

AIRPORT REFORM AND IMPROVEMENT PROGRAM

(JA-0034)

EXECUTIVE SUMMARY

**BORROWER AND
GUARANTOR:**

Government of Jamaica

EXECUTING AGENCY: The Airports Authority of Jamaica (AAJ) Ltd.

AMOUNT AND SOURCE:

IDB:	US\$26,535,000(OC)
Cofinancing MIF:	US\$ 570,000
Local counterpart funding:	US\$19,700,000
Total:	US\$46,805,000

**FINANCIAL
TERMS AND
CONDITIONS:**

Amortization period:	20 years
Grace period:	3.5 years
Disbursement period:	3 years
Interest rate:	variable
Inspection and supervision:	1%
Credit fee:	0.75%

OBJECTIVES:

The primary objective of the program is to improve the efficiency, quality and sustainability of airport transportation services available to the tourism industry and other export sectors of the economy in order to sustain the export drive.

DESCRIPTION:

The program is comprised of the following three components: (1) Civil works at the Norman Manley International Airport (NMIA) in Kingston - which include: rehabilitation of the airside infrastructure (runway, taxiway and apron); replacement of the underground fuelling system; improvement of the drainage system, with installation of oil separation chambers; construction of a new sewage treatment plant; and construction of platforms in the Kingston harbor for the approach lighting system: (2) Communications system - upgrade and rehabilitation of the national air traffic control (NATCF) and navigational aids equipment and associated facilities at both NMIA and the Sangster International Airport (SIA) in Montego Bay; and (3) Regulatory and institutional activities - establishing the technical and economic regulatory framework prior to the transfer of the airports to the private sector.

CONCEPTUALIZATION: The proposed program is not only consistent with the Bank's Country and Sector strategy, but also with the government's strategy to put in place the infrastructural requirements for sustained growth. More than that, however, the improvements that will be made to the airside facilities through the investments proposed, viewed in conjunction with the new regulatory and institutional arrangements that are being implemented, will improve the sector's attractiveness to potential investors and allow the government the flexibility to choose, at some future date, between the options of retaining ownership of the airside facilities or vesting ownership of all assets (landside and airside) in private hands.

ENVIRONMENTAL CLASSIFICATION: The Environmental Management Committee, at its meeting of August 10, 1993, classified this as a Category III operation, and on July 11, 1995, approved the environmental summary.

BENEFITS: The program provides funding to rehabilitate the airside infrastructure at NMIA, one of the two hubs of non-tourist commercial activity. The investments, which have an internal rate of return of 19.2%, will avoid decertification of the facilities and provide further support to the export base of the economy and to the tourism industry in particular. In addition, the establishment of a regulatory framework that features transparent regulations and independent regulatory bodies would stimulate the flow of private capital to the sector and thus advance the government's privatization strategy. Moreover, while improving the climate for private sector involvement in the sector, the proposed loan will neither dim the expectations of improvement in the country's debt service ratio which is projected to improve from around 23% in FY94/95 to about 20% in FY96/97, nor will it have any significant impact on the Bank's debt exposure which, at 3.51% and declining, is well within the 8% guideline.

RISKS: The most significant risk relates to the availability and timing of local counterpart resources. Given the airport's importance and the need to continue operations with minimum disruption while construction work is in progress, the program is extremely time-sensitive and would not allow for delays due to the failure to provide counterpart funds in a timely fashion. It should be noted, however, that the government of Jamaica has presented a request to the Export-Import Bank of Japan for a loan in the amount of US\$15,000,000 i.e. 32% of the total cost of the

program. The Eximbank is processing the request under a new and more expeditious cofinancing scheme and a decision is forthcoming. In addition, the Nordic Development Fund has indicated an interest in providing partial funding, possibly up to the equivalent of US\$4 million, for the communications and navigational equipment component. Should these sources of cofinancing materialize, the counterpart requirements would be significantly reduced and, with it, the risk in question. Alternatively, the program would have to be singled out for special consideration in the annual appropriations exercise, a strategy which has been employed with success in the past.

**THE BANK'S
COUNTRY AND
SECTOR STRATEGY:**

The proposed program is consistent with two important elements of the Bank's country and sector strategy: (i) rationalization and modernization of the state; and (ii) support for the expansion of exports with a focus on the enhancement of export infrastructure and infrastructure for sustainable tourism development.

**SPECIAL
CONTRACTUAL
CONDITIONS:**

(a) Conditions prior to first disbursement: (i) establishment and staffing of the Project Executing Agency (paragraph 3.2); (ii) presentation of an action plan detailing the activities to be undertaken in the first year of execution of the regulatory and institutional activities envisaged in the MIF operation (paragraph 3.4); and (iii) presentation of evidence of commitment of funds from the Export-Import Bank of Japan (paragraph 2.11); (b) Other special contractual conditions: (i) prior to the call for bids for the civil works and for the installation of navigational and communications equipment, the AAJ must present evidence of the award of the contract to the consulting firm responsible for supervision of these activities (paragraph 3.5); (ii) the borrower shall submit annual maintenance reports during the first quarter of each year for a period of 10 years following the date of the loan contract (paragraph 3.15); (iii) the Bank shall recognize up to US\$1.7 million as local contribution in connection with preparation of studies and designs and rehabilitation works carried out within 18 months prior to the date of approval of this operation (paragraph 3.10); (iv) prior to effecting severance payments and within 90 days of completion of the management audit, the borrower shall present a list containing the positions that would be made redundant and the amount of the corresponding severance payment (paragraph 3.12); (v) if execution of the program is unsatisfactory to the Bank, the Executing Agency must

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submit, within 60 days of receiving the Bank's recommendations, a report indicating the corrective measures to be adopted and an implementation schedule (paragraph 3.19).

I. FRAME OF REFERENCE

A. Economic policy: performance and perspectives

- 1.1 In 1992, the Government of Jamaica announced its agenda for macroeconomic management and set out its development policies in a Medium-Term Policy Framework (MTPF) for the period 1992-1997. In broad terms, the MTPF is an attempt to consolidate what were the sometimes discontinuous stabilization and adjustment initiatives of the 1980's into a more coherent and sustained program. It was premised on the assumptions that: (a) a growth rate higher than the annual rate of less than 2.5% achieved in the previous quinquennium was necessary to ensure sustained development and promote greater equity; (b) the public sector had to be modernized in order to provide a solid institutional base for fiscal stability and to increase its transparency and efficiency; (c) economic growth was only possible with the support of the private sector and that a prerequisite for this support was the provision of necessary economic infrastructure and the establishment of an adequate regulatory framework; and (d) human resources development must be accorded high priority in order to increase growth and reduce poverty.
- 1.2 In harmony with this strategy, the Government developed an economic program covering the period October 1, 1992 to September 30, 1995, for which it obtained the support of the International Monetary Fund in the form of a three-year Extended Fund Facility (EFF). It was also joined in the pursuit of its goals by the IBRD through a private sector development loan and by the IDB, in collaboration with the IBRD, with financing for reform of the trade, finance and investment sectors.
- 1.3 The achievements under the MTPF have been significant and are documented in a number of reports, most recently in the Country Paper (Doc. GN-1861 of February 15, 1995). Moreover, the IMF report on performance during the second year of the EFF indicates that all performance criteria have to date been satisfied. These reports all cite the major policy changes that have been made, including the removal of subsidies, price controls and sharp reductions in tariff levels, while the foreign exchange system has been liberalized, capital controls eliminated and market-based financial sector reforms implemented. They go further to show the progress that has been made in reducing the size and rationalizing the scope of the public sector and in the process of divesting and/or making autonomous and financially independent a number of large public enterprises. The conclusion common to all these reports is that the economy, as was the intention, has become more competitive and outward-oriented.
- 1.4 The leading macroeconomic indicators reflect the achievements made in the implementation of the MTPF. The inflation rate has averaged just one percent per month for the six-month period between

September 1994 and February 1995, compared with a monthly average of three percent for the same period in 1993/94, and that holds promise of maintaining a programmed target of 10 to 12 percent on an annualized basis; interest rates that have declined steadily but that have remained strongly positive even as the rate of inflation has decelerated, thus allowing steady flows to continue into a buoyant foreign exchange market; a build-up of net international reserves that has allowed the Bank of Jamaica (BOJ) to reduce its purchases from the market, thus increasing the amount available for the private sector; the stabilization of the exchange rate; and a current account position that has undergone a complete turnaround from a deficit of 3% of GDP in FY-1990/91 to a surplus of nearly 4% of GDP in FY-1994/95.

- 1.5 Problems still exist, however, as domestic and external debt obligations of the public sector continue to absorb a high percentage of fiscal savings and threaten to complicate the stabilization effort; and while the country's total stock of debt has risen steadily in the 1990's, it is the domestic debt, which reached 45% of GDP in March 1995, that has been the major source of concern. The reasons for the accumulation of this debt are varied and include: (a) partial sterilization of private transfers and capital inflows; (b) government securities issued to bolster the depleted capital of the BOJ which had been making significant losses for several years; and (c) high domestic interest payments which increased the need to issue even more securities to rollover previous issues. Volume apart, the structure of the domestic debt (just under 86% is concentrated in short or medium maturities, i.e. 5 years and under) provides further cause for concern.
- 1.6 The current EFF has set targets for both domestic and external debt, and the Government has indicated that it intends to avoid any new high-cost short-term external borrowing in favor of concessional and long-term debt. It has also embarked on a program to convert its short and medium term maturities into long-term maturities. The combination of a more prudent debt policy, an export-oriented economic strategy and the ongoing rationalization of the public sector should ensure a reduced fiscal burden and consequent reduction of country risk. Against this background, the Country Paper is cautiously optimistic that the investment climate being created would propel the policy of private sector-led expansion of economic activity.

B. The investment climate

- 1.7 As mentioned earlier, the Jamaican economy, with the support of multi-lateral donors, has been undergoing a process of structural adjustment. The reforms undertaken between 1990 and 1992 have transformed the incentive framework for exports and growth, while foreign exchange and trade liberalization measures have radically altered the relative profitability of exports and markets have been freed of major distortions and opened to greater domestic and

international competition. Thus, what was once a state-dominated and highly protected system is being steadily transformed into a market-driven, export-oriented economy in which, as prescribed in the MTPF, private investment would fuel the engine of economic growth.

- 1.8 One of the fruits of these initiatives is reflected in the fact that while investment has hovered around 20 percent of GDP since the mid-80s, the share of private investment rose from less than one-third of total investment at the beginning of the last decade to over 50 percent in 1993. Further evidence of the success of these measures is found in the rate of privatization of government entities. The statistics show that between 1990 and 1995, twenty-six entities were privatized by the National Investment Bank of Jamaica, compared with just fourteen entities in the previous decade. Plans call for the divestment of thirty entities during the current financial year.
- 1.9 These positive indicators notwithstanding, the results have not matched expectations in terms of increased private investment and the reason most often cited is the lack of investor confidence in the continuity or permanence of the transformation, given the stops and starts that characterized the adjustment process in the 1980's. The Government is, however, committed to staying the course and is now focussing its attention on the regulatory environment for the private sector. Currently, the IDB is channeling resources of the MIF into the implementation of reform of the policy and legal environment for private investment, through the establishment of an Office of Utilities Regulation -OUR. This office, while it was established in response to the immediate demand for transparent regulation of the energy sector as a result of numerous private sector initiatives, including the Private Sector Energy Development Loan (Doc. PR-1900), has implanted the principle of a regulatory office working across different industries. The development of regulatory experience in such a body is viewed as an important step in the evolution of the Government's overall privatization program.

C. The aviation sector

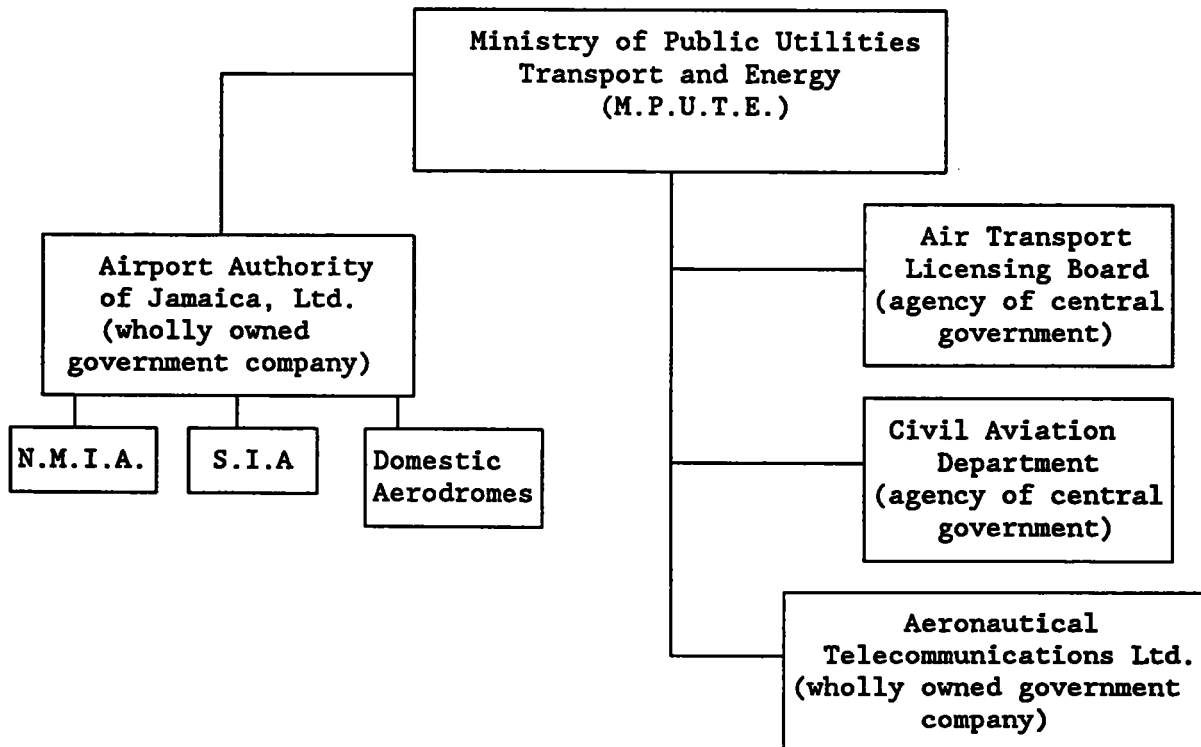
1. Existing sector organization

- 1.10 As illustrated in Figure 1 on the following page, all of the institutions that comprise the sector are publicly owned and fall under the jurisdiction of the Ministry of Public Utilities, Transport and Energy (MPUTE). The Airports Authority of Jamaica (AAJ) Ltd., which owns and operates all the country's airport facilities, and Aeronautical Telecommunications Ltd. (AEROTEL), which provides telecommunications and electronic maintenance services to the sector, are wholly owned government companies which were established under the Companies' Act, with mandates to operate as viable business ventures. As Chapter IV will show, however, the AAJ has only been able to partially comply with this mandate in the sense that its revenue generation suffices to meet its recurrent

expenditures. Invariably, however, as is the case with the proposed operation, government support is required in the form of long-term commitments, either as borrower or guarantor, for capital expenditures.

- 1.11 On the other hand, the Civil Aviation Department (CAD), which oversees matters of safety and efficiency of air navigation, and the Air Transport Licensing Board (ATLB), which regulates air services and approves tariffs related to commercial transportation of passengers, cargo and mail, are central government agencies whose operating and capital budgets are financed in their entirety by allocations from the Ministry of Finance.
- 1.12 In terms of infrastructure, the country has two international airports: the Norman Manley International Airport (NMIA), which primarily serves the capital city, Kingston, and the Sangster International Airport (SIA), which serves the tourism centers on the north and west coasts of the island. Domestic traffic is handled through four aerodromes, one of which is located in Kingston, and the others in the tourist destinations in Ocho Rios, Negril and Port Antonio.

Figure 1



2. Proposed reforms of the sector

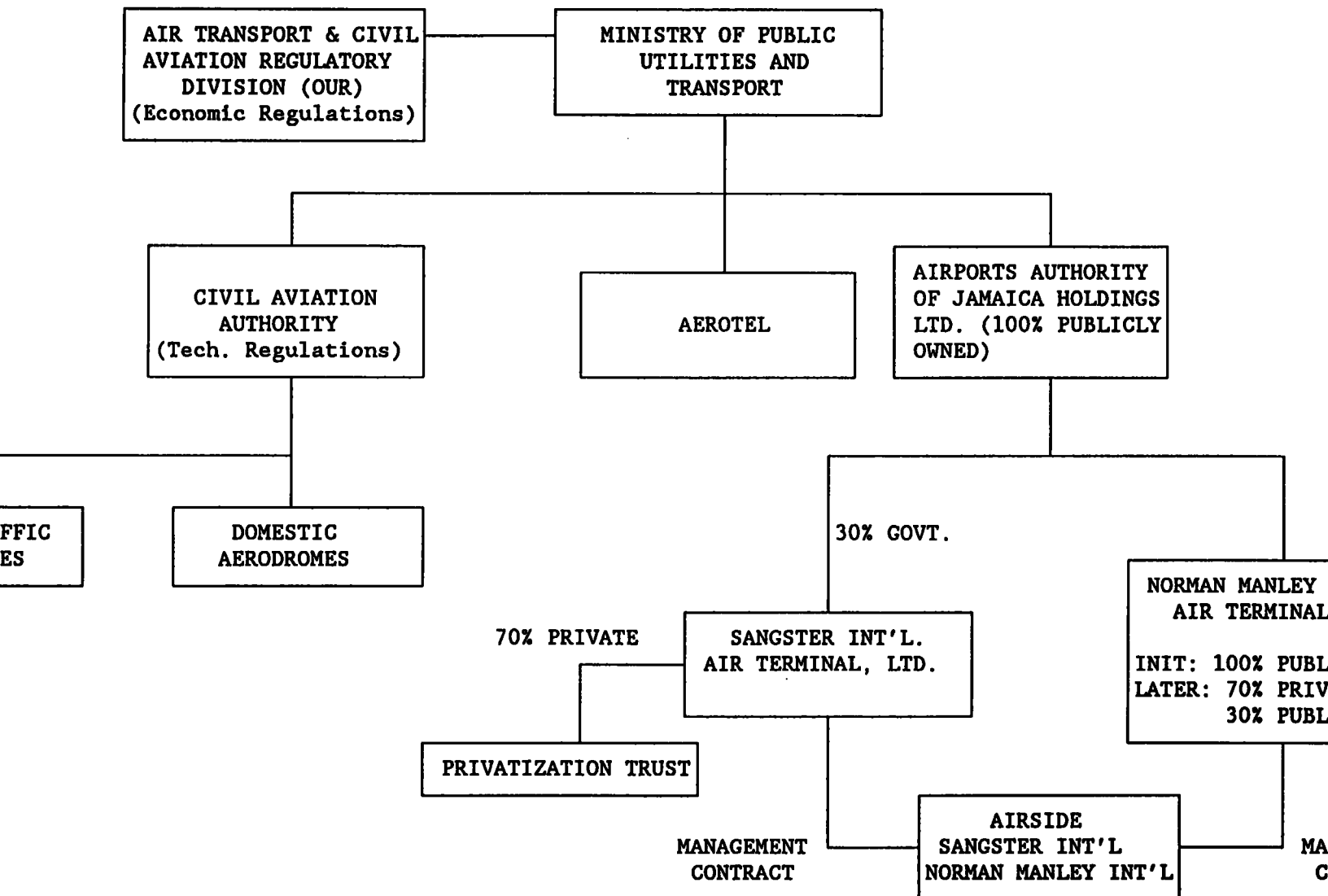
- 1.13 In 1992, even as the adjustment measures described earlier began to have their desired impact in the form of increased exports including tourism, the government found itself grappling with the dilemma posed by the requirement, on the one hand, to pursue sustained improvement in its fiscal accounts thus effectively reducing its capacity to make capital investments in physical infrastructure which had been starved of resources during the adjustment process and the need, on the other, to make investments in the infrastructure, including airport facilities, on which the sustained growth of exports depended.
- 1.14 Faced with this situation, the government opted to pursue bilateral debt reduction and debt rescheduling in order to improve the country's debt indicators and thus enhance its attractiveness for private investment in areas such as the construction of physical infrastructure and the provision of services which were once viewed as the exclusive domain of the public sector. This initiative gave birth, in the same year, to the Private Sector Energy Development Program referred to in paragraph 1.9. It also started the government thinking of a similar approach to the aviation sector, whose capacity to contribute to domestic output had been brought under close scrutiny in successive studies carried out between 1990 and 1992 and found to be markedly deficient.
- 1.15 Specifically, the studies concluded, inter alia, that: (a) there is an emergency situation at NMIA where the airside facilities, i.e. the runway, taxiway, apron and refuelling system had all exceeded their life expectancy (the runway was built in 1957 and upgraded in 1974 and the refuelling system has been in place since 1957) and that with very little maintenance over the years, had deteriorated to the point of near decertification. Indeed, as of the date of this report, repairs are being carried out to make it safe and operable only until the end of the current year; (b) the thirty year old passenger and cargo facilities at NMIA are inadequate to handle existing and future loads projected to the year 2010; and (c) even with the expansion and refurbishing of the terminal building then underway at SIA, the new facilities would still not meet the requirements of turn of the century traffic.
- 1.16 With respect to the communications system, the study revealed that the safety of air traffic into and out of Jamaica and on route traffic through Jamaican airspace are seriously compromised by the use of obsolete equipment for which spare parts are unavailable. In fact, CAD statistics show that there is an increase in traffic using Jamaican air-space and, with this increase, a rising incidence of near mid-air collisions.
- 1.17 Inadequacies were also found in the institutional and regulatory setting. In essence, two basic problems were identified. The

first was the AAJ's lack of sufficient financial and managerial autonomy from the central government and the limits that this imposed on its ability to finance adequate maintenance and timely capital improvements, with the obvious consequences for the ability of the sector to be responsive to market demands. The second basic problem was the lack of an effective, clear and transparent framework for private sector involvement in the financing of airport facilities and services.

3. The new sector organization

- 1.18 The proposed new sector organization, which is diagrammed in the chart on the following page (Figure 2) and described in detail in Chapter IV, is designed to address the deficiencies noted above. Selected from a 1992 study on privatization options for the sector, its main features are a gradual shift of control of sector activity from the public to the private sector and the introduction of a new and independent technical and economic regulatory regime, all in keeping with the policy to reduce the size and rationalize the scope of the public sector and widen the base of ownership and direct equity participation in the economy.
- 1.19 In summary, it demonstrates the government's commitment to the privatization of the terminal/landside facilities at both international airports, starting with the S.I.A., and its no objection to the privatization of airside management through management contracts with the new owners and operators of the landside facilities. In order to ensure up-front privatization as required by external financiers, the privatization arrangements provide for the sale of an initial block of shares amounting to a minimum of 10% of the equity to the private sector which will effectively give them two thirds of the voting rights, since the majority block of shares will be disenfranchised and placed in a Privatization Trust. The government, through AAJ Holdings Ltd., will retain shares sufficient only to maintain a 30% minority position.
- 1.20 Structurally, the chart shows that the Ministry of Public Utilities, Transport and Energy will continue to have overall responsibility for the sector. However, several major changes are planned, principal among which is the dissolution of the AAJ Ltd. and the transfer of all its functions to the following entities: (i) two private terminal companies which will be created to own and operate the terminal facilities at NMIA and SIA; (ii) Airports Authority of Jamaica (AAJ) Holdings Ltd, a publicly owned company, which will own the airside facilities, consisting of the airside land and fixed equipment; and (iii) a new Civil Aviation Authority (CAA) to replace the existing CAD.

FIGURE 2
PROPOSED INSTITUTIONAL FRAMEWORK FOR THE AIR TRANSPORT SECTOR



4. The contribution of the proposed program

- 1.21 The proposed program would bridge the infrastructure gap by providing financing for the upgrade of the airside facilities at NMIA, which would make investment in the expansion and modernization of the terminal facilities a much more attractive proposition to potential investors. The same would hold true if a decision were taken in the future to privatize the airside facilities. In the second instance, it would assist in the reorganization of the sector by providing the framework for the private sector to take over operations not only at NMIA, but also at SIA and, eventually, at the domestic aerodromes. In achieving these goals, the program would ultimately help to remove an unacceptable burden from the public purse.

D. Experience of the Bank and other donors

- 1.22 Relative to other categories of economic infrastructure, donor activity in the sub-sector has been limited. The Bank has to date financed just two operations, i.e. a short-term technical cooperation to finance a traffic study at NMIA and the other a PPF operation for preparation of the proposed program. The EEC (EU) has been by far the largest contributor, having financed the recently completed expansion of the terminal facilities and the construction of an additional car-park at SIA at a cost of approximately 11.7 million ECU. CIDA, under its Caribbean Airports Project (CAP), which was completed in 1990, provided Can\$11.7 million to finance rehabilitation works on the runway.

II. THE PROGRAM

A. Program structure and logical framework

- 2.1 As pointed out in the preceding chapter, the economic policy that has been pursued by the government has significantly transformed the economy and produced growth where previously there was decline. Problems still persist, however, not the least of which is the deficit in the supply of adequate physical infrastructure without which sustained growth is threatened. The policy has, therefore, placed the economy on a development path which recognizes the role of the private sector in sustaining the economic momentum and the need arising therefrom to create conditions that would encourage its participation in areas until now considered the domain of the public sector, as is the provision of the infrastructural requirements for sustained growth.
- 2.2 The logic of this approach to economic development is transferred to the proposed program and is represented in the chart shown in Figure 3 on the following page, where it establishes that the goal of the program is to transfer the ownership and operation of the aviation sector from public to private hands at a reasonable cost to the user and thus reduce the fiscal burden on the central government. In the context of the program, this translates into actions that would eventually ensure the adequate provision of physical infrastructure in the airport sector, which is crucial to the implementation of one of the main elements of the medium-term economic strategy, i.e. the expansion of the export and tourism industries. The reader is also informed of the changes that the program will produce in the sector (the purpose) and which, at the end of the execution period, will result in an improvement in the efficiency, quality, sustainability, safety and security of air transportation services available, as well as an improvement in the climate for private investment.
- 2.3 The logical framework also sets out the components (outputs), i.e. the civil works on the airside facilities, the upgrade of navigational and communications systems and the establishment of an adequate regulatory and institutional framework, which the program manager will implement and details the activities involved in the execution of each of the components. Throughout the cycle, program management is provided with indicators to measure the progress made in the attainment of the goal and purpose, i.e. increases in tourist arrivals and exports, and in aircraft safety, etc., and is informed as well of the sources of information (means of verification) that are available to substantiate the measurements. In addition, the chart indicates that the risks (assumptions) are almost all associated with actions that must be taken by the government and hence cannot be mitigated through project design. Where feasible, therefore, the Project Team has suggested the establishment of contractual conditions that would obligate the government to take the required actions.

FIGURE 3. AIRPORT REFORM AND IMPROVEMENT PROGRAM (JA-0034)

OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Transfer ownership and operation of the aviation sector from the public to the private sector at a reasonable cost to the users and thus reduce fiscal burden on the central government.	<ol style="list-style-type: none"> 1) Transfer of ownership and operation of terminal facilities at N.M.I.A and S.I.A. 2) Comparison of fee structure before and after transfer. 3) Reduction in government expenditures in the sector. 	<ol style="list-style-type: none"> 1) Documentary evidence of transfer of ownership. 2) Published fee structure. 3) Official government reports from planning institute, statistical office, etc. 	<ol style="list-style-type: none"> 1) Economic policy continue emphasize the role of the p sector in increasing econom growth.
Improve the efficiency, quality, sustainability and security of air transportation services available to the tourism and export sectors and improve climate for private investment.	<ol style="list-style-type: none"> 1) Aircraft handling capacity at NMIA maintained and/or increased. 2) ICAO rating maintained. 3) Damage to aircraft using NMIA reduced. 4) Volume and safety of air traffic movements improved. 5) Increased private sector investment in air transportation sector. 	<ol style="list-style-type: none"> 1) Statistical reports on aircraft movement. 2) ICAO reports and actual airside conditions. 3) CAA reports on aircraft faults and airplane damage. 4) Air traffic controller reports. 5) Number and order of magnitude of proposals received from the private sector. 	<ol style="list-style-type: none"> 1) Movement of tourists an by air transport will remai or grow. 2) Production of time- sen non-traditional exports will continue to increase. 3) An adequate regulatory is put in place.
<ol style="list-style-type: none"> 1) Civil works on airside facilities executed. 2) Air navigation and communications systems upgraded. 3) Regulatory and institutional framework established. 	<ol style="list-style-type: none"> 1) Runway, taxiways, apron, lighting and fuelling systems upgraded to ICAO standards by June 1997. 2) Upgraded air navigation and communications system in place by December 1997. 3.1) Civil Aviation Authority established and functioning. 3.2) Economic regulations in place. 	<ol style="list-style-type: none"> 1) Semi-annual and Bank supervision reports. 2) Same as above. 3.1) Publication of ACT establishing Authority. 3.2) Report of the Office of Utilities Regulation or designated Body. 	<ol style="list-style-type: none"> 1) Airport operations will while work is in progress. 2) Government of Jamaica w finance the operation of th 3) Independence of regulat will be maintained.
<ol style="list-style-type: none"> 1) Contract and supervise the activities of the airside rehabilitation contractors. 2) Contract and supervise the supply and installation of equipment. 3) Train equipment users and maintenance personnel at CAA and AEROTEL. 4) Hire consultants to carry out the institutional and regulatory studies. 	<ol style="list-style-type: none"> 1) US\$21.4 million. 2) US\$7.9 million. 3) Included above. 4) US\$0.72 million. 	<ol style="list-style-type: none"> 1) Semi-annual, and Bank supervision reports. 2) Same as above. 3) Same as above. 4) MIF disbursement requests. 	<ol style="list-style-type: none"> 1) Counterpart financing w made available by Governmen Jamaica. 2) GoJ will pass legislati establishing CAA. 3) Adequate staffing of CA

B. Description

- 2.4 In order to attain the goal and purpose stated and achieve the impact intended, the following works and activities will be carried out:

1. Civil, environmental and electrical works

- 2.5 This component of the program would comprise of: (a) rehabilitation of the airside facilities, i.e. the runway (8,700 feet), taxiway and apron, consisting primarily of pavement strengthening and rehabilitation, with additional works on the base/sub-base/sub-grade where necessary and localized improvement to accommodate modern, wide-body aircraft; (b) replacement of the underground fuelling system, i.e. re-laying of distribution lines to the aircraft ramp positions, the replacement of pumps, the refurbishing of existing storage tanks and the construction of another, and the upgrade of the fire protection and suppression system; (c) construction of a drainage system consisting of 2,100 meters of storm trench drains and sewer pipes, catchbasins, oil separation chambers and outfall headwalls; (d) construction of a new sewage treatment plant; and (e) construction of platforms in Kingston harbor for a new approach lighting system, replacement of the runway and taxiway lighting system, as well as upgrade of other airside lights.

2. Navigational and communication works

- 2.6 This component would include the replacement, upgrade and rehabilitation of the national air traffic control (NATCF) system and the provision of navigational aids equipment and associated facilities at both international airports.

3. Regulatory and institutional activities

- 2.7 With the resources of a parallel MIF operation, consulting services would be engaged to carry out activities aimed at : (1) creating the necessary technical and economic regulatory framework so as to facilitate the transfer of the airports to the private sector; and (2) implementing the sale of the enterprise. The specific tasks envisaged would be: (a) preparation of an industry specific Air Transport Act which would update and consolidate the Airports Authority and Civil Aviation Acts to bring into being the new CAA, empower the OUR to carry out economic regulation of the sector and provide for the granting of licenses to the private operators of the airports; (b) establishment of the new CAA and defining and implementing the economic regulatory parameters and procedures for the OUR; (c) drafting of licenses for the private sector companies to operate the terminal services; (d) carrying out a management audit to determine an appropriate structure for the proposed new NMIA Ltd.; and (e) preparation of offer to take to the market to seek investment funds.

C. Cost and financing

- 2.8 The total cost of the program has been estimated at the equivalent of US\$46,805,000. The breakdown by source of financing and investment category is shown in the following table.

COSTS (US\$000)					
CATEGORIES OF INVESTMENT	AMOUNT BY SOURCE				
	IDB-OC	MIF	LOCAL	TOTAL	%
1. ENGINEERING AND ADMINISTRATION	-	-	3,433	3,433	7.4
1.1 <u>Engineering</u> : Preparation of engineering studies.	-	-	1,031	1,031	2.2
1.2 <u>Administration</u> : Program management, i.e. the cost of the FEU.	-	-	507	507	1.1
1.3 <u>Construction supervision</u> : Consulting services to carry out technical and environmental supervision of civil and communications and navigational works.	-	-	1,895	1,895	4.1
2. DIRECT COSTS	16,810	-	5,388	22,198	47.4
2.1 <u>Pavement rehabilitation</u> : Rehabilitation and strengthening of the existing asphalt and concrete pavement of the runway, taxiway and apron and upgrading of the drainage and lighting systems.	15,296	-	3,865	19,161	40.9
2.2 <u>Refuelling System</u> : Replacement of the underground fuelling system.	1,514	-	543	2,057	4.4
2.3 <u>Sewage system</u> : Construction of a sewage treatment plant.	-	-	980	980	2.1
3. EQUIPMENT	1,971	-	7,776	9,747	20.8
3.1 <u>Aeronautical and Navigational</u> : Acquisition and installation of communications equipment and navigational aides.	1,971	-	5,420	7,391	15.8
3.2 <u>Associated civil works</u> : Construction and rehabilitation of facilities to house equipment.	-	-	2,356	2,356	5.0
4. ASSOCIATED COSTS	-	570	475	1,045	2.2
4.1 <u>Regulatory and Institutional Framework</u> : Hiring consultants to establish the new regulatory and institutional framework.	-	570	150	720	1.5
4.2 <u>Severance Pay</u> : Compensation for staff to be made redundant as a result of planned phasing out of the AAJ.	-	-	325	325	0.7
5. UNALLOCATED COSTS	5,725	-	2,463	8,188	17.5
5.1 Contingencies	1,891	-	906	2,797	6.0
5.2 Cost Escalation	3,834	-	1,557	5,391	11.5
6. FINANCIAL CHARGES	2,029	-	165	2,194	4.7
6.1 Interest	1,763	-	-	1,763	3.8
6.2 Credit Fee	-	-	165	165	0.4
6.3 Inspection & Supervision	266	-	-	266	0.5
TOTAL	26,535	570	18,700	46,805	100.0
%	56.7	1.2	42.1	100.0	

D. Sources of funding

1. IDB

- 2.9 The Bank would finance 56.7% of the total cost of the program with US\$26,535,000 equivalent from its Ordinary Capital resources, to be disbursed in foreign exchange, in accordance with Bank policy.

2. MIF

- 2.10 MIF funds in the amount of US\$570,000, i.e. 1.2% of total program cost, would be used exclusively to finance the cost of consulting services that would be engaged to carry out the regulatory and institutional activities described in paragraph 2.7. The Donors' Memorandum was approved by the Donors' Committee on August 9, 1995 (Res: MIF/DE-17/95).

3. Other possible external sources

a. The Export-Import Bank of Japan

- 2.11 The Government of Jamaica has presented a request to the Export-Import of Japan for a loan in the amount of US\$15,000,000 i.e. 32% of the total cost of the program. The Eximbank is processing the request under a new and more expeditious cofinancing scheme and a decision is forthcoming. Accordingly, it is recommended that as a condition prior to first disbursement, the Government of Jamaica present evidence of a commitment from the Japan Eximbank to provide the funds. 1/

b. The Nordic Development Fund

- 2.12 The Nordic Development Fund has indicated an interest in providing partial funding, possibly up to the equivalent of US\$4 million, for the communications and navigational equipment component. It is expected that the proposal will be submitted to the NDF Board of Directors in October of this year. If this financing materializes, the amount of Bank loan would be adjusted accordingly.

4. Local contribution

- 2.13 The local contribution in an amount equivalent to US\$19,700,000, or 42.1% of the total program cost, would be a charge on the central government. It includes an amount equivalent to US\$320,000 which the AAJ estimates it would be required to distribute in the form of severance pay to staff who would be made redundant as a result of the privatization exercise. The financial analysis presented in Chapter V concludes that the both the government and the AAJ will be able to make their contributions in amounts equivalent to

1/ See conditions prior to first disbursement.

approximately US\$14.9 million and US\$4.8 million, respectively, in a timely manner.

5. Terms and conditions of the financing

- 2.14 The following terms and conditions would govern the proposed loan:
Interest Rate: Variable; Credit Fee: 0,75%; Inspection and Supervision: 1.0%; Disbursement Period: 3 years; Amortization Period: 20 years, including a Grace Period of 3.5 years.

III. PROGRAM EXECUTION

A. Executing agency

- 3.1 The Airport Authority of Jamaica would be responsible for the overall execution of the program. Two separate project executing units (PEUs) would be set up: one unit with responsibility for the civil works and equipment component and the other for the regulatory and institutional component envisaged in the MIF operation. The composition of the two PEUs would be as follows:

1. PEU - Civil works and equipment component

- 3.2 This PEU, when created, would be headed by a Program Manager/engineer who would report directly to the Chief Executive Officer of the AAJ. The rest of the unit would be comprised of: an assistant program manager/engineer (telecommunications); an assistant program manager/engineer (civil works); a general civil engineer/technician; a professional accountant and two junior accountants; and three clerical/ administrative support staff. The unit must be established and fully staffed as a condition prior to first disbursement. 2/

2. PEU - Regulatory and institutional component

- 3.3 The structure for this PEU would be modelled on that developed for the Private Sector Energy Development Program referred to in paragraph 1.9. The Energy Sector Privatization Unit (ESPIU) is comprised of a small group of professionals (a manager, an engineer and a financial analyst) and is, from all accounts, performing its primary function as adviser to the Steering Committee on Private Sector Participation in a satisfactory manner. Given the transitional status of the AAJ, the PEU for this component would be established within the structure of the M.P.U.T.E. and would report to the Task Force on Airport Privatization 3/ which, in turn, would report to an Interministerial Committee, a policy making body chaired by the Prime Minister (see Section V of the MIF proposal for further details).
- 3.4 As Figure 3 suggests, there is a complementarity of purpose between the investment and regulatory components of the program, in that they are both viewed as instruments to improve the attractiveness of the sector to potential investors. Implied is a similar

2/ See conditions prior to first disbursement

3/ The Task Force is comprised of representatives from: AAJ Ltd., Citibank (Financial Advisors), Attorney General's Department, National Investment Bank of Jamaica, M.P.U.T.E., Ministry of Tourism, Ministry of Finance, Ministry of National Security and the Collector of Customs.

complementarity or relationship in terms of the execution or sequencing of activities envisaged in both components in order to ensure that the outputs of the investment component (the civil works and navigational and communications system) are not realized without the outputs of the regulatory component (the establishment of a regulatory framework). It is recommended, therefore, that this relationship be contractually established with a requirement that as a condition prior to first disbursement of the resources of the program for the investment component, the borrower present an action plan detailing the activities to be undertaken in the first year of execution of the regulatory component. 4/

B. Supervision

- 3.5 Rehabilitating the airside facilities while the airport remains open to traffic requires a special expertise in construction management and airport safety, quality control and quality assurance procedures. The same holds true for the installation of the aeronautical and navigational equipment. Given that the AAJ does not have the in-house technical capability to supervise these tasks, direct management would be contracted out to a consulting firm with expertise and experience in these areas. The AAJ and the Bank have already reached agreement on the Terms of Reference for hiring of the firm and, because of the critical nature of this activity, the AAJ must present evidence of award of the corresponding contract prior to the call for bids for the corresponding works. 5/

C. Status of program preparation

- 3.6 The consultants are in the final stages of preparation of the final designs and tender documents for all components of the pavement rehabilitation, as well as for the sewage and refuelling systems. It is expected that all documents would become available by end-July 1995. With respect to the navigational and communications equipment, all the parties involved, i.e. AAJ, CAD and AEROTEL, have reached agreement on the precise list of equipment needed and the consultants are now preparing the technical specifications which, it is also expected, would be completed by end-July. All final engineering designs were subjected to an environmental impact assessment (EIA) and the results are incorporated into the specifications and tender documents.

D. Status of bidding

- 3.7 The prequalification of contractors for the civil works is underway, with July 17, 1995, fixed as the closing date for presentation of prequalification documents. It is proposed to

4/ See conditions prior to first disbursement.

5/ See contractual conditions.

invite tenders by September 1995 and award the contract by November 1995. The call for bids on the telecommunications and navigational equipment is scheduled to take place in September 1995. Since the manufacture and supply of this type of equipment is a very specialized field and given moreover the possibility that this component may be co-financed by a third party (Ref: paragraph 2.12), no separate prequalification is currently scheduled. As a consequence, a prequalification document presented at the time of bidding would be reviewed prior to opening of the bids to ensure that bidders are qualified to undertake the required works.

E. Bidding procedures

- 3.8 The Bank's bidding procedures, as set forth in Annex B to the loan contract, would be followed for the procurement of goods and services and the awarding of construction contracts. International public bidding would be compulsory for contract amounts in excess of US\$250,000 for goods and US\$1.5 million for construction projects. These thresholds have been discussed and agreed upon with the Bank's Procurement Unit. For the awarding of construction contracts and the procurement of goods and services in amounts below the above-mentioned thresholds, national legislation determined to be consistent with the Bank's procedures would be applied. With the possible exception of that portion of the telecommunications and navigational equipment which may be financed by the Nordic Development Fund and, as such, be subject to limited procurement, all of the bidding required for program execution is expected to be international.

F. Disbursement schedule

- 3.9 It is estimated that the loan resources would be disbursed in a period of three years. This estimate was based on a careful analysis of the time needed for the execution of all the activities envisaged, including the periods required for issuing calls to tender and subsequent award of the corresponding contracts. The schedule for investment of loan and counterpart resources is as indicated in the following table:

Source of Funds					
	IDB/OC	MIF	LOCAL	TOTAL	%
Year 1	11,145	350	10,244	21,739	46.5
Year 2	11,940	220	6,895	19,055	40.7
Year 3	3,450	-	2,561	6,011	12.8
Total	26,535	570	19,700	46,805	100.0
%	56.7	1.2	42.1	100.0	-

G. Recognition of costs

- 3.10 In February 1995, the AAJ awarded a construction contract in the amount of US\$620,000 to carry out rehabilitation works that were necessary to keep the airport open until the works envisaged in the proposed program could be initiated. In addition, the AAJ has already spent the equivalent of US\$636,000 and will be required to spend an additional amount equivalent of US\$420,000 to finance the cost of preparation of studies and designs. Consequently, the Bank has been requested to recognize the sum of these expenditures up to the equivalent of US\$1.7 million as part of the local contribution to the program. The Project Team has verified that in the award of contracts for these works and services, the AAJ employed procedures similar to those which would be established in the loan contract and, therefore, recommends that the Bank accede to the request. 6/

H. Advance of funds

- 3.11 An advance of funds up to the equivalent of 10% of loan resources is recommended in order to facilitate project execution. This recommendation is based on the schedule established for procurement of the goods and services contemplated in the program and the anticipated pace of project execution. The sufficiency of this advance would be verified at the semiannual project monitoring meetings.

I. Severance pay

- 3.12 Since it is expected that only some of the staff of the AAJ Ltd. would be incorporated into new positions in both new terminal companies at S.I.A. and N.M.I.A., there will be staff made redundant. While the precise number of this latter group would not be determined until completion of the management audit to be carried out under the MIF operation, the AAJ estimates that severance payments would amount to the equivalent of approximately US\$320,000 and has requested that this cost be recognized as part of the local counterpart contribution to the program. Since staff reductions are often an unavoidable consequence of the privatization process which the Bank is supporting in this instance, it is recommended that the request be favorably considered on condition that, prior to effecting the payments and within ninety days of completion of the management audit, the borrower present a list containing the positions that would be made redundant and the amount of the corresponding severance payment. 7/

J. Operation and maintenance

6/ See contractual conditions
7/ See contractual conditions.

- 3.13 Maintenance activities are currently executed by a Unit headed by a maintenance manager/civil engineer. The unit is divided into four sections, i.e. structures and airfield; electrical and building mechanical; lands and gardens; and mobile mechanical, each of which is headed by a supervisor who reports directly to an assistant manager, also a civil engineer. The unit has a permanent staff of approximately 55 workers and about 12 contract laborers in its lands and gardens section.
- 3.14 The Terms of Reference for the construction supervision contract include airside maintenance management. On completion of the program, it is expected that a sound maintenance policy optimizing the use of external entities such as small and/or large contractors would have been put in place and that local personnel would have improved their skills, proficiency and knowledge. As a result, there would be an improvement in the in-house capacity to: (a) prepare multi-annual maintenance programs and performance budgets; (b) schedule, execute and control maintenance activities within the framework of an annual plan; (c) operate workshop facilities adequately and maintain emergency equipment properly; and (d) monitor the operational costs of maintenance and other maintenance related expenditures as part of the total budgetary system. AAJ Holdings Ltd., as future owner of the airside infrastructure, would be the ultimate beneficiary of the policies and procedures put in place.
- 3.15 In order to ensure that the new airside pavement infrastructure is kept in a proper state of repair such as would meet international standards of safety and operations, the loan contract would obligate the borrower to present annual maintenance reports by the end of April of each year for a ten-year period beginning on the date of the Loan Contract. 8/ In addition to the condition of the infrastructure, the reports should provide, as a minimum, details on the amount of human and financial resources employed in maintenance activities and of any training requirements identified and/or executed.

K. Environmental considerations

- 3.16 Based on its review of the environmental profile, the Environmental Committee classified this as a category III operation and approved the terms of reference for the preparation of the environmental impact study. This study was financed with the resources of a PPF operation (Ref: ATN/SF-4596-JA) and both the short-term and long-term impact mitigation measures were taken into account in the preparation of the project specifications and tender documents. Moreover, the Committee, in its meeting of July 11, 1995, reviewed and approved the implementation of these measures which can be summarized as follows:

8/ See contractual conditions

1. Short-term impact mitigation measures

- 3.17 The following short-term impact mitigation measures would be implemented: (1) installation of slit fences along the coastal edge of all work areas in order to filter overland runoff on its path to the sea; (2) provision of a water sprinkler system at all areas of open excavation to reduce wind blown dust; (3) installation of wind fences up-wind of material stockpiles; and (4) installation of slit traps and oil separators at the outlet of all drains to the sea. This latter is both a short and a long-term measure. These measures will be included in the construction contract documents.

2. Long-term impact mitigation measures

- 3.18 Long -term mitigation measures would relate particularly to ensuring the maintenance of good quality effluent from the sewerage treatment plant and storm water drains. With respect to the treatment of sewage, it is proposed to construct an aerated lagoon where the sewage will be subjected to secondary biological treatment and the effluent utilized for irrigation purposes in the immediate vicinity of the airport. An emergency sea outfall will also be constructed, with the discharge taken to at least the six fathom depth. With respect to the disposal of garbage, the Bank has undertaken to finance the preparation of a feasibility study, including an environmental impact assessment, to determine the best alternative for the proper disposal of solid waste generated by the airport and the analysis of the compatibility of airport operations with the establishment of wildlife reserve in the airport vicinity. The Bank has also undertaken to assist the GOJ in securing financing for the execution of the alternative selected.

L. Operation control and monitoring

- 3.19 The Bank's Country Office would be responsible for control and monitoring of program execution. The executing agency would submit semi-annual progress reports to the Bank. If obstacles are encountered and program execution is found to be unsatisfactory, the executing agency must submit to the bank, within sixty days of the latter's recommendations, the corrective measures it intends to adopt, along with a schedule for their adoption. 9/
- 3.20 Any problems that arise during program execution and the solutions applied would be recorded in the reports on the status of loans under execution which is prepared by the Country Office. A summary of these matters would be included in the annual report on portfolio performance which is prepared at the beginning of each calendar year.

9/ See special conditions.

M. Financial reporting and auditing

- 3.21 Separate project accounts will be maintained for the civil works/equipment component and for the institutional component by each of the respective PEU units. The resulting end of year financial statements will be consolidated by the civil works/equipment PEU unit. These financial statements as well as the financial statements of AAJ and AEROTEL will be audited by an independent firm of external auditors satisfactory to the Bank. Audit reports will be provided to the Bank within 4 months after the end of each fiscal year during the period of project's execution. 10/

10/ See contractual conditions.

IV. INSTITUTIONAL AND FINANCIAL ANALYSIS

A. Background

- 4.1 Chapter I dwelt briefly on the existing institutional structure of the sector and on the radical changes which are being implemented, one of which involves the elimination of what is left of the AAJ, the executing agency for the proposed program, after the separation of SIA, and the other the conversion of a central agency of the government (the CAD) into an independent authority (the CAA). This Chapter will provide the reader with a cursory look at these institutions as they are, describe the actions that must be taken to successfully execute the planned changes and indicate how the proposed program will affect and be affected by the changes. It will also complement the information presented in paragraphs 1.19 to 1.21 and examine some of the factors that shaped the new sector organization.

B. The Airport Authority of Jamaica (AAJ) Ltd.

1. Current situation

- 4.2 The AAJ was created in 1974 as a commercially oriented organization to operate prescribed airports and to provide and maintain those services necessary to this end, except for navigation services. At NMIA and SIA, the Authority is at present responsible for fire, security, information, maintenance and janitorial services, and for the provision of check-in and baggage handling equipment. Security services are contracted with the private sector and the airlines provide the ground handling services. Landside ancillary services, such as retailing, catering, banking and parking, are operated by private companies under concession contracts from AAJ. At the four domestic airstrips (Tinson Pen, Ken Jones, Boscobel and Negril), AAJ provides limited services for which no income is received. The ownership of these airstrips resides in the CAD. The AAJ currently employs a staff of approximately 600 persons.
- 4.3 Its sources of revenue are landing fees, terminal fees, concessions and security fees. Total revenue from these sources and other operating income have averaged US\$16.9 million annually with the first two sources representing two-thirds of this total. This level of income was sufficient to cover all operating expenses which have averaged about US\$14.4 million. The major expense item has been administration representing 39% of total expenses, with an average of US\$5.6 million of which around US\$1.6 million came from the head office. On the other hand, the level of maintenance expenditures, which has not been sufficient as witnessed by the state of the airside infrastructure, has represented just 6% of total operating expenses.

- 4.4 In spite of positive results, AAJ has had difficulties financing the desirable level of periodic maintenance and in funding capital investments from operations, mainly due to inadequate collection of revenues. Thus, capital investments have been financed with government budgetary resources and profits have been reflected in an ever increasing level of accounts receivable that at the end of fiscal year 1994 amounted to US\$8.2 million. While in part this balance results from inefficiencies in debt collection and credit control, there is also another part of the receivables originating from government agencies. Government financing of the investments then can be viewed, from a financial perspective, as a cancellation for unpaid government receivables.
- 4.5 As previously indicated, it is expected that SIA would be separated from the AAJ in September 1995. When this event takes place, AAJ's structure will be basically comprised of the head office and the Eastern region operating NMIA. This is not only an inefficient scheme; it is also impractical since the operations at NMIA will not be able to finance the cost of the head office. Consequently AAJ plans to integrate the head office into the operations at NMIA on a temporary basis by the end of 1995. To this end, the organizational structure, functions, and systems are being reviewed, and equipment and human resources needs are being evaluated. Moreover, the future functions and structure of the new NMIA Ltd. will be analyzed in the management audit which will be carried out under the MIF operation.

2. Impact of institutional changes on program execution

- 4.6 The institutional changes noted above will not affect program execution, neither with respect to the civil works on the airside facilities and the upgrade of the navigational and communications systems, nor the regulatory and institutional component. As indicated in the preceding chapter, the civil works and equipment component will be carried out by direct contracts, with the support of consulting firms with expertise in these areas and under the overall supervision of the PEU, reporting to the AAJ. In the event that the AAJ is phased out prior to completion of the works, it is envisaged that the same basic execution structure would continue to exist and the PEU would report instead to AAJ Holdings LTD. which, as was noted earlier, will retain ownership of the airside facilities. In the case of the regulatory and institutional component, the functional and operational relationship of the PEU will be with the Task Force and the Interministerial Committee and thus will not be affected in any way by the changes.

3. Financial impact of institutional changes

- 4.7 The institutional changes will have a positive impact on the financing of the program. In the case of the AAJ, the analysis presented in Chapter V shows that after the separation of S.I.A., the capacity of its operations for internal generation of funds increases to the point where, unlike the situation described in

paragraph 4.3, these are sufficient to finance part of the capital expenditures of the program. On the other hand, execution of the program itself would bring about significant changes in company operations as total assets would increase and the structure of equity to debt would undergo a positive reversal.

C. The Civil Aviation Department (CAD)

1. Current situation

- 4.8 The CAD has two basic functions. It provides air traffic control services (ATCS) covering both over-flying within the Jamaican Flight Information Region, and terminal air traffic control at the airports. It also carries out the regulatory function of air crew and personnel licensing, registration of aircraft, aircraft operations, airworthiness of aircraft and security. Its staffing consists of 124 employees, concentrated mainly in traffic services (75), in maintenance of grounds and buildings (20), and in administration (20).
- 4.9 During the last three fiscal years, the Department generated an annual average of US\$2 million in revenues related to ATCS and regulatory services. This revenue, however, goes by Law to the Government's Consolidated Fund, with the Department being financed from budgetary resources which have proved to be insufficient to cover required investments. Of a total expenditure with an annual average of US\$1.2 million in the same period, US\$1.1 went to current expenditures. Thus, capital expenditures were nil, even though the Department has accumulated investment needs estimated at US\$29.5 million.
- 4.10 The lack of control over its own revenue has constrained financial planning and initiative at the Department. It lacks personnel to analyze and establish an appropriate level of tariffs. In spite of a relatively high level of current expenditures, the Department is plagued with a turnover of traffic controllers who, due to the low level of salaries, either emigrate or go to work in the local private sector. Controls are weak in the key area of collections. Budgetary systems and management accounts are inadequate, kept manually on a cash basis, and lacking established procedures.

2. Program supported changes

- 4.11 The transition from a ministry department to an autonomous authority requires several institutional adjustments and activities. Among these are the setting up of financial, budgetary and commercial systems; the valuation and establishment of the initial capital structure for the authority, the review of the organizational structure and the determination of the human and systems required, and the setting up of managerial controls including the development of the internal audit function. These activities are included in the parallel MIF operation.

D. Aeronautical Communications Ltd. (AEROTEL)

- 4.12 AEROTEL, a wholly owned government company, owns and maintains radio and data telecommunication equipment necessary for air navigation. It also maintains the CAD radars and peripheral equipment, the electronic safety and public address systems, and the computers at Jamaican airports. Thus, its income originates from the rental of its equipment and the provision of electronic maintenance services. It carries out these functions with a staff of 33 persons, most of them technical.
- 4.13 AEROTEL is a small company in a good financial situation, but with a need to improve collections, especially from government agencies. To this end, the following steps are being taken: (i) in the context of the Program, AEROTEL will write off the outstanding receivables from those agencies in recognition of the capital contribution from government for the company's component included in the program; and (ii) the company is in the process of strengthening its commercial function and related systems.

E. The new institutional structure

1. The conceptual base for airport privatization

- 4.14 The conceptual base for airport privatization lies in Ministry Paper #34 which sets forth the overall policy objectives and guidelines for privatization in Jamaica, where it is described as a fundamental strategy of the government to achieve growth and development within the context of a market economy, motivated by the following factors: (1) greater efficiency in the operation of the enterprise selected for privatization; (2) reducing the drain on government's fiscal resources; (3) optimizing the use of government's management's resources; (4) securing enhanced access to foreign markets, technologies, and capital; and (5) widening the base of ownership and direct equity participation in the economy.
- 4.15 These principles have already guided the successful privatization of a number of large enterprises including: the National Commercial Bank of Jamaica, the Caribbean Cement Company, the sugar industry and, more recently and relevantly, Air Jamaica. Trans-Jamaican Airlines Ltd., the domestic carrier which serves SIA and NMIA, as well as the four domestic aerodromes, has been put up for sale and enterprises in the energy and water sectors are expected to go the privatization route in the near future.
- 4.16 The consultants, who were engaged by the Government to develop privatization options for expansion of the terminal facilities at SIA, adapted these general privatization principles to the "airport" enterprise and came up with the following factors which guided their study: (a) improving the efficiency of airport operations, as measured by such indicators as revenue generated per passenger, passengers handled per employee, etc.; (b) elimination

of the need for government subsidy (through loans or appropriations); (c) obtaining funds from the capital markets rather than from the Ministry of Finance; (d) shifting the risk from the government to the private sector; (e) redefining government's role to one of policy-making and regulatory supervision, rather than direct management and operation; and (f) making shares in the airport available for purchase by Jamaicans through the local stock market.

- 4.17 Under these operational definitions of the privatization objectives, the consultants carried out their assignment and fashioned a privatization model for the terminal facilities at SIA.

2. The Sangster Model

a. Terminal Facilities

- 4.18 In November 1993, the terminal or landside facilities at SIA were "corporatized" into a limited liability company, Sangster International Air-terminal Ltd., (SIA Ltd.). SIA Ltd. was formally incorporated as a wholly owned subsidiary of the Airports Authority of Jamaica Holdings Ltd., (AAJH Ltd.), itself established in November 1993 as a wholly owned subsidiary of the Airports Authority of Jamaica (AAJ). The mandate of SIA Ltd. is to finance, build, own and operate the proposed new terminal. To this effect, SIA Ltd. will obtain a 49 year lease from the government for the land around the landside and a long-term license to operate the airport facilities. The assets of the AAJ on the landside have been valued and will be converted as equity in SIA Ltd., in addition to which the government has agreed to provide US\$20 million in new equity to be funded from departure tax revenues and passenger facility fees. The actual separation of SIA Ltd. from the AAJ is expected to take place on September 1, 1995.
- 4.19 The Overseas Private Insurance Company (OPIC) has agreed to provide US\$90 million in political risk insurance for the Senior debt of the project (see proposed financial package in the following paragraph). As part of this agreement, it was necessary to present a structure which involved an irrevocable commitment to privatize. This will be accomplished through the signature of a Deed of Mandatory Privatization between the AAJ Holdings Ltd. and a Privatization Trustee to be selected from reputable trust companies operating in Jamaica. ^{11/} Under this arrangement, the government will hand over 70% of SIA equity to the Privatization Trustee which would guarantee that at least 70% of the shares are privately placed. Government will retain 30% of the equity in SIA Ltd.

^{11/} The Privatization Trustee has already been selected and appointment is pending approval by the government.

- 4.20 The estimated cost of the project is approximately US\$105 million and Citibank, the financial advisers, has proposed the following financial structure: (1) Senior debt -USEXIM Bank guarantee loan or other sources - US\$50 million; (2) Senior subordinated debt with overseas financial institutions - US\$20 million; (3) convertible bond issue on the local market - US\$15 million; and (4) Government of Jamaica Equity - US\$20 million.
- 4.21 In terms of management of the facilities, both OPIC and other private sector bodies which have to date indicated an interest in participating in the project have expressed discomfort with the notion that the AAJ be given a management contract until the new terminal comes into operation. Rather, they maintain that senior management should be recruited from the private sector. To this end, the International Management Group (IMG), an aviation management firm, has been selected to assist in the preparation of a new organizational structure and performance standards. The immediate focus will be on the development of key functional areas such as finance, concessions management and marketing, all of which have previously been AAJ head office activities.

b. Airside Facilities

- 4.22 The government, through AAJ Holdings Ltd., will continue to own the airside facilities consisting of the airside land and fixed equipment. AAJ Holdings will be required to contract the management of the airside operations to SIA Ltd. This arrangement does not preclude the possibility of moving, at some point in the future, beyond privatization of airside management to privatization of the ownership of the airside facilities.

3. A new regulatory framework

- 4.23 Once airport privatization became the selected option, the need arose for an effective, clear and transparent technical and economic regulatory framework for private sector involvement in the financing of airport facilities and services. Indeed, it became one of the main points of discussions with OPIC and other private sector interests and, accordingly, was the objective of a Bank financed regulatory and institutional study of the airports sector in Jamaica (Ref: ATN/SF-4596-JA). Among the main recommendations of the study were that: (1) the "corporitisation" of NMIA should begin as a matter of urgency, with NMIA Ltd. being created along similar lines to SIA Ltd.; (2) the Head Office of the AAJ should be abolished and its residual role taken over by AAJ Holdings; (3) an explicit framework of economic regulations should be developed and administered out of the Office of Utilities Regulation; and (4) the status of the CAD should be changed to that of a Civil Aviation Authority in order to give it financial independence and greater clarity as to its profitability.
- 4.24 These antecedents provided the basis for the new organizational structure shown in Figure 2.

V. PROGRAM FEASIBILITY AND RISK

A. Technical feasibility

- 5.1 The technical feasibility of the proposed program has been established partially on the basis of the Project Team's review of the studies and basic designs and specifications and its verification that they were prepared in accordance with generally accepted engineering standards and principles. Moreover, all considerations related to proper environmental management, natural disaster management as it would apply in case of tropical storms and earthquakes, and airport emergency procedures were built into the specifications.
- 5.2 The Project Team also took into account the lack of local expertise in airside construction management projects and quality assurance/quality control procedures, and considering that the tender documents stipulate minimum interference with normal airport operations during execution of the civil works, has made provision for the hiring of an international consulting firm would guarantee the technical capacity and experience necessary to manage and supervise the program. Provision has also been made to make expertise in airside maintenance management available to local personnel. This input, together with the borrower's contractual obligation to make the necessary funds available, should ensure that the completed facilities are adequately maintained.
- 5.3 Lastly, the execution schedule has been set up taking into account the characteristics of the works and the amount of time needed to carry out the bidding process. Based on past experience, it is considered to be a realistic schedule.

B. Financial feasibility

- 5.4 This section evaluates the effect of the Program's investment on the projected finances of AAJ and AEROTEL. Due to the separation of Sangster International Airport, AAJ projections include only the operations for NMIA and AAJ's head office. As to CAD, no meaningful projected financial statements are possible given the absence of historical statements on an accrual basis, and the process of reorganization of the agency that no doubt will change the actual structure of costs and financing. This section also assesses the relative effort from government budgetary resources as a result of their covering part of the local counterpart requirements (US\$10.5 million out of a total of US\$15.3 million).
- 5.5 Financial projections for AAJ for FY 1995 to FY 1999 were prepared taking into account rate increases of about 60% in landing fees and terminal fees established by AAJ in May 1994, but assumed to take effect progressively in FY 1995 to FY 1997. For other revenue items increases of 5% to 10% were assumed, even though AAJ is now

pursuing higher levels. Projected operating expenses were obtained for an expected level of operations in a new company without SIA, but with insufficient past expenditures in key items (periodic maintenance, for instance). Investments include those in the Program (US\$27.3 million) and others expected to amount US\$1 million per year.

- 5.6 Operating revenue increases from the actual US\$10.2 million in FY 1994 to US\$17.3 million in 1999 (an annual increase of about 11%), with operating expenses increasing during the same period from US\$11.6 million to US\$16.7 million (or about 8% annually). Due to the increment in depreciation expense arising from the proposed investment, the operating ratio (operating expenses/ operating revenue) is more than 1 until FY 1996, but improves thereafter and as a result the company adds a total of US\$2.1 million to retained earnings during the period.
- 5.7 Internally generated funds amount to a total of US\$10.4 million for the period, which added to the resources from the IDB loan, and the portion of local counterpart from government cover the investments for the period. The Program's investment, form of financing and expected results would drastically transform the financial situation of the company: total assets increase from US\$16.9 million in FY 1994 to US\$43 million in 1999; with a reversal in the structure of equity to debt, of 1 to 1.7 in the former year to 2.5 to 1 in the latter.
- 5.8 The projected financial statements for AEROTEL for the same period show a somewhat different operating result, given the effect of depreciation from the Program's investment of US\$7.3 million (plus US\$1.6 million other investments) on a smaller company. Because of the availability of more and better equipment, revenues are expected to increase at an annual rate of about 10% from the actual US\$0.9 million in FY 1994 to US\$1.5 million in FY 1999. Furthermore, given the settling of accounts receivable and improvements in the commercial system, bad debts decrease and operating expenses without depreciation are expected to remain at similar levels (US\$877,000 in FY 1994; US\$867,000 in FY 1999). Thus, operating income before depreciation is positive for all years in the period, and vary from a minimum of US\$48,000 in FY 1994 to a maximum of US\$584,000 in FY 1999.
- 5.9 Depreciation, however, increases ten fold during the period (US\$61,000 in FY 1994; US\$612,000 in FY 1999), and its coverage ratio from operating income before depreciation improves from 17% at the beginning of the period to 95% at the end.
- 5.10 Internally generated funds amounting to US\$2 million for the period will cover the other investments mentioned before (US\$1.6 million), the service on existing debt, and a small increase in working capital. As in the case of AAJ, the financial situation of AEROTEL changes drastically at the end of the period. Total assets increase from US\$1.4 million in FY 1994 to US\$7.2 million in 1999; with a

change of the structure equity to debt of 1.8 to 1 in the former year to 88 to 1 in the latter.

- 5.11 The local counterpart requirements from government amounts to US\$14.9 million, for a period of three years. In comparison during the last three fiscal years, government contributions to AAJ amounted to US\$19.2 million ^{12/}. The annual government counterpart, which would be approximately equivalent to US\$5.0 million, represents about 1% of the government capital expenditures for FY 1994. Thus, the local counterpart will not be a financial burden on the national budget. The remaining counterpart funds (US\$4.8 million) will be provided by the AAJ. Of this amount AAJ, as indicated in paragraph 3.10, has already committed approximately US\$1.7 million. The balance (US\$3.1 million) should be provided in a timely fashion, given the expected improvements in its financial situation indicated earlier. An even more positive light would be shed on this picture if the aforementioned cofinancing prospects materialize.

C. Institutional feasibility

- 5.12 From an institutional point of view, the execution of the Program is relatively simple since approximately 36% of its costs involves the acquisition of equipment with clear technical specifications already available, and the contracting out of execution of the civil works component and its supervision. Thus, institutional capacity for the Program is related to the degree of organization for programming, procurement, contract administration and accounting controls. Its design took into account the strengthening of these functions in the organization and manning of the PEU.
- 5.13 The Program will be carried out in parallel with a MIF operation, that, in addition to reorganizing the aviation subsector, aims at establishing and strengthening managerial and financial functions at the new NMIA Ltd. and CAA. These functions have a direct link to asset management and, as a result, an improvement is expected in the maintenance of all assets including those financed by the Program. As for AEROTEL, given that its reason for being is the servicing of its equipment, the maintenance of the investments acquired through the Program is assured.

D. Environmental feasibility

- 5.14 Execution of the program could have some localized negative short-term impact, mainly in terms of noise and dust pollution and storm run off from construction activity if it is allowed to flow into the sea. Improved storm drainage facilities which could increase the flow of fresh water mixed with petroleum waste products (e.g

^{12/} Receipts from Government were recorded as loans by AAJ but debt service has not been required making these receipts de facto contributions.

from fuel oil or oil spillage), along with an increased flow of sewerage that could result from improved operations at the airport, could have significant long-term impact. However, as mentioned previously, these impacts are easily controllable and appropriate mitigation measures were built into the project specifications. The firm that would be engaged to carry out program supervision would be responsible for ensuring that these measures are adopted.

E. Economic feasibility

- 5.15 The runway and associated facilities at NMIA are severely deteriorated and, from the technical and safety standpoint, cannot remain open to traffic much longer unless they are rehabilitated. As a practical matter, there is no realistic option to keeping the airport open to commercial jet aircraft, given Kingston's role as the largest city and national capital, and the obvious cost and inconvenience of the only available alternative, SIA, with connections by light aircraft or surface vehicle (approximately a four hour drive). As a result, the decision is not whether to undertake the project, but rather what is the best project alternative.
- 5.16 There are three basic options to keep the airport open: (i) rebuild the runway now and maintain it in the future; (ii) rather than rebuild now, perform heavy periodic maintenance to arrest and reverse the deterioration, continuing this strategy into the indefinite future; and (iii) delay the reconstruction for a specific period of time; which would require heavy periodic maintenance until such time as the rebuilding project is carried out. The table presented in Annex I shows the future cost stream which would be experienced under each of these approaches.
- 5.17 As shown in the table, in each case the goal of keeping the airport open and up to standard is achieved and thus the benefits experienced by the country are the same. Consequently, the optimum project strategy is the one which minimizes the Net Present Value of this future cost stream. NPVs were calculated using a discount factor (annual interest rate) of 12%. In addition, an IRR was calculated using the periodic maintenance strategy as the base (no-project case) and immediate reconstruction as the with-project case.
- 5.18 Examination of the NPV results indicates that the minimum cost is achieved through immediate implementation of the program. Delay strategies are more expensive, with the expense rising as the delay increases: the no-project case, consisting of periodic maintenance only for the indefinite future, is the most expensive of all. For purposes of calculating the project's rate of return, the comparison between rehabilitation and maintenance indicates an IRR of 19.2%.

F. Risks

- 5.19 The single greatest risk to the success of the proposed operation relates to the availability and opportuness of local counterpart resources. Given the airport's importance as one of the principal hubs of passenger and cargo traffic and the need to continue operations with a minimum of disruption while construction work is in progress, the program is extremely time-sensitive and would not allow for the kind of delay that has invariably plagued past operations due to the inability of the government's inability to contribute counterpart funds in a timely fashion. To the extent that efforts to obtain co-financing in significant amounts are successful, however, to that extent would the risk of this kind of delay be minimized. Alternatively, the program would have to be singled out for special consideration in the annual appropriations exercise, a strategy that has been employed with some success in the past.

G. Poverty target

- 5.20 The proposed loan does not satisfy any of the conditions that would qualify it as a "poverty targeted investment".

ANALYSIS OF ALTERNATIVES

YEAR	WITHOUT PROJECT	WITH PROJECT	NET	1-YEAR DELAY	2-YEAR DELAY
-2	3824	14000	-10176	3824	3824
-1	3824	6307	-2483	14000	3824
1	3824	20	3804	6307	14000
2	2875	40	2835	20	6307
3	2875	60	2815	40	20
4	2875	100	2775	60	40
5	2875	100	2775	100	60
6	2875	100	2775	100	100
7	2875	100	2775	100	100
8	2875	100	2775	100	100
9	2875	100	2775	100	100
10	2875	100	2575	100	100
11	2875	300	2575	300	100
12	2875	300	2575	300	300
13	2875	300	2575	300	300
14	2875	300	2575	300	300
15	2875	300	2575	300	300
16	2875	300	2575	300	300
17	2875	300	2575	300	300
18	2875	300	2575	300	300
0.12					
	23,754	18,294		19,721	20,994
IRR 19.18%					

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PROPOSED RESOLUTION

**JAMAICA. LOAN /OC-JA TO THE GOVERNMENT OF JAMAICA
(Airport Reform and Improvement Program)**

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Government of Jamaica, as Borrower, for the purpose of granting it a financing to cooperate in the execution of an Airport Reform and Improvement Program. Such financing will be for the amount of up to US\$26,535,000, or its equivalent in other currencies, except that of Jamaica, which are part of the Ordinary Capital resources of the Bank, and will be subject to the "Special Contractual Conditions" and the "Financial Terms and Conditions" of the Executive Summary of the Loan Proposal.