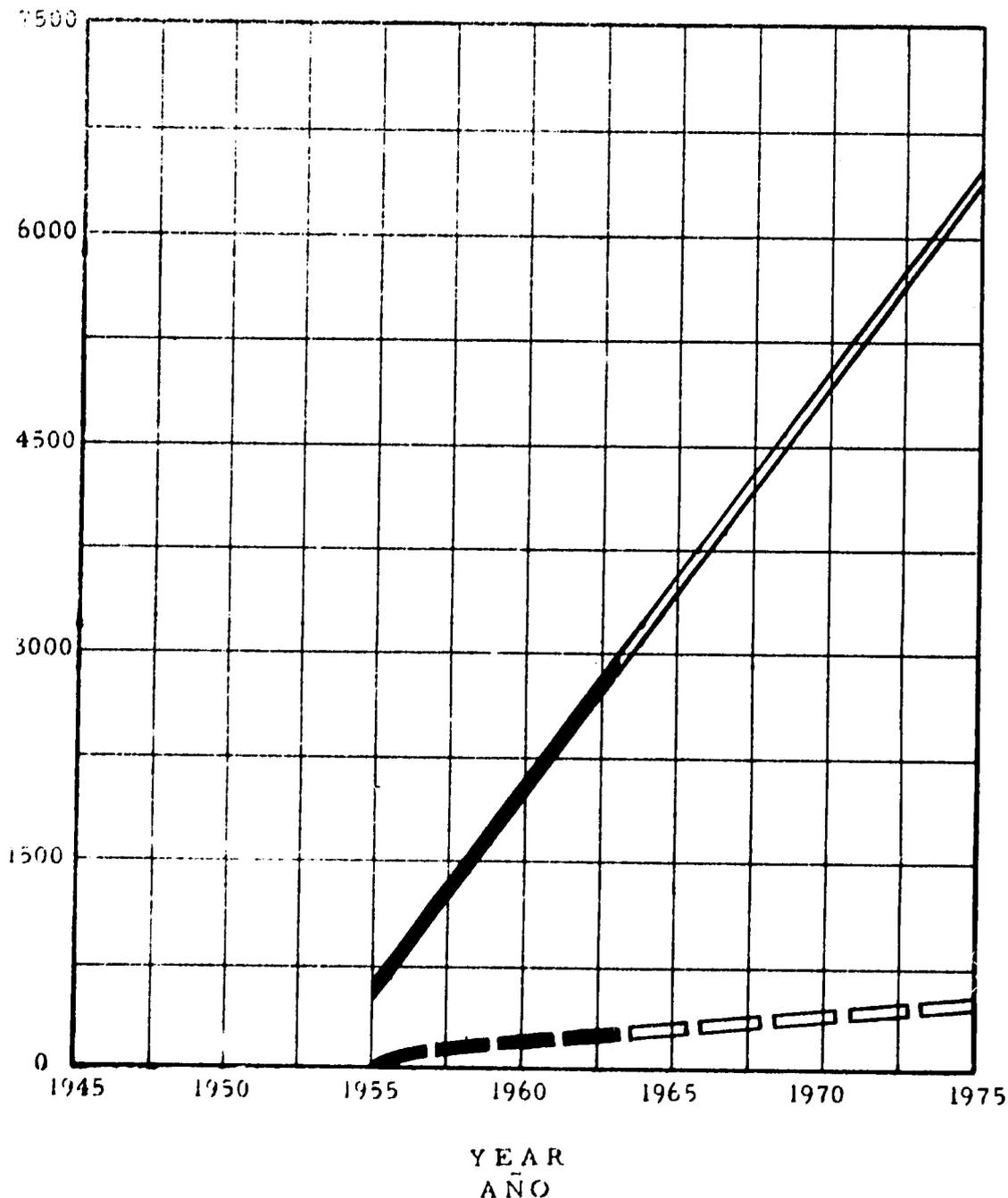
FIGURE V

**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.)



24

FIGURE VI

PASSENGERS

ARRIVING AND DEPARTING ASUNCION BY AIR

Presidente Stroessner Airport — Asunción, Paraguay

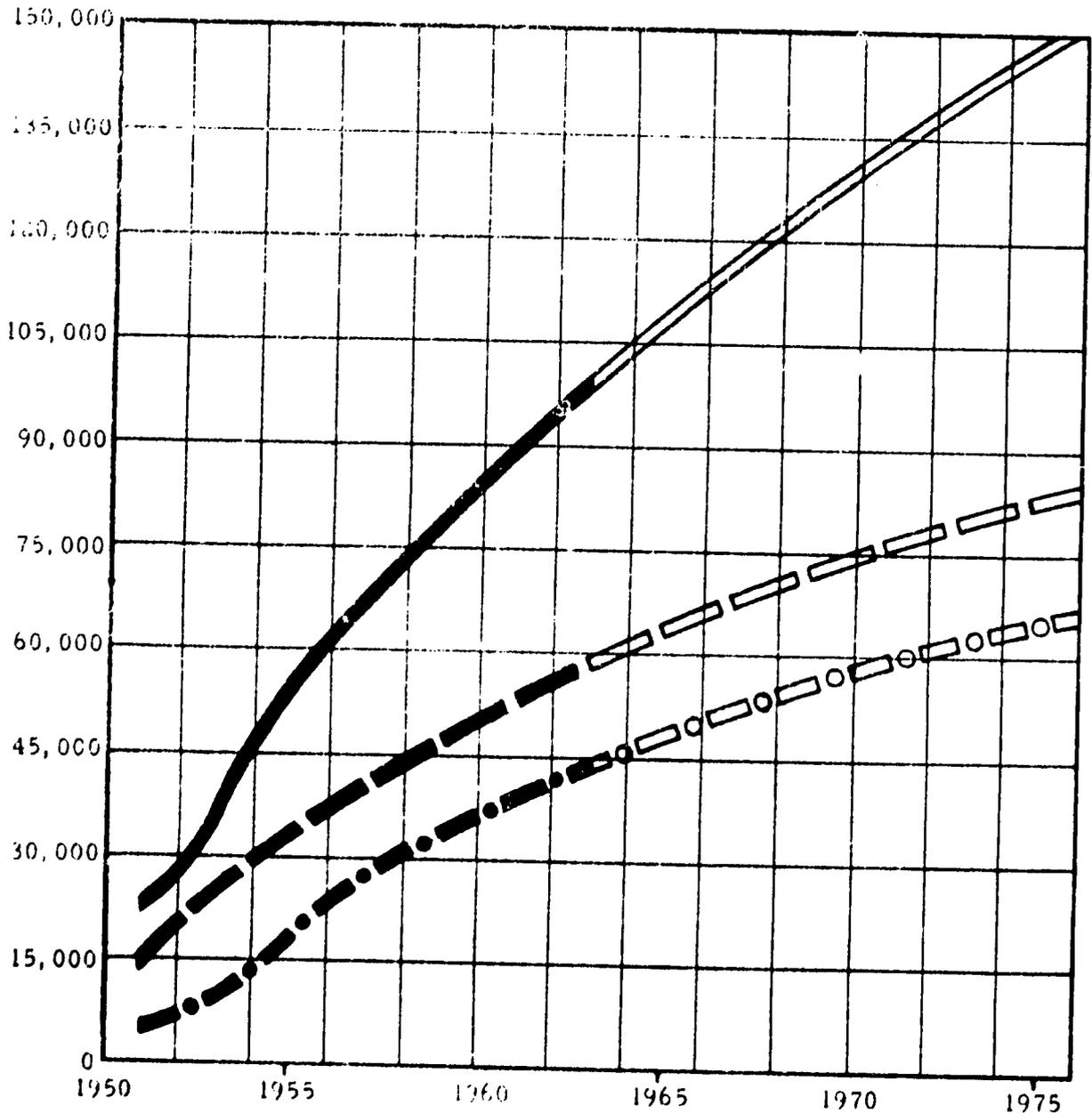
PASAJEROS

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



YEAR
AÑO

25

TOTAL FINANCING REQUIREMENTS

A. Financial Requirements as Submitted in Application

The GOP's application requested that A.I.D. assume the major part of financing a proposed \$5,445,800 program for improvement and expansion of the President Stroessner International Airport at Asuncion (Stage I - Runway and Taxiway; Stage II - Terminal Building; Stage III - Parking Apron) as follows:

(In U. S. Dollars)

	Local Costs		Dollar Costs		Total Cost
	<u>GOP</u>	<u>A.I.D.</u>	<u>GOP</u>	<u>A.I.D.</u>	
Preliminary Engineering			\$47,500.00		47,500.00
Stage I	\$131,815.10	\$ 527,061.30	\$1,965,723.55		\$2,624,599.95
Stage II	154,450.40	617,852.90	1,146,397.75		1,918,701.05
Stage III	44,408.50	177,783.10	632,807.40		854,999.00
	<u>\$330,674.00</u>	<u>\$1,322,697.30</u>	<u>\$47,500.00</u>	<u>\$3,744,928.70</u>	<u>\$4,445,800.00</u>

B. GOP Contribution to Asuncion Airport Construction Program

In view of the GOP's difficulty in finding Guarani funds for its contribution to development projects and the need to avoid financing lower priority segments of the project, a determination was made by AID/W to consider financial assistance for only Stage I of the application. The Capital Assistance Committee considered the GOP's proposed contribution of \$132,000 to Stage I as inadequate to insure its desired measure of responsibility in the project and not consistent with its self-help contributions to the airport's construction and rehabilitations costs in the past. The Committee took into consideration the expenditures made during the period 1954-1964 as estimated by the Comision de Obras del Aeropuerto de Asuncion of the MOPC, the Consulting Engineers and US AID/Paraguay as follows:

26

1.	<u>Contributions by GOP</u>	
	a) Normal Maintenance.....	\$ 141,479
	b) Construction contribution accompanying Exim loans	666,000
2.	From Eximbank Loan Proceeds.....	1,120,000
3.	<u>From PL-480 Proceeds</u>	
	a) US AID PROAG of April 2, 1957 (\$ 15,000,000).....	119,048
	b) US AID PROAG of October 11, 1963 (\$ 18,000,000)..	142,857
4.	From BID Loan for Preliminary Engineering.....	47,500
		<u>\$2,236,884</u>

Thus, over the period, the GOP has recorded an expenditure from its own resources for normal maintenance an average of approximately \$14,000 per year. Unrecorded expenditures for this purpose have been incurred in the form of the loan of machinery from other government projects for use in airport maintenance.

During intensive review, to complete the feasibility study, it was necessary for the Capital Assistance Committee to request that GOP have the Palmer & Baker company send a representative back to Asuncion to make revisions and amplifications of its preliminary plans and specifications and to recalculate estimated construction and engineering costs of Stage I.

Palmer & Baker's engineer arrived in Asuncion on January 20, 1965, and worked on this data through February 10. During this period, at various times, he had conferences with and made on-site inspections of the airport with the A.I.D. Deputy Chief Engineer IA, Staff Engineer IA, Chief Engineer (Regional), the US AID/P Transportation Engineer, and the Capital Development Officer US AID/A. On February 11 and 12 he discussed the plans and specifications with the Chief Engineer (Regional) and Capital Development Officer in Buenos Aires and on February 17, US AID/A received from Palmer and Baker the revised cost estimates.

After extensive discussions with the Minister of Public Works during intensive review, the Capital Assistance Committee has now been informed that the GOP is prepared to contribute \$355,400 (35.6% of the local currency costs of this project). LA/CD recommends that the part of the loan requested which was to meet the remainder of the local cost be obtained from a PL-480 loan made to the Central Bank in 1962. The financial plan revised to reflect this is shown below:

C. Financial Plan

SOURCE OF FUNDS
(In U. S. Dollars)

1. Financed by A.I.D. Loan	\$3,000,000
2. Financed by PL-480 Loan	292,600
3. Financed by GOP	<u>355,400</u>
TOTAL PROGRAM COST	<u><u>\$3,648,000</u></u>

In addition to 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.

IMPACT ON U. S. ECONOMY

The improvements in the Asuncion Airport would benefit United States airlines by providing greater safety to U. S. nationals and others abroad United States carriers landing in Paraguay or overflying its territory. Improved regularity of flights will provide greater security for baggage and cargo. There would be no adverse effect on the U. S. economy resulting from this project. On the contrary, the greater safety of U. S. aircraft flying over southern South America and the 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 ranges far beyond the immediate facilities for its airlines and safety and convenience for the commercial passage of its citizens.

21

IMPLEMENTATION PLAN

The Department of Road Paving and Airports (Departamento de Pavimentacion de Rutas y Aeropuertos) of the Ministry of Public Works and Communications of the Government of Paraguay will have the primary responsibility for the implementation of the loan. The primary responsibility for fulfilling AID's part of the implementation functions will rest with USAID/Asuncion, assisted by AID/W personnel and the Capital Development Officers, Chief Engineer (Regional) and Regional Legal Counsel stationed in Buenos Aires, as required, and within the following general criteria.

Under the terms of the loan AID will finance 100% of the U.S. dollar costs and approximately 35% of the local currency costs of construction and engineering of the project. Loan funds may be used for the financing of consulting engineering services in the preparation of final plans and specifications and of bid documents retroactive to February 1, 1965 (the retroactive services are estimated at \$71,600). Loan funds may not be used for normal maintenance of the airport. For the purposes of the project, asphalt and petroleum products may be procured, having their source and origin in countries that are members of the Alliance for Progress. Procurement of other machinery, goods or services may be only for U.S. or Paraguayan source and origin.

A firm of U.S. consulting engineers, satisfactory to A.I.D., will be employed by MOPC to prepare final plans and specifications and act as consulting and supervisory engineers on the project.

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.

The equipment, vehicles, materials, supplies, spare parts and other articles necessary for the engineering and examination of the work by the consultants, or for the carrying out of the work by a U. S. firm providing construction services, or to abide

by the specifications and plans, and, the personal effects, domestic and the home, belonging to the consultants, U. S. construction services contractors and for bidders and to their U. S. employees who have no permanent residence in Paraguay, will be free from all import duties, national or municipal taxes, including advance bonds, exchange surcharges, additional and consular fees, stamped paper and stamps, excise and sales taxes.

The consultants, U. S. construction services contractors and their U.S. employees will also have the right to re-export, free from all of the above mentioned obligations, and others referring to exports, the imported goods and others purchased locally, and to sell their imported vehicles in Paraguay upon completion of the work, free from all taxes.

The consultants, U. S. construction services contractors and their U. S. employees will be exempt from all national or municipal fees, including Paraguayan Social Security and Income Tax on the amounts collected by virtue of their contracts.

The Loan Agreement and Implementation Letter No. 1 will state the conditions which must be fulfilled by the Borrower prior to any disbursement of loan funds and, covenants which the Borrower will fulfill thereafter. The Loan Agreement will include a covenant requiring the Borrower to require from its consultants a systematic and comprehensive maintenance program for the airport within a period specified by A.I.D. (estimated at four months after the consultants contract with MOPC becomes effective), to cause the inclusion in the next Paraguayan national budget of government funds to the MOPC for this purpose, sufficient to carryout the program. A further covenant will require the GOP to establish a sole 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.

To obtain the required local currency for disbursement, upon satisfactory fulfillment of such conditions, A.I.D. will, upon request of GOP, through the Central Bank of Paraguay, issue Special Letters of Credit to U. S. Bank (s) in favor of the Central

Bank of Paraguay and, the Central Bank of Paraguay will simultaneously deposit with the U. S. disbursing officer in Asuncion an equivalent amount of Guarani. The initial request may not exceed \$200,000 Guarani equivalent. USAID Asuncion will be authorized to advance up to this amount to the MOPC without requiring the standard documentation. Further disbursements to the MOPC will be made only upon the presentation of the standard documentation which will be specified in the Implementation Letter(s).

USAID Asuncion will insure that adequate consulting and supervisory engineering services are in fact being given to MOPC on the project. USAID Asuncion will also insure that the loan provisions are in fact being followed.

USAID personnel will make periodic on-site inspections of the project, assisted, as required, by AID/W personnel and regional loan and engineering personnel based in Buenos Aires. USAID will perform periodic audits of the loan.

Quarterly progress reports will be required of the borrower in form and substance acceptable to AID.

PLANILLA DE ETAPAS DE CONSTRUCCION SCHEDULE OF STAGE CONSTRUCTION

CLASE DE TRABAJO ITEM OF WORK	ETAPA I STAGE I											
	MESES											
	MONTHS											
	1	2	3	4	5	6	7	8	9	10	11	12
LIMPIEZA Y DESYERBADO CLEARING AND GRUBBING												
EXCAVACION EXCAVATION												
SUB-BASE GRANULOSA GRANULAR SUBBASE												
BASE DE PIEDRA STONE BASE												
IMPRIMAR PRIME												
CAPA SELLADORA SEAL COAT												
LIGADOR ASFALTICO ASPHALT BINDER												
SUPERFICIE ASPALTICA ASPHALT SURFACE												
PAVIMENTO HORMIGON 12" 12" CONCRETE PAVEMENT												
TUBO ALCANTARILLA PIPE CULVERT												
DESAGUE INFERIOR UNDERDRAIN												
CLOACAS SEWER												
ALCANTARILLA HORMIGON CONCRETE CULVERT												
MURO REMATE Y CANAL HEADWALL AND FLUME												
CONTEN CURB												
ACERA SIDEWALK												
PLANTACION HIERBA SPRIGGING												
CERCAS FENCING												
EDIFICIO ADMINISTRACION ADMINISTRATION BUILDING												
ESTACION BOMBEROS FIRE STATION												
TANQUE AGUA WATER TANK												
PUNTES BRIDGES												
ILUMINACION PISTAS ATERRIZ. Y CARRETEO RUNWAY AND TAXIWAY LIGHTING												

ISSUES

A. Local Currency Contribution

In its original application for this airport project, the GOP indicated that it could only mobilize \$330,674 for the total of the three Stages initially solicited. The present extreme tightness of funds available to the GOP make it most difficult for it to mobilize substantial contributions of local currency. CIAP has recognized the need for reduced local cost contributions from the less developed Latin American nations in development financing.

Among the conclusions and recommendations agreed upon by the Plenary CIAP Committee on September 22, 1964, was that the recommendation be made to the international lending agencies that, without exception, flexibility be introduced in connection with local contributions when loans for specific projects are negotiated with Paraguay so as to permit the funding of local costs.

In discussion with the Paraguayan representatives and AID/W, the need for greater flexibility on local contributions was again stressed, with particular reference to the next two years, while the GOP accelerates tax reform and strives for internal financial self-support and equilibrium. It was pointed out that for the long range, once Paraguay has attained further progress in fiscal reform it will return to a stronger local contribution to development financing.

When the original application was approved for intensive review of Stage I only, the GOP at first wanted to limit its contribution to approximately \$132,000 for the revised project.

In conferences with the Minister of Public Works and Communications, the Capital Assistance Committee pointed out that if the GOP felt it could mobilize local currency of approximately \$330,000 for the full three Stages of the project, including the terminal and parking aprons, it should still be able to provide approximately that amount of money for the airport, even though the original project has been restricted to the essential runway,

75

taxiway and lighting elements of Stage I as revised. IA/CD is recommending that if the GOP finds it not possible to provide this contribution from usual sources, AID agrees that a 1962 PL-480 loan to the Central Bank be drawn upon for the purpose. By investing at this time a greater amount than it has traditionally spent annually on construction emergency measures, the GOP could get the airport put in condition so that it would not be expected to require the previous burden of expenditures in future years. This was conditioned on the premise that the GOP will institute an adequate maintenance program. The Minister then assured the Capital Assistance Committee that his Ministry would agree upon a local contribution of \$355,400 (35.6%) of the local costs to the project as herein presented. This commitment was confirmed to the Committee by the Minister of Finance of the GOP on February 23, 1965.

B. Administration and Operation of the Airport

The administration of the present airport is currently divided between three branches of Government. The Defense Department of Military Branch of Government exerts general control of the airport and its security. Control of Civil Administration and Operation is exerted by the National Administration for Civil Airports. All maintenance and construction at the airport is administered by the Ministry of Public Works and Communications.

The present maintenance of the airport is under a loosely bonded organization composed of one competent supervising engineer and a small number of skilled and unskilled laborers. This force is supplemented from time to time, as the need arises, by labor forces from other branches of the Government.

A planning system of preventative maintenance is needed supported by budgetary allocations to the MOPC, with sufficient personnel and equipment to systematically follow through with the established procedure, without waiting for the establishment of a central airport authority.

The consulting engineers and the Capital Assistance Committee recommend that within a reasonable time, one central agency of the Government (possibly an International Airport Authority) be given complete authority and responsibility, under a reasonable budget, for the administration and operation of all phases of the expanded airport facilities.

The urgency of the need for immediate repair and rehabilitation of the airport makes it undesirable to establish the creation of the new agency as a condition precedent to disbursement. However, an enforceable covenant will be made in the loan agreement requiring the formation of the new agency as soon as practicable.

C. Procurement

A savings of an estimated \$77,660 can be made in the construction costs of the project if the needed asphalt is procured from a source and origin other than the U. S. because of the sizeable savings in freight. Estimated cost of the asphalt for this project ex-USA would be 40% higher than the cost of procurement from the subsidiary of a U. S. company located in Argentina.

FA	<u>U.S. Source</u>	<u>Argentine Source</u>
FAS Port of Exit	152,460	165,970
Freight	117,810	27,720
Insurance	<u>1,410</u>	<u>330</u>
CIF Asuncion	271,680	194,020

The Capital Assistance Committee recommends that a waiver of the U.S. source and origin requirement be granted, similar to that given in Amendment No. 1 of A.I.D. Loan No. 526-A-008 (DLF 216) for the Brazil Road Project in Paraguay. This waiver would allow the procurement of asphalt and petroleum products of source and origin in countries that are members of the Alliance for Progress.

731

D. Engineering Services

The Capital Assistance Committee has been informed by Palmer and Baker that it is going ahead with the development of final plans and specifications and bid documents in an effort to cooperate in minimizing the time necessary to get actual work started on the airport. Palmer and Baker has a contract with MOPC as consulting engineers, which is conditioned upon the A.I.D. approval of this loan and upon A.I.D.'s approval of the contract. In this project an emergency is involved (see letter dated February 19, 1965 from Frank Monaco, Chief Advisor, Buenos Aires, IFO of the Federal Aviation Agency, In Annex III-d). The Capital Assistance Committee recommends that disbursements from this loan be authorized in the amount of approximately \$71,400 to compensate the consulting engineers (after the loan has been granted and its contract approved by A.I.D.) for services rendered to the Borrower in the preparation of final plans, specifications and bid documents prior to the authorization of this loan, but in no event for services rendered prior to February 1, 1965.

E. Design Alternative

The proposed alternative of constructing a new runway instead of reconstructing the existing landing strip was considered by Palmer and Baker and AID in the intensive review but was not found to be the most desirable solution.

The issue was reopened when USAID/Paraguay requested the services of an Airport Engineer through R.A.A.G., Panama, who made the proposal that a completely new runway be constructed parallel to the existing runway and that the existing runway be used as a taxiway. The F.A.A. representative estimated his alternative would be no more costly than the proposal of the Architect Engineer employed by the Paraguayan Minister of Public Works, but acknowledged that he had not had adequate time to investigate all facets and engineering aspects.

The FAA Engineer came to the U. S. and met with Palmer and Baker representatives in Alabama and was given full access to their engineering studies and soil tests.

Subsequent to these meetings a memorandum incorporating the findings of the FAA Engineer was submitted in which he revised the estimates as originally shown in the memorandum attached to TOAID A-456, and with some personal reservations, agreed that in view of the time factor and the necessity for keeping the airport open as much as possible the Palmer and Baker proposal might be the most acceptable solution. (See Annex III 6). Since the Palmer and Baker plan takes into consideration such facts relevant to the existing runway as: soil condition, pavement design, and drainage, plus an implementation plan on how the work will be accomplished, and since the construction work can proceed within five months or less and can be completed in approximately 12 months, it is considered by the LA/CD Engineering Division that with proper supervision and control by the consulting engineers the present runway can be satisfactorily renovated under the Palmer and Baker plan. Conversely, the FFA Engineer's proposal would require some 20 months before startup on a new runway. This delay required for site surveys, soil analysis, redesign, renegotiations, loan application remissions, etc.

Therefore, since the two proposals appeared approximately equal in final result and since time is of essence, in a meeting attended by representatives of FAA, AID's Office of Capital Development, and area Desk, it was decided to proceed on the basis of the Palmer and Baker proposal and to incorporate the documentation in question in Annex III of the loan paper

F. Loan Terms and Interest Rate

Soft terms and the lowest authorized interest rate are recommended in view of the GOP's external debt burden (discussed on page 13), its limited capacity to provide funds over the short run and, CIAP's recommendation to international lending agencies for soft terms and greater flexibility in development loans to Paraguay.

SPECIAL LOAN CONDITIONS AND COVENANTS

A. Airport Administration and Operation

1. Maintenance Plan: Borrower will covenant to cause its consultant engineers to prepare, within a period specified by A.I.D. a systematic and comprehensive program, satisfactory to A.I.D., 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 MOPC for this purpose, sufficient to carry out the program.

2. Airport Administrative and Operations Authority: The Borrower will covenant to obtain, within six months of the signing of this loan, a study by an engineering firm or other agency satisfactory to A.I.D., including a plan and recommendations for the organization, management and budgeting of a sole agency to administer and operate the airport. An analysis of estimated airport income will be included in this study. Provision could be made in the study for the new agency to employ MOPC for continuance of the maintenance of the airport. The Borrower will, within six months thereafter, agree upon a plan, mutually acceptable to A.I.D., for establishing one central airport authority, including the composition of the authority, its budget for operating the airport and a schedule for its establishment.

AID PROGRAM IN PARAGUAY

The main effort is concentrated on raising the output of the agricultural sector for three major reasons: first, this is where the majority of the population is; second, **and its contribution to the national market** an increase in the income of the majority must be secured to give a new impetus to growth; third, to raise the material standard to a level permitting greater emphasis on social development.

If production and export are to be expanded as they must, to build up foreign exchange reserves, medium and long-term credit must be made available. Credit must be accompanied by fiscal reform, which should provide, inter alia, incentives to maximum production in lieu of repressive taxes.

Self-help must be stimulated and evidenced through internal economic and social reforms, and the preparation of sound long-range development programs.

Goal I of the present program is "Fiscal and Administrative Reform and Development Planning". Activities under this goal are: (1) Economic Planning and Fiscal Reform, and (2) Government Management and Organization. Sub-activities are: (a) Economic Planning through a Tripartite Foreign Advisory Group aiding the COP Planning Secretariat in the formulation of a long term national development plan; (b) Strengthened Statistical Services with establishment of a Statistical Sampling Center; (c) Fiscal reform to be initiated with adoption of a personal income tax law, planning for the improvement of tax administration of real property, inheritance and stamp taxes. Technical assistance to be provided through IRS as appropriate.

AID grant funds have been used to send participants to the States and for third country training in economic planning, statistics and project preparation and evaluation. PI. 480, 104(g) loan funds are employed to pay the salaries of a limited number of the national technical staff of the Planning Secretariat, the local costs of an Industrial and Commercial Census and staff of the Statistical Sampling Center.

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Best Available Document

Goal II of the AID program is "Increased Agricultural Production".

Activities under this goal are: (1) Agricultural Productivity and Institutional Development; (2) Road Construction and Maintenance (Farm-to-Market Roads). Sub-activities targets are: (a) Strengthen the Banco Nacional de Fomento with a U.S. Credit Specialist; (b) analyze the supervised agricultural credit organization with a view to possible reorganization; (c) train leaders for formation of cooperatives; (d) study marketing problems and storage facilities; (e) evolution of an institutional framework for colonization with U.S. technical assistance; (f) strengthen land registration office and study land tenure practices; (g) U.S. Land Grant College contract to assist School of Agriculture and Veterinary Science.

Five of the U.S. technicians will be furnished under PASA agreement with the USDA. The capital assistance program provides an IAD loan of \$3 million plus \$1.2 million of PL480 counterpart for intermediate and long-term credit to middle income farmers to be administered by the Banco Nacional de Fomento.

The Road Construction and Maintenance activity contemplates construction of a farm-to-market system of approximately 900 kms. by FY'68. The plan calls for participant training of from 50 to 60 employees of the Ministry of Public Works in highway equipment and road maintenance.

Heretofore, USAID has funded spare parts and other imported commodities for the road program out of grant funds. In lieu of continuance of grant funding, the GOP has applied for a loan of \$875,000 for a two year period through FY'66. The local costs of this program are being funded by an in-kind contribution of the GOP plus the use of PL480 loan funds under existing project agreements with USAID.

The third USAID program goal is "Development of Human Resources"
Activities under this goal have been in the field of: grant aid to the

National University (for the Schools of General Studies; Public Administration, Agriculture and Medicine and Nursing); rural education development, potable water; and, rural health development. The major thrust has been on the rural education project, but construction activities in FY'65 will be limited to the extent possible to funds already obligated but not exceeding the original commitment of \$1,235,000.

An important non-goal activity is that of Industrial Development / Private Enterprise. An industrial adviser is being recruited looking towards eventual establishment of an industrial promotion center and/or private development bank.

An Investment Guarantee Agreement is in effect and Conley Loan funds are available.

Five PL 480 Title I loan agreements have been negotiated with Paraguay under which a total of the equivalent \$7.5 millions have been made available under Section 104(g). The bulk of the funds have been allocated for agriculture and farm-to-market roads.

CHECK LIST OF STATUTORY CRITERIA (ALLIANCE FOR PROGRESS)

1. Foreign Assistance Act of 1961, as amended (hereinafter FAA, Section 102).
Precautions have been taken to assure that loan proceeds are not diverted to short-term emergency purposes (such as budgetary, balance of payments, or military purposes) or any other purpose not essential to Paraguay's long-range economic development. See "Economic Analysis" and Annex I.
2. FAA Section 201(d).
The terms of the loan are consistent with Section 201(d). See "Impact of the Activity on Paraguay's Balance of Payments".
3. FAA Section 251(a).
The loan will promote Paraguay's economic development and contribute to the welfare of its people. See "Project Contribution to Country's Economic Development" and "Economic Analysis".
4. FAA Section 251(b) (1).
Paraguay 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 has demonstrated a clear determination to take effective self-help measures. See "Specific Contribution of the Activity to the Economic Development of Paraguay".
5. FAA Section 251(b) (2).
The activity is considered technically and economically sound. See "Engineering Analysis" especially "Engineering Plan" and "Economic Soundness".
6. FAA Section 251(b) (3).
Information and conclusion on activity's relationship to other development activities, and its contribution to realizable long-range objectives. See "Economic Analysis", sections 1 and 2.
7. FAA Section 251(b) (4).
Information and conclusion on possible effects on U. S. economy, with special reference to areas of substantial labor surplus. See "Impact of U. S. Economy".
8. FAA Section 251(b).
Financing from other free world sources, including private sources within the United States is not available. See "Economic Analysis", section 4.

9. FAA Section 251(b).
It is concluded that there exist reasonable prospects for the repayment of the loan. See "Repayment Prospects" and "Economic Analysis", section 3.
10. FAA Section 251(b).
It is concluded that Paraguay is making reasonable efforts to repatriate capital invested in other countries by its own citizens. See "Economic Analysis", section 4.
11. FAA Section 251(b).
It is concluded that reasonable prospects of repayment exist. See "Repayment Prospects" and "Economic Analysis" section 3.
12. FAA Section 251(c).
An application has been received from the GOP together with sufficient information and assurances to indicate reasonably that funds will be used in an economically and technically sound manner. See "Engineering Analysis", especially section 2, and "Economic Analysis", especially section 3.
13. FAA Section 251(g).
Information and conclusion on use of loan to assist in promoting the cooperative movement in Latin America. Not applicable.
14. FAA Section 252(a).
The total amount of money under loan which is going directly to private enterprises, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources is identified. See "Financial Plan" and "Annex III, Estimate of Cost".
15. FAA Section 601.
Information and conclusion on 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; (f) strengthen free labor unions. See "Economic Analysis" especially "Specific Contribution of the Activity to the Economic Development of Paraguay".
16. FAA Section 601(b); 602.
Information and conclusion on how the loan will encourage and facilitate participation by private enterprise to the maximum extent practicable. 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. No other Federal Agency is participating in this project. See "Economic Analysis", sections 1 and 2.

17. FAA Section 601(d).

Engineering and professional services of U. S. firms and their affiliates are to be used in connection with the project to the maximum extent consistent with the national interest. See "Engineering Plan for Project Implementation" and "Implementation Plan".

18. FAA Sections 601, 602.

Information and conclusions whether loan will (a) encourage U. S. private trade and investment abroad; (b) encourage private U. S. participation in foreign assistance programs (including use of private trade channels and the services of U. S. private enterprise), and (c) permit American small business to participate equitably in the furnishing of goods and services financed by it. See "Economic Analysis" especially sections 1 and 2.

19. FAA Section 604(a).

Commodity procurement will be only of U. S. or Paraguayan source and origin, except that, for the purposes of the project, asphalt and petroleum products may be procured, having their source and origin in countries that are members of the Alliance for Progress. See "Implementation Plan".

20. FAA Section 604(b).

Compliance with bulk commodity procurement restriction to prices no higher than the market price prevailing in the United States at time of purchase. (Not applicable.)

21. 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 United States. Paraguay is not presently in violation of this provision.

22. 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. (See "Engineering Analysis", especially Section 2.)

23. FAA Section 611(a)(2).
Necessary legislative action required within host country and basis for reasonable anticipation such action will be completed in time to permit orderly accomplishment of purposes of loan. (None required.)
24. 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.)
25. FAA Section 611(c).
Contracts for construction will be let on a competitive basis to maximum extent practicable.
26. FAA Section 619.
Compliance with requirement that assistance to newly independent countries be furnished through multilateral organizations as plans to maximum extent appropriate. Paraguay is not a newly independent country.
27. FAA Section 620(a); Foreign Aid and Related Agencies Appropriations Act of 1965 (Hereinafter "App.") Section 107.
Compliance will be enforced regarding 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 is not presently in violation of this provision.
28. FAA 620(b)
The GOP is a member in good standing of the OAS and the Alliance for Progress and is not controlled by the international Communist movement.
29. FAA Section 620(c).
If assistance to the government of a country, existence of indebtedness to a United States 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 of payment given by such government. Two U.S. corporations have claims against the GOP, but no determination has been made as to whether such claims are within the terms of this provision.

30. FAA Section 620(d).
If assistance for any productive enterprise which will compete in the United States with U. S. enterprise, existence of agreement by the recipient country to prevent export to the United States of more than 20% of the enterprises' annual production during the life of the loan. (Not applicable.)
31. FAA Section 620(e).
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 is not presently in violation of this provision.
32. FAA Section 620(f); App. Section 109.
Compliance with prohibitions against assistance to any Communist country. Paraguay is not a Communist Country.
33. FAA Section 620(g).
Compliance with prohibition against use of assistance to compensate owners for expropriated or nationalized property. (Not applicable.)
34. FAA Section 620(h)
The loan does not provide assistance in a manner which, contrary to the best interests of the United States or promotes or assist foreign aid projects or activities of the Communist-bloc countries.
35. FAA Section 620(i)
The GOP is not engaged in or preparing for aggressive military efforts.
36. FAA Section 620(k)
Assistance to be provided by United States does not exceed \$100 million.
37. FAA Section 620(l)
Assistance will not be extended to the GOP after December 31, 1965, if it fails to institute an investment guarantee program.
38. FAA Section 636(h); 612(c)
To the maximum extent possible, Paraguay is contributing local currencies to meet the cost of contractual and other services and foreign currencies owned by the United States are being utilized to meet the cost of contractual and other services. (See "Financial Analysis.")

39. App. (Section Unnumbered)
Use of funds to carry out FFA Section 205, which pertains to IDA.
Not applicable.
40. App. Section 102
Payments in excess of \$25,000 for architectural and engineering services on this project will be reported to Congress.
41. App. Section 104
No funds from this loan will be used to pay pensions, etc., for military personnel.
42. App. Section 111
Security clearance will be obtained for all United States personnel under contracts for services relating to this loan.
43. App. Section 112
All contractors and contract terms pertaining to this project will be approved by A.I.D.
44. App. Section 114
No funds from this loan will be used to pay assessments, etc., of the GOP to the U.N.
45. App. Section 117
Regulations on employee of United States and local personnel for funds obligated under this loan (Regulation 7) are being complied with.
46. App. Section 401
Funds available under this loan will not be used for publicity or propaganda purposes within United States not heretofore authorized by Congress.

March 25, 1965

DETAILED DESCRIPTION OF PROJECT

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AID-DLC/P-308
ANNEX III, Page 1 of 22
Exhibit A, Page 1 of 11

The entire program for improvement of Asunción airport is divided into four stages and will require several years for its execution. The entire cost is estimated to be about \$7.0 million. This project consists of Stage I only and is limited to the following specific items of work:

1. Repair, rehabilitation and improvement of existing runway
2. Application of seal coat and a 2-inch asphaltic concrete surface course to runway.
3. Construction of parallel and cross taxiways and regrading of existing runway shoulders, and widen existing terminal apron at terminal building.
4. Additions, extension, and improvement of drainage system.
5. Construction of clear zones and overrun areas at runway ends.
6. Modification of existing runway lighting system and installation of taxiway and approach lighting.

Repairs and rehabilitation of the existing runway will consist of removal and dewatering of distressed areas of pavement down to the level of the existing subgrade with further removal to a minimum depth of one meter of any section of the subgrade found to be wet or soft. Any other areas suspected to having water damage in the subgrade will be investigated, dried, and repaired, even though such damage may not be apparent on the surface.

Replacement of the subgrade will be with a granular material compacted to a minimum density of 95 percent (FAA Test T-611). The subbase will be replaced by a select granular material conforming to FAA Specification No. P-154 and compacted to a minimum density of 95 percent. The base course will be replaced in a like manner except that a minimum density as specified

by FAA Test T-611 will be required. The asphaltic concrete will be replaced in accordance with FAA specifications for this class of work.

After repairs have been completed to the subgrade, subbase, base course and surface of the runway pavement, the entire runway will be leveled and re-surfaced with a layer of asphaltic concrete having a minimum thickness of two inches. Complete marking and striping will be done after the asphaltic concrete wearing surface is added to the runway.

New taxiways will be constructed to parallel the runway over its entire length. This will be connected to the runway by entrance taxiways and holding pads at each threshold and by four high speed ~~exits~~ located at optimum turnout points along the runway. The taxiway pavement will be 23 meters wide and its thickness will render it capable of supporting parked DC-8 and 707 aircrafts at maximum take-off weight.

Longitudinal drains are already being constructed and will be completed at each edge of the runway before the construction of this project begins. Some lateral drains have also been installed. Additional lateral drains will be added as needed and connected to the longitudinal drains. Longitudinal drains will be also provided on each edge of the taxiways as part of this project. Present open ditches will be improved to insure proper runoff of surface water, and reduce maintenance costs. Regrading of the runway shoulders will improve runoff conditions during high intensity rain storms. The existing apron at the terminal building will be widened by 50 feet to accomodate at least one more jet aircraft. This is considered part of necessary rehabilitation from the aviation safety point of view.

A clear zone 500 ft. wide and 1,500 ft. long will be constructed at each end of the runway. These areas will be cleared of all trees and obstructions and smooth graded to the approximate cross section of the landing area. In addition an overrun area 150 ft. wide and 500 ft. long will be constructed as a continuation of the runway at each end. These overrun

areas will be stabilized for emergency use by DC-8 and 707 aircrafts in case of aborted take-offs or overshoot landings. The portion of the overrun areas extending 150 ft. adjacent to the runway ends will be surfaced with 1.5 inches of asphaltic concrete and the remaining 350 ft. will be covered with three inches of dense turf as protection against jet blast.

The medium intensity lights presently installed on the runway will be removed and reinstalled as taxiway lights. New high intensity lights will be installed on the rehabilitated runway. Approach lighting will be installed in accordance with FAA TSO-N24a and will be controlled from the tower. Some additional high voltage underground distribution will be installed from the airport transformer station to the runway. Taxiway and approach lighting areas to supply power to the lighting systems

Airways Communication System and Navigational Aides

The airways communication system and navigational aids are owned and operated by Radio Aeronautica Paraguay S.A. (RAPSA), a private corporation supported by six of the commercial airlines operating in and out of Asunción.

The navigational aids consist of a radio range beacon and a runway localizer. However, RAPSA is currently negotiating with the Wilcox Corporation for the purchase and installation of a Very-High-Frequency-Omnidirectional Range System (VOR). RAPSA expects to have this system operational by the end of 1965. While the VOR system is not a part of the project it is complementary to the overall airport improvement program.

Design Criteria

The design criteria for Presidente Stroessner Airport were taken primarily from the U.S. Federal Aviation Agency Manual. The criteria set forth therein were used as a minimum. Where expedient, minimum clearances and dimensions were exceeded in the interest of safety and appearance.

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	707-320
	11C-8-32
Maximum Gross Aircraft Weight	320,000 pounds
Maximum Design Trip	2,000 miles
Wind Coverage	97.2%
Runway Length, Existing	9009 ft.; 2746 m
Runway Length, Future	11,000 ft.; 3520 m
Runway Width	150 ft.; 46 m
Landing Strip Width	500 ft.; 152 m
Maximum Longitudinal Grade	1.5%
Maximum Effective Grade	1.0%
Actual Effective Grade (Existing)	0.49%
Maximum Transverse Grade	1.5%
Runway Shoulder, Width	175 ft., then 2.0%
Runway Rate of Grade Change	0.1% per 100 ft.
Sight Distance	Any two points 10 ft. above pavement viable for one-half runway length
Clear Zone	1500 ft. x 500 ft. 460 m x 152 m
Overrun Area	500 ft. x 150 ft. 152 m x 46 m
Taxiway Width	75 ft.; 23 m
Maximum Cross Slope	1.5%
Rate of Grade Change	1.0% per 100 ft.
Taxiway Shoulder Width	50 ft.; 15.3 m
Shoulder Pavement	25 ft.; 7.5 m
Shoulder Transverse Slope	2.0%
Holding Pad Width	262 ft.; 80 m
Terminal Apron	361 ft. x 788 ft. 110 m x 240 m
Parking Apron	361 ft. x 886 ft. 110 m x 270 m
Minimum Horizontal Clearance	
Center of Runway to Center of Taxiway	400 ft.; 122 m
Center of Runway to Building Line	750 ft.; 230 m
Center of Taxiway to Parking Apron	250 ft.; 77 m
Center of Taxiway to Obstacle	200 ft.; 61 m
Pavement Types, Runway	Flexible
Pavement Types, Taxiway	Flexible
Pavement Types, Apron	Rigid
Pavement Design Loading, Gross Weight	320,000 pounds
Navigational Aids	VOR system
Runway Lighting	High Intensity
Approach Lighting	High Intensity
Threshold Lighting	High Intensity
Taxiway Lighting	Medium Intensity

Apron Lighting
Lighting Criteria
Air Navigation Obstruction Criteria

Flood
Current FAA Standards
FAA TSO-NLS

Drainage Design

General Criteria
Rainfall Intensity -- Frequency
Fuel Storage and Dispensing

FAA Standard Publication:
5 years
Fuel truck or hydrant
system as supplied by
private enterprise
Deep well with elevated
storage
Sewage lagoon or package
disposal unit

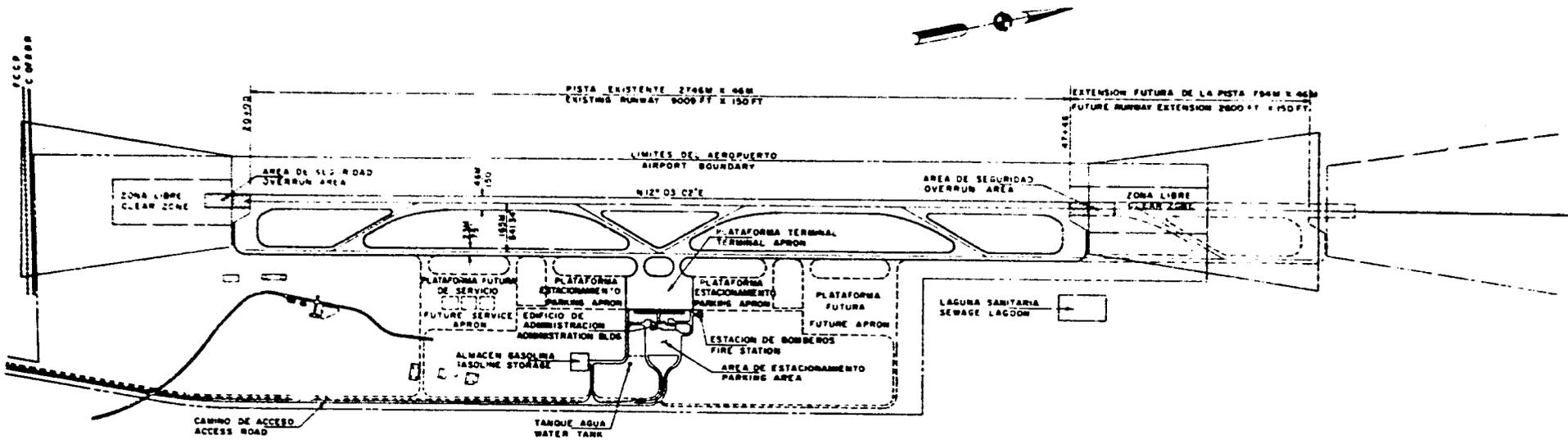
Water Supply

Sewage Disposal

Item	Quantity	Unit	₹ in U.S. \$		U.S. \$		Total in U.S. \$	
			Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
Site Preparation	Lump Sum			9,600		14,400		24,000
Common Excavation	256,100	M3	0.14	35,854	0.96	245,856	1.10	281,710
Repair Runway Pavement	20,645	M2	3.60	74,322	6.40	173,418	12.00	247,740
Compacted Gran. Subbase	33,072	M3	1.05	34,726	2.45	81,026	3.50	115,752
Compacted Cr. Stone Base	39,095	M3	3.00	117,285	7.00	273,665	10.00	390,950
Prime Coat	69,472	Gal.	0.05	3,474	0.35	24,315	0.40	27,789
Tack Coat	11,000	Gal.	0.05	550	0.35	3,850	0.40	4,400
Asphalt Seal Coat	126,316	M2	0.10	12,632	0.15	18,947	0.25	31,579
Asphaltic Concrete	51,824	Ton	4.50	233,208	13.00	673,712	17.50	906,920
12" P.C. Concrete Pavement	13,500	M2	4.00	54,000	8.00	108,000	12.00	162,000
24" Conc. Culvert Pipe	730	M	17.20	12,556	5.80	4,234	23.00	16,790
Drain Inlets and Jctn. Box	9	Each	225.00	2,025	75.00	675	300.00	2,700
Head wall Conc. incl. Steel	8	M3	51.00	408	119.00	952	170.00	1,360
Underdrain System	16,138	M	2.50	40,345	2.50	40,345	5.00	80,690
Replace Pav't over Underdrain	1,400	M2	3.60	5,040	8.40	11,760	12.00	16,800
Concrete Ditch Paving	5,500	M2	2.10	11,550	4.90	26,950	7.00	38,500
Concrete for Box Culverts	704.1	M3	24.00	16,898	56.00	39,430	80.00	56,328
Reinforcing Steel	170,740	Lb.	0.04	6,829	0.12	20,489	0.16	27,316
Culvert Excavation	3,085	M3	1.10	3,393	0.90	2,777	2.00	6,170
Seeding and Fertilizing	643,000	M2	0.14	90,020	0.06	38,580	0.20	128,600
Sodding	9,929	M2	0.67	6,652	0.33	3,277	1.00	9,929
Runway and Taxiway Marking	Lump Sum			2,100		9,600		12,000
Fencing	8,035	M	0.30	2,411	0.60	4,821	0.90	7,232
Airport Lighting	Lump Sum			64,470		365,330		429,800
Construction Cost				840,648		2,186,409		3,027,057
10% Contingency				84,062		218,681		302,743
Total Construction Cost				924,710		2,405,090		3,329,800
Engineering (47,800		165,000		212,800
Right of Way Cost				25,400		80,000		105,400
Airport Authority Study								30,000
TOTAL PROJECT COST				997,910		2,650,090		3,648,000

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 ANNEX III, Page 6 of 22
 Exhibit A, Page 6 of 11

MASTER PLAN
PLANO PRINCIPAL



PLANO DEL AEROPUERTO
AIRPORT PLAN

METROS
100 0 100 200 300 400 500

FEET
500 0 500 1000 1500

ELEVACION EN METROS
SABRE EL NIVEL DEL MAR
ELEVATIONS IN METERS-M.S.L.

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ANNEX III, Page 7 of 22
Exhibit A, Page 7 of 11

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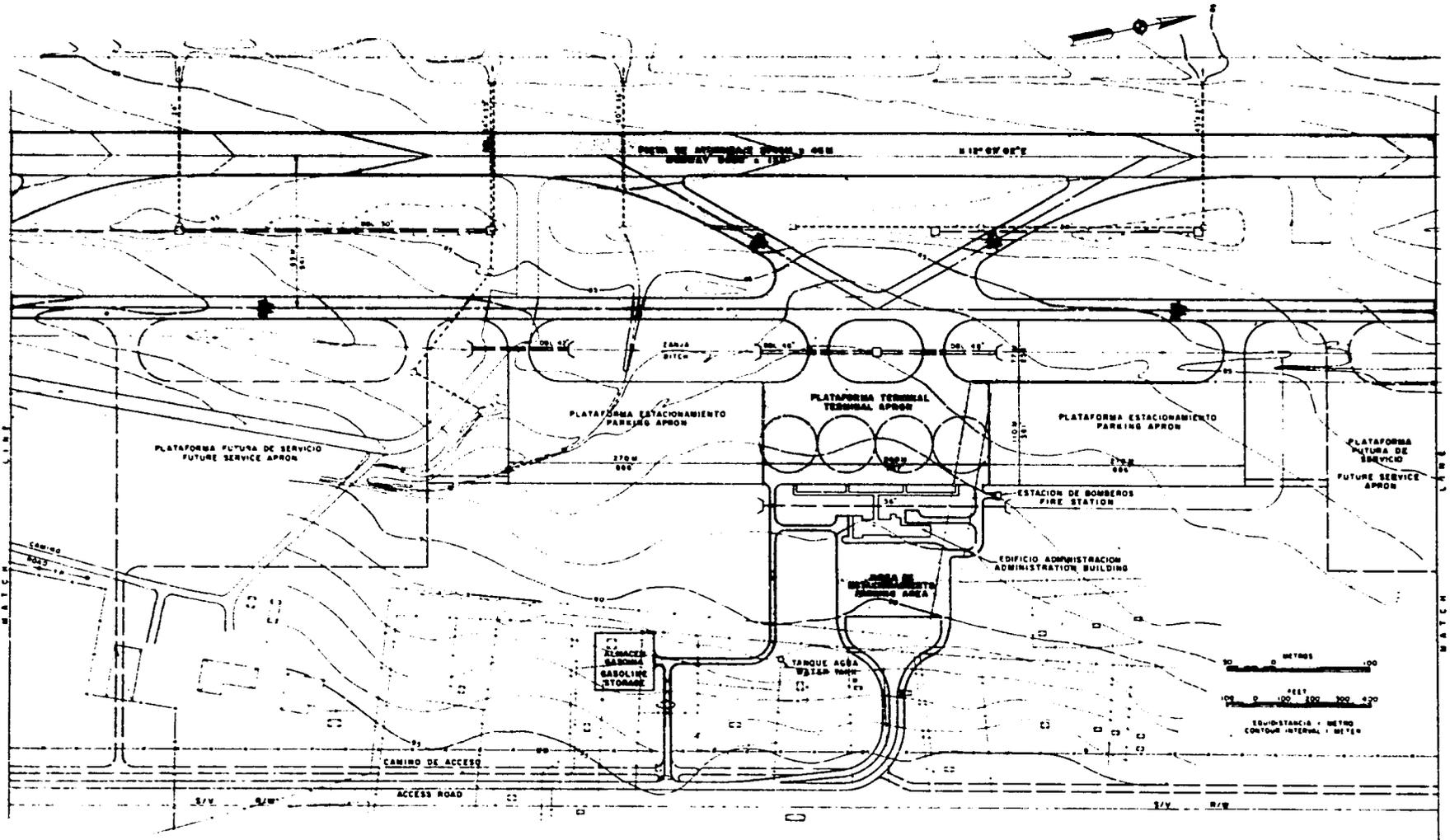
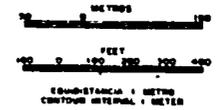
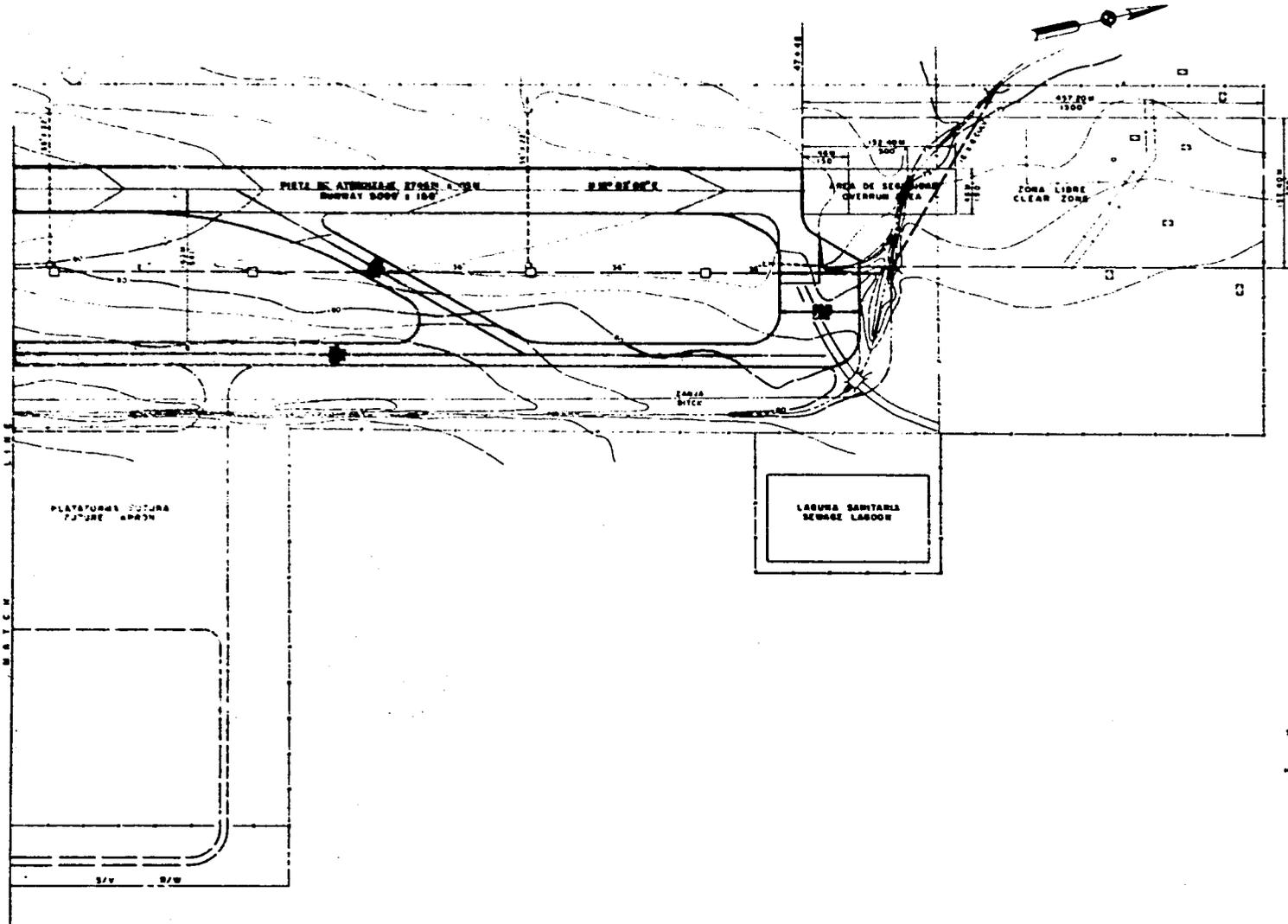


Exhibit A, Page 9 of 11

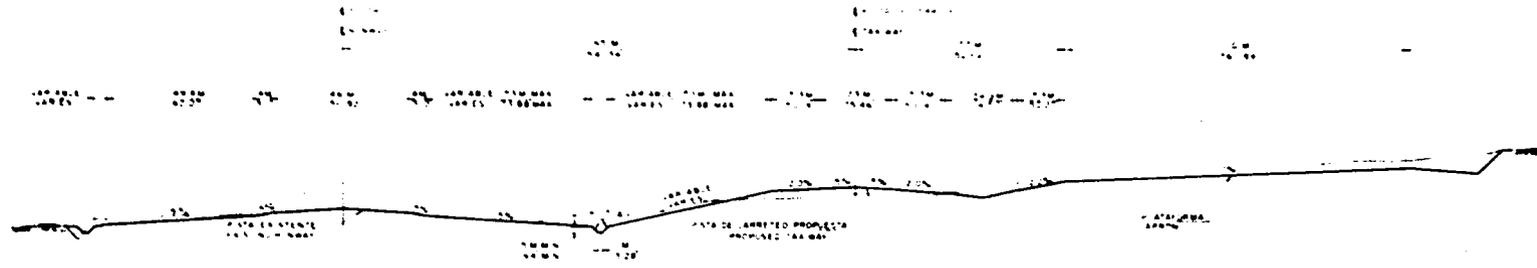
ANNEX III, Page 9 of 22

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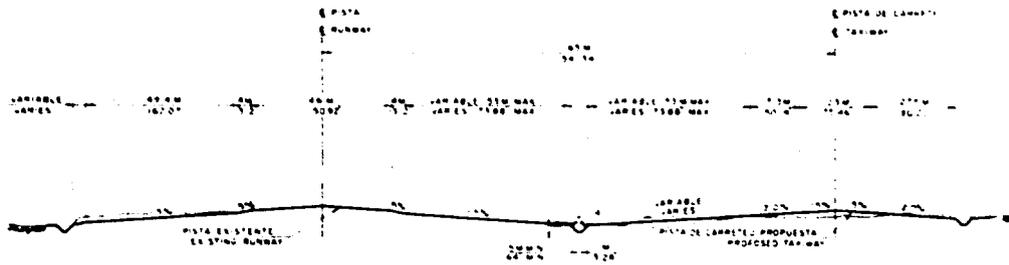


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CORTE - PISTA, PISTA DE CARRETEO Y PLATAFORMA
TYPICAL SECTION - RUNWAY, TAXIWAY AND APRON

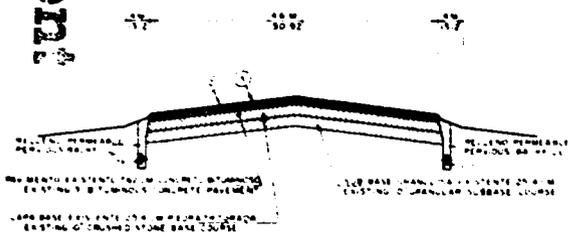


CORTE - PISTA Y PISTA DE CARRETEO
TYPICAL SECTION - RUNWAY AND TAXIWAY

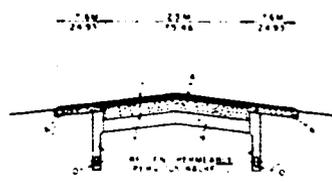
LEYENDA

LEGEND

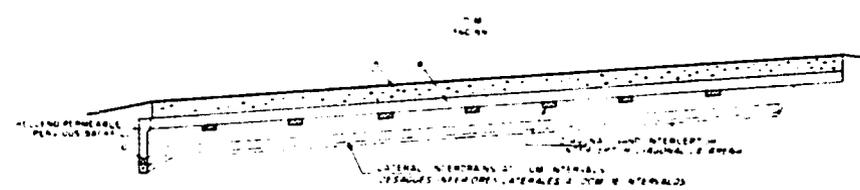
- | | |
|--|---------------------------------|
| 1. PAVIMENTO DE PISTA DE CONCRETO EXISTENTE | 1. ASPHALTO CONCRETO EXISTENTE |
| 2. PAVIMENTO DE PISTA DE CONCRETO PROYECTADO | 2. ASPHALTO CONCRETO PROYECTADO |
| 3. TRATAMIENTO ASFALTICO DE SUPERFICIE | 3. ASPHALTIC SURFACE |
| 4. CAPA DE CEMENTO DE 10 CM DE ESPESOR | 4. ASPHALTIC CEMENT LAYER |
| 5. TRATAMIENTO DE SUPERFICIE | 5. ASPHALTIC SURFACE |
| 6. CAPA BASE DE 15 CM DE ESPESOR | 6. CRUSHED STONE BASE COURSE |
| 7. CAPA BASE DE 15 CM DE ESPESOR | 7. CRUSHED STONE BASE COURSE |
| 8. SUB BASE GRANULOSA DE 15 CM | 8. GRANULAR SUBBASE |
| 9. SUB BASE GRANULOSA DE 15 CM | 9. GRANULAR SUBBASE |
| 10. DESAGUE INTERIOR | 10. INTERIOR DRAINAGE |



PAVIMENTO PISTA
RUNWAY PAVEMENT



PAVIMENTO PISTA DE CARRETEO
TAXIWAY PAVEMENT



PAVIMENTO PLATAFORMA
APRON PAVEMENT

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 ANNEX III, Page 11 of 22
 Exhibit A, Page 11 of 11

6

March 15, 1965

MEMORANDUM TO: Chief, Technical Assistance Division, IA-200

FROM: Mr. L.F. Stirninski, Airport Engineer, R.A.A.G. Panama (FAA)

SUBJECT: Proposed Airport Improvements at Asuncion Airport, Paraguay
Involving U.S. Loan in Approximate Amount of \$3.6 Million

Pursuant to your request, I met with Palmer and Baker representatives in Mobile, Alabama on March 12-13, to discuss my design alternative with them, i.e., construct a new runway and convert the present runway into a parallel taxiway. Persons in attendance at these meetings are listed in the attachment to this memorandum. As a result of these meetings, the following was found to be mutually agreeable and acceptable in essence:

1. Without detailed topography and soil borings of the new runway site, but based on the information available to all of us at the present time, the following conclusions can be reached:
 - a. Both the Palmer and Baker alternative and the Stirninski alternative will accomplish the job.
 - b. Estimated costs of both alternatives are roughly comparable.
 - c. Estimated construction costs for the new runway, without contingency and engineering fees included, should be between \$1.7 to \$1.9 million and would require approximately 15 months to complete, whereas to rehabilitate the existing runway will require approximately six months.

It is evident that a safe and reliable runway facility must be provided without further intolerable delays and this appears to be a key factor or problem at this late date. Two other factors or considerations are the financing arrangements already underway and the reactions and viewpoints of the Government of Paraguay on any major design changes at this late date.

As shown in the Palmer and Baker time phasing schedule, if the Palmer and Baker alternative is followed, then loan documents can be executed and actual construction work for improving the existing runway could start within five months or less with the work completed in another six months approximately. Whereas it would be about 20 months or longer before actual construction work could start on the new runway (Stirninski's alternative), because of redesign, renegotiations, loan application revisions, etc.

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ANNEX III, Page 13 of 22
Exhibit B, Page 2 of 3

4. Whether or not a delay of this magnitude (20 months or longer) is tolerable or intolerable at this late date appears to be the key considerations, in addition to what may be the possible reactions of the Government of Paraguay on this matter.
5. With respect to maintaining airport traffic during construction, Palmer and Baker is planning to keep open and serviceable at all times at least 4,500' of runway, during the runway rehabilitation work estimated to require six months or less. For aircraft, particularly jets, requiring more than 4,500' of runway, there may be some flight shutdowns and restrictions, although construction will be planned to keep it at a minimum. Obviously, jet aircraft operations will be suspended whenever sufficiently safe and serviceable runway length and width for them is unavailable, during the construction period of six months or less.
6. Notification of U.S. air carriers serving Asuncion should be accomplished regarding the construction work to be undertaken and their viewpoints obtained, as sufficiently in advance as possible.
7. Considering the possible excessive delay that could be involved in renegotiating, revising, and redesigning the present "project package" and with the time delay factor possible being an overriding consideration at this late date, then adopting the Palmer and Baker alternative may be the acceptable solution.

The above represents what was discussed and agreed upon with Palmer and Baker, while the following represents some personal comments that I wish to make on this matter.

The purpose of my recommendation to USAID/Paraguay was to bring to the attention of the proper authorities a design alternative which I think has definite and sound merit, and which could be accomplished at almost the same costs. This was done in the event such an alternative had not been fully and thoroughly considered previously.

L.F. Stirminski

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67

**Persons Attending Meeting in Mobile, Alabama at Offices
of Palmer and Baker on March 12-13, 1965**

Palmer and Baker Representatives

Mr. Abner W. Beard, Vice-President
Mr. Kenneth C. Roberts, Chief Engineer
Mr. John R. Bayliss, Soils Engineer
Mr. John T. Marshall, Civil Engineer
Mr. Gale Manning, Resident Engineer for Asuncion

Federal Aviation Agency Representatives

Mr. Louis F. Stirwinski, Airport Engineer, RAAG/Panama
Mr. James E. Sheppard, Airport Planning Engineer, FAA/Atlanta

**Note: Mr. Sheppard was not present on March 14, 1965 because of
his return to Atlanta the previous night.**

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ANNEX III, Page 15 of 22
Exhibit C, Page 1 of 1

March 23, 1965

MEMO FOR INCLUSION IN ASUNCION AIRPORT LOAN PAPER

FROM: B.G. Watkins, Acting Chief Engineer, LA/ENGD

**SUBJECT: Asuncion Airport - Alternate proposals for runway
rehabilitation and construction**

At the request of USAID Paraguay the FAA sent Mr. L.F. Stirminski, Airport Engineer, RAAQ/Panama to review the condition of the runway at Asuncion Airport. After reviewing the proposals for improvement made by Palmer and Baker, consultants to the GOP, Mr. Stirminski recommended a different plan; essentially that a new runway be constructed and the middle portion of the existing runway be rehabilitated for use as a parallel taxiway. This plan was in complete opposition to the scheme of Palmer and Baker, who had recommended that the existing runway be reconstructed and a new taxiway built.

In order to resolve the issues, Mr. Stirminski was called to Washington where he met with AID/W engineers on March 8, 1965. At A.I.D.'s request he travelled to Mobile, Alabama for meetings with Palmer and Baker on March 12-13, 1965. As a result of these meetings, the following conclusions were mutually agreed upon:

1. Either the proposal of Stirminski or that of Palmer and Baker would provide a suitable runway.
2. The estimated costs of both alternatives are roughly comparable.
3. The reconstruction work as planned by Palmer and Baker could start within six months whereas about 20 months would elapse before work could begin on a new runway because of field survey, complete new designs, preparation of plans, renegotiation of the engineering contract, and processing the loan application following completion of new estimates.
4. The Stirminski proposal has merit but it was felt that the rapid rate of deterioration of the present runway might cause a rather long shutdown of jet aircraft operations while a new runway was being constructed. The Palmer and Baker plan would result in immediate improvement of the runway condition and would thus involve less jet aircraft interruption.

Recommendation

That the plan proposed by Palmer and Baker be adopted and implemented.

MEMORANDUM

February 19, 1965

TO: Regional Capital Development Office,
US AID/Argentina

FROM: Chief Advisor, Buenos Aires IFO

SUBJECT: Asuncion Airport

In recent conversations with Messrs. Abner Beard of Palmer and Baker Co. and Theodore Morehouse of US AID/P it was understood that the stress areas appearing on the runway at Asuncion Int'l Airport require rehabilitation at this time to preclude further deterioration and eventual break up.

Mr. Beard further stated that the temporary emergency repairs made last week by the Paraguayan government would probably provide for safe operations of larger jet aircraft for a very short period of time. He estimated this period to be approximately two months provided the present condition of the runway would not be aggravated by heavy rains.

Because of the emergency issue involved it is recommended that special consideration be given to expedite the accomplishment of the loan agreement permitting work on the major repairs to the runway during the next 60-day period.

In view of the foregoing we are duty bound to recommend suspension of United States Air Carrier operations into Asuncion if any further deterioration to the runway is noted. Braniff and Pan American have the same responsibility according to the terms of their operating certificates.

Your assistance toward the solution of the problem would be appreciated.

(signed)
Frank J. Monaco

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65

AIRGRAM

TO- AID/W TOAID A 456

FROM- ASUNCION

SUBJECT- PARAGUAY - AIRPORT LOAN
CAPITAL ASSISTANCE PAPER

Transmitted herewith is copy of Memorandum dated February 26, 1965 received from Mr. L. F. Stirminski, Airport Engineer, F.A.A.G./Panama. This was received after the engineer member of the Project Committee and Mr. Watkins of LA/CD had departed from Asuncion. Therefore it has not been possible to arrive at a recommendation on the issue raised by Mr. Stirminski.

In order not to delay the project further, the Final Draft of the Capital Assistance Paper is being hand carried to Washington by Messrs. Fernandez and Foley with the understanding that this issue will be dealt with in Washington, and that the reasons for and against adoption of Mr. Stirminski's proposal will be fully documented in the capital assistance paper submitted to the Committee together with a recommended course of action, so that the Committee will be able to make an intelligent decision in the matter.

Briefly Mr. Stirminski's proposal is that a completely new runway 9,000 ft. x 150 ft. be constructed parallel to the existing runway and that the existing runway be converted to become the taxiway. Mr. Stirminski has produced figures to show that his proposed alternative would be more costly than the Palmer and Baker proposal and that it has operational advantages during the period of construction. Also, he claims that it should produce a better job since the new runway would be properly constructed from the ground up, whereas, with the old runway, there might always be doubts as to whether or not the weak spots and the improperly drained areas had been adequately corrected.

In view of the question raised by Mr. Stirminski, it is strongly recommended that the alternative recommended by Mr. Stirminski be fully evaluated including the value of avoiding a prolonged shutdown of the existing runway during the construction

the construction period, the higher cost of dovetailing construction operations with flight operations, and the intangible but very real possibility of getting a better job with a smoother surface.

It is the opinion of the writer of this airgram that if the costs of the two alternatives are found to be roughly comparable (the cost of the Palmer and Baker proposal to be increased by the value of lost airport time and higher cost of intermittent construction operations), then the Stirminski proposals should be adopted even if it means scrapping the work which Palmer and Baker has started on final plans and specifications.

It is requested that this airgram and Mr. Stirminski's memorandum be appended to the final Capital Assistance Paper as an Annex. Also, it is strongly recommended that Mr. Stirminski be invited to Washington to defend his position in the discussions which you will have with Palmer and Baker during the resolution of this issue.

Pending your consideration of this matter in Washington we are not mentioning Mr. Stirminski's proposal to the GOP.

SNOW

Attachment:-L.F.Stirminski Memo
of 2/26/65 to J.P.Wiley

February 26, 1965

MEMORANDUM

To: John P. Wiley, Director, USAID/Paraguay
From: L.F. Stirminski, Airport Engineer, R.A.A.G./Panama
Subject: Proposed Improvements and Loan for Asuncion Airport

Considering that the proposed airport loan application is now entering its final stages and in view of the fact that Mr. T. Foley, USAID loan official, departs for Washington tomorrow with final documents, I wish to bring to your immediate attention the following information:

For the amount of loan now being considered (approximately \$3.6 million), please be advised that the following facilities including a new runway could be constructed for this amount of money:

<u>Facility</u>	<u>Total Estimated Cost</u> <u>(U.S. Dollars)</u>
1. New Asphaltic Concrete Runway (9000 X 150 Ft.)	\$ 1,720,000
2. New Runway Edge Lighting	125,000
3. New Runway Approach Lighting	155,000
4. Repair and Convert Present Runway to Taxiway including Asphalt Overlay (9000 X 75 Ft.)	350,000
5. Taxiway Lighting (Partially New Material and salvaging existing R/W lighting)	100,000
6. Runway and Taxiway Markings	12,000
7. New Exit Taxiway System and Warm-up Pads	400,000
8. Miscellaneous Work	<u>150,000</u>
Subtotal	\$ 3,012,000

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68

Contingencies	301,200
Engineering Fees	212,800
Miscellaneous (R. of W. Airport Authority)	<u>105,400</u>
GRAND TOTAL COSTS	\$ 3,631,400

It must be remembered that I have only been involved in this project since February 17, 1965, when I arrived at your request in Asuncion; whereas Palmer & Baker have been involved in the engineering work of this project for approximately 18 months or more. As a result, obviously I haven't had as much time to investigate all facets and engineering aspects of this project, as well as Palmer and Baker and as well as I could also like to accomplish. Accordingly, there may be reasons which clearly preclude constructing a new runway, which I have as yet had not the time to discover or investigate, but which Palmer and Baker may be already aware of. Nevertheless, the alternative of constructing a new runway should be checked out, as soon as possible.

Therefore, it is strongly recommended that Palmer and Baker be notified without delay for their viewpoints on the alternative of new runway construction herein proposed and what reasons that they may have as to why it would not be a more desirable and acceptable solution to the problem of improving this airport.

Lastly, it should be noted that the alternative herein proposed would result in a much better runway end-product and would permit airport operations to continue (night and day) in a safer and more acceptable manner during the construction period. This latter aspect of the project (Maintenance of airport operations) is significant and must be fully considered; for this airport is an important airport, both domestically and internationally.

Attached is my preliminary cost estimate for construction of a new runway.

LOUIS F. STIRMINSKI (Signed)
Louis F. Stirminski

Attachment - Cost Estimate

ATTACHMENT TO MEMO OF L.F. STIRMINSKI

"COST ESTIMATE FOR NEW RUNWAY - PRELIMINARY ESTIMATE

<u>Work Item</u>	<u>Quantity</u>	<u>U.S. \$ Unit Price</u>	<u>Total Cost U.S. Dollars</u>
Site Preparation	Lump Sum	\$ _____	\$ 50,000
Common Excavation	500,000 M ³	1.10	550,000
Subbase	23,000 M ³	3.50	80,500
Grushed Base Course	26,000 M ³	10.00	260,000
Asphaltic Concrete	25,000 T	17.50	437,500
Prime Coat	46,000 Gals.	0.40	18,400
Tack Coat	23,000 Gals.	0.40	9,200
Culverts	2,000 L.Mts.	50.00	104,000
R/W Edge Underdrains	6,000 L.Mts.	5.00	30,000
Shoulder Paving - 3 Mt. Asphalt	16,500 M ²	3.50	57,800
Miscellaneous Work	Lump Sum	_____	<u>115,000</u>
GRAND TOTAL RUNWAY COST - EXPRESSED IN U.S. DOLLARS			\$1,712,400
USE: <u>\$1,720,000</u>			

110

ATTACHMENT TO MEMO OF L.F. STIRMINSKI

Estimating Data and Notes

1. Runway is 9000 X 150 Ft. and will be approximately 500 ft. West and parallel to existing runway. Design is for 320,000 pound aircraft and F-3 subgrade.
2. Pricing data of Palmer and Baker used wherever possible and appropriate.
3. Excavation quantity is based on as-built quantity reported for construction of existing runway; and, therefore, should be reasonably accurate.
4. Rehabilitation of existing runway kept to minimum consistent with taxiway requirements, since it will be converted to a taxiway of 9000 X 75 ft.
5. Airport turfing is not included, as it is believed that this will eventually be done by GOP, as part of their contributions to the project, and resulting in relatively inexpensive work.
6. Taxiway lighting item based on use of existing runway system for the parallel taxiway with suitable modifications, as estimated to be required.
7. Total runway costs compare favorably with other runway projects recently completed in Latin America."

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11

LOAN AUTHORIZATION

Provided from: Alliance for Progress Funds

Pursuant to the authority vested in the Deputy United States Coordinator, Alliance for Progress, by the Foreign Assistance Act of 1961, as amended, and the delegations of authority issued thereunder, I hereby authorize the establishment of a loan pursuant to Part I, Chapter 2, Title VI, Alliance for Progress, to the Government of Paraguay of not to exceed three million United States dollars (\$3,000,000) to assist in financing the costs of rehabilitating and improving the President Stroessner International Airport at Asuncion ("Airport"), this loan to be subject to the following terms and conditions:

1. Interest and Terms of Repayment

Borrower shall repay the loan to the Agency for International Development ("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 beginning six months after the first disbursement and until the Borrower takes the action described in paragraph (d) of "2 Other Terms and Conditions" below, interest on the outstanding balance of two and one-half (2½) percent per annum. When that action is taken, interest will be one (1) percent per annum on the outstanding balance payable annually during the grace period and two and one-half (2½) percent per annum thereafter.

2. Other Terms and Conditions

- (a) Equipment, materials and services (except shipping which shall be procured from the United States, asphalt and petroleum products which shall be procured from countries which are members of the Alliance for Progress, and marine insurance) financed under the loan shall be procured from the United States of America or Paraguay.
- (b) United States dollars utilized under the loan to finance local costs shall be made available to the Borrower or its designee through appropriate procedures and shall be used only for procurement in the United States (excepting marine insurance).

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ANNEX IV, Page 2 of 2

- (c) The Borrower will agree to budget funds, from its resources, sufficient to assure the maintenance of the airport.
- (d) The Borrower will agree to establish, a central authority for the administration and operation of the airport, in accordance with a plan satisfactory to A.I.D.
- (e) The loan shall be subject to such other terms and conditions as A.I.D. may deem advisable.

Deputy U. S. Coordinator
Alliance for Progress

Date