

SA 7100-1000

SURVEY OF AIRPORT REQUIREMENTS FOR



THE SAIGON METROPOLITAN AREA

CONTRACT VN 98

Agency for International Development
Department of State, U.S.A

FINAL REPORT
SUPPLEMENTAL VOLUME:
Management Analysis and Plan
Financial Analysis and Plan
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I. MANAGEMENT ANALYSIS AND PLAN

MANAGEMENT ANALYSIS & PLAN

INTRODUCTION:

This section assesses the present situation and the future development and operation of Saigon International Airport from management and administrative points of view. Recommendations are provided for administrative and organizational steps which should be taken so that airport management, organization, operation and development will be in tune with projected national, regional and local air transportation needs, goals and objectives.

The tendency of modern management throughout the world is becoming more and more oriented toward the accomplishment of systematically structured organizational goals, priorities, objectives and programs. It is the primary management recommendation of the consultant that Saigon International Airport formally adopt that philosophy and that, as far as possible, this be accomplished within a hierarchy of goals, priorities and objectives of the Government of South Vietnam.

The practical implication of adoption of this management philosophy is that a hierarchically-structured set of general Saigon International Airport goals must be defined and documented. These goals must then be expanded into specific time-constrained and, when possible, quantified objectives, which in turn can be achieved through the completion of operational, capital improvement, maintenance, staff improvement and other planned and budgeted programs.

The attached table (Figure 1) provides a recommended set of top and first level goals for Saigon International Airport which, it is assumed, could be integrated with corresponding sets of national and regional goals, objectives, program plans and budgets. The table also describes critical management requirements which must be fulfilled in order to achieve these defined goals. Organizational and procedural requirements for the Saigon International Airport management system can be derived by comparing these goal-related management requirements with the characteristics of the existing system, and then identifying and defining deficiencies which must be corrected and integrated with already acceptable characteristics.

The following "Background" section provides information describing the existing Tan Son Nhut management system. The existing system will then be assessed against projected management requirements, shortcomings will be identified and recommendations will be made for organizational and procedural upgrading necessary to achieve Saigon International Airport goals.

BACKGROUND:

The management of Saigon International Airport today is at a critical crossroads. Immediate decisions must be made to determine the short and long range goals, policies, organizational structure and overall methods of operation for the management and direction of the airport during the current and projected growth and expansion period. The requirements for airport growth and expansion will become more critical as the tempo of the current war decreases, as domestic and international communication and trade are

Figure 1

PRELIMINARY GOALS FOR SAIGON INTERNATIONAL AIRPORT

Prime Goal: Provide facilities and services required for the Saigon Metropolitan Area to become a major transportation hub of Southeast Asia and to contribute to the achievement of national and local goals related to air commerce to, from and within the Republic of Vietnam.

1. Assure safe, expeditious movement and storage of domestic and international commercial aircraft, passengers and cargo as well as ground equipment, employees and visitors.
2. Assure maintenance of airport staff, property, facilities and equipment to optimal standards commensurate with current and planned airport investments, operating requirements and safety.
3. Establish sufficient revenues and retained income to develop and carry out programs resulting in a financially and operationally self-sustaining and continually developing enterprise.
4. Provide support to the national defense with minimal impairment to the self-sufficiency and safety of the civil airport system.

1. Assure safe, expeditious movement and storage of domestic and international commercial aircraft, passengers and cargo as well as ground equipment, employees and visitors.

	SUB-GOALS	MANAGEMENT REQUIREMENTS
1.1	Participate in national development planning and integrate SIA plans with national short and long range plans.	<ul style="list-style-type: none"> • There must be a set of national goals, priorities, policies, plans and programs, aimed toward encouraging and facilitating inter and intra-national commerce and tourism. • There must be professional planning and analysis capability within civil aviation and also liaison with other affected government agencies and the private sector.
1.2	Participate in regional planning and integrate airport system planning, development and operations with Saigon Metropolitan Area transportation, economic, environmental and urban planning and development.	<ul style="list-style-type: none"> • There must be regional and local goals, policies, plans, priorities and programs with which to integrate and which define environmental considerations. • There must be professional planning and analysis capability within civil aviation and also liaison with other affected government agencies and the private sector.

SUB-GOALS

MANAGEMENT REQUIREMENTS

1.3	Provide an airport environment and functions which will serve domestic and international passengers as well as visitors and on-site employees.	Saigon Airport will require ability to provide equivalent or higher standards of service than other airports in the region in order to bolster national prestige and to satisfy the domestic or international traveler, visitors and employees.
1.4	Assure effective on and off-site access, egress and expeditious processing, movement and holding for passengers, baggage, visitors, employees and ground vehicles.	Requires ability to provide adequate terminal facilities and handling procedures to provide expeditious commercial and official processing of passengers, baggage and cargos for current and projected traffic levels.
1.5	Assure effective on and off-site access, egress and on-site processing, movement and holding of cargo.	Requires ability to provide adequate ground transportation ways to assure movement of transporters carrying passengers, baggage, cargo, visitors and employees in and out of the airport and between various activity points within the airport.
1.6	Assure capability to safely accept and operate commercial aircraft under all normally accepted flight conditions.	Requires ability to provide adequate airfield facilities, equipment and procedures safely to support current and projected aircraft traffic requirements.

Continued. . . .

SUB-GOALS

MANAGEMENT REQUIREMENTS

SUB-GOALS		MANAGEMENT REQUIREMENTS
1.6 (Cont'd.)		<ul style="list-style-type: none"> • Requires cooperative interfacing and effective coordination with surrounding political jurisdictions in order to acquire necessary support areas and facilities outside the airport for both ground and air operations.
1.7	Facilitate aircraft service and maintenance operations.	<ul style="list-style-type: none"> • Requires ability to assure availability of aircraft servicing functions and supporting facilities and utilities. • Requires ability to assure availability of space for aircraft maintenance activities; also support utilities and services as appropriate.
1.8	Assure security from crime, accidents and fire for aircraft, structures, passengers, cargo, ground equipment, employees and visitors.	<ul style="list-style-type: none"> • Requires capability to plan and implement accident, crime and fire prevention programs. • Requires ability to combat crime in areas of airport jurisdiction in coordination with local law enforcement agencies. • Requires ability to extinguish aircraft, structural and other type fires on airport property. • Requires ability to assure emergency medical care for accident victims and others.

2. Assure maintenance of airport staff, property, facilities and equipment to optimal standards commensurate with current and planned airport investments, operating requirements and safety.

	SUB-GOALS	MANAGEMENT REQUIREMENTS
2.1	Assure maintenance of airport staff capabilities at optimal levels to satisfy administration, operational and maintenance requirements.	<ul style="list-style-type: none"> • Requires ability to analyze and plan staff requirements. • Requires ability to administer personnel matters and salaries, to assure attraction, training and retention of competent personnel. • Requires ability to budget and implement required staffing skills and levels. • Requires ability to develop staff capabilities and to advance personnel through various professional and management positions.
2.2	Assure maintenance of airport property, facilities and equipment to optimal standards commensurate with investment, operating requirements and safety.	<ul style="list-style-type: none"> • Requires capability to analyze and plan maintenance and financial requirements and to trade-off versus safety and operational demands. • Requires capability to budget and implement at required levels for personnel, materials and maintenance equipment and facilities.

3. Establish sufficient revenues and retained income to operate and maintain the airport and to develop and carry out programs resulting in a financially self-sustaining and continually developing enterprise.

	SUB-GOALS	MANAGEMENT REQUIREMENTS
3.1	Generate annual domestic and foreign exchange revenues at least adequate to cover costs of administration, operations, maintenance, depreciation, investment, debt servicing and debt repayment.	<ul style="list-style-type: none"> • Requires analytical capability and accounting system to assess financial requirements. • Requires ability to plan and generate required levels of revenues through various fees and tariffs. • Requires ability to borrow funds, if required, and to service and repay domestic and foreign debts. • Requires ability to expeditiously administer and account for financial matters, budgets, receivables and payables.
3.2	Retain domestic and foreign exchange income at least adequate to support financing of operations and maintenance as well as planned capital and staff improvements.	<ul style="list-style-type: none"> • Requires ability to retain and "plow-back" domestic and foreign exchange revenues into airport improvements and upkeep. • Requires legal and procedural ability to enter into contracts to provide and receive services involving consideration.

4. Provide support to the national defense with minimal impairment to the self-sufficiency and safety of the civil airport system.

	SUB-GOALS	MANAGEMENT REQUIREMENTS
4.1	Provide support to military air operations at agreed upon traffic levels and operational procedures commensurate with national defense, aeronautical safety, and civil transportation requirements.	Requires high level civil-military cooperation to assure national and local goals and priorities are defined and that agreements are made to attain and uphold these goals and priorities as related to airport management and operations.
4.2	Assure financial and operational support from the military, as required, to underwrite usage of international airport airfield facilities and services.	Requires high level civil-military cooperation to assure that military users contribute their fair share to upkeep and development of the airport.
4.3	Interface with base security measures required for national defense.	Requires ability to coordinate with base defense organization as long as security threat exists.

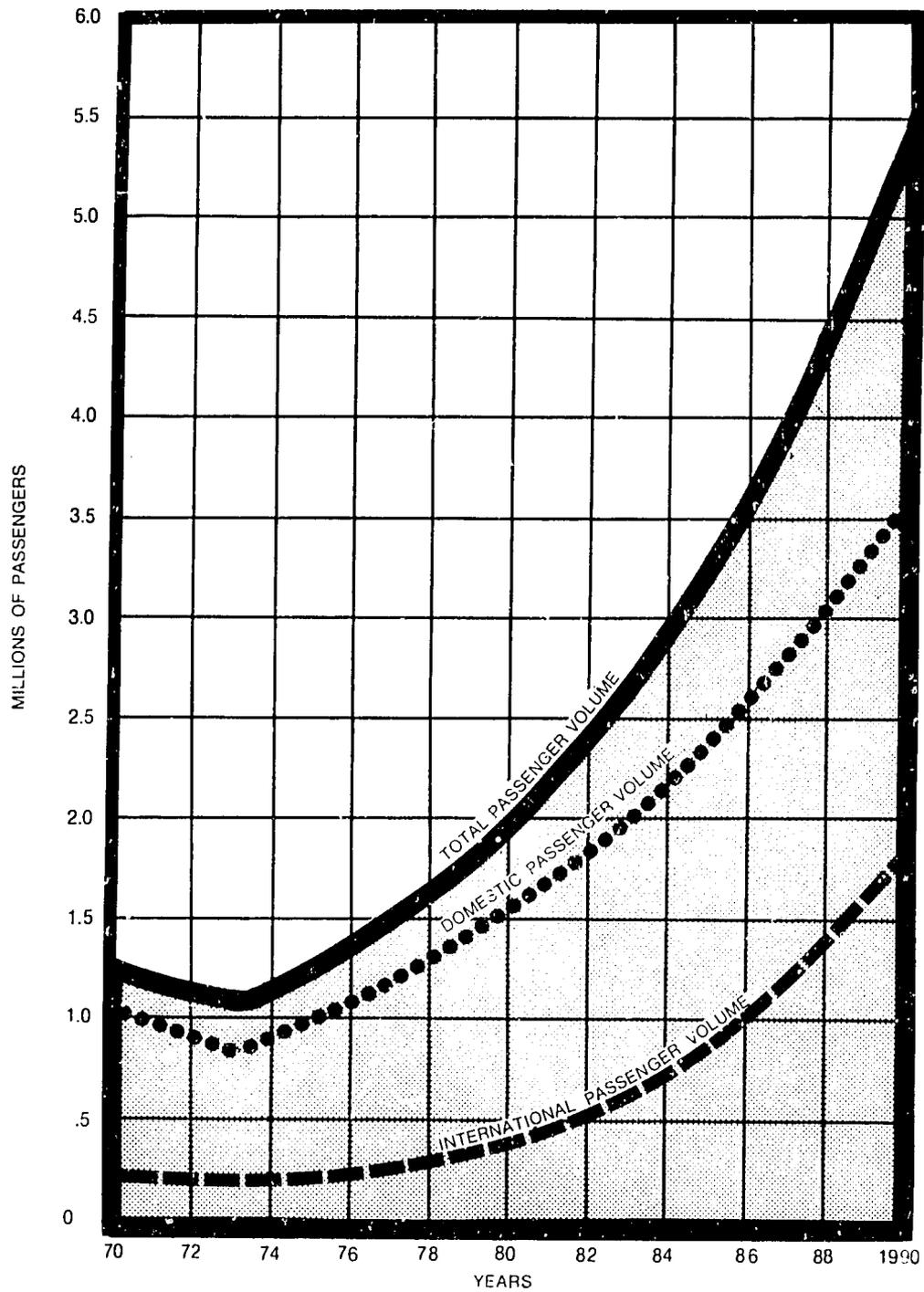
resumed, and consequently as demands for movement of passengers and cargo are increased.

Although international passenger demand is projected with a several year delay prior to its slow upturn, domestic passenger traffic demand should grow more quickly, even though limited initially by the capacity of the air transportation system. This domestic traffic demand is setting imminent requirements for expanded and more efficient airport facilities and services while the delayed increase in international demand merely allows a little more time before similar upgrading must be accomplished in that area. Projected growth of cargo traffic will also necessitate upgrading of the cargo handling system, although at a much lower relative magnitude and a later time period. These required improvements can only become available as an outgrowth of a management system and policies which are capable of effectively directing and facilitating goal-oriented decisions and activities during day-to-day operations and future planning.

The existing management system for Saigon Tan Son Nhut International Airport (STIA) is the result of an evolutionary process which began following French withdrawal and the partition of Vietnam in 1954.

During the French Colonial Period, prior to 1954, the government organization related to STIA approximated the system used in France. Under that system, management of the airport was centralized under the Ministry of Public Works, through the Director-General of Civil Aviation, to an STIA Commandant who exercised full authority and control over airport-related activities. The

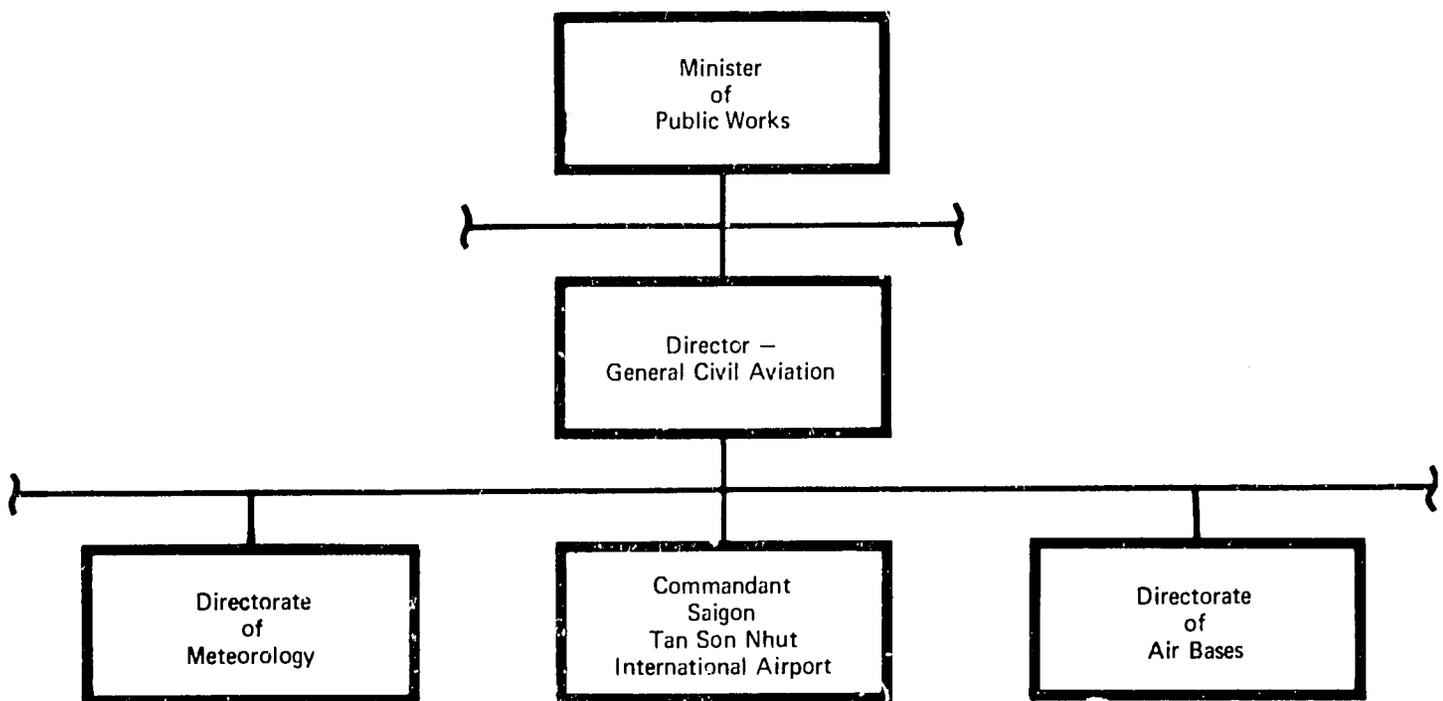
Figure 2



Projected Passenger Volume-Comparative Analysis

Figure 3

VIETNAM AVIATION ORGANIZATION PRIOR TO 1954



engineering. construction and maintenance functions were conducted under agreement by an organization comparable to the present Ministry of Public Works-Directorate of Air Bases (DAB). This directorate, along with the meteorology organization, was also part of the Civil Aviation Directorate-General. STIA at that time operated under national conditions of "semi-normalcy" and with financial support from the French.

After 1954, the French withdrew and the formerly unified country was partitioned; a new government was established in South Vietnam. Between 1954 and 1965 the civil aviation-related functions of the old Ministry of Public Works became divided between the new Ministry of Public Works (which retained the DAB responsibilities) and the Ministry of Transportation and Post (which acquired the responsibility for aeronautical and ground operations, including civil airports operation and meteorology responsibilities). For several years after 1956, top policy guidance and direction were supplied to STIA by a "National Committee for Facilitation of Air Transportation" composed of high level representatives of interested government and private sector areas. This committee was disbanded several years ago after having become progressively deemphasized. Currently, the only top level guidance and direction for STIA administration is provided by line organization direction through the Directorate of Civil Aviation.

The authority of the Commandant was diminished steadily as national survival was threatened, military requirements were increased, and the Tan Son Nhut facility was utilized more and more to support the war effort. Areas west of

the north-south runway came under military jurisdiction while the runways and taxiways became joint-use areas under the Civilian Commandant's operational control. In addition, over the years, key administrative functions such as financial management, personnel management and property management have mainly been assumed by the Director of Civil Aviation and his directorate staff.

In 1965, as a result of greatly increased hostilities and military air operations, the entire Tan Son Nhut area became a restricted-access military zone under security-related control of a Military Commander. The STIA Commandant currently acts in the role of his civilian assistant. Overall military control is expected to continue until hostilities decline and major security threats have been removed.

The Ministry of Public Works-DAB meanwhile has retained the responsibility for development and maintenance of STIA joint-use areas and for facilities design, development and major maintenance utilizing restricted financing from Vietnamese government budgets and some outside support.

All STIA revenues and foreign exchange derived from airport operation, leases and concessions are deposited immediately in the government national treasury as part of the general fund and at no time come under the control of airport management for retention and direct application to airport needs. Financing for airport development, maintenance and operation is allocated annually by Congress as a line item budget in response to a budget request, just as for non-revenue generating GVN organizations. Inasmuch as government finances

Figure 4a

PRESENT VIETNAM AVIATION ORGANIZATION
GVN GENERAL ORGANIZATION

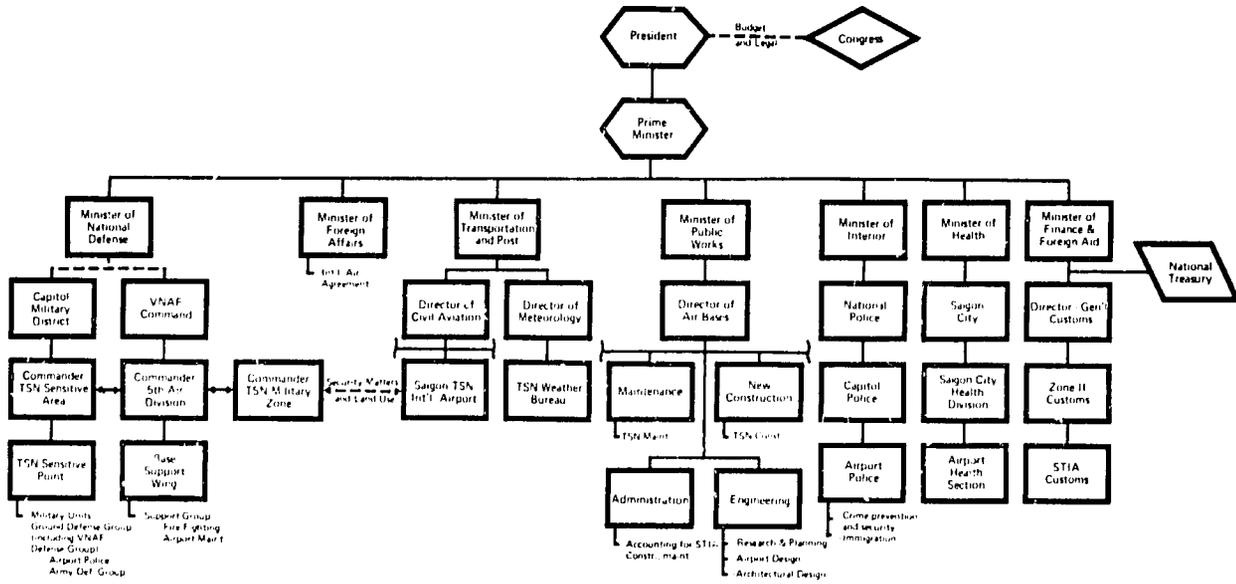


Figure 4b

PRESENT DIRECTORATE OF CIVIL AVIATION AND STIA ORGANIZATION (1972)

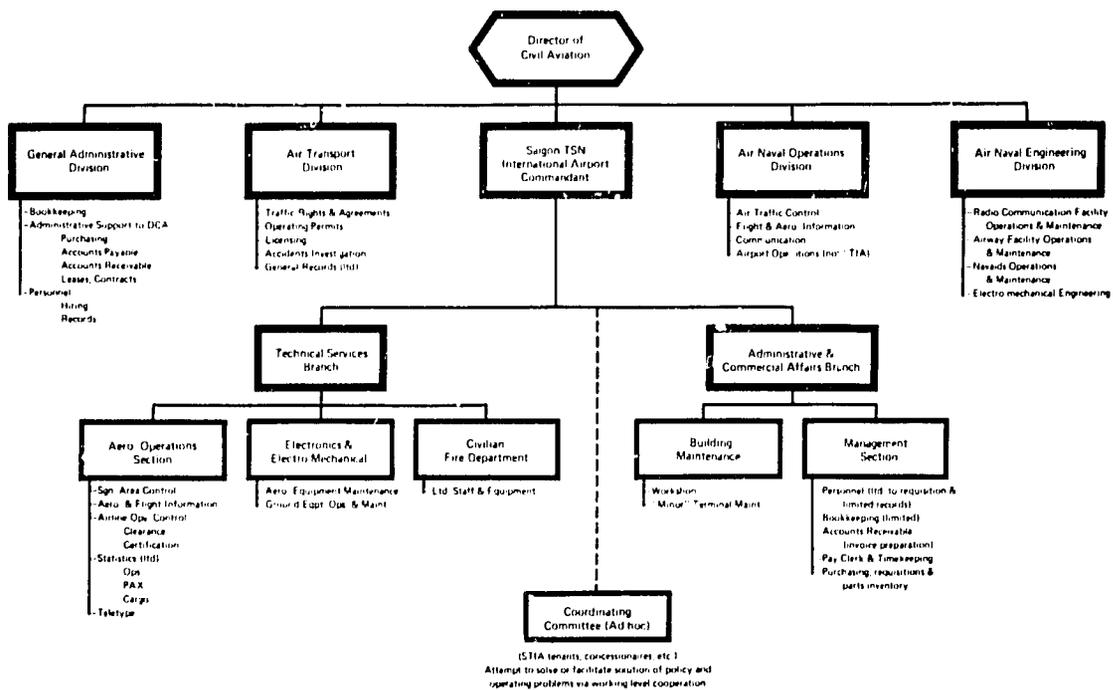


Figure 4c

OVERALL ORGANIZATION ASSESSMENT-----PRESENT ORGANIZATION

Organizational Concept Description		Advantages	Disadvantages
		General	
<p><u>DCA</u> Operation of civil STIA with DCA control over finances, operating policies. Minor maintenance allocated by DAB.</p> <p><u>DAB</u> Responsible for overall land use, engineering, capital improvement, major maintenance as a "National Aviation Property".</p> <p><u>STIA</u> Tenant function on a militarized "National Aviation Property".</p>	<p><u>STIA</u> At division level under Dir. of Civil Aviation for all but security problems (TSN Mil. Zone responsible for security and land use.)</p> <p><u>STIA</u> Limited in functional authority including critical areas of finance, personnel, capital improvement, major maintenance, security, fire protection.</p> <p><u>All Others</u> Perform functions "in association with" STIA, DCA and DAB.</p>	Provides close governmental control over all phases of operations, administration, finance and security.	<p>Responsibility for vital functions at STIA dispersed among many governmental organizations.</p> <p>Major improvements restricted by lack of control of revenues.</p> <p>Maintenance restricted by lack of adequate revenues.</p>
		Military	

Figure 5

Comparative STIA Operations & Maintenance Demands VS. Resource Allocations (1963 & 1970)

Demand Source	1963	1970	Change	% Change	Resource Application	1963	1970	Change	% Change
Total Aircraft Movements	122,470	850,820	+728,350	+595%	Total Aeronautical & Tech. Personnel	33	64	+31	+94%
Commercial A/C Movements	30,000	38,269	+8,269	+28%	Total Admin. & Other Personnel	196	119	-87	-44%
Commercial Passengers (Including Military Commercial)	328,500	1,864,200	+1,535,700	+467%	Operating Fund	\$1,834,000	\$8,743,000	+\$6,909,000	+377%
					Operating Fund Alloc. per Aircraft Movement	\$61.1	\$228.5	\$167.4	+274%
					Operating Fund Alloc. per Commercial Passenger	\$5.6	\$4.7	-\$0.9	-16%
Total Terminal Maintenance Area (m ²)	8,000	10,000	+2,000	+20%	Building Maintenance Personnel	85	41	-44	-52%
					Building Maintenance Personnel per m ²	.011	.0041	-.0069	-63%
					Building Maintenance Fund	\$583,300	\$1,218,000	+\$634,700	+110%
					Building Maintenance Fund per m ²	\$72.9	\$121.8	\$48.9	+67%
					Building Maintenance Fund per Commercial Passenger	\$1.8	\$0.7	-\$1.1	-63%
Total Runway & Ramp Maintenance Area (m ²)	620,000	858,000	+238,000	+38%	Airfield Maintenance Fund	\$4,580,000	\$16,560,000	+\$11,980,000	+260%
					Airfield Maintenance Fund per m ²	\$7.4	\$19.3	+\$11.9	+161%
					Airfield Maintenance Fund per Aircraft Movement	\$152.7	\$432.7	+\$280.0	+183%

Note: 1963-1970 Inflation i.e. To keep even with inflation, 1970 VNS Worth approximately 30% of 1963 VNS 1963 funds levels must have increased by at least 334%.

(All funds-current VNS)

Source: STIA Annual Report-1970

are quite spartan at present, and under severe inflationary pressures coupled to wartime demands and priorities, STIA operational and capital authorized budget expenditure levels consistently fall far below required levels. This has led to virtual cessation or curtailment of STIA staff performance of some important non-aeronautical functions (including fire fighting and maintenance of terminal facilities) as non-technical STIA staffing levels have been cut drastically. These cuts have been made even though passenger-stimulated demand for services have increased. (See Figure 5) Limited capital budgets for DAB airfield maintenance activities has retarded critical runway, taxiway and apron maintenance in spite of U.S. support.

Several key airport-related functions presently are carried out at STIA by other tenant governmental organizations with little or no planning, direction or on-site control exerted by STIA management. These include immigration and law enforcement (by Ministry of Interior-National Police); customs (by Ministry of Finance); and public health (by Ministry of Health). Large portions of the officially "civilian" areas of Tan Son Nhut are occupied by non-commercial activities, including the U.S. Air Force, MACV, Air America and the Vietnamese military.

Some outside support is provided to STIA for fire protection and airfield maintenance by the military, and is justified to insure adequate protection for their own operations, facilities and equipment. Drafted military personnel on detached duty to STIA with premium pay man most air controller functions; beginning civil service salary scales presently are too low to attract new civilian employees.

Because of prohibitive GVN vendor contracting policies and administrative procedures, coupled with security restrictions on entry of potential money-spending visitors, STIA management presently is severely hampered in its ability to attract top-grade revenue-producing retail concessionaries and lessees. For example, potential profits from gift shops and automobile parking are minimal under present conditions and prospective concessionaires show little or no interest in bidding. Restaurant, snack bar and lounge operations presently must be grouped under one concession contract in order to provide adequate profit potential for attracting bids. Current low level government operating budgets do not allow for adequate payment to stimulate private contractors' bids for non-revenue producing activities such as janitorial service or trash disposal. Concurrently, low beginning civil service pay scales do not attract potential employees to perform these functions as airport staff members.

Special measures must often be taken to provide required functions. For example, because of lack of STIA staff and purchasing capability in the maintenance function, terminal interior lighting maintenance responsibilities will be attached as a rider to a new restaurant concession contract.

The "Current Airport Functions Performance" table (summarized in Figure 6) and detailed in supporting table ("Saigon Tan Son Nhut Functions Versus Responsibility-Current") provide more specific information related to present airport activities status and allows comparison of current conditions with previously cited management requirements for accomplishing airport goals.

Figure 6

SUMMARY OF CURRENT AIRPORT FUNCTIONS PERFORMANCE
(Detailed Discussion in Supporting Table)

Function	Current Observations
<u>General Management</u>	
Goals, Objectives and Priorities Definition	<ul style="list-style-type: none"> Lack of explicit organized civil aviation-related national and regional goals, priorities, policies and plans causes lack of top-level guidance for aviation and airport planning and budgeting. Responsibility for STIA functions is diffused among several GVN organizations.
Short and Long-Range Planning and Budgeting	<ul style="list-style-type: none"> STIA planning and budgeting diffused among several organizations. No formal long-range planning in the GVN system. (Initial program underway for Public Works).
Policies and Procedures Definition	<ul style="list-style-type: none"> STIA policy definition diffused among several organizations.
Direct Airport Activities (Assure implementation of policies, procedures, plans, programs.)	<ul style="list-style-type: none"> Direction of activities at STIA are only nominally under STIA management which is limited mainly to aeronautical questions, minor terminal maintenance and some low key staff administration to backup DCA activities.
Coordination of Non-STIA Organizations Functioning in Conjunction with STIA	<ul style="list-style-type: none"> Much of the activity being conducted at STIA by outside organizations is carried out with little or no direct control by STIA management. (e. g. ramp and terminal security is deficient.)
<u>Operations</u>	
Terminal Area Flight Control, Ground Control	<ul style="list-style-type: none"> Responsibility for various aspects split among several government organizations.
Meteorology Services	<ul style="list-style-type: none"> Services provided by tenant Directorate of Meteorology.
Aircraft Services	<ul style="list-style-type: none"> Responsibility spread among several entities.
<u>Operations (continued)</u>	
Passenger and Visitor Services	<ul style="list-style-type: none"> No centralized passenger flight information service - often none provided for delays, etc. No passenger ramp transportation. Some amenities deficient or lacking (e. g., sanitary, restaurant, money exchange)
Ground Transportation	<ul style="list-style-type: none"> No mechanized ramp transportation at present Security restrictions minimize passenger and visitor requirements for roadways and parking.
Records (landing, takeoff, aircraft and AVN crew certifications, etc.)	<ul style="list-style-type: none"> Limited information analysis capability restricts amount of benefits derived from data.
Operations Administration	<ul style="list-style-type: none"> Limited STIA staff restricts scope of administrative activities.
Immigration, Customs, Public Health	<ul style="list-style-type: none"> Governmental agencies function at STIA as independent operations.
<u>Airport Maintenance</u>	
Airfield Maintenance	<ul style="list-style-type: none"> Responsibility for airfield maintenance split between two ministries.
Aeronautical Equipment Maintenance	<ul style="list-style-type: none"> Responsibility split between two ministries.
Facilities Maintenance	<ul style="list-style-type: none"> STIA terminal maintenance responsibilities currently low budget, low key and inadequately performed. Overall responsibility diffused
Access/Egress Maintenance	<ul style="list-style-type: none"> STIA access system is responsibility of another ministry and outside jurisdictions.
Vehicle and Equipment Maintenance	<ul style="list-style-type: none"> Non-aeronautical and vehicle maintenance under-budgeted, understaffed.
Utilities Maintenance	<ul style="list-style-type: none"> Utilities maintenance mainly responsibility of another ministry.
Maintenance Administration	<ul style="list-style-type: none"> Maintenance administration responsibility diffused among many organizations.

Figure 6

<u>Security and Fire Protection</u>	
Aircraft Fire and Rescue and Prevention	· STIA organization presently not capable of carrying out fire and rescue responsibility must default to VNAF.
Ambulance and First Aid	· STIA has no capability at present - must depend on VNAF and local hospitals' capabilities.
Facilities Fire and Rescue and Prevention	· Inadequate STIA capability.
Law Enforcement	· STIA has no direct authority - National Police coverage spotty. Military security measures fill the gap.
Base Defense and Security	· Prime responsibility of military.
Field Safety Inspection	· All interested parties participate.
Industrial and General Accident Prevention	· No normal industrial accident prevention program in evidence (e.g., -ramp safety procedures, ear protection.)
Security Administration	· No full scale program run by STIA - only military seems to be at full profile.
<u>Facilities Engineering</u>	
Facilities Research and Planning	· Prime responsibility for STIA is under DAB with STIA input.
Specif. and Standards Definition	· Prime responsibility under DAB with STIA input.
Design	· Prime responsibility under DAB with STIA coordination.
Project Control	· Prime responsibility under DAB.
Contractor Liaison and Inspection	· Prime responsibility under DAB.
Tenant Support	· Responsibility diffused.
Engineering Administration	· Prime responsibility under DAB.

<u>General Administration</u>	
Personnel and Training	· Prime responsibility for STIA at DCA level. STIA maintains informal records.
Wage and Salary Administration	· STIA has little or no role in determining salary budgets or staff classifications - informal records kept.
Office Services	· Low profile function.
<u>Financial Administration</u>	
Fiscal Planning and Budgeting	· Responsibility diffuse. · STIA management has only the capability to request budgeted funds from the national budget for operations and minor maintenance. · Staff salaries budgets are completely out of STIA hands while capital budgets are only indirectly influenced.
General Accounting and Book-keeping	· Information diffused. · No real accounting function anywhere. STIA attempts to track funds expenditures using available date only.
Payroll and Timekeeping	· STIA only in the loop informally. Prime function accomplished elsewhere.
Accounts Receivable and Payable	· STIA out of revenues loop. Only prepares receivable invoices and payable vouchers. STIA retains no revenues. Bill paying very slow and costly. No foreign exchange collected.
Audit	· No staff available for STIA audit function.
Financial Administration	· Limited to low level bookkeeping effort at STIA because of GVN financial procedures.

<u>Property Management</u>	
Lease and Concession Acquisition and Negotiation	Because of lack of staff depth, leases and concessions acquisition procedures lack the negotiation and selection policies normally found elsewhere.
Lease and Concession Administration	Because of lack of staff depth, surveillance and control of agreements is difficult and spotty.
Land Use Development	Responsibility diffused among several ministries.
Land Use Administration	Diffused among several agencies.
<u>Purchasing</u>	
Procurement	Prime responsibility for STIA related procurements is spread among several government organizations. No final authorization can be made by STIA management.
Storage/Warehousing	Low level capability at STIA.
Stock Issue and Inventory Control	Low level capability at STIA.
Contracts Administration	Tied to whomever is responsible for a particular procurement.
<u>Public Relations</u>	
Community Relations	No formal program in existence.
Tours and Promotions	No formal program in existence.
<u>Legal</u>	
Agreement and Contract Review	DCA retained counsel available when required.
Counseling	DCA retained counsel available when required
<u>Economics</u>	
Air Travel Analysis and Forecast	No centralized capability.
Aviation Economics	No centralized capability.
Rates and Charges Analysis	No centralized capability.

CONCLUSIONS:

In summary, it has been found that the STIA organization presently conducts Saigon area aeronautical control functions as well as selected airport administrative and maintenance responsibilities with often inadequate staffing and funded solely by a severely depleted annual governmental budget. Activities are carried out with a minimum of formal policy guidance from high level governmental or interfacing local jurisdictions while additional key functions are shared with or performed primarily by other governmental organizations.

More specific assessment of STIA goals and management requirements reveals the following major deficiencies if no corrective action is taken.

Prime Goal: Provide facilities and services required for the Saigon Metropolitan Area to become a major transportation hub of southeast Asia and to contribute to the achievements of national and local goals related to air commerce to, from and within the Republic of Vietnam.

Goal 1.0: Assure safe, expeditious movement and storage of domestic and international commercial aircraft, passengers and cargo, as well as ground equipment, employees and visitors.

Sub-Goal 1.1: Participate in national development planning and integrate Saigon International Airport plans with national short and long-range plans.

Comment: At present, there is no known organized set of top level GVN goals, priorities or plans related to commerce, transportation and tourism which can be used for guidance in planning airport development and operations.

(A broadly constituted airport-directing body, including representation from

key GVN and private sector areas could provide necessary and appropriate guidance and direction for airport planning and operations notwithstanding the lack of formalized higher level policies).

Comment: At present, there is no centralized planning and analysis capability within Saigon Airport or civil aviation organizations for continually evaluating national aviation system requirements and coordinating them with affected areas of the public and private sector.

(A centralized planning and analysis capability could be established within the Saigon Airport organization or within the Directorate of Civil Aviation for assessing on a continuing basis, overall and SIA aspects of civil aviation related to overall transportation. This activity would provide input for specific Saigon Airport planning and development activities.)

Sub-Goal 1.2: Participate in regional planning and integrate airport system planning, development and operations with Saigon Metropolitan Area transportation, economic, environmental and urban planning and development.

Comment: At present, there is no known organized set of regional goals, priorities or plans related to commercial transportation, tourism, economic or environmental considerations which can be useful in integrating airport developments and operations with the surrounding community.

(A broadly constituted airport directing body, made up partly of representatives of various regional sectors affected by the airport operation, could provide

necessary and appropriate guidance and direction for planning on a regional basis in spite of a lack of formalized local or regional planning.)

Comment- At present, there is no centralized planning and analysis capability in the Saigon Airport or civil aviation organizations to analyze requirements and develop overall airport plans for integration with the surrounding community.

(A centralized planning and analysis function within the Directorate of Civil Aviation or the Saigon International Airport organization would, if adequately staffed and chartered, allow analytical interfacing with the surrounding communities in order to tie airport, local and regional plans together.)

Sub-Goal 1.3: Provide an airport environment and functions which will serve domestic and international passengers as well as visitors and on-site employees.

Comment: Under the present system of airport financing and low governmental budget levels, terminal maintenance and improvement has not kept up with requirements demanded by increasing passenger traffic levels. Minimal retail revenue-producing prospects have curtailed provision of public services and special amenities normally expected at first-rate international airports (Opened access to the public at the cessation of general hostilities will provide more potential customers to bolster revenue-producing retail activities and will allow the application of these additional revenues to airport development and maintenance. If airport revenues can be retained for airport use, terminal and other passenger servicing facilities can be expanded as required, main-

tained in attractive condition and allowed to provide the normal amenities expected at first rate international airports.)

Sub-Goal 1.4: Assure effective on and off-site access, egress and expeditious processing, movement and holding for passengers, baggage, visitors, employees and ground vehicles.

Comment: The ability of Saigon Airport to provide adequate terminal facilities as well as adequate ground transportation for ever-increasing numbers of passengers is severely curtailed by restrictive administrative procedures and low level financing available under present conditions. In addition, a requirement also exists for effective interfacing with surrounding communities so that future access and egress routes can be properly planned and financed taking into account requirements imposed upon the surrounding region as well as those required for implementation within the airport itself.

(The organization entrusted with the management and operation of the Saigon Airport must be allowed to plan, implement and finance programs necessary for the enhancement and maintenance of those airport facilities required to support current and projected traffic demands. Present conditions inhibit or preclude such activities.)

Sub-Goal 1.5: Assure effective on and off-site access, egress and on-site processing, movement and holding for air cargo.

Comment: The same conditions apply for cargo processing as were discussed above for passengers and other personnel. Adequate facilities will be required in the future as air cargo demand increases. Airport management presently is

inhibited in its ability to plan, finance and carry out programs for enlarging the cargo capacity of the airport.

(As discussed above under Sub-Goal 1.4, airport management should be provided with the means to become more effective in its ability to provide facilities and other requirements for cargo handling at Saigon Airport. A more authoritative management organization working together with local political jurisdictions, airlines and freight-handling companies would be able to solve these problems.)

Sub-Goal 1.6: Assure capability safely to accept, store and operate commercial aircraft under all normally accepted flight conditions.

Comments: Under the present administrative and financial management system, with minimal budgets allocated on an annual basis, airport management and DAB are almost prohibited from funding adequate planning and implementation of capital development programs required to accept anticipated traffic levels. At present, this is particularly true related to providing apron areas with adequate strength to support heavy aircraft and for repairing already wear-damaged runways and taxiways. Major financing support for past maintenance and upgrading of facilities and equipment have been provided mainly from outside sources including U. S. Aid and the U.S. Military.

(A centralized authority should be provided to assure adequate analysis of requirements for airport operations and also to allow centralized planning of capital development programs and acquisition of appropriate funds required for these developments. In addition, administrative and financial policies should allow for acquiring adequate funding to support maintenance operations for these heavy investment items.)

(Operational personnel presently are supplied in great part by the military and budget augmentation is required in order to conduct these activities with a trained civilian staff in the future. Attracting airport staff of the highest caliber will require the ability to establish professional, wage and salary standards commensurate with the high level technical abilities of these personnel.)

Sub-Goal 1.7: Facilitate aircraft service and maintenance operations.

Comment: Under present conditions, maintenance and service of aircraft primarily is contracted for several airlines by Air Vietnam while the remaining airlines perform these operations using their own staffs. Maintenance facilities primarily are provided under the auspices of Air Vietnam. (It might be appropriate during future increased aircraft operation periods that the Saigon Airport provide leased land or maintenance facilities for airline use. In order to provide these capabilities, airport management must be chartered to plan land use and to fund, develop and operate these types of facilities.)

(Aircraft servicing and ramp services also could be provided under an augmented airport organization or under contract to a servicing specialist company.)

Sub-Goal 1.8: Assure security from crime, accidents and fire for aircraft, structures, passengers, cargo, ground equipment, employees and visitors.

Comment: Under present conditions, crime prevention is entrusted indirectly to the military in their security role, and directly to the National Police in their crime prevention role. Both of these activities virtually are out of the control of the airport organization which presently has no security staff capabilities.

Fire fighting by airport personnel is now mainly confined to a limited ability to fight aircraft fires. This function, under current constrained budget conditions, has primarily been turned over to the Vietnamese Air Force inasmuch as the civilian airport fire-fighting staff is under-manned and fire-fighting equipment maintenance has not been sustained. Structural fire-fighting is mainly entrusted to the Saigon Fire Department with a long reaction time required for city fire-fighting equipment to appear at a fire scene. Formalized fire and industrial or public accident prevention programs appear to be non-existent at present.

(If it is assumed that Saigon Airport should assume responsibility for its on-site fire fighting, crime and accident prevention, airport management will require the ability to staff, train and equip their organization for these functions. Implicit is the ability to plan and fund these activities with airport revenues.)

Goal 2.0: Assure maintenance of airport staff, property, facilities and equipment to optimal standards commensurate with current and planned airport investments, operating requirements and safety.

Sub-Goal 2.1: Assure maintenance of airport staff capabilities at optimal levels to satisfy administration, operational and maintenance requirements.

Comment: Under current budget levels and wage, salary and personnel administration policies, creation and maintenance of airport staff capabilities is difficult in most areas. Aeronautical personnel are mostly detached premium-salaried military staff assigned to the airport and who have been trained either in the U.S. or by United States staff personnel. Civilian personnel are hired and paid under existing civil service pay grades and attraction of new personnel at these beginning levels is extremely difficult. Periodic training of non-aeronautical staff is conducted on-the-job. Overall results are that technical (aeronautical) personnel staffing levels are sustained mainly as a result of relatively higher budgets in this area and the military assignment nature of their duties, while staffing in other administrative and non-technical areas are greatly below levels required to support the scale of operations being conducted at the airport. (Refer to Figure 5 for comparative 1963-1970 financing and staffing levels.) Senior personnel are retained on the staff mainly as a result of their higher level seniority salary and dependency allowances.

(In order to assure retention of aeronautical personnel after military assignees are removed or permanently assigned to the DCA staff, DCA or the airport organization should be empowered to provide salaries and positions competitive with private industry. Modification of existing administrative and financial policies would provide airport management with

the ability to budget and implement required staff augmentation programs while a program of staff training would continuously up-grade the caliber of services which can be offered.)

Sub-Goal 2.2: Assure maintenance of airport property, facilities and equipment to optimal standards commensurate with investment, operating requirements and safety.

Comment: A centralized capability is required to analyze, plan and implement airport maintenance activities at all levels. Under present administrative conditions, these functions are dispersed among various governmental organizations, which often are not in the same ministry. In addition, overall GVN low-level non-military budgets place severe restrictions on the ability of any single directorate to maintain various airport physical elements. Overall results of this deficiency include physical degradation of such investments as runway, ramp and taxiway surfaces and terminal facilities.

(Revised administrative and financial policies could facilitate maintenance analysis, planning and program implementation by the airport organization if they provide for adequate control over revenues, finances, and staffing. These revised policies should also provide the ability to contract directly and to promptly pay for the purchase of goods and services from optimal domestic or foreign sources from an airport standpoint.)

Goal 3.0: Establish sufficient revenues and retained income to develop and carry out programs resulting in a financially and operationally self-sustaining and continually developing enterprise.

Sub-Goal 3.1: Generate annual domestic and foreign exchange revenues at least adequate to cover costs of administration, operations, maintenance, depreciation, capital improvement, debt servicing and debt repayment.

Comment: Present governmental policies do not allow direct application of airport-generated revenues for operation, development or maintenance of the airport nor do they allow collection of international fees in foreign exchange currencies. In addition, current staff capabilities do not provide the analytical capability required to assess financial needs or to conduct full scale accounting procedures necessary to administer financial matters such as budgets, receivables and payables. All finances are derived from annual Vietnamese governmental budgets supplemented in part during the last few years by United States military and foreign aid funds.

(Generation of revenues is a function of the ability to develop sources of domestic and foreign exchange revenue-including airline operations and retail operations-and then facilitating customer or tenant spending so that these revenues are in fact generated and placed under the control of the airport administration.

Generation of additional revenues in the future will require ability to adjust fees and tariffs to appropriate levels commensurate with requirements for operating and maintaining the airport--this in turn necessitates the ability to define and analyze total airport costs. Generation of revenue also will depend upon the ability of the airport administration to collect foreign exchange fees and allow potential retail customers to enter the airport facilities where they

can become active domestic revenue sources. The airport organization should be provided with staff capability to evaluate airport financial requirements and to determine the proper levels and sources of revenues required to service debts and to cover annual operations and maintenance.)

Sub-Goal 3.2: Retain domestic and foreign exchange income at least adequate to support financing of operations and maintenance as well as to support planned capital and staff improvements.

Comment: Under current governmental policies, revenue derived from airport operation is all in domestic currency and is not retained or administered by the airport staff. This income is turned over to the government treasury by the payee and it becomes part of the general fund from which airport (and other) budgets are allocated on an annual basis. Airport budgets allocated at the present time do not necessarily bear a resemblance to the revenues generated or to the actual financial requirements for operating the airport. (Legal and procedural steps should be taken to allow the airport administration to retain derived domestic and foreign exchange income so that it may be "plowed back" into airport operations and improvements. In addition, airport staff capability should be augmented to include a financial management function which covers accounting, controller and audit functions normally found in commercial business enterprises. This will assure that financial transactions take place within a commercialized business-like atmosphere and under appropriate management control. Main financial policy guidelines could be

defined by a broadly constituted airport directing body.)

Goal 4.0: Provide support to the national defense with minimal impairment to the self-sufficiency and safety of the civil airport system.

Sub-Goal 4.1: Provide support to military air activities at agreed upon traffic levels and operational procedures commensurate with national defense, aeronautical safety and civil transportation requirements.

Comment: At present, the majority of aircraft operations at Saigon Tan Son Nhut International Airport are conducted by the military. The level has declined greatly with the de-escalation of the war and the shift of military operations to other bases, but nevertheless, will probably be sustained at a high enough level in the near future to constitute a highly significant consideration while conducting the increasing commercial operations of the civil sector.

Relatively low levels of civil air operations coupled with a functionally adequate liaison between the military and the civil authorities have resulted in no significant problems under past and current conditions. However, in the future, with increased civil air operations, airline network scheduling requirements must be considered and civil-military joint-tenancy and operational agreements will be necessary to avoid conflict.

(Major policies for operational control of the airport can be kept timely in the future if a broadly constituted directing body is provided to establish high level agreements and broad operating guidelines for which civil and military

authorities would be responsible. Day-to-day operating problems can be resolved at the working level if such guidelines previously have been established and recognized at the highest levels. These policy guidelines should be flexible so that as changing defense and civil conditions arise, they may be modified to accommodate these changes.)

Sub-Goal 4.2: Assure financial and operational support from the military, as required, to underwrite their usage of Saigon International Airport facilities and services.

Comment: Presently, with over-all governmental budgets supplying the funds to operate the airport, the military budget includes their present contribution to the operating and maintenance costs of the airport. These funds are then applied directly to the appropriate programs or operations.

Activities or programs funded in this manner do not come under the administrative or financial control of the civil authorities and as a result are not now accounted for as part of the operating costs of the airport.

(The achievement of a viable, business-oriented civilian operation at Saigon International Airport, will require top level joint tenancy and operating agreements between civil and military authorities. These agreements should assure that the military will contribute their proportional share of support to airport upkeep and development. Policies will be required to establish the exact methods of administration and control for these funds and projects and could include a direct annual GVN grant to the airport which includes the military share of "common use area" funds. These matters could, conceivably

be settled through the auspices of an overall directing body, working in concert with the highest levels of government.)

Sub-Goal 4.3: Interface with base security measures required for national defense.

Comment: Under present conditions, access to the civilian Tan Son Nhut terminal is restricted for non-passenger civilians by military security measures. General access passes are issued to cleared personnel and their vehicles while uncleared civilians must apply for special passes in order to gain access to the terminal. This condition not only limits the number of potential revenue-producing visitors allowed to visit the terminal, but also restricts selection of personnel who can be hired by various concessionaires and contractors resident at the airport. At present, Saigon Airport management has no direct influence over base access policies and is only related to the security administration of the base by virtue of the civilian airport Commandant's delegated authority to endorse land use permits and to coordinate in other matters in his role as civilian assistant to the TSN Military Zone Commander.

(It is anticipated that improved national security conditions in the future will allow relaxation of restrictive base access rules. It is conceivable that a properly constituted civilian airport management organization could be authorized to isolate physically the civilian portions of the Tan Son Nhut property so that a special civilian force could administer relatively more relaxed access security measures. Under these conditions, there would still

be some control over admittance to the airport but it would not need to be as severely restrictive as is the case with the entire installation under military control. This approach could in turn lead to a situation in future years where there would be unrestricted access to the civilian portion of the base operating totally under the administration of civil authorities.)

RECOMMENDATIONS:

If Saigon International Airport is to achieve the primary goal of becoming a major hub of the Southeast Asia area and thus contribute to the achievement of Vietnam national and local goals, its administration and operations must be maintained on a high plane as an integral part of the regional and world wide air transportation system. In order to do this, Saigon International Airport (SIA) must not only keep pace with the rest of the system by adopting modern technological advances, but must also utilize up-to-date management philosophy and techniques required to overcome shortcomings discussed in the "Conclusions" section of this report. The management organization of the airport: (1) must have available for its use adequate resources to carry out programs; (2) must have broad-based authority to direct the accomplishment of these programs and day-to-day operations; (3) must have flexibility to modify plans or to re-plan, as required, to adapt to changes in the surrounding transportation system or in the SIA physical, socio-economic or political operating environment.

In the opinion of the consultant, these criteria cannot be satisfied through continuation of the existing management philosophy and system at Saigon Airport. The current trend, as similar problems are faced at airports throughout the world, is toward the formation of autonomous or semi-autonomous airport agencies under government top-level guidance and control. These agencies are endowed with various degrees of freedom in their conduct of long-range planning, day-to-day operations, retention of airport-derived revenues and

application of these revenues to finance airport operations and programs.

The following series of baseline recommendations are based upon the recognition of existing deficiencies, upon SIA management system requirements and upon world-wide trends currently effecting meaningful progress in the field of general management and airport management.

A. RECOMMENDED MANAGEMENT POLICIES

Management Philosophy: It is recommended that Saigon International Airport be operated with a commercial enterprise philosophy as an autonomous budget center and management entity under the general policy direction of a broadly constituted Board of Directors responsible to the GVN ministry for civil aviation.

As discussed in an earlier section, it is also recommended that a modern "program planning and budgeting" philosophy be adopted whereby all policies, decisions, programs, budgets and plans are oriented toward the achievement of explicate goals and objectives. A recommended set of goals has been provided in Figure 1.

Operating Philosophy: It is recommended that Saigon International Airport adopt a prime operating concept whereby the airport organization, as much as possible, functions in the role of "General Manager". In this role, Saigon International Airport management and staff would be responsible for the performance of all airport functions, but would be free, when it is advantageous, to contract with other governmental

agencies or private sector enterprises for the actual conduct of work. Airport management ultimately would be responsible for adequate conduct of contracted "specialized" functions (for example, ramp transportation or aircraft servicing.) Airport personnel would be directly responsible for the actual performance of "common use" activities, including fire and police protection, common area terminal maintenance and passenger flight information. Figure 7 presents a recap of current conditions, as well as recommendations for future allocations of airport functions to SIA management and to private or governmental sector organizations.

Tenants such as airlines, on-site governmental agencies or concessionaires would provide personnel, equipment, supplies and services required to operate their business within the leased areas allocated by airport management. They would be free to contract directly with service vendors or through airport management for specialized support services (such as office cleaning) while maintenance of facilities (such as lighting and air conditioning) could be provided by the airport organization. SIA would exert administrative control over on-site activities of tenant GVN agencies in order to facilitate optimized application of resources to satisfy service needs.

As an autonomous budget center, Saigon International Airport ultimately would be effectively self-supporting and would be responsible for the analysis of financial requirements, for financial planning, for collection

Figure 7

RECOMMENDED AIRPORT FUNCTION RESPONSIBILITIES

Function	Current Observations	RECOMMENDED ALLOCATIONS		
		Saigon Int'l. Airport Authority	Vietnamese Government	Other
<u>General Management</u>				
Goals, Objectives & Priorities-Definition	Lack of explicit organized civil aviation related national and regional goals, priorities, policies and plans causes lack of top-level guidance for aviation and airport planning and budgeting. Responsibility for STIA functions is diffused among several GVN organizations.	Board of Directors & STIA Staff.	Key GVN organizations represented on Board of Directors	Key private sector and airline interests represented on Board of Directors.
Short & Long Range Planning & Budgeting	STIA planning and budgeting diffused among several organizations. No formal long-range planning in the GVN system. (Initial attempt underway for Public Works.)	SIA Staff. Based on Board of Directors' Guidelines.		
Policies & Procedures Definition	STIA policy definition diffused among several organizations.	SIA Staff	International agreements coordinated via Ministry of Foreign Affairs.	International Agreement coordinated with airlines
Direct Airport Activities (Assure implementation of policies, procedures, plans, programs)	Direction of activities at STIA are only nominally under STIA management which is limited mainly to aeronautical operations, minor terminal maintenance and some low key staff administration to back up DCA activities.	SIA Staff		

Function	Current Observations	RECOMMENDED ALLOCATIONS		
		Saigon Int'l. Airport Authority	Vietnamese Government	Other
<u>General Management (Cont'd.)</u>				
Coordination of non-STIA Organizations functioning in conjunction with STIA.	Much of the activity being conducted at STIA by outside organizations is carried with little or no direct control by STIA management. (e.g. -Ramp and terminal security is deficient)	SIA Staff		
<u>Operations</u>				
Terminal Area Flight, Control; Ground Control	Responsibility for various aspects split among several government organizations.	SIA Staff, initially at least.	In future, could be turned over to Civil Aviation organization, if budgets are available.	
Meteorology Services	Service provided by tenant Directorate of Meteorology.		Tenant Meteorology Directorate.	
Aircraft Services	Responsibility spread among several entities.	SIA Staff for aeronautical info. & flight clearances. SIA provide general facilities.	Public works support for facilities.	Airlines and contractor for fuel, food, maint., etc.
Passenger & Visitor Services	No centralized passenger flight info. service-often none provided for delays, etc. No PAX ramp transportation. Some amenities deficient or lacking (e.g. -sanitary, restaurant, money exchange.)	SIA provide PAX flight info. system for gen'l use. Provide general use areas.		Airlines-input to flight info. system. Contractors-parking service retail services.
Ground Transportation	No mechanized ramp transportation at present. Security restrictions minimize passenger and visitor req'ts. for roadways and parking.	SIA Staff administers	Public works support, as req'd. for facilities on-site.	Airport access-Coordinate with surrounding cities for ways, Airlines and/or contractor for transporter, Ramp transport-Grp

Function	Current Observations	RECOMMENDED ALLOCATIONS		
		Saigon Int'l. Airport Authority	Vietnamese Government	Other
Records (landing, take-off, aircraft & crew certifications, etc.)	Limited information analysis capability restricts amount of benefits derived from data.	SIA Staff		
Operations Admin.	Limited STIA staff capability restricts scope of administrative activities.	SIA Staff		
Immigration, Customs, Public Health	Governmental agencies function independently.	SIA Staff interface-administrative control at STIA level.	Responsible ministries operate as tenants.	
Airport Maintenance				
Airfield Maintenance	Responsibility for airfield maintenance split between two ministries.	SIA prime responsibility.	Public works support, as req'd.	Contractor support, if appropriate.
Aeronautical Ground Equip. Maintenance (e.g. - NAVAIDS, Landing aids)	Responsibility split between two ministries.	SIA prime responsibility, initially at least.	In future, could be turned over to civil aviation organization, if budgets are available. Public works support, if required, at present.	Contractor support, if appropriate.
Facilities Maintenance	STIA terminal maint. responsibilities currently low budget, low key and inadequately performed. Overall responsibility diffused.	SIA prime responsibility.	Public works support, as req'd.	Contractor support, if appropriate.
Access/Egress Maint.	STIA access system is responsibility of another ministry and outside jurisdictions.	SIA prime responsibility within airport boundary.	Public works support, as req'd.	Surrounding jurisdictions maintain own facilities outside STIA bndry.
Vehicle & Equipment Maintenance	Non-aeronautical and vehicle maintenance under budgeted, under-staffed.	SIA prime responsibility		Contractor and vendor support, if appropriate.
Utilities Maintenance	Utilities maintenance mainly responsibility of another ministry.	SIA Staff interface with utility agencies.	Public works support, as req'd. Utilities agencies support, as req'd.	

Function	Current Observations	RECOMMENDED ALLOCATIONS		
		Saigon Int'l. Airport Authority	Vietnamese Government	Other
Airport Maintenance (cont'd) Maintenance Admin.	Maintenance admin. responsibility diffused among many organizations.	SIA prime responsibility except for utilities.		
Security & Fire Protection				
Aircraft Fire & Rescue & Prevention	STIA organization presently not capable of carrying out fire and rescue responsibility must default to VNAF.	SIA prime responsibility-ultimately full capability.	VNAF support, as required.	
Ambulance and First Aid	STIA has no capability at present. Must depend on VNAF and local hospitals' capabilities.	SIA prime responsibility	Government medical support, if required.	Contractor or private medical support, if req'd.
Facilities Fire & Rescue & Prevention	Inadequate STIA capability	SIA prime responsibility-ultimately full capability.	Saigon City Fire Dept. support, as required.	
Law Enforcement	STIA has no direct authority-National Police coverage spotty. Military security measures fill the gap	SIA prime responsibility-ultimately full capability.	National police support, as required.	
Base Defense & Security	Prime responsibility of military	SIA coordinate with VN military at first -assume prime responsibility for civil areas later.	VN military for overall at first-only military areas later.	
Field Safety Inspection	All interested parties participate.	SIA prime responsibility.	Public works support, as req'd.	Airlines back-up. Contractor support, as required.
Accident Prevention Industrial & General	No formal industrial accident prevention program in evidence (e.g. -ramp safety programs, car protection.)	SIA prime responsibility.	National police support, as required for traffic safety.	Airport and tenant support.
Security Admin.	No full scale program run by STIA-only military seems to be at full profile.	SIA responsibility in coord. with VN military.	VN military parallel responsibility.	

Function	Current Observations	RECOMMENDED ALLOCATIONS		
		Saigon Int'l. Airport Authority	Vietnamese Government	Other
<u>Financial Administration</u>				
Fiscal Planning & Budgeting	Responsibility diffused. STIA management has only the capability to request budgeted funds from the national budget for op'ns and minor maintenance. Staff salaries budgets are completely out of STIA hands while capitol budgets are only indirectly influenced.	SIA	Public works support, as req'd.	Contractor support, as appropriate.
Gen'l Accounting & Bookkeeping	Information diffused. No real accounting function anywhere. STIA attempts to track funds expenditures using available data only.	SIA		
Payroll & Timekeeping	STIA only in the loop informally. Prime function accomplished elsewhere.	SIA		
Accounts Receivable & Payable	STIA out of revenues loop. Only prepares receivables invoices and payable vouchers. STIA retains no revenues. Bill paying very slow and costly.	SIA		
Audit	No staff available for STIA audit function.	SIA		Contractor support, as appropriate.
Financial Admin.	Limited to low level book-keeping effort at STIA because of GVN financial procedures.	SIA		

Function	Current Observations	RECOMMENDED ALLOCATIONS		
		Saigon Int'l. Airport Authority	Vietnamese Government	Other
<u>Facilities Engineering</u>				
Facilities Research & Planning	Prime responsibility for STIA is under DAB with STIA input.	SIA prime responsibility for general requirements and master plans.	Public works support, as req'd.	Contractor support if appropriate.
Specif. & Standards Defn.	Prime responsibility under DAB with STIA input.	SIA prime responsibility for technical policy.	Public works support, as req'd.	Contractor support if appropriate.
Design	Prime responsibility under DAB with STIA coordination.	SIA prime responsibility for design requirements.	Public works support, as req'd.	Contractor support if appropriate.
Project Control	Prime responsibility under DAB.	SIA prime responsibility.		
Contractor Liaison & Inspection	Prime responsibility under DAB.	SIA prime responsibility.	Public works support, as req'd.	
Tenant Support	Responsibility diffused.	SIA prime responsibility	Public works support, as req'd.	Contractor support if appropriate.
Engr'g. Admin.	Prime responsibility under DAB.	SIA prime responsibility.		
<u>General Administration</u>				
Personnel & Training	Prime responsibility for STIA at DCA level. STIA maintains informal records.	SIA	Support as required.	Support as req'd.
Wage & Salary Admin.	STIA has little or no role in determining salary budgets or staff classification - informal records kept.	SIA		Contractor support as required.
Office Services	Low key function	SIA		

Function	Current Observations	RECOMMENDED ALLOCATIONS		
		Saigon Int'l. Airport Authority	Vietnamese Government	Other
<u>Property Management</u>				
Lease & Concession Acquisition & Negotiation	Because of lack of staff depth, leases and concessions acquisition procedures lack the negotiation and selection practices normally found elsewhere.	SIA		
Lease & Concession Administration	Because of lack of staff depth, surveillance and control of agreements is difficult and spotty.	SIA		
Land Use Development	Responsibility diffused among several ministries.	SIA	Public works support, as req'd. VN military coordination, as req'd.	Contractor support as appropriate.
Land Use Administration	Diffused among several agencies.	SIA		
<u>Purchasing</u>				
Procurement	Prime responsibility for STIA-related procurement is spread among several government organizations. No final authorization can be made by STIA management.	SIA	GVN central purchasing support, as required.	Vendor support, as appropriate.
Storage/warehousing	Low level capability at STIA.	SIA		
Stock Issue & Inventory Control	Low level capability at STIA.	SIA		
Contracts Admin.	Tied to whomever is responsible for a particular procurement.	SIA		

Function	Current Observations	RECOMMENDED ALLOCATIONS		
		Saigon Int'l. Airport Authority	Vietnamese Government	Other
<u>Public Relations</u>				
Community Relations	No formal program in existence.	SIA Board of Directors and Staff		
Tours & Promotions	No formal program in existence.	SIA		
<u>Legal</u>				
Agreement & Contract Review	DCA-retained counsel available when required.	SIA prime responsibility.		Contracted counsel, if appropriate.
Counseling	DCA retained counsel available when required.	SIA prime responsibility.	Support by Gov't. Counsel if required.	Contracted law service.
<u>Economics</u>				
Air Travel Analysis & Forecast	No centralized capability.	SIA prime responsibility.	Civil aviation and DAB support, as required.	Contractor or Int'l Org'n support, as appropriate.
Aviation Economics	No centralized capability.	SIA prime responsibility.	Civil aviation and DAB support, as required.	Contractor or Int'l Org'n support, as appropriate.
Rates & Charges Analysis	No centralized capability.	SIA prime responsibility.	Civil aviation, Foreign Affairs support, as required.	Contractor, airlines, concessionaires or int'l org'n. support, as appropriate.

of domestic and foreign exchange revenues and for the budgeting and disbursement of these revenues to support related airport operations, development and maintenance. In addition, the airport authority would be legally constituted to borrow money from the Government of Vietnam, from commercial or private lenders, or from international financial institutions.

Instead of the classical governmental expenditure monitoring approach, a business type accounting system will be required to establish and maintain a complete spectrum of accounts and reports, and to support analysis of projected financial requirements. These records would also provide background information necessary to borrow funds or to justify government support, if required.

The Saigon International Airport would operate, at least in the foreseeable future, as a civilian activity and joint tenant with the military at the "Tan Son Nhut National Aviation Property." However, top-level decisions will be required to define SIA relationships to the Ministry of Public Works-Department of Air Bases (DAB) and the military with respect to the "National Aviation Property Concept."

SIA could (1) acquire land use and administrative responsibility and control over essential on-hand or future acquired civil assets at TSN, or (2) could remain as a tenant using property and facilities still nominally controlled by DAB. It is recommended that option (1) be implemented. In any case, agreements for joint tenancy with the

military would be required at the highest level to assure a compatible relationship which will allow conduct of civilian activities without degradation of, or unreasonable interference from, national defense requirements or vice versa.

B. RECOMMENDED ORGANIZATIONAL CONCEPT

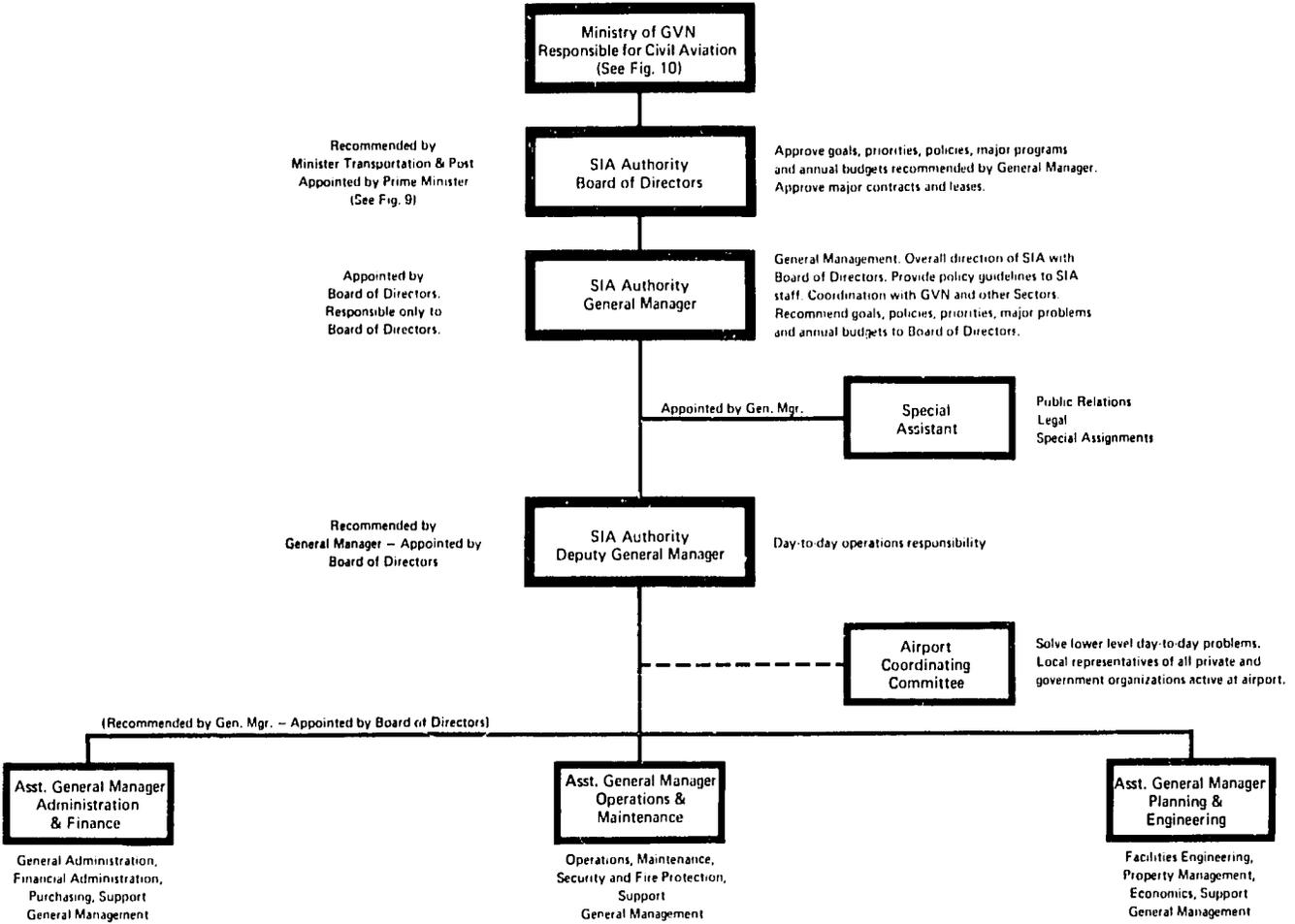
Authority Concept: The recommended SIA organization structure concept and summary functional allocation is presented in Figure 8. A recommended organization structure is provided along with an assessment of the concept from civilian and military standpoints. It will be noted that prime responsibility for all functions described on the "Proposed Functions vs. Responsibility Table (Figure 7) are covered by the proposed organization plan.

As will be discussed under "Overall Relationship Concept", below, the recommended relationship of the Authority to the Vietnamese government structure is via direct responsibility of the Authority (including the Board of Directors and staff) to the Minister of Transportation and Post, or whatever ministry has responsibility for civil aviation.

The Board of Directors is envisioned as a general policy-making and public relations organization, which assures all vital government and private interests are adequately represented and which resolves top-level disputes or conflicts of interest. The make-up of the Board of Directors would include high level representatives from various sectors who must be vitally interested in the advancement of civil aviation as a

Figure 8a

SAIGON INTERNATIONAL AIRPORT AUTHORITY
RECOMMENDED ORGANIZATION STRUCTURE



Note: (Functions refer to Figure 7)

Figure 8b

SAIGON INTERNATIONAL AIRPORT AUTHORITY ORGANIZATION CONCEPT ASSESSMENT

ORGANIZATIONAL GOAL	ORGANIZATIONAL CONCEPT DESCRIPTION	ADVANTAGES	DISADVANTAGES
"Full Function" Autonomous authority supporting regional and national goals on financially self supporting basis.	Full Function "General Manager" operation-ability to contract, as required, for support services and materials, ability to borrow money, retain funds, expend funds directly. Generally constituted policy directing body to provide goal and policy oriented guidance to SIA management.	General Provide GVN with a self-supporting agency contributing to national welfare on a business-like basis. SIA given ability to recruit, train and retain highest caliber personnel at adequate salary levels. Facilitates SIA ability to gear itself to long range goals and programs under direction of a broad spectrum Board of Directors. Direct application of airport generated revenues to improve and maintain highest level operations, facilities, services.	o Some GVN organizations' "Status-Quo" will be disturbed as they lose airport-related prime authorities. o Inadequately controlled SIA Authority could tend to go its own way.
		PRO - MILITARY CONSIDERATIONS - CON	
CONCLUSIONS & CRITICAL CONSIDERATIONS		o Removes some military responsibility for base costs. o Military can still retain overall base defenses function & provide some support functions under agreement to SIA. o SIA becomes single organizational contact point.	o Military loses some authority eventually over Tan Son Nhut civilian areas to pre-1965 level. o Civilian traffic increases may tend to impinge on military requirements in later years unless military requirements decline.
May need initial government investment until retained earnings proves power to acquire commercial or other non-GVN funding. Must determine if SIA is to remain a tenant aboard "National Aviation Property" or if it will acquire complete control under a long term agreement with GVN. Security control measures policy must be renewed regularly to provide increasing control of SIA management (over civil areas). Overall policies must be derived at Board of Directors level. Appears to be no prohibitive military consideration aside from current base security requirements.			

Vietnamese national resource and who are readily available to provide their services on a productive basis.

Representatives of both the government and private sectors would be nominated by the Minister of Transportation and Post for approval and appointment by the Prime Minister. The attached table (Figure 9) provides a summarized Board of Directors membership structure. The primary criteria for Board concept selection should be to provide adequate representation for the needs of all sectors concerned with the operation of the airport. The concept should preclude domination of the Authority by any specific governmental or private interest group which would interfere with the achievement of SIA goals. It is recommended that the Minister of Transportation and Post, or his representative, serve as Chairman in order to assure adequate interface with the Ministry and adequate prestige for the SIA Board of Directors.

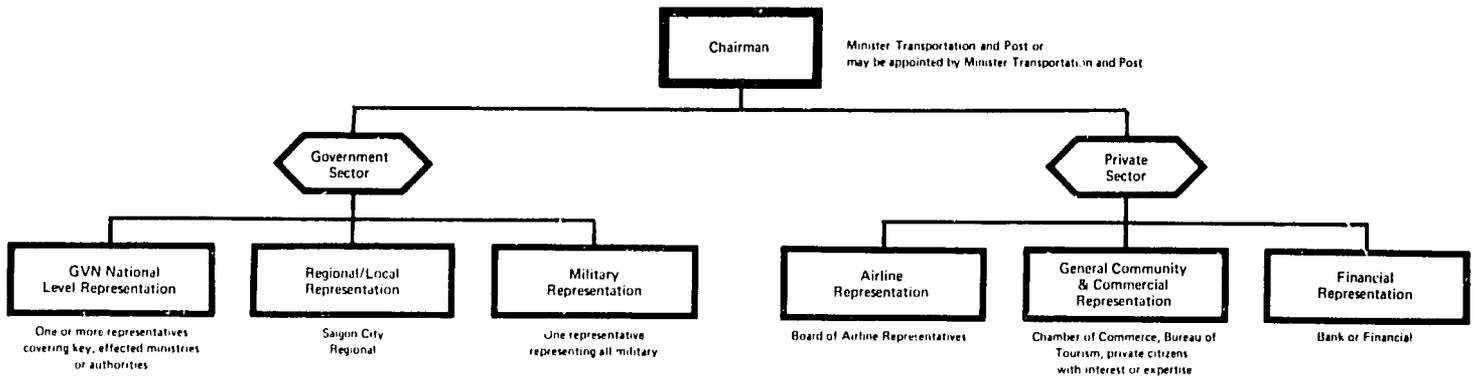
Overall Relationship Concept: The concept provided in Figure 10 results in minimal change to existing government structure with the Authority directly responsible to the Minister of Transportation and Post. It is comparable to the concept presently applied with other GVN authorities.

C. RECOMMENDED MANAGEMENT PROGRAMS

Reorganization Program: Reorganization of the current Saigon Tan Son Nhut International Airport organization and associated functions into a fully constituted, "full function" airport Authority will require

Figure 9

SIA AUTHORITY-BOARD OF DIRECTORS REPRESENTATION



Chairman and members nominated by Minister Transportation & Post or other ministries and officially appointed by Prime Minister – All interested in aviation and available for productive service.

Spectrum of options range from:

1. All government members – Could allow goal and policy determination to become politically submerged rather than aviation advancement oriented.
2. Mix of government and private members – Weighted to establish desirable power balance. Gives both sectors a chance to be heard for benefit of SIA & VN goals.
3. All private sector members – Would assure ultimate government control if override veto is provided to GVN. Would provide more commercially oriented direction.

action at the highest levels of the Vietnamese government. The recommended plan for reorganization is described in Section D. Major considerations for the reorganization program are discussed below.

Under current law, autonomous status is awarded to governmental agencies only with the approval of Congress. A draft resolution must be provided to Congress by the President or the Prime Minister following an agreement-in-principle between the Ministers in Cabinet. This type resolution usually is initiated by an interested ministry, and reflects the results of a thorough study and analysis of requirements, plans, and benefits to be derived versus financial and other "costs" to the government.

It is anticipated that a "Feasibility and Planning Study" would be performed, sponsored by the Ministry of Transportation and Post and financed by a planning grant from the government. The work would be conducted by a task force of interested government and private sector personnel supported by outside experts. The study and resolution would be completed in one to one-and-one-half years and then submitted to the Cabinet for further consideration and action. Figure 11 provides a suggested plan for conducting the study.

Assuming prompt approval of the resolution by the Cabinet and Congress, the new Board of Directors would be recommended and appointed, and would begin immediately to provide firm policy guidelines for the

Figure 11a

S. I. A. AUTHORITY FEASIBILITY AND PLANNING STUDY

TASK FORCE COMPOSITION

GVN Sector Follow Figure 9-Board of Director Recommendations
 Private Sector
 Consultant support - Expert counseling for management and financial analysis, program planning and budgeting (as required).

TASKS

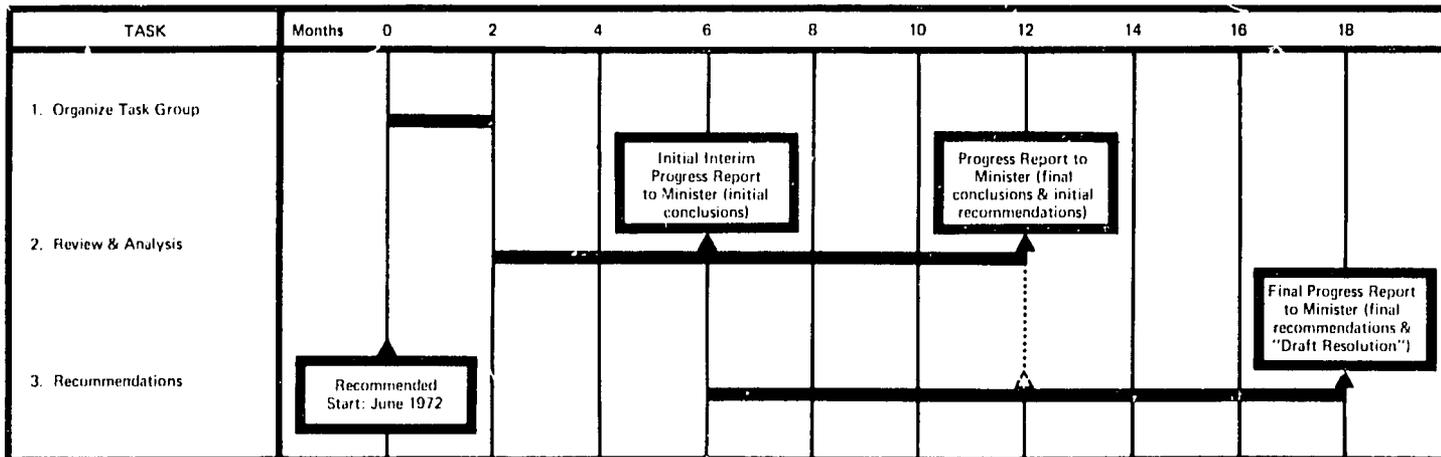
1. ORGANIZE TASK GROUP Appoint Leader
 Allocate Budget
 Appoint Supporting Group Members & Staff
 Assign Task Responsibilities

2. REVIEW & ANALYSIS Review and define SIA:
 Goals, Policies & Priorities } versus Ability
 Objectives (time oriented, } of existing
 qualified and quantified) } Organization &
 Program Plans & Budgets } Management to
 Define Required Changes to } accomplish
 Present Charter &
 Management System
 Define Changes, Options and Identify "best"
 Cost - Benefit Analyses

3. RECOMMENDATIONS Recommend:
 a. SIA Charter of Responsibilities & Authority
 b. Goals
 c. Objectives
 d. Priorities
 e. General Policies & Procedures
 f. Organization
 g. Programs, Plans & Budgets (Pre-authority
 and authority)
 h. Assigned Organizational Responsibilities
 Prepare "Draft Resolution"

Figure 11b

FEASIBILITY AND PLANNING STUDY SCHEDULE



organization of the Saigon Airport Authority. The reorganization program should begin as soon as possible thereafter, in order to provide an adequate foundation to support the airport development program which would be already in progress to meet the traffic demands of the mid and late 1970's and the 1980's.

Staff Improvement Program: As soon as staffing requirements, productivity-oriented wage and salary scales and personnel policies and procedures have been defined, the staff improvement program can begin.

Capabilities of existing personnel must be evaluated against updated job specifications for technical, administrative and support staff. Following assessment of all staff members, decisions must be made at least at the department head level, to determine whether personnel would be retained on the Authority staff or transferred to the general government civil service roles. Qualified new personnel will then be recruited to fill vacant staff positions as employees of the Saigon International Airport Authority under Authority personnel and wage/salary policies and procedures.

During and following the SIA reorganization, a staff personnel training program should be implemented. This program would apply regularly scheduled on-the-job and/or school training for continuous maintenance and upgrading of staff professional, vocational and administrative capabilities at all levels.

SIA Capital Development Program Integration: The SIA Capital Development Program will be continued as a concurrent program to reorganization and staff improvement, and will be integrated as a major Authority activity. Financial analysis will determine capital funds requirements and sources for future development program administration and implementation. Authority management and staff will administer all aspects of the program within the budgeted levels in coordination with overall operational, maintenance, administrative and developmental functions.

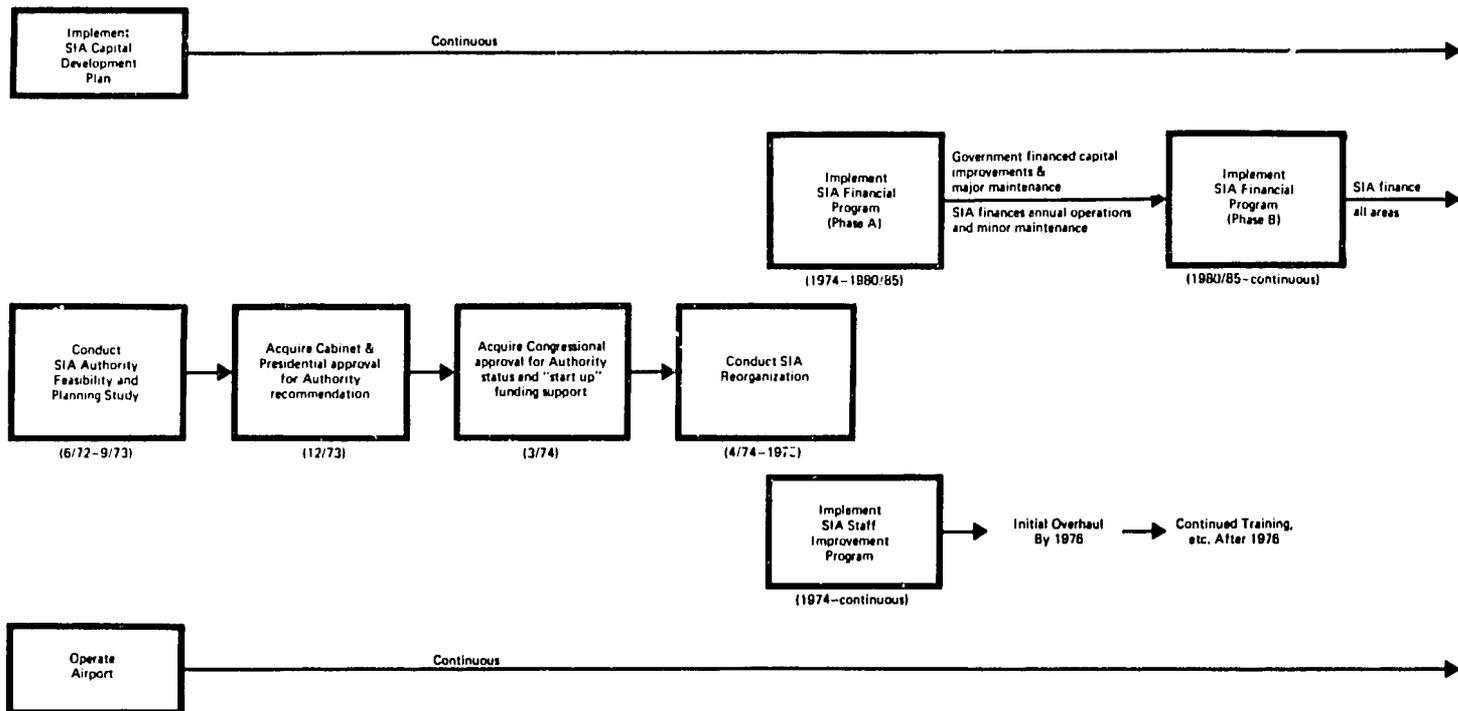
SIA Financial Program: Immediate steps must be taken to provide resources to support annual administration, operations and maintenance costs at least partially until 1975 and completely from 1975 on. These steps must be initiated immediately (possibly before Authority status is achieved) in order to begin providing for early and mid-1970's requirements. The "financial planning" section covers this program in more detail.

D. RECOMMENDED MANAGEMENT PLAN IMPLEMENTATION

The attached logic and flow chart (Figure 12) depicts the progression of steps required to implement the overall Management Plan. It must be emphasized that time-phasing of the steps in the performance of this plan must be integrated with the conduct of the capital development and financial programs, and to the related demands for air passengers and cargo transportation.

Figure 12

BASELINE MANAGEMENT AND FINANCIAL PLAN IMPLEMENTATION LOGIC



The total set of recommended steps and sequence are provided for assessment by the Government of Vietnam as a baseline group of available, reasonable options for future planning purposes.

SUPPORT MATERIAL

SAIGON TAN SON NHUT FUNCTIONS versus RESPONSIBILITIES (Current)

Function	Ministry of Transport & Post (incl. - STIA-Saigon Tan Son Nhut Airport, DCA-Directorate of Civil Aviation)	Ministry of Public Works (incl. - DAB - Directorate of Air Bases)	Other	Current Observations
<u>General Management</u>				
Goals, Objectives & Priorities Definition	Definition at all levels but not systematically written or structured. Mainly Op'ns-oriented and providing capital investment-related requirements for DAB planning use.	Definition at all levels but usually not systematically written or structured. Mainly property, facility and maintenance oriented. (new 4-year development plan, first-organized plan)	President and cabinet may provide some limited definition but not systematically codified or structured on an overall national basis for direction and planning use.	Lack of explicit organized civil aviation-related national and regional goals, priorities, policies and plans causes lack of top-level guidance for aviation and airport planning and budgeting. Responsibility for STIA function is diffused among several GVN organizations
Short & Long Range Planning & Budgeting	Current GVN budgeting system requires line item planning and budgeting only. However, selected long-term (e.g. major capital improvements) by responsible Directorates, DCA - Opns. plan & budget-minor maintenance.	Responsible for land use capital improvement and major maintenance policies. (Land use planning via military during wartime).	Min. -Finance, Prime Minister, Congress must approve.	STIA planning and budgeting diffused among several organizations. No formal long-range planning in the GVN system. (Initial attempt underway for Public Works)
Policies & Procedures Definition	Minister Transport & Post and Dir. Civil Aviation promulgate operational policies and procedures recommended by Commandant. STIA Rates & charges decreed by Minister - (Int'l. agreements-coop. with Ministry of Foreign Affairs).	Responsible for land use capital improvement and major maintenance policies. (Land use planning via military during wartime).	Tenants and other interested parties input to STIA via ad hoc coordinating committee. Min Foreign Affairs negotiates int'l. air agreements.	STIA policy definition diffused among several organizations.
Direct Airport Activities (Assure implementation of policies, procedures, plans, programs)	STIA Mgmt. attempts to assure compliance with Min. of T&P and DCA policies, related to air operations in the terminal area, to civil ground operations and to terminal & staff administration and day-to-day minor maintenance.	DAB directs activities related to construction and most maintenance.	Activities of other Govt. organizations conducted almost independently (e.g. -police, customs, immigration, public health, military). Activities of airlines and other commercial activities conducted under specific agreements which may be difficult to enforce.	Direction of activities at STIA are only nominally under STIA management which is limited mainly to aeronautical questions, minor terminal maintenance and some low key staff administration to back up DCA activities.
Coordination of Non-STIA Organizations functioning in conjunction with STIA.	STIA management may direct only STIA-staff activities-all other organizations must be worked with on a negotiation and persuasion basis (e.g. -nat'l. police, customs, public health, Dir. of Air Bases, military).		Tenants and concessionaires interface with STIA management day-to-day or via coordinating committees.	Much of the activity being conducted at STIA by outside organizations is carried out with little or no direct control by STIA management. (e.g. -Ramp and terminal security is deficient).
<u>Operations</u>				
Terminal Area Flight Control; Ground Control	STIA is charged with control over all air traffic within 40 N. M. radius and over ground traffic on all joint use and civil areas.	DAB provides facilities, and utilities required for aeronautical op's. & control activities. Also maintains these facilities and utilities.	US and VN military provide most personnel for controller functions. Foreign aid provides some funds for facilities and equipment.	Responsibility for various aspects split among several government organizations.
Meteorology Services	Directorate of Meteorology supplies aviation weather information as an STIA tenant organization.			Service provided by tenant Directorate of Meteorology.

Function	Ministry of Transport & Post (Incl. -STIA-Saigon Ton Son Nhut Airport, DCA-Directorate of Civil Aviation)	Ministry of Public Works (Incl. -DAB-Directorate of Air Bases)	Other	Current Observations
<u>Operations (cont'd)</u> Aircraft Services	At present, provision of facilities and aircraft services is a joint responsibility of STIA and DAB. (STIA responsible for assuring services provided, also release aeronautical info. and flight clearances)	and support utilities for STIA and DAB. (DAB responsible for construction and maintenance.)	AirVietnam (under contract) or indiv. airlines service aircraft. Fueling by oil company concession.	Responsibility spread among several entities.
Passenger & Visitor Services	STIA resp. for assuring provision of gen'l. services including auto parking, passenger waiting areas, etc.		Airlines provide flight information on own volition (many contract function to Air VN and perform ticketing and check-in functions.	No centralized passenger flight info. service-often none provided for delays, etc. No PAX ramp transportation. Some amenities deficient or lacking (e.g. -sanitary, restaurant, money exchange)
Ground Transportation	STIA responsible for services, however, security restrictions bar non-cleared vehicles and personnel from TSN. Little requirement for passenger or visitor parking. No ramp transportation services at present.	DAB responsible for constructing and maintaining roadways and parking and coordination with off-site jurisdictions for access/egress development in future.	Airlines provide bus service from downtown to air terminal via Air Vietnam bus. Passengers board aircraft on foot.	No mechanized ramp transportation at present. Security restrictions minimize passenger and visitor req'ts. for roadways and parking.
Records (landing, take-off, aircraft & crew certifications, etc.)	STIA accumulates aircraft movement, passenger and cargo data. Some limited statistical analysis conducted for planning and control purposes. Maintain certification records.		Provide data to STIA staff.	Limited information analysis capability restricts amount of benefits derived from data.
Operations Admin.	Commandant STIA and Asst. Commandant for Technical Services personally perform operations admin. functions.			Limited STIA staff capability restricts scope of administrative activities.
Immigration, customs, public health	STIA management only indirectly influences these special government functions.		Responsible agencies function as STIA tenants-nearly independent.	Governmental agencies function at STIA as independent operations.
<u>Airport Maintenance</u>				
Airfield Maintenance	Responsible for maintenance of aeronautical lighting.	Prime responsibility for maintenance of runways, taxiways, aprons, drainage system.		Responsibility for airfield maintenance split between two ministries.
Aeronautical Equipment Maintenance	Prime responsibility for maintenance of nav aids, landing/departure aids, ATC equipment.	DAB responsible for some marking and lighting of aviation obstructions on and off the STIA property.	Some support to STIA from military.	Responsibility split between two ministries.
Facilities Maintenance	Responsibility assumed by (DCA request) for non-structural terminal maintenance and janitorial maintenance of common areas-low budget available-performance restricted.	Prime responsibility for major maintenance including terminal structure, tower, aircraft fuel system.	Tenants responsible for janitorial maintenance of leased areas-includes airlines, concessions, other gov't. org. Some material support from military.	STIA terminal maint. responsibilities currently low budget, low key and inadequately performed. Overall responsibility diffused.
Access/Egress Maintenance		Prime responsibility for on-site system and coordination with off-site political jurisdictions.	Local political jurisdictions responsible for off-site system.	STIA access system is responsibility of another ministry and outside jurisdictions.
Vehicle & Equipment Maintenance	Prime responsibility for maintenance of STIA vehicles-and aeronautical support equipment including high voltage power, air conditioning and stand-by power. Veh. maintenance low budget activity.			Non-aeronautical and vehicle maintenance under-budgeted, under staffed.
Utilities Maintenance		DAB responsible for maintenance of water, electrical power, sewage systems.	PTT responsible for telephone and telegraph maintenance.	Utilities maintenance mainly responsibility of other ministries.
Maintenance Admin.	STIA administers maintenance under its jurisdiction and coordinates other maintenance activities with STIA operational requirements -low budget most areas.	Administer maint. under DAB jurisdiction.	Airlines administer maint. of their areas-often tenants, including gov't agencies are quite lax.	Maintenance admin. responsibility diffused among many organizations.

Function	Ministry of Transport & Post (Incl. -STIA-Saigon Ton Son Nhut Airport, DCA-Directorate of Civil Aviation)	Ministry of Public Works (Incl. -DAB-Directorate of Air Bases)	Other	Current Observations
Security & Fire Protection				
Aircraft Fire & Rescue & Prevention	STIA officially responsible but works at low profile because of limited budget, staff and on-line equipment maintenance problems.		VNAF, by default and because of high level equip. and staff, presently assume most responsibility.	STIA organization presently not capable of carrying out fire and rescue responsibility. Must default to VNAF.
Ambulance and First Aid	STIA responsible-no on-line capability at present-must call local civil sector or VNAF.		VNAF has some capability and can provide for emergency. Local civilian hospitals provide back-up.	STIA has no capability at present. Must depend on VNAF and local hospitals' capabilities.
Facilities Fire & Rescue & Prevention	STIA responsible-practically no on-line capability-must rely on Saigon City or military.		Military and local civil fire departments available for emergency.	Inadequate STIA capability.
Law Enforcement	Nominally responsible but no direct authority or staff capability.		National Police responsible-but apparently low profile effort. Min. of Defense appears to cover defacto by security restrictions.	STIA has no direct authority-National Police coverage spotty Military security measures fill the gap.
Base Defense & Security	Commandant STIA is civilian assistant to Commander TSN Military Zone-exerts influence in land use coord. with DAB.	DAB final word on land use as National Aviation Property Manager.	Min. of Defense responsible via TSN Military Zone command and TSN Sensitive Point. National Police are back-up at ramps and gates.	Prime responsibility of military.
Field Safety Inspection	Prime resp. as operating authority-function shared with DAB, VNAF, USAF.	DAB conducts as part of maintenance responsibilities.	Military and airlines inspect as users.	All interested parties participate.
Industrial & General Accident Prevention			Vehicle traffic control and accident prevention responsibility of Nat'l. Police-low profile effort.	No formal industrial accident prevention program in evidence (e. g. - ramp safety procedures, ear protection).
Security Admin.	No overall admin. program evident except low level in areas of a/c fire and rescue. Low budget and staff levels in all areas.		Main effort by military via issue of passes, on-site security force and land use control by TSN Mil. Zone Commander.	No full scale program run by STIA-only military seems to be at full profile.
Facilities Engineering				
Facilities Research & Planning	DCA/STIA provide aviation standards & req'ts. to DAB for planning inputs. (e. g. -aircraft, passenger and cargo data-safety information)	A&E research and planning conducted by staff or contract in aeronautic area to satisfy DCA requirements-in other areas to support STIA and Nat'l Av. Property requirements.	Military conduct as req'd for security facilities. Surrounding civil areas coord. for interfacing considerations. (e. g. - access ways)	Prime responsibility for STIA is under DAB with STIA input.
Specif. & Standards Defin.	DCA defines aviation-related standards.	Engrg. standards set by DAB to satisfy aviation req'ts where req'd., otherwise set for public works req'ts.		Prime responsibility under DAB with STIA input.
Design	Coordination with DAB to assure aeronautical standards are met.	DAB responsible for facilities design-can do in-house or contract.	Surrounding civil areas coordinate for interfaces (e. g. -access ways, clear areas and obstructions.)	Prime responsibility under DAB with STIA coordination.
Project Control		DAB responsible for facilities development project control.		Prime responsibility under DAB.
Contractor Liaison & Inspection		DAB responsible for contract or surveillance or can perform work using their own or other gov't. agency staffs.		Prime responsibility under DAB

Function	Ministry of Transport & Post (Incl. -STIA-Saigon Ton Son Nhut Airport, DCA-Directorate of Civil Aviation)	Ministry of Public Works (Incl. -DAB-Directorate of Air Bases)	Other	Current Observations
<u>Facilities Engineering (cont'd)</u> Tenant Support	STIA coordinates with tenants to define their facilities requirements -if non-structural, can complete or support within budget and contracting restrictions.	DAB implements tenant requirements if major facilities improvements or modifications required.	Tenants can complete minor changes in their area (e. g. -new ticket counters, immigration desks.)	Responsibility diffused.
Engr'g Admin.	No real engr'g capability except for some top staff personnel.	DAB administers all work done by own staff; contractors or other gov't. organizations.		Prime responsibility under DAB.
<u>General Administration</u>				
Personnel & Training	STIA requisitions new hires via DCA Admin. Division. DCA maintains most personnel functions as prime responsibility. STIA maintains informal records and conducts staff training at low budget level except for controllers.			Prime responsibility for STIA at DCA level. STIA maintains informal records.
Wage & Salary Admin.	DCA maintains primary local responsibility. STIA maintains informal records.		Min. of Finance maintains master records, salary classification and pay levels as part of total GVN system-budgeted at national level.	STIA has little or no role in determining salary budgets or staff classifications-informal record kept.
Office Services	STIA provides own office services with staff (low budget level). Supplies from central gov't. purchasing office.			Low profile function.
<u>Financial Administration</u>				
Fiscal Planning & Budgeting	Manpower salary budgets are pre-defined by Min. of Finance to reflect inflation and existing staff characteristics. STIA conducts budgetary and cash planning to cover operational functions and minor maintenance. Budgets must be approved and finance authorized by DCA, Ministry of Transp. and Post, Cabinet and Congress.	In coordination with STIA and Dir. of Civil Aviation, budgetary planning is conducted for capital improvements and major mainten. must be approved by Minister of Public Works, Cabinet and Congress	Ministry of Finance assesses and adjusts budget requests. The cabinet and Congress approve the national budget. International fees (e. g. -landing fees) developed with Coord. of Min. Foreign Affairs.	Responsibility diffused. STIA management has only the capability to request budgeted funds from the national budget for op'ns. and minor maintenance. Staff salaries budgets are completely out of STIA hands while capital budgets are only indirectly influenced.
Gen'l Accounting & Bookkeeping	STIA "tracks" budgeted funds expended under its control and whatever data can be acquired of other expenditures. Accounts kept on line item expenditure basis only and contain incomplete information for non-STIA administered areas (e. g. -security, capitol projects and major maintenance costs)	DAB maintains own accounting of STIA-related expenditures.	Other ministries maintain own accounts of STIA-related expenditures (e. g. -customs, immigration, law enforcement.)	Information diffused. No integrated accounting function anywhere. STIA attempts to track funds, expenditures using available data only.
Payroll & Timekeeping	STIA management informally "tracks" staff payroll expenditures for low key periodic reporting purposes. DCA also monitors. Payment from Nat'l. Treasury.	STIA-related payroll handled via Nat'l Treasury.	Ministry of Finance maintains master payroll budgets and accounts for all GVN employees.	STIA only in the loop informally. Prime function accomplished elsewhere.
Accounts Receivable & Payable	Receivables invoices prepared by STIA staff are released by DCA to tenants and service recipients. Collected funds go directly into Nat'l Treasury. Payable invoices are approved for payment by DCA and paid directly from Nat'l Treas. after several months delay.	STIA-related payables and receivables handled directly by Nat'l Treasury	STIA-related payables and receivables handled directly by Nat'l Treasury for all ministries	STIA out of revenues loop. Only prepare receivable invoice and payable vouchers. STIA retains no revenues. Bill paying very slow and costly. No foreign exchange collected.

Function	Ministry of Transport & Post (Incl. -STIA-Saigon Ton Son Nhut Airport, DCA-Directorate of Civil Aviation)	Ministry of Public Works (Incl. -DAB-Directorate of Air Bases)	Other	Current Observations
<u>Financial Administration (ctd.)</u>				
Audit	No audit function operating at STIA. No budget or staff available.			No staff available for STIA audit function.
Financial Admin	STIA financial admin is only a low key function limited to tracking available data on invoiced receivables and routine payables.			Limited to low level bookkeeping effort at STIA because of GVN financial procedures.
<u>Property Management</u>				
Lease & Concession Acquisition & Negotiation	<u>Concessions:</u> Bid system is used whereby bidders agree to and bid upon pre-specified terms and conditions. High payoff bidder wins and specifications are binding. Terms negotiations not conducted because of lack of staff personnel and time. <u>Leases:</u> Prospective lessees apply to pre-set terms. For open areas, as approved by Commandant STIA in wartime role of Civil Asst. to Commander TSN Military Zone (Coord. with DAB)	<u>Leases:</u> DAB gives final endorsement to land use permits under present military zone arrangement in role of responsibility over national aviation properties.		Because of lack of staff depth, leases and concessions acquisition procedures lack the negotiation and selection practice normally found elsewhere.
Lease & Concession Admin.	<u>Concessions:</u> Monitored and administered by Commandant and Deputy Commandant STIA. Also may include airline representatives. <u>Leases:</u> Monitored and administered by Commandant and Deputy Commandant			Because of lack of staff depth, surveillance and control of agreements is difficult and spotty.
Land Use Development	Recommend land use requirements to DAB based on aeronautical needs	Final authority for land use development of STIA as a Nat'l Aviation Property. (Must coord. w/military during wartime)	Military commander of TSN Mil. Zone must approve plans during wartime.	Responsibility diffused among several ministries
Land Use Administration	Acting as Civil Ass't. to Military Commander, endorses land use proposals under wartime policies.	Prime responsibility for land use admin. in peace time - coord. with military under war time policies.		
<u>Purchasing</u>				
Procurement	All purchases approved by Dir. of Civil Av. STIA acquires estimates below 500,000 - over 500,000 - formal bids required. Contracting for services severely restricted. Foreign Purchases via Central Purchasing Agency.	Construction and maintenance contracted to private firms or within the government.	Foreign purchases via central gov't. purchasing agency (18 months).	Prime responsibility for STIA related procurements is spread among several government organizations. No final authorization can be made by STIA management.
Storage/warehousing Stock Issue & Inventory Control	STIA has minimum level inventory of spare parts-only. Buys most as needed to conserve budgeted funds. Admin. materials acquired from central gov't. stationary supply.		Military provides some material support when needed.	Low level capability at STIA.
Contracts Admin.	STIA contracts administered officially at DCA level but practically by STIA commandant or deputy commandant (very few contracts, per se under DCA)	DAB contracts administered by DAB		Tied to whomever is responsible for a particular procurement.
<u>Public Relations</u>				
Community Relations Tours & Promotions	No organized function. Informal P. R. conducted by the Commandant. (Base access currently restricted by security measures)	Low key effort by DAB in normal course of coordinating with surrounding political jurisdictions re airport improvements, expansion, etc.	Military security measures restrict public access. Some passes issued on special requests.	No formal program in existence.

Function	Ministry of Transport & Post (Incl. -STIA-Saigon Ton Son Nhut Airport, DCA-Directorate of Civil Aviation)	Ministry of Public Works (Incl. -DAB-Directorate of Air Bases)	Other	Current Observations
<u>Legal</u>				
Agreement & Contract Review	Counsel retained by DCA-utilized at discretion of STIA management.			DCA-retained counsel available when required.
Counseling	"			"
<u>Economics</u>				
Air Travel Analysis & Forecast Aviation Economics	Nominal analytical functions at DCA and STIA levels. At STIA mostly by top staff to support plan- ning and budgeting activities.	Analysis by top DAB staff to support planning and budget- ing activities.		No centralized capability
Rates & Charge Analysis	Rudimentary analytical capability by top STIA staff personnel. Rec- ommendations to DCA and in turn to Minister. For international air agreements, coord. with Ministry of Foreign-Affairs for negotiations.		Charges under internat- ional air agreements analyzed by Ministry of Foreign Affairs prior to negotiation.	No centralized capability

II. FINANCIAL ANALYSIS AND PLAN

FINANCIAL ANALYSIS AND PLAN

INTRODUCTION:

This section assesses the present situation and the future development and operation of Saigon International Airport from the financial point of view.

The current financial situation at Saigon International Airport is defined both qualitatively and quantitatively and then assessed against future airport goals and objectives. Projected ability to accomplish these goals and objectives is analyzed and an overall financial projection is made through 1990.

This financial projection takes into account (1) those goals, objectives and policies previously described in the Management Analysis and Plan, (2) passenger and air traffic projections described in the Economic Analysis (Primary Volume - Appendix A), and (3) the Airport Development Program described in Chapter IV of the Primary Volume of this report.

The financial analysis was conducted using top level, summary accounts inasmuch as historical data for past years provided an incomplete base, even at this level. An annual expenditure level per passenger objective was established to be reached in the 1980's and which would be comparable to the expenditure levels and associated service capabilities at similar airports throughout the world. Revenue requirements then were defined to satisfy operating expenditure levels through 1980, and then combined with ability to satisfy requirements for funding and servicing the debt for the post-1980 airport development program and

providing at least 10% surplus. An iterative analysis was conducted beginning with the current financial picture and then extending the plan to 1990. Revenue and program expenditure accounts were projected by extension of current levels, when appropriate, and by actual calculation related to projected passenger and air traffic levels where possible. Allocation levels for program expenditures were made on an annual basis within the "annual operating expenditure per passenger index" for each year. Following integration of capital development financial requirements, indices of financial health were calculated and compared with target levels for these indices.

The results of the analysis include a set of recommended goals, objectives and policies and a projection of overall revenue and expenditure levels to be targeted on an annual basis. These goals and objectives are structured within the framework of the top level S. I. A. goals and objectives previously described in the Management Analysis and Plan.

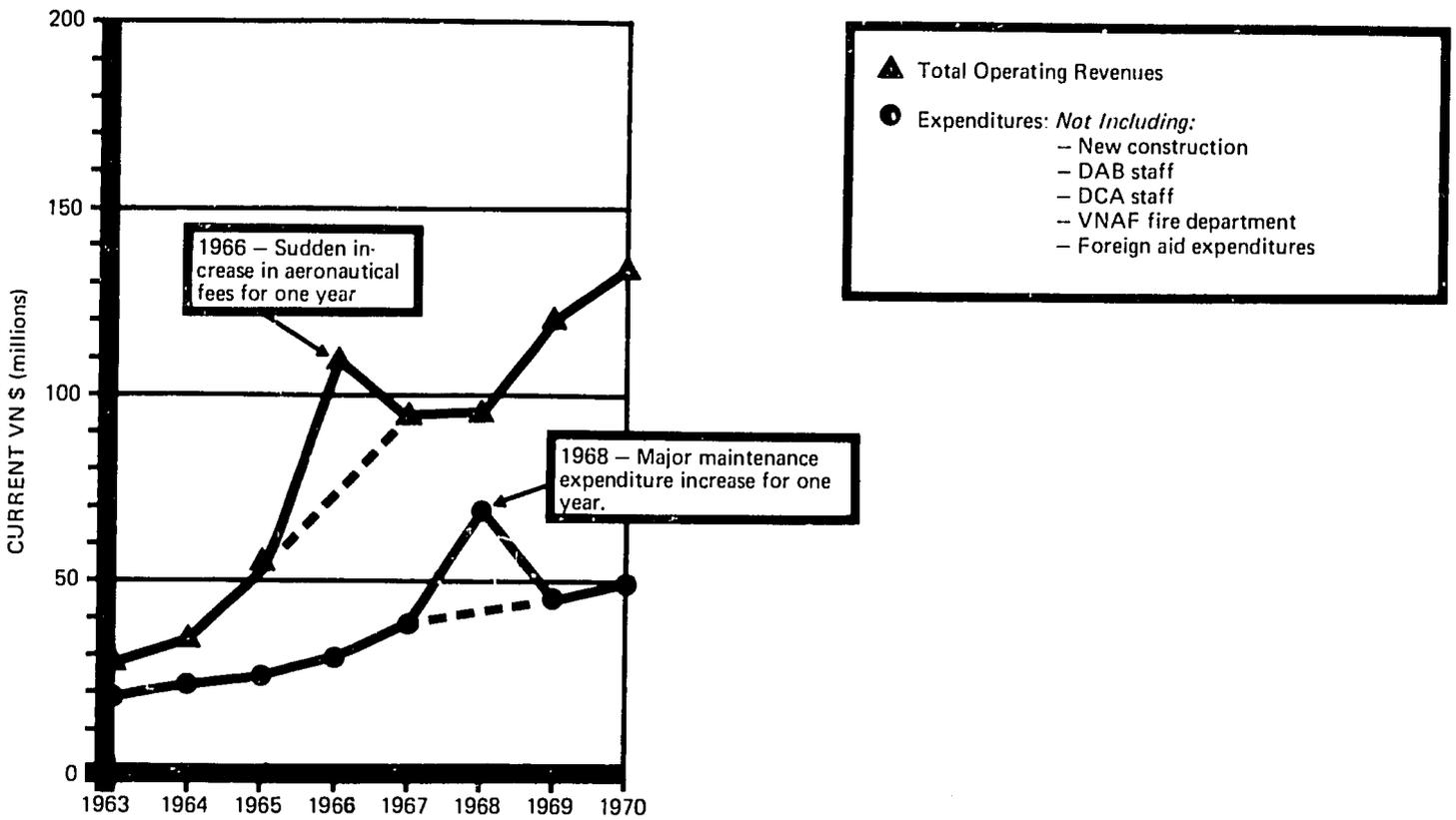
BACKGROUND:

Examination of the limited historical accounting data currently available for Saigon Tan Son Nhut International Airport (S. T. I. A.) reveal both an "apparent" and an "actual" situation, depending upon the analytical technique employed.

A simple review of expenditure and revenue levels from 1963 to 1970 shows an apparent trend for continuously increasing expenditures and revenues. (See Figure 1.) However, this apparent trend results from analyzing financial data not corrected for inflation and not indexed to the level of passenger and air

Figure 1

SAIGON TAN SON NHUT INTERNATIONAL AIRPORT
OPERATING REVENUES AND EXPENDITURES (1963-1970)



traffic during this period.

A more rigorous examination of available data, as shown in Figure 2, reveals that increases in spending for operations and maintenance have not kept pace with the increases in commercial aircraft movements and commercial passengers, nor has it kept pace with inflation. Expenditure rates per passenger and per commercial aircraft have in fact declined.

A still more rigorous assessment of revenue and expenditures per passenger corrected to 1972 dollars (Figure 3), emphasizes the decline in expenditure rates and real revenue and shows that the rates have been sustained at a low level from 1967 through 1971. Physical evidence of this low expenditure level includes badly deteriorated aircraft operating surfaces and the low level of maintenance currently in evidence at the terminal building. Previously cited personnel problems (Management Analysis and Plan) also result partly from this financial deficiency. (1969 and 1970 data reveal a total expenditure level only slightly exceeding revenue plus foreign aid if some VNAF, DAB and DCA costs are not included.)

An attempt currently is being made to increase airfield revenues by modifying aircraft landing fees to include adjustment for international exchange rates as well as a general increase. In addition, 1972 fee schedules for ramp and other services have been increased appreciably and efforts are being made to derive higher levels of income from concession and rental sources. It is anticipated that these fee increases coupled with slowly increasing international passenger

Figure 2

Comparative STIA Operations & Maintenance Demands VS. Resource Allocations (1963 & 1970)

Demand Source	1963	1970	Change	% Change	Resource Application	1963	1970	Change	% Change
Total Aircraft Movements	122,470	850,820	+728,350	+595%	Total Aeronautical & Tech. Personnel	33	64	+31	+94%
Commercial A/C Movements	30,000	38,269	+8,269	+28%	Total Admin. & Other Personnel	196	119	-87	-44%
Commercial Passengers (Including Military Commercial)	328,500	1,864,200	+1,535,700	+467%	Operating Fund	\$1,834,000	\$8,743,000	+\$6,909,000	+377%
					Operating Fund Alloc. per Aircraft Movement	\$61.1	\$228.5	\$167.4	+274%
					Operating Fund Alloc. per Commercial Passenger	\$5.6	\$4.7	-\$0.9	-16%
Total Terminal Maintenance Area (m ²)	8,000	10,000	+2,000	+20%	Building Maintenance Personnel	85	41	-44	-52%
					Building Maintenance Personnel per m ²	.011	.0041	-.0069	-63%
					Building Maintenance Fund	\$583,300	\$1,218,000	+\$634,700	+110%
					Building Maintenance Fund per m ²	\$72.9	\$121.8	\$48.9	+67%
					Building Maintenance Fund per Commercial Passenger	\$1.8	\$0.7	-\$1.1	-63%
Total Runway & Ramp Maintenance Area (m ²)	620,000	858,000	+238,000	+38%	Airfield Maintenance Fund	\$4,580,000	\$16,560,000	+\$11,980,000	+260%
					Airfield Maintenance Fund per m ²	\$7.4	\$19.3	+\$11.9	+161%
					Airfield Maintenance Fund per Aircraft Movement	\$152.7	\$432.7	+\$280.0	+183%

Note: 1963-1970 Inflation 1970 VNS Worth approximately 30% of 1963 VNS

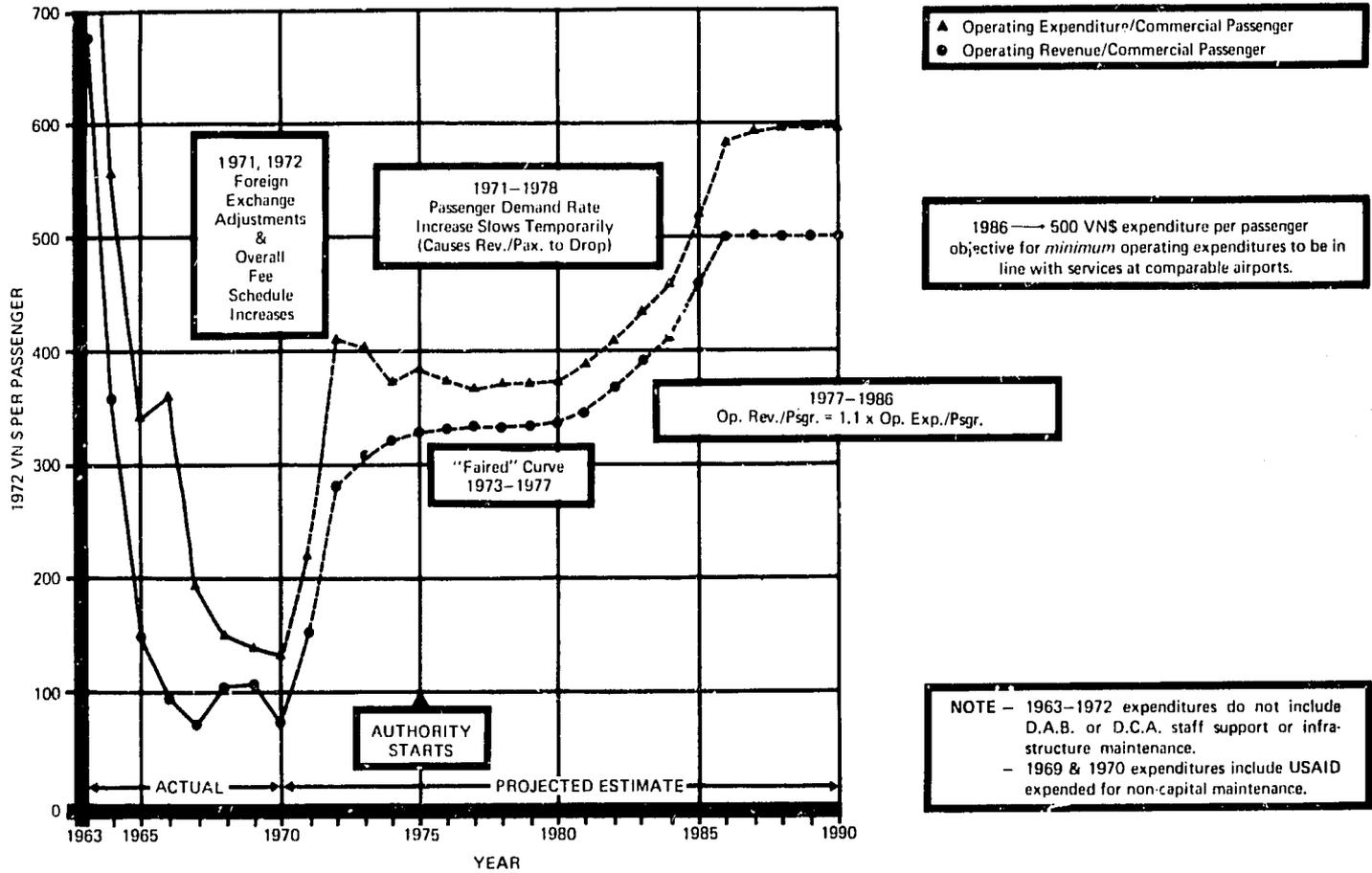
i.e. To keep even with inflation, 1963 funds levels must have increased by at least 334%.

(All funds-current VNS)

Source: STIA Annual Report-1970

Figure 3

SAIGON INTERNATIONAL AIRPORT – OPERATING REVENUE & EXPENDITURES PER COMMERCIAL PASSENGER (1963–1990)
 CONSTANT 1972 VN \$ (10% inflation per year 1963–1972)



1975

and aircraft operating demands will provide the foundation for immediate higher annual revenue levels and in turn capability to support higher annual expenditure levels per passenger.

The Management Analysis and Plan section has already described the management policies and past history of the airport leading to the current management and financial scenario.

S.I. A. baseline financial sub-goals under major goal #3 are that following the 1975 start of the Airport Authority, all operating and maintenance expenditures will be paid by authority-generated funds (Phase A) and that from 1981 on (Phase B), all expenditures (operating, maintenance and capital), will be covered by airport funds. In addition, a ten percent revenue surplus is targeted to provide a "buffer" for lean years and also to provide a surplus of funds for unplanned maintenance and miscellaneous replacement expenditures. All future allocations and projections in this Plan are based upon these goals.

A major financial objective tied to service level goals recommended for Saigon International Airport is an annual operating expenditure level per passenger of 500-1972 V.N. \$ by the mid-1980's. This is at the level of analogous international airports and would provide funding levels to allow comparable services at S.I. A. Figure 3, "Saigon Airport Operating Revenue and Expenditures Per Commercial Passenger," provides a graphic picture of constant 1972 V.N. \$ operating revenues and expenditures per passenger as actuals from 1963 through 1970 as well as projected levels through 1990. The curves reflect the drop discussed earlier from 1963 through 1970 as well as predicted increases from '71 through '72 as a result

of the implementation of increased airport fees. The period during the middle and later 1970's reflects a flattening of the curve during the period when projected international air traffic levels off and then begins its long-range upturn. An upturn in revenue and expenditures per passenger is shown during the early 1980's as passenger traffic increases (reference - "optimistic projection" in the economic analysis section) until the target level of 500-1972 V. N. \$ expenditures is reached and revenue generation per passenger achieves the level required to satisfy operating and capital development objectives.

ANALYSIS AND CONCLUSIONS:

As an initial part of the analysis, an overview assessment was made for the financial picture of the airport from 1963 to the present. General trends have already been covered in the Background discussion. In addition, the 1969 and 1970 Tan Son Nhut Annual Reports were assessed in depth and re-structured to fit a standardized set of financial accounts to be used as a structure for the remainder of the analysis. (See "Supporting Data" for detailed breakdown.) The results of the 1969 and 1970 analysis are presented as the first part of the overall analytical results which also include baseline projections to 1990, thus providing a perspective, of the total twenty year period.

In addition, the baseline Development Program recommended through 1990 was evaluated to determine additional financial requirements it imposes within the set of goals and policies previously defined. For purposes of this analysis, it is assumed that improvements to be conducted during the period prior to 1981

will not be capitalized by the Authority. It is assumed that these improvements will be financed by outside aid which could include government grants or foreign aid. Under these conditions, depreciation and debt servicing requirements are not imposed upon the fledgling authority during its initial start-up period. On the other hand, the analysis assumes that major improvements to be conducted following 1980 are capitalized and debt servicing and depreciation covered by airport income. It must be emphasized that this is a baseline plan and that other policies could be adopted. Several of these alternatives are presented in the recommendations section.

Figure 4, "S.I. A. Master Schedule," presents the summarized baseline development program financial picture as well as the related timing of the financial program phasing through 1990. Development and financing requirements are scheduled to fit exactly to anticipated air traffic and passenger demand levels. Details of debt servicing and depreciation for various capitalized items' in the Development Program are provided in the "support material" at the end of this section.

Basically, depreciation and debt repayment periods are set parallel to each other with straight line depreciation and an assumed 6% annual interest rate. It is also assumed that debt repayment reserve accumulation (debts will be repaid in full at the end of the debt period) and interest payment begin in the year during which the funds are borrowed. Debt repayment reserves are accumulated and deposited in interest-bearing accounts to provide an additional, minor source of income to supplement operating revenues. These are listed as

SIA Master Schedule of Development (1972-1990)

PROGRAMS	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
AIRPORT DEVELOPMENT PROGRAM																			
TERMINALS – CONSTRUCTION & IMPROVEMENT																			
Terminal #1																			
New International Terminal																			
Lounge & Concourse																			
Cargo Terminal																			
RUNWAYS & TAXIWAYS – OVERLAYS & SHOULDERS																			
Runway 25-L																			
South Taxiway																			
Runway 25-R																			
25-R Taxiway System																			
APRONS – REPAVING																			
International																			
Domestic																			
Cargo																			
UTILITIES – UPGRADING																			
Water																			
Sewage & Waste Disposal																			
Electric																			
AIRPORT ACCESSWAYS – CONSTRUCTION & IMPROVEMENT																			
One-way System – South Accessway																			
International Terminal Loop																			
Cargo Terminal Accessway																			
East Accessway																			
VEHICLE PARKING – CONSTRUCTION & IMPROVEMENT																			
International Terminal Area																			
Domestic Terminal Area																			
General Dom. & Int'l. Area Expansion																			
Cargo																			
REORGANIZATION & STAFF IMPROVEMENT PROGRAM																			
Feasibility & Planning Study																			
Congress Approves Authority																			
Begin Authority Operation																			
Organize Authority																			
Staff Improvement																			
Reorganize Min. T&P to Concept A																			
FINANCIAL PROGRAM																			
PHASE A – Pay O & M Costs																			
PHASE B – Pay All Costs																			

NOTE: All costs 1972 Millions of Dollars—U.S.

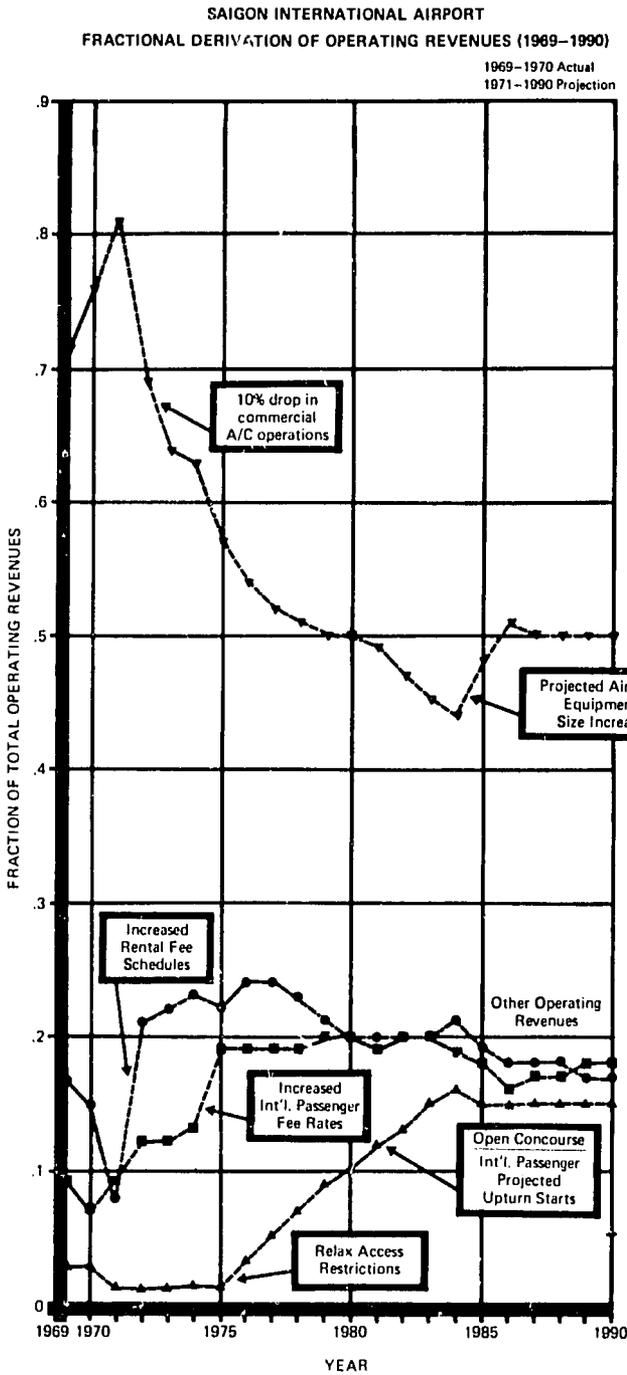
Assumed post-1972 Foreign Exchange Rate = 400VN \$: 1 US \$

"non-operating revenues" in the financial summary. Depreciation of capitalized investments is assumed to begin during the first operational year of the capital item when it begins its productive life. Depreciation is carried as a separate line item under "operating expenses." Repayment reserve allocations are derived from revenue surplus. Interest liability is included in the "non-operating expenditure" line item.

Fractional breakdowns of revenues and operating expenditures were derived for the 1969 and 1970 years for which annual report data is available. These fractional data were then compared with similar operating finance breakdowns for other similar airports and were assessed against the projected revenue generation and expenditure requirement levels for the Saigon environment. Based upon these evaluations, projected allocations were made through the 1990 time period and are presented in Figure 5. Tentative allocations were tested iteratively against anticipated airfield and ramp revenue as well as passenger tariff revenue projections.

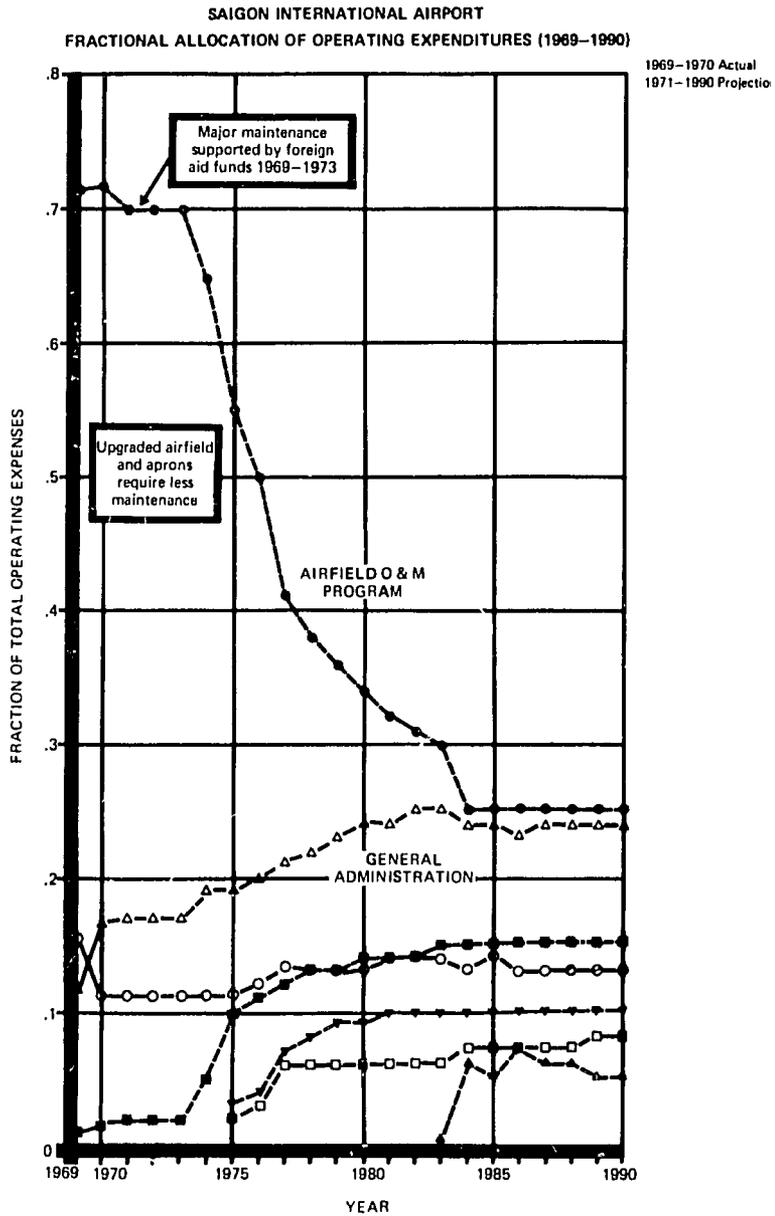
To project international passenger departure tariff annual revenues, projected enplaning passengers (from the "optimistic" economic projection) initially was applied against the existing passenger tariff rate with no exemptions allowed. At the same time, a dual analysis of potential airfield and ramp revenue projections was derived. One projection used the 1970 actual data and early 1971 actual data combined with the economic "optimistic" projection to derive incremental increases commensurate with the anticipated number of annual aircraft operations. Concurrently, revenue projections were calculated applying

Figure 5a



- ▼ Airfield & Ramp Fees
- Land & Facilities Rentals
- International Passenger Boarding Fees
- ▲ Other Operating Revenues

Figure 5b



- Airfield O & M Program
- ▲ General Administration
- Terminal & Support Bldg. O & M Program
- General Support Services Program
- ▼ Ground Access System O & M Program
- Leased Facility & Lands Maintenance Program
- ▲ Depreciation

SAIGON INTERNATIONAL AIRPORT - FINANCIAL SUMMARY - FRACTIONAL OPERATING (1969-1990)

(ALL POST-1972 VALUES CONSTANT 1972 VNS±1000)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	FOOTNOTE
<u>OPERATING REVENUES</u>																							
Airfield & Ramp Fees	.71	.76	.81	.69	.64	.63	.57	.54	.54	.51	.50	.50	.49	.47	.45	.44	.48	.51	.50	.50	.50	.50	13
Psgr. Boarding Tariff	.09	.07	.09	.12	.12	.13	.19	.19	.19	.19	.20	.20	.19	.20	.20	.19	.18	.16	.17	.17	.18	.18	14
Land & Facility Rental	.17	.15	.08	.21	.23	.23	.22	.24	.24	.23	.21	.20	.20	.20	.20	.21	.19	.18	.18	.18	.17	.17	15
Other	.03	.02	.01	.01	.01	.01	.01	.03	.05	.07	.09	.10	.12	.13	.15	.16	.15	.15	.15	.15	.15	.15	16
Total Operating Revenues	1.00	17																					
<u>OPERATING EXPENDITURES</u>																							
Airfield O&M Program	.72	.71	.70	.70	.70	.65	.55	.50	.41	.38	.36	.34	.32	.31	.30	.25	.25	.25	.25	.25	.25	.25	21
Terminal & Support Bldg. O&M Prog.	.01	.02	.02	.02	.02	.05	.10	.11	.12	.13	.13	.14	.14	.14	.14	.15	.15	.15	.15	.15	.15	.15	22
Ground Access System O&M Prog.							.03	.04	.07	.08	.09	.09	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	23
Leased Facility & Land Maint. Prog.							.02	.03	.06	.06	.06	.06	.06	.06	.06	.06	.07	.07	.07	.07	.07	.08	24
General Support Services Prog.	.15	.11	.11	.11	.11	.11	.11	.12	.13	.13	.13	.13	.14	.14	.15	.13	.14	.13	.13	.13	.13	.13	25
General Administration	.12	.17	.17	.17	.17	.19	.19	.20	.21	.22	.23	.24	.24	.25	.25	.24	.24	.23	.24	.24	.24	.24	26
Depreciation																.003	.06	.05	.07	.06	.06	.05	27
Total Operating Expenditures	1.00	28																					

projected aircraft operations to a new landing fee schedule which provides for a "straight line" domestic fee schedule and satisfies target 1985-87 revenue requirements. The comparative curves are presented in Figure 6 while the current and recommended fee schedule for the post-mid-1980's time period is presented as Figure 7. Assessment of the information provided in the curves of Figure 6 indicated that a closely parallel revenue projection is derived from both methodologies through 1985. However at this time, the accelerated increase in international passenger traffic indicates that larger aircraft sizes will be required to handle this traffic. The two curves cross over at this point to reflect the increased equipment size, which is included as part of the calculation of the landing-fee-oriented projection and is presumably more realistic at this time than continued projection solely by number of operations. Therefore, projected revenues on the overall financial plan utilize the projection on an "operations increase" basis from 1970-1984 after which a cross over is made to information derived from aircraft size and a modified landing fee schedule. It was assumed that general aviation and air cargo flight fees will be of relatively minor significance during this period.

Analysis of potential revenues from passenger boarding tariffs revealed that a per capita increase from 500 to 800-1972 V.N. \$ beginning in 1975 (when the new Authority starts) would provide additional revenues required to maintain an adequate overall income level without modifying the existing landing fee schedule until the 1980's. This fee level is comparable to tariffs of other Asian airports. Revenue percentages for land and facility rentals and "other revenues" project from current figures. The "other operating revenue" category, which includes

Figure 6

SAIGON INTERNATIONAL AIRPORT AIRFIELD & RAMP REVENUES PROJECTIONS (1970-1990)

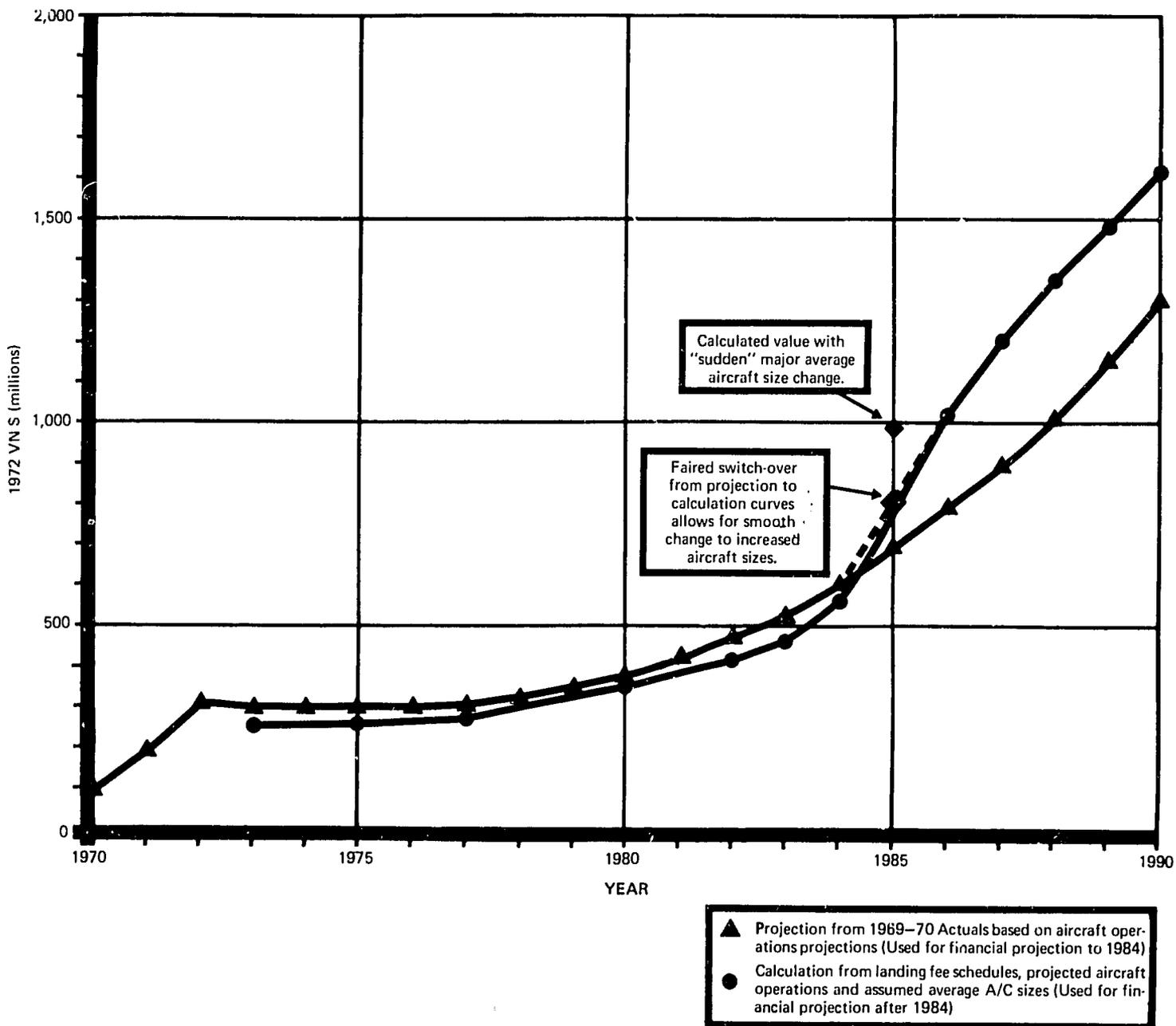


Figure 7

SAIGON INTERNATIONAL AIRPORT
RECOMMENDED Post-1985 REVISED LANDING FEE SCHEDULE vs. EXISTING SCHEDULE



concession income, shows a rapid increase between 1975 and 1985 to reflect anticipated relaxation of base access restrictions and the resulting availability of retail customers to expend funds at the airport.

Operating expenditure fractional allocations are set at target values and reflect levels at comparable airports tempered by application of local operating conditions at S. I. A. Accounts are "program structured" and the usual "line item" allocation (salaries, materials, etc.) should be derived in detailed plans which result from further study during the "Feasibility and Planning Study" recommended in the management section.

Figure 8 graphically presents operating revenues and operating expenditures, both in total and for major subaccounts, through 1990. The levels reflect previously cited objectives and policies related to overall expenditure level rates as well as projected target levels for the specific revenue and expenditure categories.

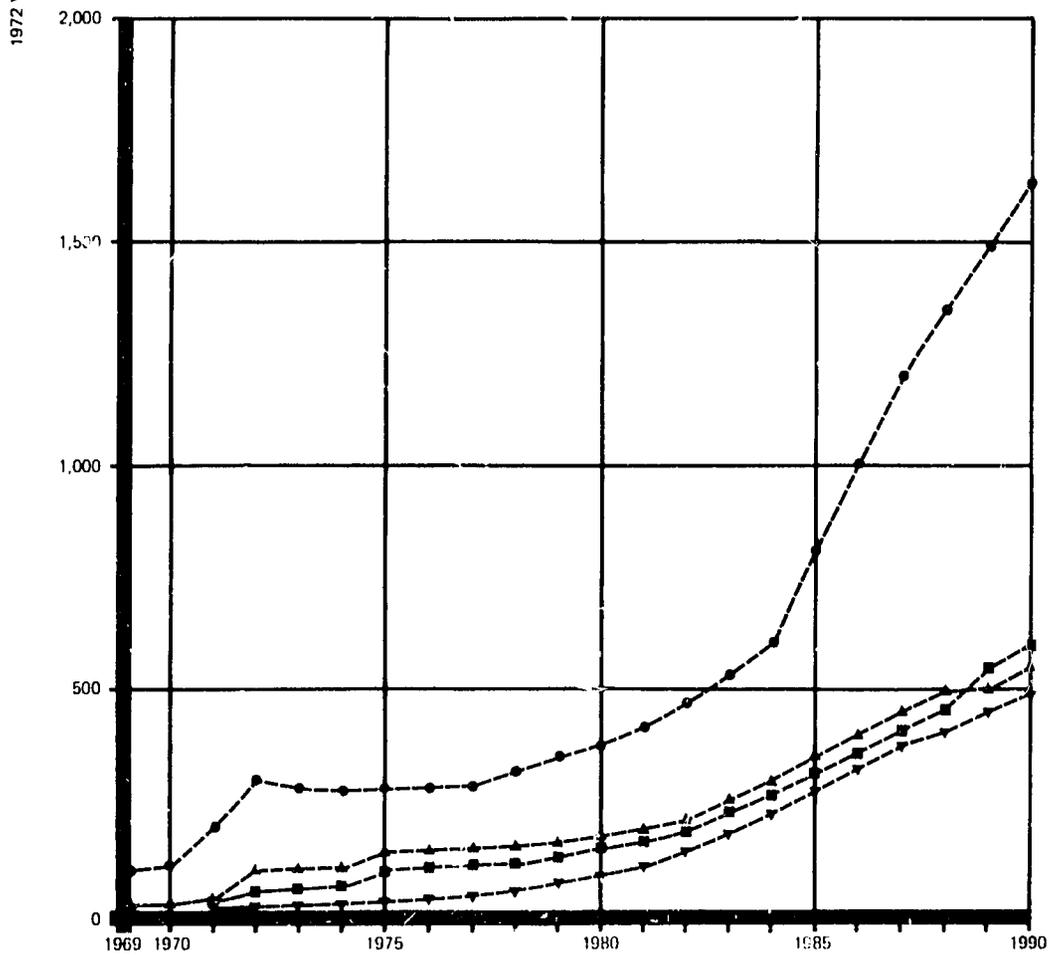
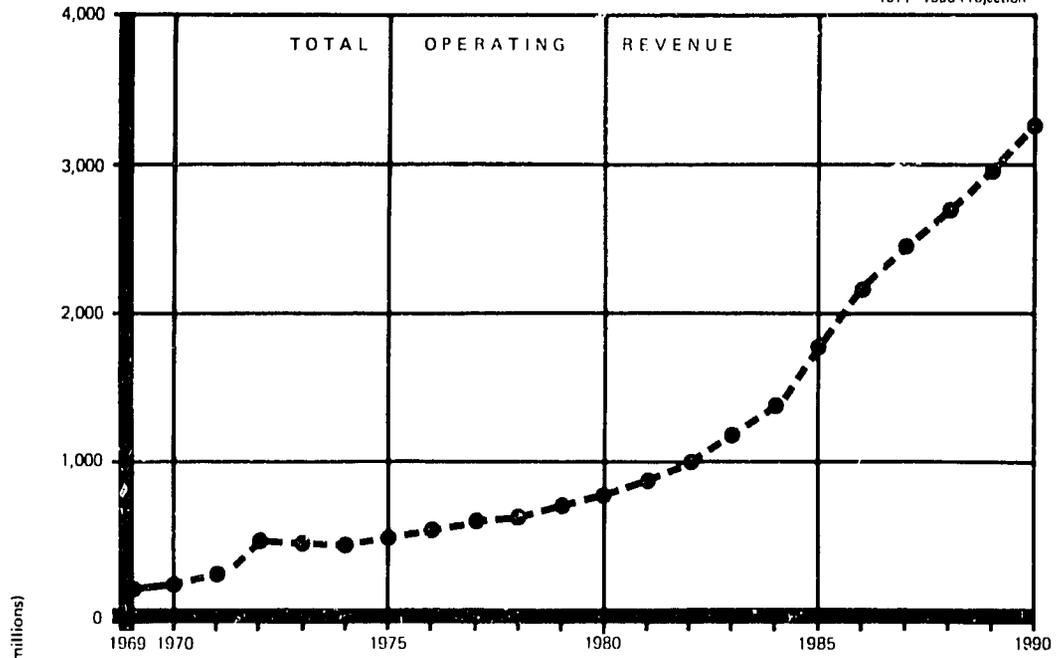
Figure 9 summarizes the "annual operating ratio" (operating revenues divided by operating expenditures) through 1990 for the baseline plan. It can be seen that in all years, if projections hold true, the ratio exceeds the minimum target level of 1.1. The ratio declines initially from 1974-75 through the mid 1980's as the operating expenditure rate increases over present levels. Then, in the mid-1980's, the ratio increases slightly when the projected passenger traffic growth rate accelerates and thus provides a greater operating margin.

Figure 10 summarizes the "debt coverage ratio" (gross surplus divided by

Figure 8a

SAIGON INTERNATIONAL AIRPORT
OPERATING REVENUE BREAKDOWN (1969-1990)

1969-1970 Actual
1971-1990 Projection

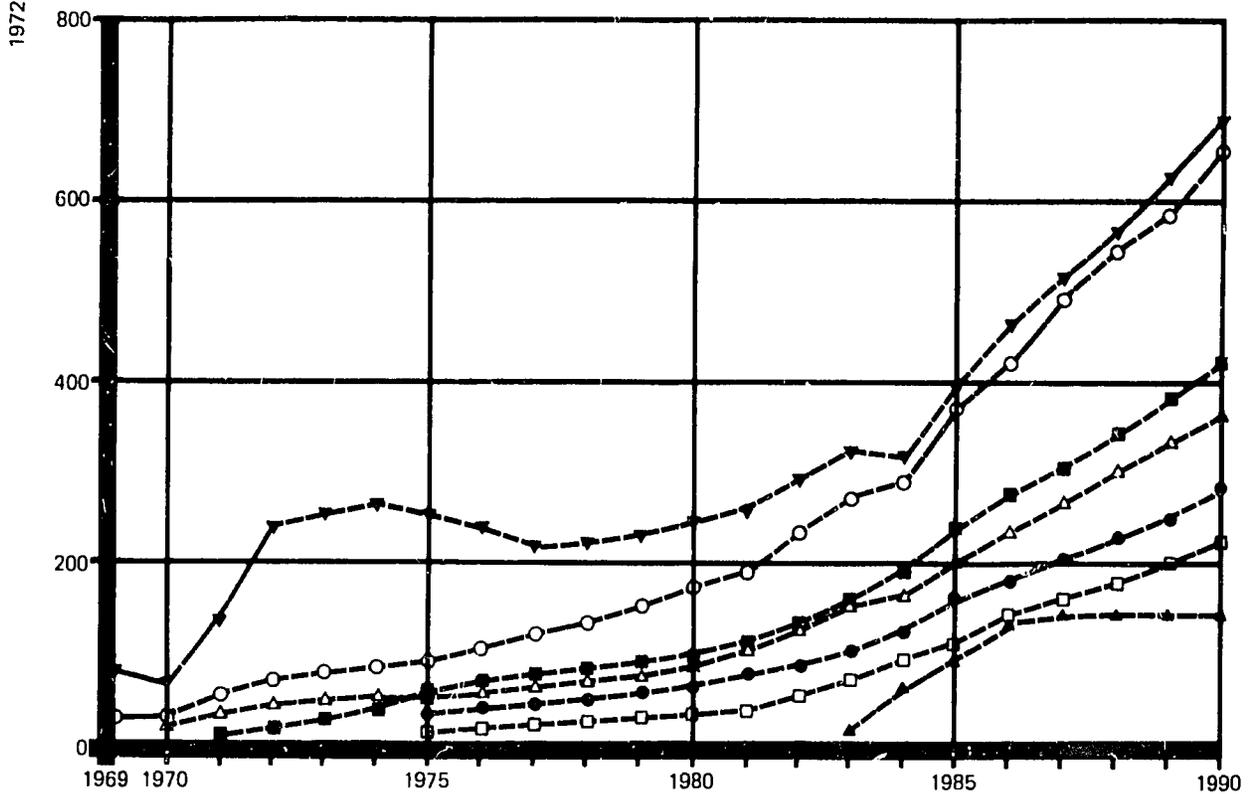
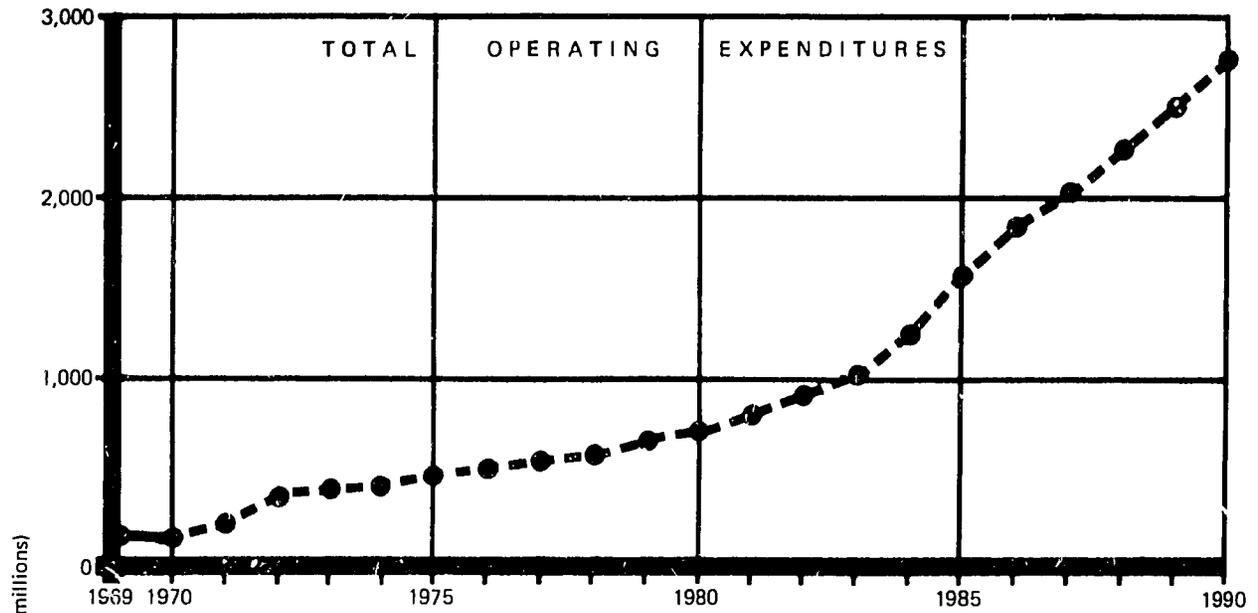


- Airfield & Ramp Fees
- ▲ Land & Facility Rentals
- Passenger Tariff
- ▼ Other Operating Revenue

Figure 8b

SAIGON INTERNATIONAL AIRPORT
OPERATING EXPENDITURE BREAKDOWN
(1969-1990)

1969-1970 - Actual
1971-1990 - Projection



- ▼ Airfield O & M
- General Administration
- Terminal O & M
- △ General Support
- Ground Access O & M
- Leased Facility Maintenance
- ▲ Depreciation

Figure 9

SIA OPERATING FINANCIAL RATIO
(1969-1990)

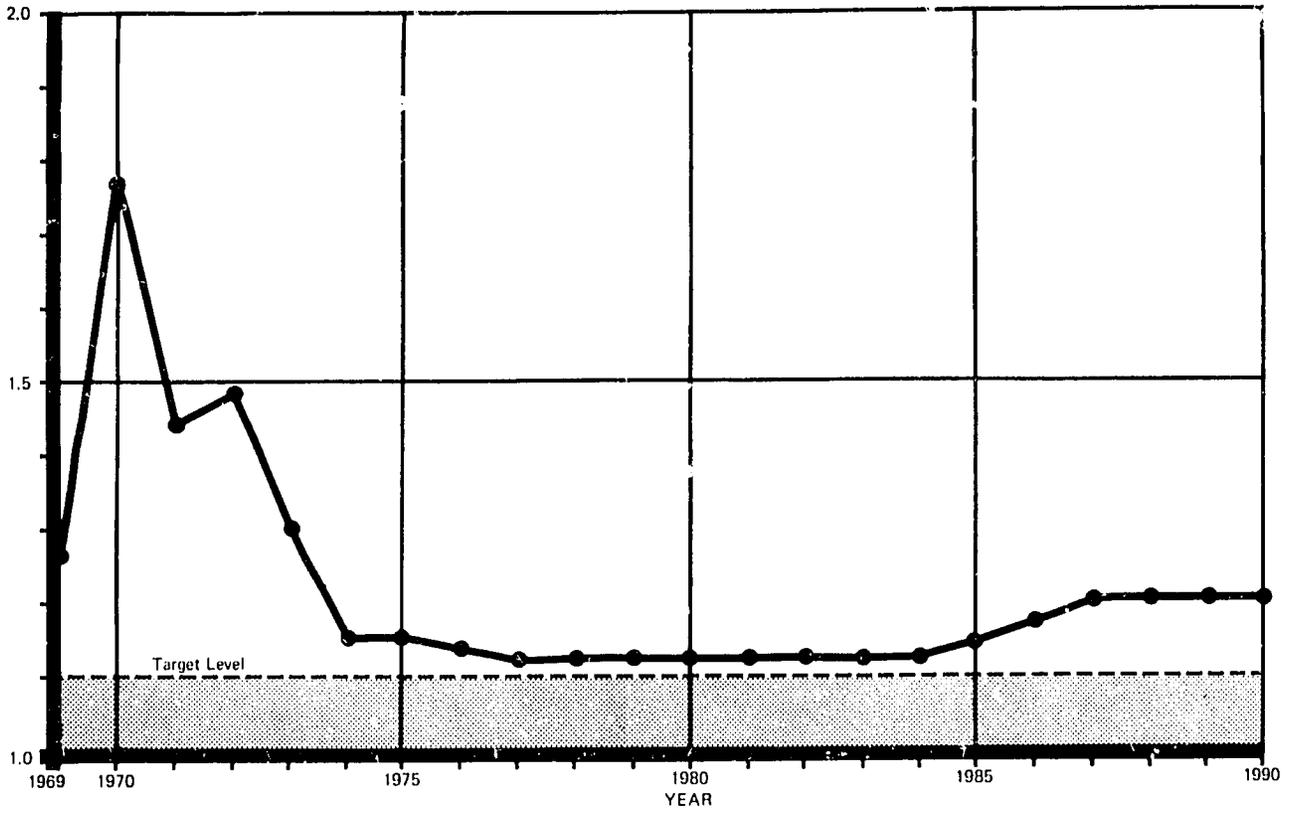
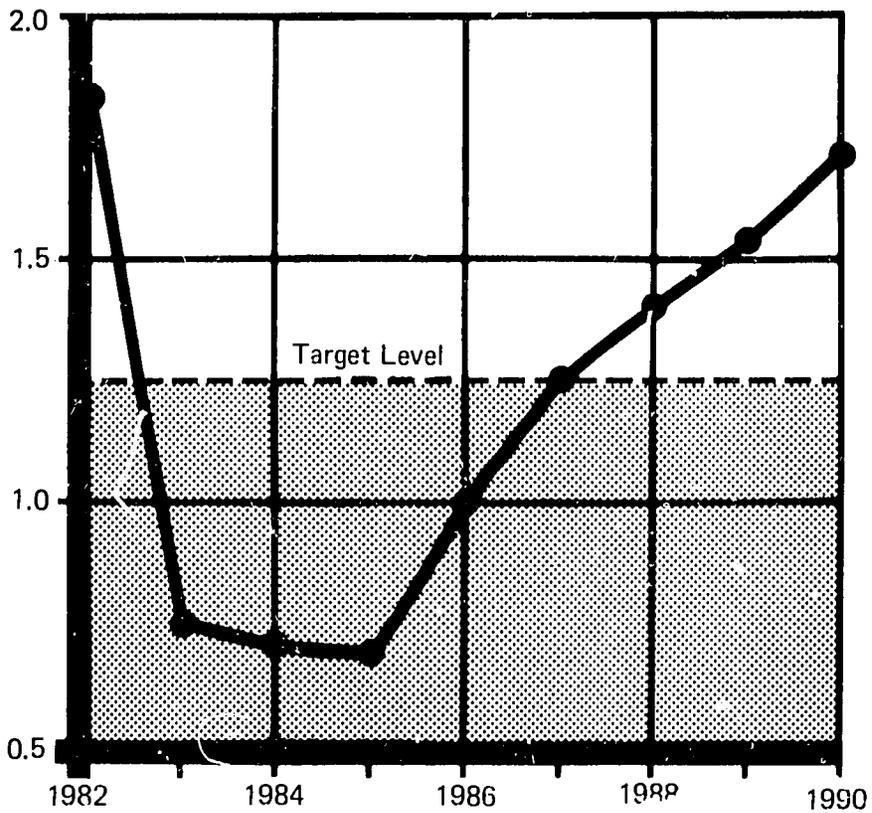


Figure 10

SIA DEBT COVERAGE RATIO
(1982-1990)



interest plus debt repayment reserve). This ratio is only calculated during the post-1981 period during which the airport becomes responsible for servicing debts under the baseline operating concept. It can be seen that the ratio dips below the minimum target level during the first several years of heavy investment but climbs above that level thereafter. During the time when the ratio dips below the minimum target level, debt servicing will be covered by accumulated surplus from the 1970's. Following this, increased passenger and aircraft traffic, accompanied by increased income in all areas of the airport, bring the ratio above the minimum target level.

The "foreign exchange ration" (Figure 11) indicates the projected ability of the airport to cover its foreign exchange payment requirements. This value is calculated by dividing foreign exchange generated (assumed to consist almost entirely of international landing fees and international rentals) by foreign exchange payment requirements (assumed to include loan interest and loan repayment requirements from foreign sources--in this case, under the most conservative condition, which includes all loan interest and repayments). Miscellaneous investment and replacements from foreign sources are assumed to be approximately 15% of the surplus foreign exchange and therefore, a target minimum level has been set at 1.25 to allow for these and other unplanned requirements. Analysis of this indicator shows that the airport at all times, even under most conservative assumptions, will be able to service its foreign exchange requirements including miscellaneous investment and replacements and other unplanned expenditures. Inasmuch as the predicted future sources of foreign

Figure 11

SIA FOREIGN EXCHANGE RATIO
(1982-1990)

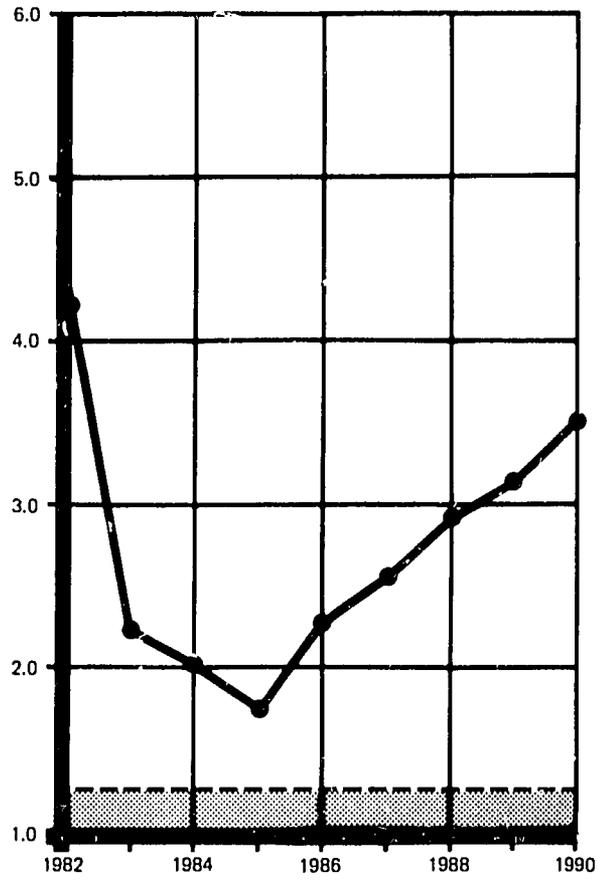
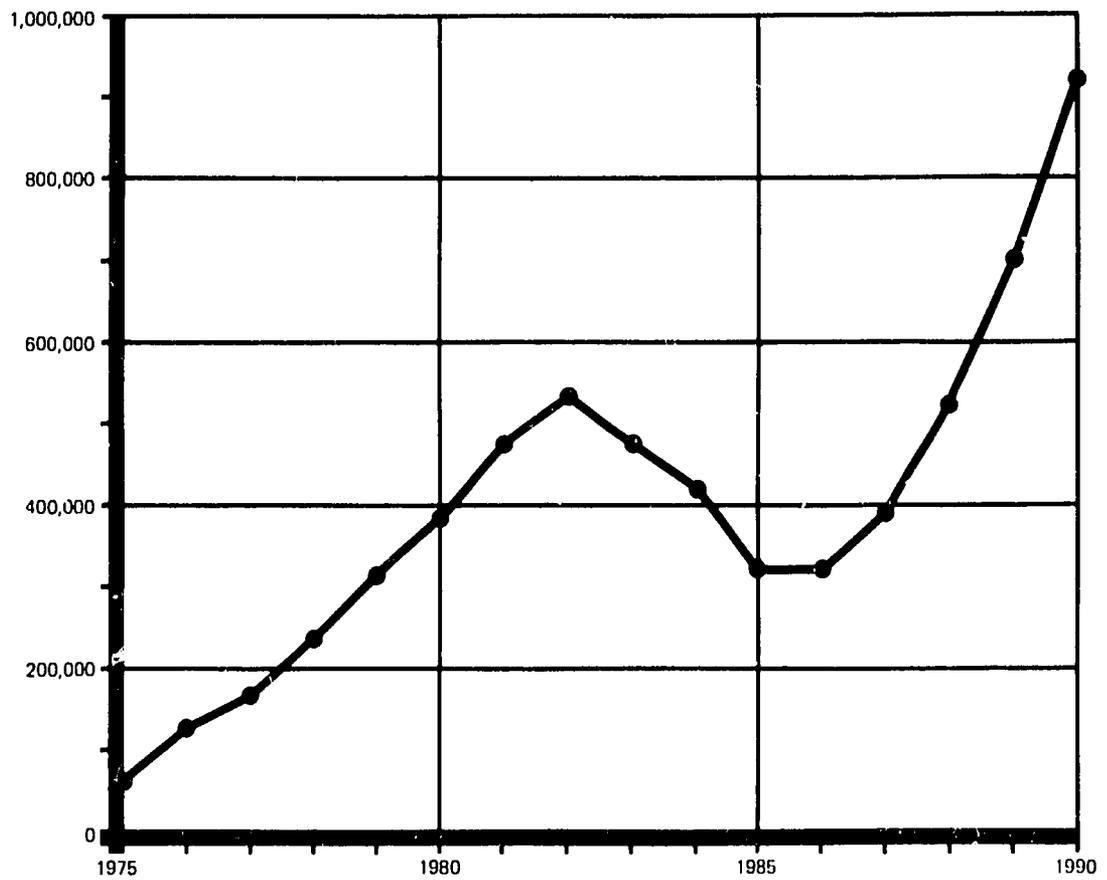


Figure 12

SIA CUMULATIVE SURPLUS RESERVE
(1975-1990)



exchange now remit payments in Vietnamese currency, it is recommended that new regulations be released by the Government of Vietnam to allow payments to be made in appropriate foreign currencies to the Airport Authority.

Evaluation of overall baseline plan finances from 1975, when Authority status begins, through 1990 reveal the cumulative surplus reserve picture illustrated in Figure 12. These reserve funds are available and utilized to help service the debt during the 1980's, this causing a dip in the curve during the initial impact period of the post-1981 capital development program. The funds are also available for expenditure as miscellaneous investment and replacement and for other unplanned expenditures. These latter expenditures are not included in the analysis, but would be deducted from the total values shown on Figure 12 as the actual periods transpire or as more accurate prediction data becomes available in the future.

A "Financial Summary" for Saigon Airport from 1969 through 1980 is presented as Figure 13. The table represents a summarized annual operating statement, accompanying financial indicators, and breakdowns of operating and non-operating revenues and operating and non-operating expenditures. In addition, the debt picture related to the baseline capital development program is summarized along with a set of major milestones required for indexing the overall financial scenario.

It is assumed that the Authority will pay no taxes to the Government. In addition, constant 1972 V.N. \$ used in this analysis must be modified as part of future

analyses to reflect (1) real and projected inflation, and (2) significant changes in foreign exchange rates from the 400:1 assumed in this study.

RECOMMENDATIONS:

As discussed in the Management Analysis and Plan, current operating philosophies and policies must be modified in order that Saigon International Airport may become a self-supporting and contributing Vietnamese national enterprise. Therefore, the following recommendations are made to implement the baseline financial plan analyzed above. Several additional options also are recommended for possible inclusion in the plan during the Authority Feasibility and Detail Planning Study.

A. RECOMMENDED FINANCIAL POLICIES

Financial Philosophy

It is recommended that Saigon International Airport be operated as an autonomous budget center with a goal, objective and program-oriented account structure. Normal "line item" budgets should be defined within individual programs. Revenues generated by the airport would be managed by the airport and expended for various budgetary items including operation, maintenance, administration and airport development programs.

Operating Philosophy

As discussed earlier, it is recommended that Saigon International Airport, upon being chartered as an Authority (1975), should immediately become responsible for financing all operating, maintenance and administrative

activities related to the International Airport operation. In addition, it is recommended that from 1981 on, all major airport improvements be capitalized and that the airport authority become responsible for debt servicing and retirement in addition to the responsibilities assumed in 1975.

Rate and fee schedules as well as expenditure levels must be constantly reviewed in the light of annual experience vs. pre-set objectives so that objectives and/or schedules may be adjusted to accommodate actual conditions.

B. RECOMMENDED FINANCIAL PLAN

The baseline financial plan is described in the Analysis and Conclusion subsection. This plan would become the base point for additional iterative analysis and re-planning following accumulation of detailed actual airport operating cost and revenue data during the next few years and would also be subjected to immediate assessment and refinement as part of the "Airport Authority Feasibility and Planning Study" discussed in the management section.

Existing rental and ramp fee schedules can be continued initially in order to accumulate historical data for these areas and to determine whether or not target revenue levels may be achieved through application of these schedules. Following this assessment of actual operating conditions, fee schedules or target revenue levels may be adjusted to more applicable levels. Also, additional revenue generating sources may be developed by expansion of concessions to auto parking, terminal shops, ramp servicing, ground

transportation, baggage handling, aviation fuel usage tax, etc. (Fuel usage tax is a strong area for almost immediate implementation and is commonly accepted worldwide as an effective and equitable commercial revenue source.)

Following continuous assessment of actual operating costs, as part of a formal cost data accumulation program, the same "feedback" assessment process may be made in relation to expenditure program areas. Previously allocated percentages then may be adjusted to expenditure distribution levels more compatible with actual operating conditions and costs as well as available resources.

Financing of major airport improvements during the 1970's will, of necessity, mainly be provided by outside sources. The new Airport Authority will not have adequate resources or borrowing capacity available during these initial low traffic years to finance the relatively large-scale development programs required as demand increases. However, post-1981 airport improvements would be the responsibility of the Authority which would then be in a position, based on their record during initial operating years, to receive government loans or grants, and to borrow money from outside lending sources (including international financial institutions) or through bonded indebtedness. If passenger and air traffic levels do not reach the "optimistic" economic projection levels, all development would be rescheduled to later times and demands for capital investment by the Airport Authority would be postponed accordingly.

In summary, therefore, it is recommended that the projected financial plan included herein be utilized as a baseline for additional analysis and assessment following the generation and analysis of more accurate and extensive airport historical operating costs and revenues. Only then will actual operating cost requirements be accurately fixed so that fee schedules can be set to assure continuous income coverage which is adequate to finance operation of the airport.

However, the consultant's initial analysis does indicate that, if optimistic levels of passenger traffic and air operations are achieved, the Airport Authority immediately can become a viable self-sustaining enterprise which will contribute to national and regional goals. (Additional income derived from Vietnamese Air Force contributions to airfield operations and maintenance and from projected relatively low-level general aviation and cargo operations would augment an already favorable picture.)

C. ADDITIONAL OPTIONS FOR APPLICATION TO THE BASELINE PLAN

Following is a set of additional considerations, not integrated with baseline plan, but which should be considered for possible application to the plan during the Feasibility and Planning Study. A modified implementation logic is provided as Figure 14 and includes these options.

1. GVN-SIA Cost Sharing - Serious consideration should be given to adopting an equitable cost sharing arrangement with the GVN as is currently done in other countries. This would apply to major development and maintenance programs and could begin during the 1970's with low-level

SIA participation - while their income is low - and later increasing to a higher level as commercial revenues increase. GVN participation would also offset airport investments and maintenance arising from military usage. Early participation in investment financing would also demonstrate the capability of the commercial operation and further facilitate granting of Authority status in 1975, as recommended.

2. Provisional Autonomous Financial Status - Prior to full Authority status, financial and operational effectiveness of the airport can be enhanced if management is allowed to retain directly some percentage of its generated revenues. This will demonstrate managerial and financial capability and will facilitate more prompt and meaningful application of these funds to support airport activities while Authority status is pending.
3. Development Plan Financing Adjustment - As described above, the Baseline Plan is structured to respond directly to passenger and freight projected demands. This has led to presentation of an idealized schedule of financial requirements which should now be "smoothed" to fit anticipated available funding, particularly during the 1970's.

FINANCIAL SUMMARY FOOTNOTE REFERENCES

1. Total from #17 below (revenues derived from airport operation).
2. Total from below (expenditures for operation, day-to-day maintenance and administration of the airport).
3. Surplus operating revenues not required for coverage of airport operation expenditures (or loss if expenditures exceed revenues).
4. Funds derived from non-operating sources (e. g. - prior to 1981 - foreign aid, airline support, government grants; interest from investments from 1980 on).
5. Funds available for airport improvements, major maintenance, debt-servicing.
6. Funds expended for debt interest, airport improvements, major maintenance, misc. investment and replacements (to 1980 - non-capitalized investments including total airport development program plus steadily declining U. S. foreign aid expenditure for misc. replacements and investment; post 1980 - debt interest).
- 7., 8. Funds available for loan repayments unplanned expenditures and investment, inflation reserve.
- 9., 10., 11. See report text and Figures 9, 10, 11.
12. Index of operating revenues generated in relation to commercial passengers serviced.

Financial Summary Footnote References (continued)

13. Revenues derived from commercial aircraft landing fees, ramp and airfield lighting fees, ramp service and access fees. See text and Figures 6 and 7 with associated support data for derivations of annual projections.
14. Revenues derived from international passenger boarding tariffs. 150 V. N. \$ (1969, '70, most '71); 500 V. N. \$ (1972, '73, '74); 800 V. N. \$ (1975 on). Projections assume no exemptions - that is all enplaning international passengers are assessed.
15. Revenues derived from rent of airport land and facilities. Current rates established by decree of Minister of Transportation and Post-established 1972. Projection objectives extended from existing levels to minimum levels commensurate with increased airport traffic demands and comparable levels at other airports.
16. Revenues derived from concessions and support services provided to tenants. Projection objectives extended from existing levels to minimum levels commensurate with increased airport passenger and aircraft traffic and comparable levels at other airports.
17. Total revenues derived directly from airport operations.
18. Funds not derived from airport operations (see #4, above).
19. Grant total of all airport income from operating and non-operating sources.
20. Index of annual expenditure level per commercial passenger for airport administration, operations and maintenance programs plus capital investment depreciation.

Financial Summary Footnote References (continued)

21. Total expenditures for operation and maintenance of the S. I. A. airfield (runways, taxiways, aprons, perimeter areas, approach and landing aids, fire and rescue, tower operation). Decreases in proportion to total expenditures as passenger levels and service demands increase - also as passenger levels and service demands increase - also as facilities are improved and day-to-day large scale maintenance requirements decline.
22. Total expenditures for operation and maintenance of S. I. A. passenger and freight terminal operation and maintenance and for operation and maintenance of other support facilities. Increases in proportion to total expenditures as passenger levels and service demands increase and with addition of augmented terminal facilities.
23. Total expenditure for operation and maintenance of the airport ground access system including access ways, parking areas, drainage, lighting, etc. Not available under current management and financial operating conditions while conducted by DAB. Would come under S. I. A. jurisdiction and financing with Authority charter.
24. Total expenditure for maintenance of airport commercially leased facilities and lands. Not available under current management and financial operating conditions while conducted by DAB. Would come under S. I. A. jurisdiction and financing with Authority charter.
25. Total expenditure for provision of support services to tenants and general support to the airport operator (e. g. - maintenance workshop, vehicle and equipment maintenance, ambulance and first aid, utilities services).

Financial Summary Footnote References (continued)

26. Total expenditures for overall airport administration including management and administrative staff, insurance and general overhead not allocable to program expenditure areas.
27. Annual reserve allowance for nominally amortizing the replacement cost of capitalized items over the entire period of their useful lives. Applies the cost of such items as an operating expense. Begins in 1983 for the S. I. A. policies and plans.
28. Total expenditures for the annual operation, maintenance and administration of the airport:
-
- Each detail planned program expenditure account would include allocation for "line item" expenditures such as: salaries, allowances, materials, utilities, services, etc.
 - It is assumed that in return for indirectly subsidizing Air Viet Nam and VN military, S. I. A. will pay no taxes.
-
29. Expenditures not allocable to normal day-to-day operation, maintenance and administration. To 1980, includes non-capitalized major expenditures for airport improvement and major maintenance paid for by government grant, foreign aid or other non-debt sources. After 1980 - includes debt interest for capitalized investment loans and non-debt investments and miscellaneous replacements.
30. Grant total of all annual expenditures: operational and non-operational.

Financial Summary Footnote References (continued)

31. Borrowed funds expended during the year. None until post-1980 when S. I. A. becomes responsible for total airport financing including capital improvements. (See SIA Master Schedule of Development.) Analyses assume all are borrowed from foreign lenders either as loans or bonded indebtedness.
32. Cumulated outstanding borrowed funds less loans repayed at the end of the loan period.
33. Funds reserved during the year for eventual repayment of outstanding debts at the end of their loan periods. These funds are deposited in interest-bearing trust accounts until remitted to lenders. Derived from surplus funds.
34. Cumulated debt replacement reserve funds less debts repayed at the end of loan periods.

SAIGON TSN INTERNATIONAL AIRPORT
ANALYSIS OF 1969 & 1970 FINANCES (V. N. \$ ÷ 1,000)
(SOURCE: 1969, 1970 ANNUAL REPORTS)

NOTE - Does not include DAB & DCA staff expenses or infrastructure maint. costs -
- Also does not include costs of support by other ministries (police, VNAF, fire, finance)

REVENUES	<u>1969</u>	<u>1970</u>	<u>REMARKS</u>
<u>OPERATING REVENUES</u>			
<u>AIRFIELD FEES & CHARGES</u>			
commercial landing fees	} 86,909 (.71)	101,821 (.76)	
a/c parking fees			
service charges			
lighting fees			
<u>PASSENGER FEES</u>	11,237 (.09)	9,272 (.07)	"airport charges"
<u>LAND & FACILITY RENTAL</u>			
hanger & aviation bldg.	} 20,036 (.17)	20,015 (.15)	
land leases			
<u>OTHER OPERATING REVENUES</u>			
concessions	2,043	2,960	
services (telephone)	233	—	
private flight escort	480	434	
publicity	548	—	
Total Other	<u>3,304 (.03)</u>	<u>3,394 (.02)</u>	
<u>TOTAL OPERATING REVENUES</u>			
	(.52) 121,486 (1.00)	(.53) 134,502 (1.00)	
<u>NON-OPERATING RECEIPTS</u>			
foreign aid	113,800	105,600	
airline contribution	} —	11,436	
to special upgrading			
<u>TOTAL NON-OPERATING RECEIPTS</u>			
	(.48) 113,800	(.47) 117,036	
<u>TOTAL REVENUES & RECEIPTS</u>			
	(1.00) 235,286	(1.00) 251,538	

Figure S3b

SAIGON TSN INTERNATIONAL AIRPORT
ANALYSIS OF 1969 & 1970 FINANCES (V. N. \$ ÷ 1,000)

EXPENDITURES	<u>1969</u>	<u>1970</u>	<u>REMARKS</u>
<u>OPERATING EXPENDITURES</u>			
<u>AIRFIELD OPNS. & MAINTENANCE</u>			
runways & taxiways system	3,958	VN-16,559	
parking aprons		AID 23,600	
drainage			
tower	6,142	6,978	
approach & landing aids		385	
STIA fire & rescue	5,765	5,755	
fuel system	—	—	contractor
service roads	—	—	not available
aircraft servicing support	—	—	not available
unallocated non-major maint.	VN-13,500 AID-39,300	—	
<u>TOTAL AIRFIELD O & M</u>	68,665 (.72)	53,277 (.71)	
<u>TERMINAL & SUPPORT BLDG. OPNS. & MAINT.</u>	—	—	not available
<u>LEASED FACILITY & LAND MAINT.</u>	—	—	not available
<u>GENERAL SUPPORT SERVICES</u>			
maint. workshop	180		
utilities (incl. "computer")	13,791	7,235	
veh. & eqpt. maint.	769	1,000	
ambulance & first aid	35	35	
<u>TOTAL GENERAL SUPPORT SERVICES</u>	14,775 (.15)	8,270 (.11)	
<u>GENERAL ADMINISTRATION</u>			
mgmt. staff	1,270	1,404	
admin. staff	10,006	11,099	
insurance, etc.	—	—	not available
<u>TOTAL GENERAL ADMINISTRATION</u>	11,276 (.12)	12,503 (.16)	
<u>DEPRECIATION</u>	NONE	NONE	
<u>TOTAL OPERATING EXPENDITURES</u>	(.41) 95,917 (1.00)	(.32) 75,268 (1.00)	SEE "NOTE" IN HEADING

SAIGON TSN INTERNATIONAL AIRPORT
ANALYSIS OF 1969 & 1970 EXPENDITURES (V. N. \$ ÷ 1,000)

EXPENDITURES (continued)	<u>1969</u>	<u>1970</u>	<u>REMARKS</u>
<u>NON-OPERATING EXPENDITURES</u>			
<u>DEBT INTEREST</u>	NONE	NONE	no borrowed funds
<u>UNCAPITALIZED MAJOR CONSTRUCTION AND MAINTENANCE EXPENDITURES</u>			
roads & apron construction	{ AID -- 71,500 VN -- 28,000	---	
terminal & support buildings:		air-	
construction & misc.	{	lines -- 11,436	
major maint.	VN -- 16,000	VN -- 49,460	
water supply construction	VN -- 4,200	VN -- 407	
control tower & eqpt.	{	AID -- 23,000	
runway maint.	VN -- 14,000	VN -- 13,895	
	---	AID -- 59,000	
<u>TOTAL UNCAPITALIZED MAJOR CONSTRUCTION & MAINTENANCE EXPENDITURES</u>	136,700	157,198	
<u>MISC. INVESTMENT & REPLACEMENT EXPEND.</u>	2,340	NONE	
<u>TOTAL NON-OPERATING EXPENDITURES</u>	(.59)139,040	(.68) 157,198	
<u>TOTAL EXPENDITURES</u>	(1.00)234,957	(1.00) 232,466	SEE "NOTE IN HEADING"

Figure S4

SAIGON TAN SON NHUT INTERNATIONAL AIRPORT
ESTIMATES OF OP'N. REVENUES 1971, 1972
 (Projections from 1970 using "optimistic projections" data and 1970 actuals.)

1. Derivation of Ratio - International to Domestic Landing fees for 1970:

1970	OP'NS	OP'NS RATIO	AVERAGE LANDING FEE RATIO	AVERAGE REVENUE FACTOR	FRACTION OF TOTAL LANDING FEE REVENUE
Domestic	31,642	4.77	1	1.77	.32
International	6,627	1.00	10	10.00	.68

AVG. A.C.
 Intl. - 3727
 Dom - DC-4

2. Calculation of Estimated Landing Fees:

	1970	BASIS OF 1971 ESTIM.	1971 ESTIM.	BASIS OF 1972 ESTIM.	1972 ESTIMATE
Domestic	.32 X \$101,800,000 = \$ 32,576,000	Same Fees	.92 X 1970 OPS = \$ 29,969,920	X .91 decrease from 1971 operations plus 20% rate increase	\$ 32,727,152
International	.68 X \$101,800,000 = \$ 69,224,000	X 2.34 rate adj.	.97 X 1970 OPS = \$157,124,630	X 1.45 rate adj.	\$253,461,660
TOTAL	Actual = \$101,800,000	TOTAL ESTIMATE	\$187,094,550	TOTAL ESTIMATE	\$286,188,810

1972 ESTIMATE CALCULATION

DOMESTIC - CONSULTING EST. 1972 OP'NS. - 26624
 CONSULTING EST. 1971 OP'NS. - 29164 .91 ratio 1972/1971 OPS.

.91 X \$29,969,920 \$27,272,627 { ESTIM. 1972 revenue at 1971 fee scale

1.2 X \$27,272,627 \$32,727,152 { ESTIM. 1972 revenue at 1972 fee scale-increase of 20%

INTERNATIONAL

ESTIM. 1972 OP'NS. - 5747
 ESTIM. 1971 OP'NS. - 6435 1.89 ratio 1972/1971

• 45% Intl. Exchange Rate Fee Adjustment (400/275)

• 25% Intl. Fee Increase

.89 X \$157,124,630 \$139,840,920
 1.45 X \$139,840,920 \$202,769,330
 1.25 X \$202,769,330 \$253,461,660

3. Estimate of 1971, 1972 Total Operating Revenue (V. N. \$)

	1971		1972			
LANDING FEES	See above	\$187,094,550	.77	See above	\$286,188,810	.60
LIGHTING & PARKING FEES	ESTIM. 5% Landing Fees	9,351,728	.04	ESTIM. 5% Landing Fees	14,309,440	.03
RAMP USE FEES	(None)	None	---	ESTIM. 5% Landing Fees	14,309,440	.03
INT'L. PAX. TARIFF	114,085 @ Avg. V. N. \$200	23,316,900	.09	110,629 @ V. N. \$500	55,314,250	.12
RENTALS	Same as 1970	20,000,000	.08	1971 Value X 5 (Avg. Rate Increase)	100,000,000	.21
OTHER OP. REV.	Same as 1970	3,400,000	.01	ESTIMATE	5,000,000	.01
TOTAL		\$242,666,170	1.00		\$475,121,940	1.00

Figure S5

SAIGON INTERNATIONAL AIRPORT
MAJOR EXPENDITURE AND CAPITAL INVESTMENT - ANNUAL SUMMARY (1972 VNS=1000)

CAPITAL ITEM	YEAR																				
	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	
RUNWAYS & TAXIWAYS																					
RUNWAY 25L COVERLAY & PAVE SHOULDERS			68,000	610,400																	
SOUTH TAXIWAY COVERLAY & PAVE SHOULDERS				55,600	500,400																
RUNWAY 25R COVERLAY & PAVE SHOULDERS												68,000	610,400								
25R TAXIWAY SYSTEM COVERLAY & PAVE SHOULDERS												27,600	249,200								
TOTAL RUNWAYS & TAXIWAYS	0	0	68,000	666,000	500,400	0	0	0	0	0	0	0	95,600	859,600	0	0	0	0	0	0	0
UTILITIES																					
WATER SYSTEM				36,000	310,000	140,000															
SEWAGE & WASTE DISPOSAL				36,000	216,000	108,000															
ELECTRICAL POWER					10,000	90,000					10,000	90,000									
TOTAL UTILITIES	0	0	0	86,000	536,000	338,000	0	0	0	0	10,000	90,000	0	0	0	0	0	0	0	0	0
FADE ANNUAL TOTAL	0	0	68,000	752,000	1,036,400	338,000	0	0	0	0	10,000	90,000	95,600	859,600	0	0	0	0	0	0	0

Figure S6

SAIGON INTERNATIONAL AIRPORT
CAPITAL INVESTMENT DEPRECIATION ANNUAL SUMMARY (1972 VN\$1000)

CAPITAL ITEM	ANNUAL DEPRECIATION	YEAR																				REMARKS	
		80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99		2000
NEW INT'L TERMINAL PHASE 2						47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	47,520	→	TO 2009
CARGO TERMINAL OPTIONAL EXPANSION							7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	→	TO 2010
INT'L APRON PHASE 3						2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	2,740	→	TO 2004
CARGO APRON OPTIONAL PHASE 2						14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	14,360	→	TO 2005
RUNWAY 25L OVERLAY & PAVE SHOULDERS								33,920	33,920	33,920	33,920	33,920	33,920	33,920	33,920	33,920	33,920	33,920	33,920	33,920	33,920	→	TO 2006
25L TAXIWAY SYSTEM OVERLAY & PAVE SHOULDERS								13,840	13,840	13,840	13,840	13,840	13,840	13,840	13,840	13,840	13,840	13,840	13,840	13,840	13,840	→	TO 2006
ELECTRICAL POWER SYSTEM PHASE 2					2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	2,667	→	TO 2003
EAST AIRPORT ACCESSWAY						3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	→	TO 2004
GEN'L AUTO PARK EXPANSION						3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	3,460	→	TO 2004
ANNUAL TOTAL					2,667	74,247	81,447	129,207	129,207	129,207	129,207	129,207	129,207	129,207	129,207	129,207	129,207	129,207	129,207	129,207	129,207	129,207	

Figure S7

SAIGON INTERNATIONAL AIRPORT - TERMINALS

CAPITAL INVESTMENT DEPRECIATION - DATA

CAPITAL ITEM	YEAR INVESTED	TOTAL INVESTMENT	SALVAGE VALUE	DEPREC. VALUE	DEPREC. PERIOD	DEPREC. RATE	ANNUAL DEPREC.	REMARKS
TERMINAL #1-REMODEL TO INT'L -REMODEL TO DOMESTIC	1972	240M						NON-CAPITALIZED EXPENDITURE-NOT DEPRECIATED
	1977	80M						"
NEW INT'L TERMINAL -PHASE 1 -PHASE 2	1976	384M						"
	1977	576M						"
	1982	532M	10% 53.2M	118.8M	25yr.	4%/yr.	47.52M	CAPITALIZED INVESTMENT-BEGIN DEPRECIATION IN-1984 - FIRST OPN'L YEAR
	1983	788M	10% 78.8M					"
LINEAR LOUNGE & CONCOURSE	1979	48M						NON-CAPITALIZED EXPENDITURE-NOT DEPRECIATED
	1980	432M						"
CARGO TERMINAL - AIP-AMERICA REMODEL OPTIONAL EXPANDED TERMINAL	1976	40M						"
	1984	112M	10% 11.2M	180M	25yr.	40%/yr.	7.2M	OPTIONAL-CAPITALIZED INVESTMENT-IF BUILT, BEGIN DEPRECIATION IN 1985 - FIRST OPN'L YEAR
	1985	88M	10% 8.8M					"

SAIGON INTERNATIONAL AIRPORT - APRONS

CAPITAL INVESTMENT DEPRECIATION - DATA

CAPITAL ITEM	YEAR INVESTED	TOTAL INVESTMENT	SALVAGE VALUE	DEPREC. VALUE	DEPREC. PERIOD	DEPREC. RATE	ANNUAL DEPREC.	REMARKS
INTERNATIONAL APRON -PHASE 1 -PHASE 2 -PHASE 3	1973	288M						NON-CAPITALIZED EXPENDITURE-NOT DEPRECIATED
	1974	236M						"
	1976	76M						"
	1977	72.4M						"
	1982	5.6M	0	54.8M	20yr.	5%/yr.	2.74M	CAPITALIZED INVESTMENT-BEGIN DEPRECIATION IN 1984 - FIRST OPERATING YEAR
	1983	49.2M	0					"
DOMESTIC APRON	1976	159.2M						NON-CAPITALIZED EXPENDITURE-NOT DEPRECIATED
	1977	156.8M						"
CARGO APRON -PHASE 1 OPTIONAL -PHASE 2	1976	158M						"
	1977	129.2M						"
	1984	158M	0	287.2M	20yr.	5%/yr.	14.36M	OPTIONAL-CAPITALIZED INVESTMENT-IF BUILT, BEGIN DEPRECIATION IN 1985 - FIRST OPERATING YEAR
	1985	129.2M	0					"
MISC. PAVING	1976	122M						NON-CAPITALIZED EXPENDITURE-NOT DEPRECIATED
	1977	99.6M						"

Figure S7

SAIGON INTERNATIONAL AIRPORT - RUNWAYS & TAXIWAYS

CAPITAL INVESTMENT DEPRECIATION - DATA

CAPITAL ITEM	YEAR INVESTED	TOTAL INVESTMENT	SALVAGE VALUE	DEPREC. VALUE	DEPREC. PERIOD	DEPREC. RATE	ANNUAL DEPREC.	REMARKS
RUNWAY 25L -OVERLAY -PAVE SHOULDERS	1974	58.4M						NON-CAPITALIZED EXPENDITURE - NOT DEPRECIATED
	1975	525.6M						"
	1974	9.2M						"
	1975	82.8M						"
SOUTH TAXIWAY -OVERLAY -PAVE SHOULDERS	1975	46.8M						"
	1976	421.2M						"
	1975	8.8						"
	1976	79.2M						"
RUNWAY 25R -OVERLAY -PAVE SHOULDERS	1984	58.4M	0	58M	20yr.	5%/yr.	29.2M	CAPITALIZED INVESTMENT-BEGIN DEPRECIATION IN 1986 - FIRST OPERATING YEAR
	1985	525.6M	0					"
	1984	9.6M	0	94.4M	20yr.	5%/yr.	4.72M	"
	1985	84.8M	0					"
25P TAXIWAY SYSTEM -OVERLAY -PAVE SHOULDERS	1984	20M	0	200M	20yr.	5%/yr.	10M	"
	1985	180M	0					"
	1984	7.6M	0	76.8M	20yr.	5%/yr.	3.84M	"
	1985	69.2M	0					"

SAIGON INTERNATIONAL AIRPORT - UTILITIES

CAPITAL INVESTMENT DEPRECIATION - DATA

CAPITAL ITEM	YEAR INVESTED	TOTAL INVESTMENT	SALVAGE VALUE	DEPREC. VALUE	DEPREC. PERIOD	DEPREC. RATE	ANNUAL DEPREC.	REMARKS
WATER SYSTEM	1975	50M						NON-CAPITALIZED EXPENDITURE - NOT DEPRECIATED
	1976	310M						"
	1977	140M						"
SEWAGE & WASTE DISPOSAL SYSTEM	1975	36M						"
	1976	216M						"
	1977	108M						"
ELECTRICAL POWER SYSTEM -PHASE 1 -PHASE 2	1976	10M						"
	1977	90M						"
	1982	10M	20% 2.0M	80.0M	30yr.	3.3%/yr.	2.667M	CAPITALIZED INVESTMENT-BEGIN DEPRECIATION IN 1983 - FIRST OPERATIONAL YEAR
	1983	90M	20% 18.0M					"

SAIGON INTERNATIONAL AIRPORT - AIRPORT ACCESS & VEHICLE STORAGE

CAPITAL INVESTMENT DEPRECIATION - DATA

CAPITAL ITEM	YEAR INVESTED	TOTAL INVESTMENT	SALVAGE VALUE	DEPREC. VALUE	DEPREC. PERIOD	DEPREC. RATE	ANNUAL DEPREC.	REMARKS
<u>NEW INT'L TERMINAL ACCESS LOOP</u>	1976	9.6M						NON-CAPITALIZED EXPENDITURE - NOT DEPRECIATED
	1977	85.2M						"
<u>ONE-WAY ACCESSWAY SYSTEM</u>	1976	2.8M						"
	1977	7.2M						"
<u>CARGO TERMINAL ACCESS</u>	1976	8M						"
	1977	7.2M						"
<u>EAST ACCESSWAY</u>	1983	70.0M	0	70.0M	20yr.	5%/yr.	3.5M	CAPITALIZED INVESTMENT-BEGIN DEPRECIATION IN 1984 - FIRST OPN'L YEAR
<u>DOMESTIC TERMINAL AUTO PARK EXPANSION</u>	1975	69.2M						NON-CAPITALIZED EXPENDITURE - NOT DEPRECIATED
<u>NEW INT'L TERMINAL AUTO PARK</u>	1976	6.6M						"
	1977	62.4M						"
<u>CARGO TERMINAL PARKING</u>	1976	2.0M						"
	1977	18.8M						"
<u>GENERAL AUTO PARK EXPANSION</u>	1983	69.2M	0	69.2M	20yr.	5%/yr.	3.46M	CAPITALIZED INVESTMENT-BEGIN DEPRECIATION IN 1984 - FIRST OPN'L YEAR

Figure S7

SAIGON INTERNATIONAL AIRPORT - TERMINALS
CAPITAL INVESTMENT DEBT SERVICE AND REPAYMENT - DATA

CAPITAL ITEM	YEAR INVESTED	DEBT PERIOD	PAY OFF DATE	TOTAL INVESTMENT	ANNUAL INTEREST RATE	ANNUAL INTEREST	ANNUAL DEBT REPAYMENT RESERVE	REMARKS
TERMINAL #1-REMODEL TO INT'L	1972			240M				NON-DEBT EXPENDITURE-NO REPAYMENT
-REMODEL TO DOMESTIC	1977			80M				"
NEW INT'L TERMINAL -PHASE 1	1976			384M				"
	1977			576M				"
-PHASE 2	1982	25yr.	2007	532M	6%	31.92M	21.28M	DEBT INVESTMENT-BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED
	1983	25yr.	2008	788M	6%	47.28M	31.52M	"
LINEAR LOUNGES AND CONCOURSE	1979			48M				NON-DEBT EXPENDITURE-NO REPAYMENT
	1980			432M				"
CARGO TERMINAL - AIR AMERICA REMODEL	1976			40M				"
OPTIONAL EXPANDED TERMINAL	1984	25yr.	2007	112M	6%	6.72M	4.48M	DEBT INVESTMENT-BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED
	1985	25yr.	2008	88M	6%	5.28M	3.52M	"

SAIGON INTERNATIONAL AIRPORT - APRONS
CAPITAL INVESTMENT DEBT SERVICE AND REPAYMENT - DATA

CAPITAL ITEM	YEAR INVESTED	DEBT PERIOD	PAY OFF DATE	TOTAL INVESTMENT	ANNUAL INTEREST RATE	ANNUAL INTEREST	ANNUAL DEBT REPAYMENT RESERVE	REMARKS
INTERNATIONAL APRON -PHASE 1	1973			288M				NON-CAPITALIZED EXPENDITURE-NO REPAYMENT
	1974			236M				"
-PHASE 2	1976			76M				"
	1977			72.4M				"
-PHASE 3	1982	20yr.	2002	5.6M	6%	.336M	.28M	CAPITALIZED INVESTMENT-BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED
	1983	20yr.	2003	49.2M	6%	2.952M	2.46M	"
DOMESTIC APRON	1976			159.2M				NON-CAPITALIZED EXPENDITURE-NO REPAYMENT
	1977			156.8M				"
CARGO APRON -PHASE 1	1976			158M				"
	1977			122.2M				"
OPTIONAL -PHASE 2	1984	20 yr.	2004	158M	6%	9.48M	7.9M	OPTIONAL CAPITALIZED INVESTMENT-IF BUILT, BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED
	1985	20yr.	2005	129.2M	6%	7.752M	6.46M	"
MISC. PAVING	1976			122M				NON-CAPITALIZED EXPENDITURE-NO REPAYMENT
	1977			99.6M				"

Figure S9

SAIGON INTERNATIONAL AIRPORT - RUNWAYS & TAXIWAYS
CAPITAL INVESTMENT DEBT SERVICE AND REPAYMENT - DATA

CAPITAL ITEM	YEAR INVESTED	DEBT PERIOD	PAY OFF DATE	TOTAL INVESTMENT	ANNUAL INTEREST RATE	ANNUAL INTEREST	ANNUAL DEBT REPAYMENT RESERVE	REMARKS
<u>RUNWAY 25L</u> -OVERLAY -PAVE SHOULDERS	1974							NON-CAPITALIZED EXPENDITURE-NO REPAYMENT
	1975							"
	1974							"
	1975							"
<u>SOUTH RUNWAY</u> -OVERLAY -PAVE SHOULDERS	1975							"
	1976							"
	1975							"
	1976							"
<u>RUNWAY 25R</u> -OVERLAY -PAVE SHOULDERS	1984	20yr.	2004	58.4M	6%	3.504M	2.92M	CAPITALIZED INVESTMENT-BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED
	1985	20yr.	2005	25.6M	6%	31.536M	26.28M	"
	1984	20yr.	2004	9.6M	6%	.576M	.48M	"
	1985	20yr.	2005	84.8M	6%	5.088M	4.24M	"
<u>25R TAXIWAY SYSTEM</u> -OVERLAY	1984	20yr.	2004	20M	6%	1.2M	1.0M	"
	1985	20yr.	2005	180M	6%	10.8M	9.0M	"

SAIGON INTERNATIONAL AIRPORT - RUNWAYS & TAXIWAYS
CAPITAL INVESTMENT DEBT SERVICE AND REPAYMENT - DATA

CAPITAL ITEM	YEAR INVESTED	DEBT PERIOD	PAY OFF DATE	TOTAL INVESTMENT	ANNUAL INTEREST RATE	ANNUAL INTEREST	ANNUAL DEBT REPAYMENT RESERVE	REMARKS
<u>25R TAXIWAY SYSTEM</u> -PAVE SHOULDERS	1984	20yr.	2004	7.6M	6%	.456M	.38M	CAPITALIZED INVESTMENT-BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED
	1985	20yr.	2005	65.2M	6%	4.152M	3.46M	"

Figure S9

SAIGON INTERNATIONAL AIRPORT - UTILITIES
CAPITAL INVESTMENT DEBT SERVICE AND REPAYMENT - DATA

CAPITAL ITEM	YEAR INVESTED	DEBT PERIOD	PAY OFF DATE	TOTAL INVESTMENT	ANNUAL INTEREST RATE	ANNUAL INTEREST	ANNUAL DEBT REPAYMENT RESERVE	REMARKS
WATER SYSTEM	1975			50M				NON-CAPITALIZED EXPENDITURE-NO REPAYMENT
	1976			310M				"
	1977			140M				"
SEWAGE & WASTE DISPOSAL SYSTEM	1975			36M				"
	1976			216M				"
	1977			108M				"
ELECTRICAL POWER SYSTEM - PHASE 1 - PHASE 2	1976			10M				"
	1977			90M				"
	1982	30yr.	2012	10M	6%	.600M	.333M	DEBT INVESTMENT-BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED
	1983	30yr.	2013	90M	6%	5.400M	3.00M	"

SAIGON INTERNATIONAL AIRPORT - AIRPORT ACCESS & VEHICLES STORAGE
CAPITAL INVESTMENT DEBT SERVICE AND REPAYMENT - DATA

CAPITAL ITEM	YEAR INVESTED	DEBT PERIOD	PAY OFF DATE	TOTAL INVESTMENT	ANNUAL INTEREST RATE	ANNUAL INTEREST	ANNUAL DEBT REPAYMENT RESERVE	REMARKS
NEW INT'L TERMINAL ACCESS LOOP	1976			9.6M				NON-CAPITALIZED EXPENDITURE-NO REPAYMENT
	1977			85.2M				"
ONE-WAY ACCESSWAY SYSTEM	1976			2.8M				"
	1977			26M				"
CARGO TERMINAL ACCESS	1976			.8M				"
	1977			7.2M				"
EAST ACCESSWAY	1983	20yr.	2003	70.0M	6%	4.2M	3.5M	DEBT INVESTMENT-BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED
DOMESTIC TERMINAL AUTO PARK EXPANSION	1975			69.2M				NON-CAPITALIZED EXPENDITURE-NO REPAYMENT
NEW INT'L TERMINAL AUTO PARK	1976			6.8M				"
	1977			62.4M				"
CARGO TERMINAL PARKING	1976			2.0M				"
	1977			18.8M				"
GENERAL AUTO PARK EXPANSION	1983	20yr.	2033	69.2M	6%	4.152M	3.46M	DEBT INVESTMENT-BEGIN SERVICE AND REPAYMENT RESERVE WHEN BORROWED

Figure S10

OPERATIONS & MAINTENANCE EXPENDITURE PER PASSENGER

YEAR	TOTAL COMM. PAX	TOTAL OP. REVENUE	AVG. OP. REV. PER PAX(V. N. \$)	TOTAL O & M EXPENDITURE	AVG. O & M EXPEND. PER PAX(V. N. \$)	1963-1971 CONVERSION TO 1972 V. N. \$				
						AVG. OP. REV. /PAX (1972 V. N. \$)	AVG. OP. EXP. /PAX (1972 V. N. \$)	INFLATION RATIO @ 10%/YR.	DISCOUNT FACTOR 1/INFL. RATIO	
A C T U A L	1963	249,900	27,805,200	111.3	16,891,200	67.6	1,113.0	676.0	.1	10.00
	1964	298,600	33,247,900	111.3	21,335,000	71.5	556.5	357.5	.2	5.00
	1965	543,100	55,213,000	101.7	22,533,000	44.5	338.7	148.2	.3	3.33
	1966	752,700	107,539,000	142.9	27,988,000	37.2	357.3	93.0	.4	2.50
	1967	981,500	93,364,400	95.1	35,808,600	36.5	190.2	73.0	.5	2.00
	1968	1,973,400	96,150,800	89.6	65,871,000	61.4	149.6	102.5	.6	1.67
	1969	1,315,018	121,475,900	92.4	95,917,000	72.9	132.1	104.2	.7	1.43
	1970	1,310,655	134,507,200	102.6	75,268,000	57.4	128.3	71.8	.8	1.25
	1971	1,236,138	242,666,000	196.3	169,252,000	136.9	217.9	152.0	.9	1.11
P R O J E C T I O N	1972	1,166,184	475,122,000	407.4	326,205,000	279.8	407.4	279.8	1.00	1.00
	1973	1,101,038	442,040,000	401.5	341,322,000	310.0				
	1974	1,193,899	439,612,000	368.2	382,048,000	320.0				
	1975	1,295,992	491,710,000	379.4	427,677,000	330.0				
	1976	1,409,527	526,720,000	373.7	466,553,000	331.0				
	1977	1,536,783	566,681,000	368.7	509,904,000	331.8				
	1978	1,679,878	620,619,000	369.4	558,559,000	332.5				
	1979	1,841,222	679,938,000	369.3	612,022,000	332.4				
	1980	2,023,069	751,506,000	371.5	676,514,000	334.4				
	1981	2,227,740	855,592,000	384.1	770,033,000	345.7				
	1982	2,457,597	998,669,000	406.4	898,802,000	365.7				
	1983	2,714,998	1,174,089,000	432.4	1,056,680,000	389.2				
	1984	3,002,364	1,373,346,000	457.4	1,236,012,000	411.7				
	1985	3,322,137	1,726,118,000	519.6	1,553,506,000	467.6				
	1986	3,676,780	2,140,807,000	582.2	1,838,390,000	500.0				
	1987	4,068,800	2,415,236,000	592.2	2,034,400,000	500.0				
	1988	4,500,740	2,668,452,000	592.9	2,250,370,000	500.0				
	1989	4,975,200	2,941,972,000	591.3	2,487,600,000	500.0				
	1990	5,494,800	3,243,504,000	590.3	2,747,400,000	500.0				

ALL AFTER
1972
IN
1972 V. N. \$

SAIGON INTERNATIONAL AIRPORT
AIRFIELD AND RAMP REVENUE PROJECTION (CONSTANT 1972 VNS)

Year	INCREMENTAL A/C OPN'S. RATIO PROJECTION TECHNIQUE		PROJECTION APPLYING AVS. A/C SIZE, LANDING FEE SCHEDULE AND PROJECTED A/C OPN'S								
	INCR. ± INC./DEC.	TOTAL AIRFIELD & RAMP REVENUE (±1000)	COMMERCIAL CATEGORY	ASSUMED AVG. A/C TYPE	GROSS T/O WT. (M - TONS)	LANDING FEE PER M-TON (VNS)	AVG. FEE PER LANDING (VNS)	NO. LANDINGS	LANDING FEE REVENUE (VNS=1000)	ASSUMED AIRFIELD TO RAMP REVENUE RATIO	TOTAL AIRFIELD & RAMP REVENUE (VNS=1000)
1970	Actual	101,821									
1971	Proj. From 1970	196,449									
1972	Proj. From 1971	314,808									
1973	-10	283,327	DOM INT.	DC-4 B727	23 73	144.0 811.2	3,312 59,218	12,165 2,586	40,290 153,138	4:1	241,785
1974	-2	277,660									
1975	+1	280,437	DOM INT.	DC-4 B727	23 73	144.0 811.2	3,312 59,218	13,837 2,516	45,795 148,992	4:1	243,484
1976	+2	286,046									
1977	+4	297,488	DOM INT.	DC-4 B727	23 73	144.0 811.2	3,312 59,218	15,675 2,629	51,914 155,655	4:1	259,461
1978	+6	315,337									
1979	+8	340,564									
1980	+10	374,620	DOM INT.	ELECTRA B727	34 73	144.0 811.2	4,896 59,218	18,917 3,208	92,618 189,971	4:1	353,236
1981	+12	419,574									
1982	+12	469,923	DOM INT.	ELECTRA B727	34 73	144.0 811.2	4,896 59,218	21,464 3,897	105,088 230,771	4:1	419,823
1983	+13	530,230	DOM INT.	ELECTRA B727	34 73	144.0 811.2	4,896 59,218	22,870 4,337	111,972 256,827	4:1	460,996
1984	+14	604,462	DOM INT.	B737 B727	45.5 73	144.0 811.2	6,552 59,218	24,370 4,841	159,672 286,672	4:1	556,681
1985	+14	689,087	DOM INT.	B737 B707	45.5 141	144.0 811.2	6,552 114,379	25,972 5,413	170,169 619,134	4:1	986,628
1986	+14	785,559	DOM INT.	B737 B707	45.5 141	144.0 811.2	6,552 114,379	27,679 6,051	181,353 692,107	4:1	1,091,825
(REVISED FEE SCHEDULE BASE CALCULATION YEAR-1987)											
1987	+14	895,537	DOM INT.	B737 B707	45.5 141	144.0 811.2	6,552 114,379	29,498 6,757	193,219 772,875	4:1	1,207,618
1988	+13	1,011,957	DOM INT.	B737 B707	45.5 141	144.0 811.2	6,552 114,379	31,431 7,532	205,936 861,445	4:1	1,334,226
1989	+13	1,143,511	DOM INT.	B737 B707	45.5 141	144.0 811.2	6,552 114,379	33,396 8,376	218,807 957,981	4:1	1,470,986
1990	+13	1,292,168	DOM INT.	B737 B707	45.5 141	144.0 811.2	6,552 114,379	35,857 9,289	234,935 1,062,467	4:1	1,621,752

DERIVATION OF PROPOSED COMMERCIAL LANDING FEE SCHEDULE
(TO START MID-1980'S TIME PERIOD)

1. PROJECTED TOTAL REQUIRED 1987 OPERATING REVENUE = (CONSTANT 1972 V. N. \$) 2,415,236,000

- ASSUMPTIONS:
- a. Operating Expenditure Rate = V. N. \$500 Per Commercial PSGR (including depreciation)
 - b. Revenue To Cover Annual Debt Interest, Debt Replacement
 - c. Revenue To Provide At Least 10% Surplus.
 - d. Airfield Landing Fees Plus Ramp And Lighting Fees = 50% Op. Revenue

2. PROJECTED AIRFIELD AND RAMP FEES = (CONSTANT 1972 V. N. \$) 1,207,618,000

ASSUMPTION: Landing Fees = 80% Airfield And Ramp Fees

3. PROJECTED AIRFIELD LANDING FEES = (CONSTANT 1972 V. N. \$) 966,092,000

ASSUMPTION: INTERNATIONAL FEES GENERATE 80% Of Total Landing Fees

4. LANDING FEE SCHEDULE DERIVATION

Commercial Category	Fraction of total Revenue	Revenue Generated (V. N. \$ ÷ 1000)	Number Landings	Avg. Rev. per Ldg.	Avg. A/C GTO WT. (M. TON)	Fee Rate (V. N. \$ per M. Ton GTO WT.)
Domestic	.2	193,219	29,498	6,550	(B-737) 45.5	144
International	.8	772,875	6,757	114,381	(B-707) 141	811.2
	1.0	966,094				

- NOTE:
- 1. - International Rates Approximate Current (1972) Rates At Los Angeles International Airport.
 - 2. - Domestic Rates For Aircraft GTO WT. Less Than 80 M. Ton Are Increased Over 1972 Fee Schedule, But Still Provide Significant Subsidy To A. V. N.

Figure S13

DERIVATION OF FOREIGN EXCHANGE RATIO (1972 V. N. \$ ÷ 1000)

	1982	1983	1984	1985	1986	1987	1988	1989	1990
<u>FOREIGN EXCHANGE GENERATED</u>									
International Landing Fees (est. 80% X total landing fees)	300,751	339,347	386,856	524,800	692,107	772,875	861,445	957,981	1,062,447
International Rentals (conservative est. 10% total rentals)	20,000	24,000	28,500	33,500	38,500	43,474	48,032	50,014	55,140
<u>GENERATED TOTAL FOREIGN EXCHANGE:</u>	320,751	363,347	415,356	558,300	730,607	816,349	909,477	1,007,995	1,117,587
<u>FOREIGN EXCHANGE REQUIRED</u> (assume all loans are foreign loans)									
Loan Interest	32,856	96,840	118,776	183,384	183,384	183,384	183,384	183,384	183,384
Loan Repayment	21,641	65,833	82,960	135,930	135,930	135,930	135,930	135,930	135,930
Miscellaneous Investments & Replacements-(est. 15% of surplus Foreign Exchange ∴ ratio should be > 1.15)									
<u>REQUIRED TOTAL FOREIGN EXCHANGE TO COVER DEBT SERVICING</u>	54,497	162,673	201,766	319,314	319,314	319,314	319,314	319,314	319,314
<u>FOREIGN EXCHANGE RATIO</u>	5.89	2.23	2.06	1.75	2.29	2.56	2.85	3.16	3.50