

Table 9-2-6 Dwelling Time of Containers

Year: 1992

Dwelling Days			Import				Export				Transship				Total
			Full		Empty		Full		Empty		Full		Empty		
			20'	40'	20'	40'	20'	40'	20'	40'	20'	40'	20'	40'	
0	TO	1						19	8						27
1	TO	2	1												1
2	TO	3	2	1				17	5						25
3	TO	4	19	19							11				49
4	TO	5	8	8				13	8	70					107
5	TO	6	4	1		6					32				43
6	TO	7	28	9											37
7	TO	8	29	7									15		51
8	TO	9	13	8	12					60					93
9	TO	10	25	15	7										47
10	TO	11	12	10		5									27
11	TO	12	8	1								20			29
12	TO	13	1		8										9
13	TO	14	5	1	6										12
14	TO	15	2	1											3
15	TO	16	7	2											9
16	TO	17	1	1											2
17	TO	18	4												4
18	TO	19	2												2
19	TO	20													0
20	TO	21	1												1
21	TO	22	2												2
22	TO	23	1												1
23	TO	24	1												1
24	TO	25													0
25	TO	26													0
26	TO	27													0
27	TO	28													0
28	TO	29													0
29	TO	30													0
30	-														0
Total			176	84	33	11	49	21	130	43	0	20	15	0	582

Source: APN

Notes: This table was made from one selected vessel

3) Observation of Container Handling at Container Terminal

Observation of container handling at the container terminal was carried out by the local consultant at the request of the study team. A sample of 144 unloaded containers and 164 loaded containers was used. Results showed that for every 10 movements at least 7 took place within the same stack area on average, in other words, they were not transported to another stack area.

(6) Container Freight Station (CFS)

As mentioned above, CFS is controlled by Freight House Department. Table 9-2-7 shows the delivered volume at CFS in May, 1992.

Table 9-2-7 Delivered Volume of Container Freight Station

Year: 1992 Month: May

Delivery Date of CFS	No. of Pallet	Weight		Dwelling Days(incd.CY)		
		Total (kg)	Average (kg)	Average	Min.	Max.
May 4	43	60,444	1,406	15.3	4	30
May 5	24	58,645	2,444	11.1	5	16
May 7	53	129,282	2,439	9.0	1	22
May 12	43	92,203	2,144	9.5	4	23
May 13	40	115,828	2,896	10.6	4	30
May 14	26	74,366	2,860	18.0	2	52
May 15	37	74,988	2,027	10.6	3	90
May 19	62	102,598	1,655	14.0	2	75
May 20	73	110,857	1,519	7.5	0	28
May 21	50	98,339	1,967	8.4	3	45
May 22	72	89,491	1,243	10.3	2	60
May 25	58	119,090	2,053	11.0	3	48
May 26	41	63,791	1,556	9.1	1	26
May 27	38	93,965	2,473	11.8	2	61
May 28	54	99,142	1,836	9.1	2	51
May 29	54	117,186	2,170	9.2	2	37
Total	768	1,500,215	1,953	10.6		

Source: APN

9.3 Container Handling Operation and Documentation Flow

9.3.1 Present Condition of Container Handling Operation

The flow of container cargo handling operation at the port is as follow:

(1) Import

- 1) Containers are discharged using shoreside container crane, ship's winch and mobil crane operated by the APN worker. Discharged containers are put on the apron once for checking and loaded onto tractor/chassis.
- 2) Landed containers are transported by tractor/chassis from shoreside to the container yard and stacked 2-3 high on the yard by top-loader or forklift. Tractors/chassis, top-loader and forklift are hired by shipping agent.
- 3) Shoreside of container handling operation is carried out by APN workers.
- 4) On board work for unloading is carried out by APN workers.
- 5) Delivered containers to the consignee's tractor/chassis in the yard are handled by APN owned top-loader and forklift.
- 6) Unstuffing is carried out mainly at Container Freight Station (CFS).
- 7) Unstuffed cargo is delivered to the consignee's truck by APN workers.

(2) Export

- 1) Export full container is delivered from Area "0" to the shoreside by APN's equipment.
- 2) Transported container at the shoreside is slung from tractor/chassis and put on the apron once for checking, slung again, then loaded onto the vessel by container crane, ship's winch and mobil crane.
- 3) Shoreside of container handling operation is carried out by APN workers.
- 4) On board work for loading is carried out by APN workers.

The handling equipment is obtained from private company when APN's equipment is not sufficient.

9.3.2 Documentation Flow

Documentation flows for import and export procedures are outlined below.

The port procedures for import and export are classified into two stages as follows:

(1) Payment of Basic Port Charge and Storage Charges

1) The following documents are submitted to Invoicing Department.

- a) Report of delivery/receiving cargo handling operation of vessel from cargo handling dept.
- b) Blue pass (one of four kinds of passes) together with calculation of storage charge of empty import/export container from container control dept.

* four kinds of passes are prepared by shipping agent as one unit for empty import/export containers and function of each pass is as follows:

- Green pass : to receive container (date of entry, amount of container, etc.)
- Pink pass : to deliver container
- Blue pass : to use for evidence of storage charge
- Yellow pass : copy of pass for shipping agency

c) Daily shift report and endorsed book (container information) for export full container from verification dept.

d) In case of import full container, green pass (one of four kinds of passes) together with calculation of storage charge from freight house dept. to collection dept.

* four kinds of passes are prepared by freight house dept. as one unit for full import containers and function of each pass is as follows:

- White pass : to receive container from yard
- Pink pass : to deliver container from yard
- Green pass : to use for evidence of storage charge, attached to bill
- Yellow pass : for internal auditor

(2) Documents of Import and Export Container

The flow of documents of import and export containers is shown in Figure 9-3-1 and Figure 9-3-2.

1) Import

(Step-1: Full container from vessel to container yard)

All imported containers are transported from vessel to the container yard and stored.

- a) Import document is presented to verification dept. by shipping agent (letter of container and manifest and B/L). Letter of container means general information of container.
- b) Verification dept. prepares a lot list and book, and the list of container is sent to container control dept. and freight house dept. Lot list means final destination of containers, and book is container list which is used for checking container by checker at each pierside.
- c) After being discharged container is transported to the container yard by truck. There is one checker of the container control dept., who assigns storage area. There is no documentation at the container yard.

(Step-2: Full container from container yard to consignee)

Imported containers are delivered to consignee through the terminal gate except for CFS cargoes.

- a) Consignee submits original manifest and B/L to freight house dept.
- b) Freight house dept. checks documents and prepares Customs pass and above mentioned passes. After having received storage charge, they give Customs pass and white and pink pass to consignee (truck).
- c) After procedure at freight house dept., consignee sends truck with Customs pass and white and pink pass to container yard.
- d) After checking pass by yard checker, truck receives container and returns to the terminal gate.
- e) At terminal gate, truck is checked for documents such as Customs pass, Law 26 and evidence of fumigation, and is given white pass, then truck leaves from container terminal. Law 26 indicates leaving time from terminal, etc. and truck should arrive in the Free Zone within 15 minutes.
- f) After completion of delivery of full containers, freight house dept. keeps green pass and the bill and sends storage charge to collection dept.

The document procedure of delivered CFS's cargoes is same as full import

container.

Concerning the movement of empty container from container yard to consignee, the documents procedure is almost same as full container. However, related dept. and kind of document are slightly different as follows:

- a) Consignee submits a list of containers and green pass to container control dept.
- b) After procedure at container control dept., consignee sends truck with endorsed list of containers and pink and blue pass to container yard.
- c) After checking pass by yard checker, truck receives container and returns to the terminal gate.
- d) Truck is checked for documents such as list of containers and pink pass at the terminal gate.
- e) After completion of delivery of empty containers, container control dept. sends blue pass and calculation of storage charge to invoicing dept.

2) Export

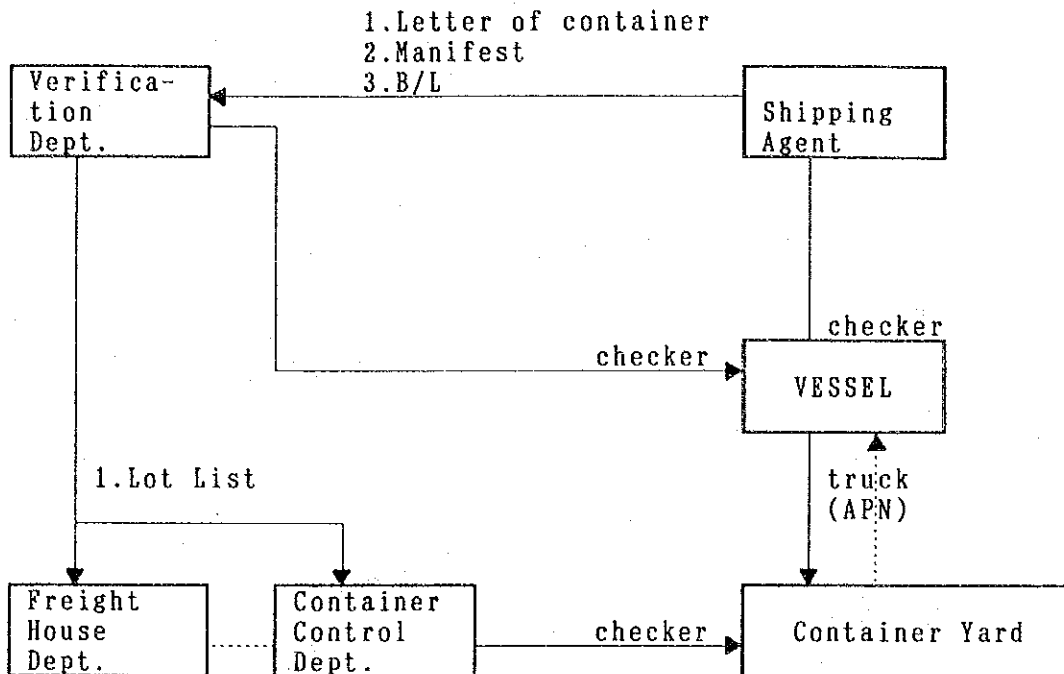
The exported containers from Free Zone to the port are only checked for documents at the main gate by Customs official and two checkers from verification dept. and container control dept. because checking all documents are carried out at the Free Zone. However, truck should arrive within 15 minutes from the Free Zone. After check at the gate, container is transported to the Area "0" and is stored.

The required documents and related dept. of its procedure are as follows:

- Manifest and B/L: to be checked at the main gate
- Full container entrance pass: to be prepared by verification dept. for entry to container yard and is given to truck at main gate after checking
- Book and daily shift report: to be prepared by verification dept. for checking containers and is sent to invoicing dept.

As for the empty containers, the green pass and list of container are required for documents procedure.

(Step-1: Container from vessel to container yard)



(Step-2: Container from container yard to consignee)

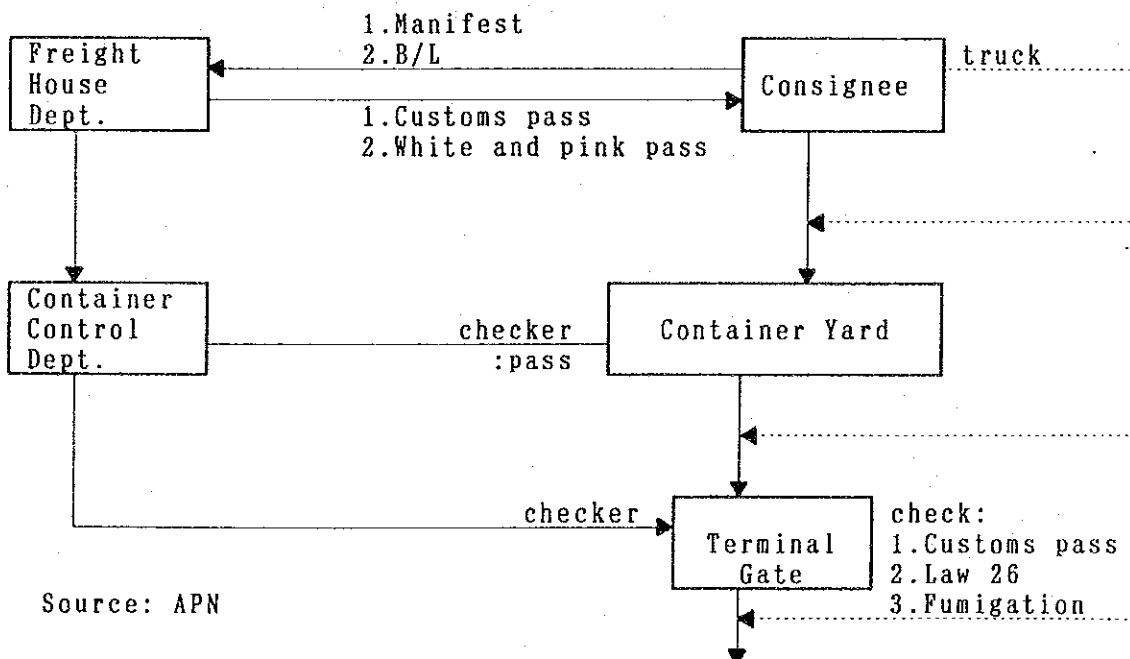


Figure 9-3-1 Documentation Flow for Import

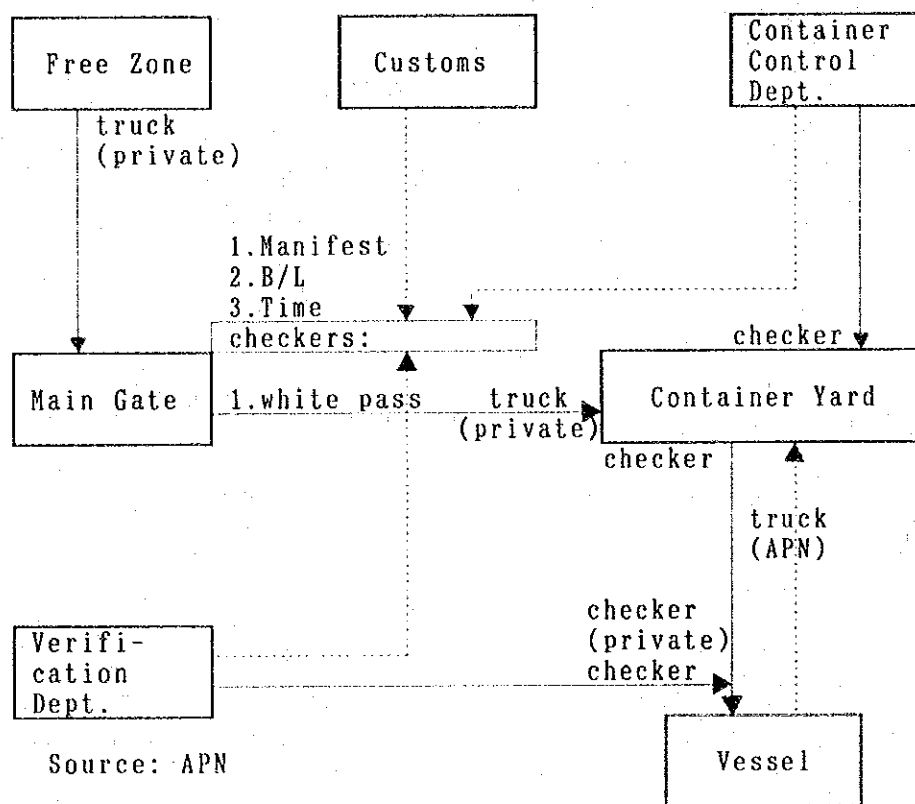


Figure 9-3-2 Documentation Flow for Export

9.4 Productivity of Container Handling

As mentioned before, the container handling at the port is divided into five categories, however, container handling productivity per hour of three categories is calculated with randoming selected vessels because the handling time of containers of two categories was not clear.

(1) By Container Crane

Twenty one vessels were selected at random and number of containers per crane per hour was calculated by each of the selected vessels. The results are shown in Table 9-4-1.

Table 9-4-1 Productivity of Container Handling by Container Crane

Year:1991

Ship name		Nu. of Containers					Hand- ling Hours	Rate /hrs	Nu. of Container Cranes
		Full		Empty		Total			
		20'	40'	20'	40'				
Amsterdam	Boxes	49	25	0	0	74	5.0	14.8	1: Samsung
	TEU	49	50	0	0	99	5.0	19.8	
New York Senator	Boxes	223	146	84	81	534	65.0	8.2	2: Samsung Hitachi
	TEU	223	292	84	162	761	65.0	11.7	
Texas	Boxes	399	194	316	207	1116	82.0	13.6	2: Samsung Hitachi
	TEU	399	388	316	414	1517	82.0	18.5	
Trident Challenger	Boxes	51	18	10	3	82	9.0	9.1	1: Samsung
	TEU	51	36	10	6	103	9.0	11.4	
Rhein Express	Boxes	9	23	15	6	53	4.0	13.3	1: Samsung
	TEU	9	46	15	12	82	4.0	20.5	
Singapore Senator	Boxes	233	150	26	93	502	63.0	8.0	2: Samsung Hitachi
	TEU	233	300	26	186	745	63.0	11.8	
Japan Senator	Boxes	41	47	198	151	437	49.0	8.9	2: Samsung Hitachi
	TEU	41	94	198	302	635	49.0	13.0	
Ktopic	Boxes	30	40	5	0	75	6.0	12.5	1: Samsung
	TEU	30	80	5	0	115	6.0	19.2	
Arabian Senator	Boxes	28	30	19	0	77	14.0	5.5	1: Samsung
	TEU	28	60	19	0	107	14.0	7.6	
Star Geiranger	Boxes	0	0	0	340	340	33.0	10.3	2: Samsung Hitachi
	TEU	0	0	0	640	640	33.0	19.4	
Asian Senator	Boxes	0	0	0	340	340	43.0	7.9	2: Samsung Hitachi
	TEU	0	0	0	640	640	43.0	14.9	
New York Senator	Boxes	31	35	71	0	137	14.0	9.8	2: Samsung Hitachi
	TEU	31	70	71	0	172	14.0	12.3	
Texas	Boxes	368	175	402	185	1130	72.0	15.7	2: Samsung Hitachi
	TEU	368	350	402	370	1490	72.0	20.7	
Hong Kong Senator	Boxes	35	32	59	1	127	22.0	5.8	2: Samsung Hitachi
	TEU	35	64	59	2	160	22.0	7.3	
Asian Senator	Boxes	200	81	95	150	526	43.0	12.2	2: Samsung Hitachi
	TEU	200	162	95	300	757	43.0	17.6	
Flemming Sif	Boxes	15	68	13	55	151	16.0	9.4	2: Samsung Hitachi
	TEU	15	136	13	110	274	16.0	17.1	
Katherine Sir	Boxes	7	58	0	83	148	13.0	11.4	2: Samsung Hitachi
	TEU	7	116	0	166	289	13.0	22.2	
Fleming Sif	Boxes	6	32	18	44	100	11.5	8.7	1: Hitachi
	TEU	6	64	18	88	176	11.5	15.3	
Japan Senator	Boxes	20	54	0	0	74	9.0	8.2	1: Hitachi
	TEU	20	108	0	0	128	9.0	14.2	
New York Senator	Boxes	25	54	45	0	124	14.0	8.9	1: Hitachi
	TEU	25	108	45	0	178	14.0	12.7	
Asian Trucking	Boxes	36	48	0	0	84	11.5	7.3	1: Hitachi
	TEU	36	96	0	0	132	11.5	11.5	
Total	Boxes	1,806	1,310	1,376	1,739	6,231	599.0	10.4	
	TEU	1,806	2,620	1,376	3,398	9,200	599.0	15.4	

Source: APN

Results of the calculation are as follows:

Maximum : 15.7 boxes/hrs/crane
 20.7 TEU/hrs/crane
 Minimum : 5.5 boxed/hrs/crane
 7.6 TEU/hrs/crane
 Average : 10.4 boxes/hrs/crane
 15.4 TEU/hrs/crane

(2) By Mobil Crane and Ship's Winch

1) By Mobil Crane

Eight vessels were selected at random for calculation of productivity of container handling; Table 9-4-2 shows results of the calculation.

Maximum : 8.4 TEU/hrs
 Minimum : 3.7 TEU/hrs
 Average : 5.1 TEU/hrs

2) By Ship's Winch

Nine vessels were selected at random, Table 9-4-2 shows results of the calculation.

Maximum : 9.0 TEU/hrs
 Minimum : 3.6 TEU/hrs
 Average : 6.1 TEU/hrs

Table 9-4-2 Productivity of Container Handling by
 Mobil Crane and by Ship's Winch

Year: 1991

	Ship name	Nu. of Containers			Hand- ling Hours	Rate /hrs (TEU)
		Container 20'	40'	Total TEU		
Mobil crane	Colon	64	39	142	17.0	8.4
	Walter F.	83	16	115	28.0	4.1
	Erizo	163	0	163	44.0	3.7
	Colon	36	68	172	38.0	4.5
	Lady Lane	104	136	376	69.0	5.4
	Marhava	49	9	67	13.5	5.0
	Walter F.	75	14	103	21.5	4.8
	Atlantic Ocean	26	44	114	14.0	8.1
	Total	600	326	1252	245	5.1
Ship's winch	Panama Maru	219	88	395	61.0	6.5
	Schackenberg	163	31	225	39.2	5.7
	Nordsky	79	58	195	46.0	4.2
	Nordsky	59	70	199	35.0	5.7
	Collen Sif	11	64	139	15.5	9.0
	Kathrine Sif	0	134	268	32.5	8.2
	Taeoing	79	16	111	31.0	3.6
	Colon	12	50	112	16.0	7.0
	Choapa	22	34	90	10.0	9.0
	Total	644	545	1734	286.2	6.1

Source: APN

9.5 Present Cargo Handling Condition at the Related Port of the Port of Cristobal

(1) Port of Balboa

The cargo handling operation at the port is carried out by APN's workers, the same as the port of Cristobal.

Containers are handled at Pier Nos. 14, 15, 16 and 18. However, No.18 is only used in emergency cases, and No.16 is used for discharging grain by a private company, which has four movable tire mounted unloaders.

The discharging/loading of containers from/to vessel are carried out by container crane and ship's winch. The unloaded container is directly landed on to chassis and transported to the yard area behind pier No.15. The yard area is not paved.

The port has cargo handling equipment owned by APN. Its present inventory is as follows:

- ten tractors : seven are working
- twenty 4 tons forklift : two are working
- two 15 tons forklift : one is working
- three 30 tons forklift : one is working

There is one container crane owned by a private company and hired by a shipping agent. The crane is installed at Pier No.15.

There is redevelopment plan for the container yard to expand the yard area and road inside the port which are both too narrow for handling a large amount of containers.

(2) Port of Coco Solo Norte

The cargo handling operation at the port is carried out by three private companies, Sea Land, Sea Barge and King Ocean. All equipment is privately owned.

Pier No.1 is mainly used for container and car handling by Sea land and King Ocean and Pier No.4 is used for container handling by Sea Barge; remaining piers are used for general cargo handling from Free Zone by small ships of Caribbean Sea countries.

The container yard behind Pier No.1 which is classified as a concession area, is used by Sea Land and Aduanera International.

Concerning the container handling, the discharged container is directly transported to outside of the port because the yard area is too narrow.

The present service condition of private companies is as follows:

	<u>Handling Equip.</u>	<u>Vessel</u>	<u>Services</u>
Sea Land:	Top-loader 2x40tons, 1x50tons	5,000 dwt vessel	every week
King Ocean:	Mobil crane 1x80tons	1,500 dwt vessel	every 10 days
Sea Barge:	Mobil crane 1x80tons	1,500 dwt barge	every 7-10 days

(3) Port of Bahia Las Minas

The cargo handling operation at the port is carried out by two private companies, Crowley Caribbean Transport and Sea Board Marine.

There is only one pier which is used by Ro-Ro vessels. Discharged container is directly transported to outside port of container yard, which is situated about 15 Km from the port and managed by the private company of Muelles S.A as a concession area, because the port area is too narrow.

Present service condition of private companies is as follows:

	<u>Handling Equip.</u>	<u>Vessel</u>	<u>Services</u>
Crowly Caribbean: Transport	3xTractor	13,000 dwt vessel	every week
Sea Board Marine:	2xTractor	5,000 dwt vessel	every 10 days
Muelles S.A:	1x33tons Top-loader 1x 8tons Forklift		

9.6 Preliminary Assessment of the Existing Cargo Handling System

In this section, the problem areas in existing cargo handling system are identified together with a preliminary assessment of the overall performance.

(1) Management of Berthing Facilities

When a vessel for main line service enters the port, vessels for feeder service conducting discharging/loading operation at the Pier No.9 are sometimes forced to divert to other piers. This means these vessels must pay extra port dues and change their schedules.

Excessive priority seems to be given to particular shipping lines in berthing allocation. While this kind of operation may contribute to the effective use of berths, it sometimes breeds dissatisfaction on the part of many other shipping lines.

(2) Management of Equipment and Operators

Reflecting the insufficient number of APN equipment and operators, some types of equipment are obtained from a private company for container discharging/loading vessel from/to yard by shipping agent. And APN gives special tariff of USD 90/TEU instead of USD 130/TEU to the shipping agent. This hinders APN from achieving continuous smooth operations and causes trouble between APN and shipping agents and consignees.

The shortage of tractors and chassis in working condition is not mainly due to their insufficient number but rather their frequent breakdowns. Only six of fourteen chassis are working now. A similar situation exists for top-loaders, only one of which is ready for use. In addition, the down time of container crane is substantial as shown in Table 9-1-2.

Salty spray, many abundant rainfall, bumpy pavement, APN's maintenance system, etc. are considered as causes of the frequent breakdowns.

(3) Management and Operation of Container Delivery and Receiving

Four departments (cargo handling dept., verification dept., freight house dept. and container dept.) are concerned with the operations of container delivery and receiving. Because management and operation of container handling is not centralized, a complicated documentation procedure exists. Shippers and consignees have to submit the same document to different offices.

(4) Operation of Container Yard

The container yard is allocated behind Pier Nos.9 and 10 which is about 600 m away from Pier No.6. The shape of the container yard is long and narrow.

Consequently , tractors are obliged to slip through narrow and winding passages and carry containers a long distance between ship and container yard. And the tractors for discharging/loading and delivery/receiving cross each other. This situation makes container transport inefficient and dangerous.

As regards stacking containers, at present almost full load containers are stacked in only two tiers due to the insufficient capacity of available equipment. This limits the capacity of the container yard.

Concerning the dwelling time of containers, the import containers dwell longer than export containers. In particular, the dwelling time of empty containers is longer than that of full load containers. This makes the congestion of the container yard much worse.

Computerized operation of the container terminal has not yet started. A well designed computer system with proper operation will greatly contribute not only to easy handling of a large amount of containers but also to efficient management and operation.

(5) Productivity of Container Handling

The average rate of 15.4 TEU/hour/crane for discharging/loading is substandard given the potential capability of container crane and rates achieved in other ports handling a large amount of containers (about 25 to 30 TEU/hour/crane). Low productivity of cranes seems to be attributable to the poor operation in the container yard.

CHAPTER 10 MANAGEMENT AND OPERATION

10.1 Outline of Port Management and Operation in Panama

10.1.1 National Port Authority (APN)

Panama has a total of 19 ports. Of those, National Port Authority (APN) is responsible for the management and operation of 13 Panamanian ports. The other 6 ports are private or small local ports. APN, though a national institution which was established in 1974 based on Law #42, is a national autonomy, responsible for construction, maintenance, management and operation of the 13 ports.

APN was established mainly with the objectives shown below.

- (a) To promote, guide, plan, coordinate and develop national port system through formulating and executing the adequate policies.
- (b) To construct, improve, extend and conserve the commercial and fishery port facilities and equipment.
- (c) To study and provide port services indicated previously and to control and supervise the port facilities and equipment not operated directly.

In order to obtain its objectives, APN has execute the following functions:

- (a) To elaborate and execute planning for the national port system development.
- (b) To operate national ports and port facilities and equipment except that given in concessions to private enterprises.
- (c) To plan, design, construct and improve the national ports. The construction work for port facilities can be done by either APN or other entities including private companies.
- (d) To give concessions for the development of existing and future national ports.
- (e) To provide mooring facilities, efficient cargo transference service, supply service for vessels that enter in the ports, and regulate these activities within the port area.
- (f) To load, unload, transfer, store the cargoes and hand them over to the consignee.
- (g) To obtain or transfer its property, and engage in loans and contract.
- (h) To charge rates and fees for service provided.

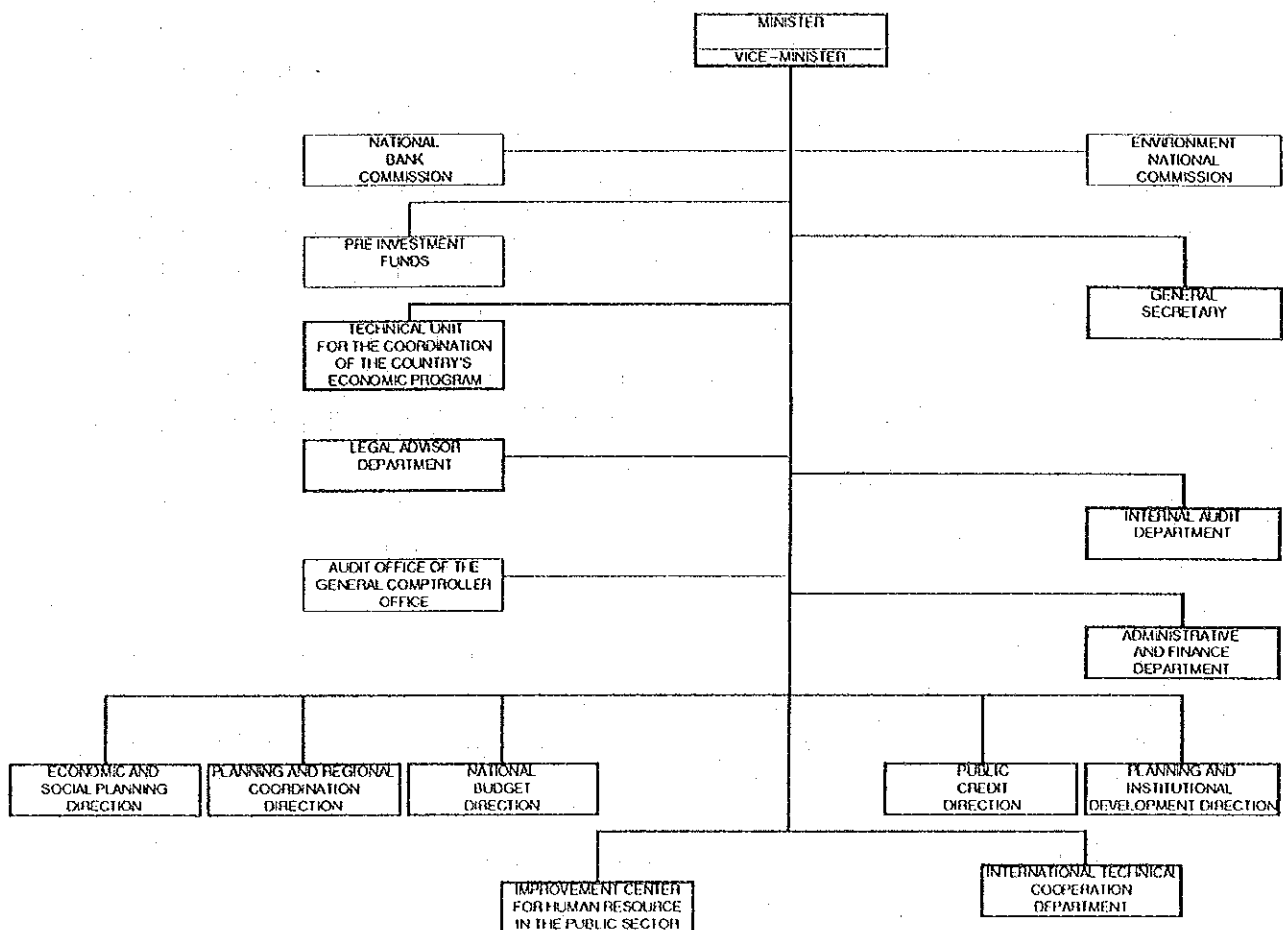
- (i) To administrate and allocate its capital and economic resource.
- (j) To execute administrative functions and control of the ports that are under private concession.
- (k) To give concession through contract for the construction and development of the ports and maritimes installation at the following State treasures.
 - a) Sea Coast, bottom and banks
 - b) Bed of river, sea coast and estuary
- (l) Others shown in the laws and regulations.

10.1.2 Ministry of Planning and Economic Policy (MIPPE)

Ministry of Planning and Economic Policy (MIPPE) is in charge of the formulation of the national economic and development plan through coordination of ministries and institutions. MIPPE coordinates with APN concerning the port development planning, budgeting and budget execution etc.. (The organization chart of MIPPE is shown in Figure 10-1-1)

As shown in Figure 10-1-1, under Minister and Vice-Minister, MIPPE has several divisions, for example, Economic and Social Planning Division, Planning and Regional Coordination Division, National Budget Division, Public Credit Division, Planning and Institutional Development Division, Improvement Center for Human Resource in Public Sector Division, International Technical Cooperation Division. Among them, the Economic and Social Planning Division is in charge of assessment of the investment budget of APN, and the National Budget Division is in charge of assessment of the operational budget of APN.

MIPPE is also in charge of executing "Strategy of National Development and Economic Modernization" and "Action Plan of National Development and Economic Modernization", which is mentioned in section 10.6.1. MIPPE has established a special Unit headed by the Vice President to promote port strategy and an action plan.



Note: The thin lines are attached institutions.

Figure 10-1-1 Organization Chart of MIPPE

10.1.3 Panama Canal Commission (PCC)

Cristobal and Balboa Ports border the Panama Canal Zone. The Panama Canal Commission (PCC) is a joint U.S. and Panama Government agency, which has exclusive power in Panama Canal Zone. PCC replaced the former Panama Canal Company, and is responsible for management and operation of the Panama Canal Zone until December 31, 1999, at which date the Commission will gradually transfer management and operation of the Canal from the United States to the Panamanian Government.

The Commission has a binational supervisory board of nine members. The Administrator was a U.S. citizen until 1989, but is now a Panamanian citizen as stipulated in the Panama Canal Treaty. The Commission had 7,120 employees in October 1991. The number of Panamanian employees has increased, from 69% of total employees in 1979 to 87% in 1989.

A bill for the relevant properties and their management within the area to be transferred from the United States by 1999 was discussed in the Parliament held in November 1992. APN is expected to be involved deeply in management of its area.

10.2 Organization

10.2.1 Organization of APN

Figure 10-2-1 shows the organization chart of APN.

The Executive Committee, which is located at the highest position in the chart, is composed of seven members as shown below.

- (a) Minister of Commerce and Industry (President)
- (b) Minister of Public Works
- (c) Minister of Finance and Treasury
- (d) Minister of Planning and Economic Policy
- (e) A representative of the port workers
- (f) A representative of the users of the ports
- (g) General Director of APN (Secretary)

The Executive Committee is the superior decision-making organization of APN, of which functions are shown below.

- (a) To establish Port development policies according to the State general transport plans.
- (b) To coordinate the port services.
- (c) To approve annual program and project budget.
- (d) To permit the studies, design and to execute works related to the construction, extension, improvement and maintenance of ports and port facilities and equipment.
- (e) To establish the entity organization and its functions.

- (f) To establish the internal rules.
- (g) To regulate, alter and impose tariff for the port service.
- (h) To propose to the Executive organization the delimitation of the land and maritime area.
- (i) To grant contracts more than one hundred thousand Balboas.
- (j) To decide obligation, claim agreement and lawsuit in cases involving less than ten thousand Balboas.
- (k) To grant extra judicial indemnification payment upon verified responsibility of APN.
- (l) To request to the Executive Organization to obtain the right to use or to expropriation the particular land.
- (m) To resolve claims from port users.
- (n) Other functions stipulated in the law and regulations.

The General Director, shown under the Executive Committee, is the legal representative of APN and administrates APN. The Technical Sub-Director and the Administrative Sub-Director support the General Director through efficient direction, supervision and coordination.

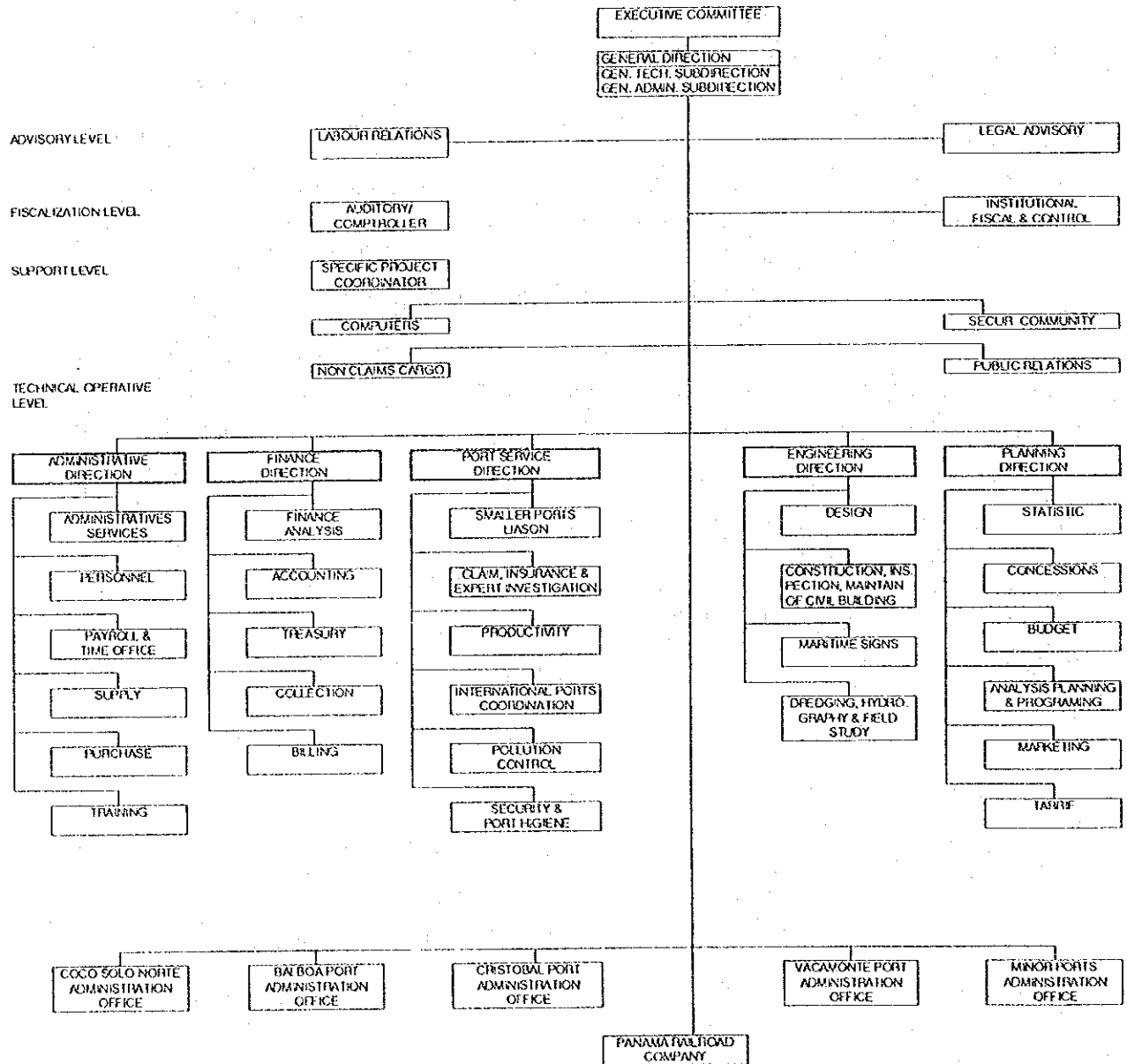
In order to provide general supporting service to the General Director and General Sub-Director, several divisions and departments which have specialized purposes are established such as Labor Relations, Legal Consultants, Audit, Computer and Public relations etc.. In addition, five main divisions, namely Administration division, Finance Division, Port Service Division, Engineering Division, Planning Division, are established.

The Administration division has seven departments concerning general administration and personnel matters, for example, Organization, Personnel, Training, Purchase, etc.. The Finance Division has five departments concerning financial and fiscal matters. The Port Service Division has six departments concerning provision of port service. The Engineering Division has four departments concerning technical matters. The Planning Division has five departments concerning port investment planning, statistics, port promotion and tariff, for example Planning and Programming, Marketing, Tariff, etc..

Under the APN central office, Administration Offices of Port of Balboa, Cristobal, Vacamonte, Coco Solo Norte and Minor Ports are established. Among them, the Port of Balboa and Cristobal were transferred from the United States to APN in 1979 according to the Panama Canal Treaty.

Panama Railway, which is shown at the bottom in the Figure, remains a part of APN. But Panama Railway is actually separated from APN according to a mandate from the President in 1991. It has its own budget and conducts personnel management on its own though it shares the same Executive Committee as APN.

Organization Chart of APN



Note: Concession Department will soon be under the directorship of Legal Advisory

Figure 10-2-1 Organization Chart of APN

10.2.2 Organization of the Port of Cristobal

Figure 10-2-2 shows the organization chart of the Port of Cristobal Administration Office.

The Port Administrator, who is the head of this office, and Port Sub-Administrator are directly under the General Director and the General Sub-Director of APN central office. Under the Administrator, two Units are established, which coordinate with APN central office the control of port activities.

The Port of Cristobal Administration Office has seven operational departments, namely, Cargo Verification, Cargo Handling, Freighthouse, Container Control, Maritime Services, Mechanic and Maintenance. These departments provide maritime and cargo handling services. The main functions of each department are shown below.

- (1) Cargo Verification Department
To prepare the cargo documents, to perform verification and register the cargo, to define responsibilities of cargo consignee's claim
- (2) Cargo Handling Department
To assign the berth to the vessel, to assign the crew and the cargo handling equipment and carry out the cargo handling including container cargo handling
- (3) Freighthouse Department
To register and control the cargo stored in the Port, to perform the activities related to cargo receiving and hand over
- (4) Container Control Department
To determine the location of containers, to register container movement
- (5) Maritime Services Department
To perform the mooring service, to coordinate or provide maritime service such as water supply
- (6) Mechanic Department
To provide maintenance and repair service for port equipment, to maintain necessary inventory of the parts.
- (7) Maintenance Department
To repair and maintain the port facilities and equipment including port green area.

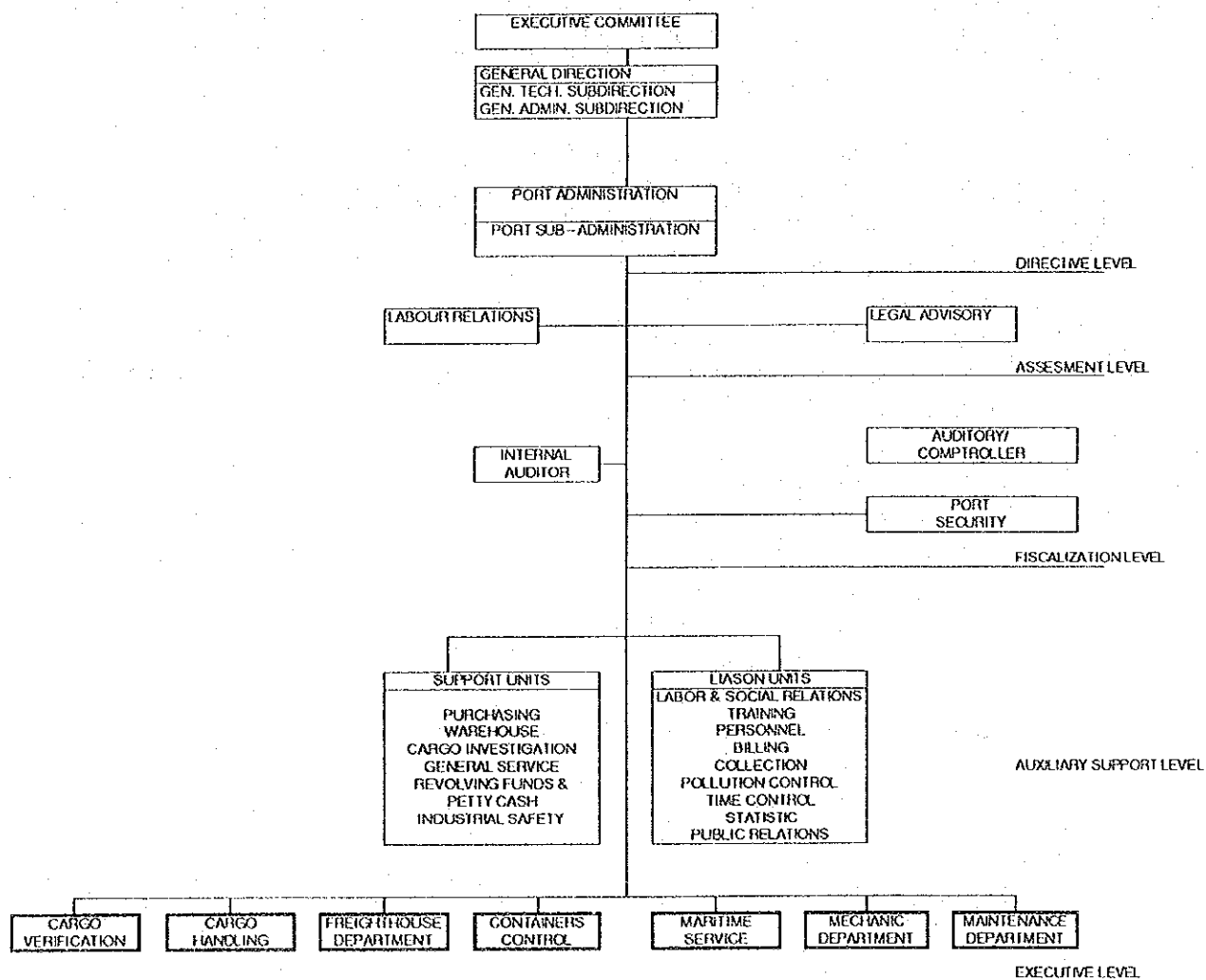


Figure 10-2-2 Organization chart of the port of Cristobal Administration Office

10.2.3 Personnel

(1) Number of Personnel

Table 10-2-1 shows the number of APN employees by age in 1992. APN central office has more than 650 personnel which is about 37% of total APN personnel. It should be noted that the Port of Cristobal and the Port of Balboa administration offices have a large number of personnel. The former has about 900 persons and the latter about 500. This is because, as mentioned above, the administration offices employ their own personnel to conduct cargo handling service by themselves. This condition is the same as before they were transferred to Panama.

As shown in the Table, the share of employees from age 41 and over for the Ports of Cristobal represents 59% and 49% for Balboa. The same age group for APN Central office represents 33%. Compared to APN Central Office, employees of the Ports of Cristobal and Balboa are thought to be older.

Table 10-2-2, shows the movement of the number of APN employees registered during the period of 1986 to 1992. The total number of employees was reduced by only 8% during the period. This is partly because they had to accept 187 employees of the extinct Defense Force, as Port Security Guards. Concerning the number of personnel, the port of Cristobal reflects the highest reduction at 14% followed by the port of Balboa with 6.3%. APN Central Office personnel were reduced to almost 50% during the years 1988 and 1989. This is because most of those employees were transferred to the Port of Balboa. However, the number of employees at the APN Central Office increased rapidly during the following 1990 year and by 1992 their was only a 3.3% reduction compared to 1986.

(2) Appointment, Adoption and Promotion of Personnel

The General Director appointed by the President is in charge of the appointment of the directors of the divisions and the chiefs of department. Sometimes they are appointed from entities outside of APN such as private companies etc..

The Recruiting and Selection Unit is in charge of hiring employees of APN central office. In recent years nobody has been recruited. The evaluation system of the common employee is such that each chief evaluates the experience or capability of an employee then may recommend their promotion to the director. A old format used for personnel evaluation system is temporally suspended.

Concerning the personnel of the port of Cristobal and Balboa, the Recruiting and Selection Unit selects candidates from among applicants that passed the examination. The Selection Committee then selects successful candidate(s). The Selection Committee is organized by the Port Administrator, the chief of department where new employees are required, a representative person from the Personnel Department and of the Labor Syndicate of the ports. In recent years, the Ports have sometimes employed new workers.

Table 10-2-1 Number of APN Employees by Age Group

	Total	-30	31-40	41-50	51-60	61--
APN Central Office share(%)	649 100.0%	105 16.2%	329 50.7%	153 23.6%	45 6.9%	17 2.6%
Port of Cristobal share(%)	902 100.0%	31 3.4%	335 37.1%	323 35.8%	141 15.6%	72 8.0%
Port of Coco Solo share(%)	15 100.0%	1 6.7%	4 26.7%	9 60.0%	1 6.7%	0.0%
Port of Bahia Las Minas share(%)	3 100.0%	0.0%	2 66.7%	1 33.3%	0.0%	0.0%
Port of Balboa share(%)	504 100.0%	25 5.0%	232 46.0%	158 31.3%	69 13.7%	20 4.0%
Port of Vacamonte share(%)	170 100.0%	18 10.6%	72 42.4%	50 29.4%	21 12.4%	9 5.3%
Other Ports share(%)	75 100.0%	7 9.3%	34 45.3%	21 28.0%	7 9.3%	6 8.0%
TOTAL share(%)	2318 100.0%	187 8.1%	1008 43.5%	715 30.8%	284 12.3%	124 5.3%

Source : APN

Table 10-2-2 Number of APN Employees from 1986 - 1992

	1986	1987	1988	1989	1990	1991	1992
APN Central Office share(1985=100%)	671 100.0%	555 82.7%	352 52.5%	366 54.5%	658 98.1%	663 98.8%	649 96.7%
Port of Cristobal share(1985=100%)	1,045 100.0%	1,099 105.2%	1,088 104.1%	1,082 103.5%	855 81.8%	917 87.8%	902 86.3%
Port of Coco Solo share(1985=100%)	10 100.0%	20 200.0%	18 180.0%	18 180.0%	16 160.0%	15 150.0%	15 150.0%
Port of Bahia Las Minas share(1985=100%)	3 100.0%	3 100.0%	3 100.0%	3 100.0%	2 66.7%	2 66.7%	3 100.0%
Port of Balboa share(1985=100%)	539 100.0%	589 109.3%	731 135.6%	723 134.1%	514 95.4%	493 91.5%	504 93.5%
Port of Vacamonte share(1985=100%)	174 100.0%	186 106.9%	184 105.7%	184 105.7%	167 96.0%	174 100.0%	170 97.7%
Other Ports share(1985=100%)	79 100.0%	64 81.0%	63 79.7%	63 79.7%	59 74.7%	71 89.9%	75 94.9%
TOTAL share(1985=100%)	2,521 100.0%	2,516 99.8%	2,439 96.7%	2,439 96.7%	2,271 90.1%	2,335 92.6%	2,318 91.9%

Source : APN

The port workers are evaluated for promotion taking into consideration their experience, skills and training history. Figure 10-2-3 shows the internal organization of the Cargo Handling Department at the port of Cristobal. A newly recruited staff normally starts his assignment from the position of stevedoring works or manual labor. Only after the above mentioned evaluation is an eligible for such positions as Chief of Pier Gang, or the Crane Operator on Board.

There is no personnel transfer between APN central office and the ports of Cristobal and Balboa except for Port Administrator. One of the reasons for the above practice may be explained by the difference in working conditions including the different level in wages.

(3) Working Conditions

APN has wage systems. One is for the employees of the ports of Cristobal and Balboa and the other is for the rest of employees. The former is originally based on the system adopted by the United States. The efficiency wage system has not been introduced.

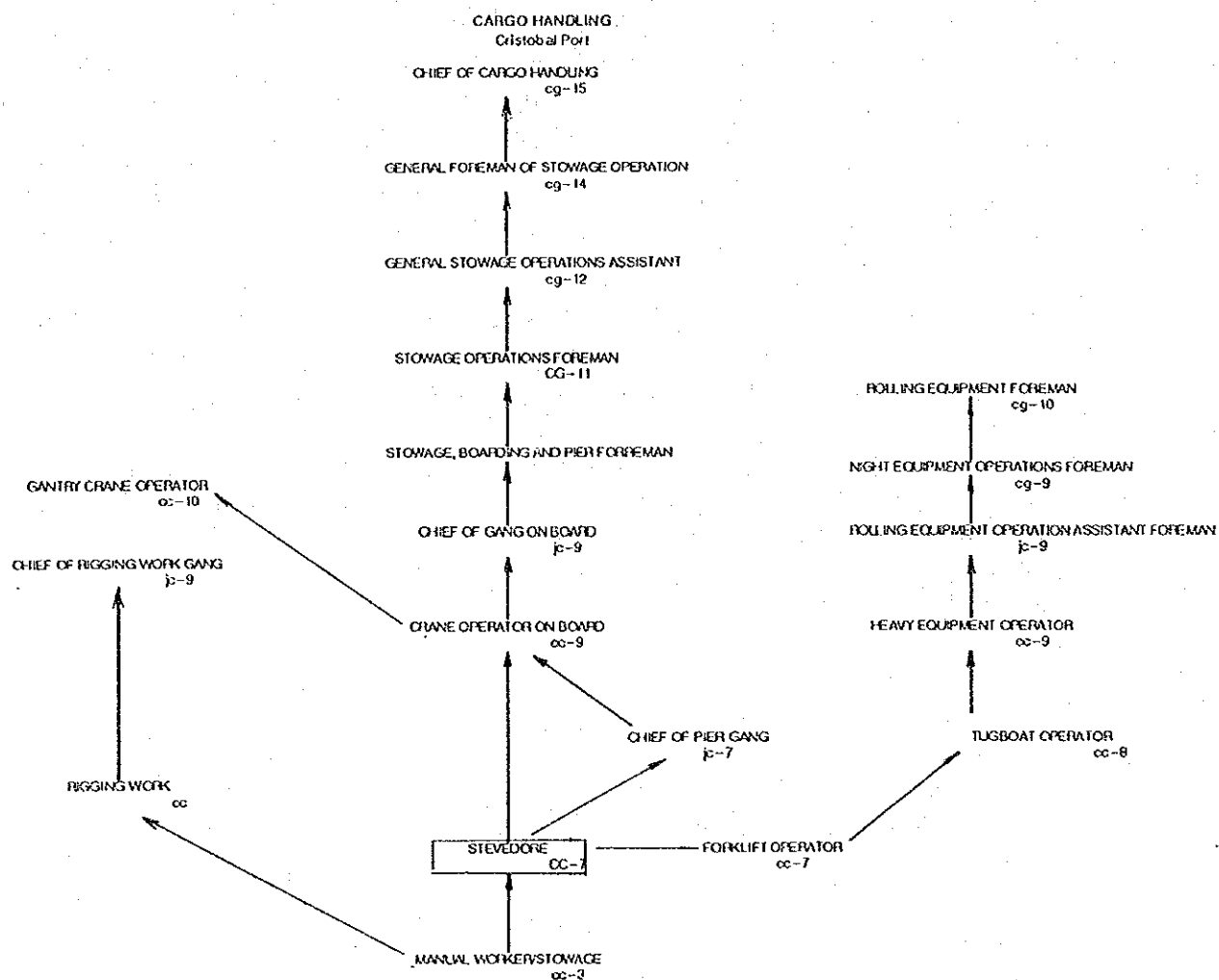
Under the law, the mandatory retirement age is 60 for males, and 55 for females. Early retirement allowance is prepared for those employees who retire from APN before age 55 for males or 50 for females. The above allowance system will be modified in accordance with the law to be repealed by 1995.

(4) Labor Union

There are two Port Labor Unions, namely "Cristobal Syndicate" at the port of Cristobal and "Balboa Syndicate" at the port of Balboa. In Panama, labor disputes by public employees are prohibited in general. However "Cristobal Syndicate" and "Balboa Syndicate" are excepted according to the Panama Canal Treaty. The General Secretary of each Syndicate is elected by each Syndicate's members. The Government subsidized them at one time but does not anymore. Other employees of APN have organized a Worker's Association which is not for settling labor disputes but for promoting mutual friendship.

The Agreements between APN and the Labor Syndicates were concluded in 1982 and 1986 in which some working conditions are stated, for example, some forms of allowances, social welfare etc.. Since these are basic working conditions for the labor of the two Ports, it is thought vital to retain the Agreements even if the Port management systems are changed.

The Labor Relation Division was established in APN central office to facilitate coordination between APN and the Syndicates. Requests from the Syndicates are transferred to the Labor Relation Division through the administrative Unit of each Port. Meetings with the General Director and each General Secretary of the Labor Syndicates are held regularly once a month and cover various issues including requests from members of the Syndicates.



Elaborated by: Training Department

Figure 10-2-3 Internal Organization of Cargo Handling Department of the port of Cristobal

(5) Training System

The Training Department under the Administration Division is in charge of executing the training of APN employees. Actually, most trainees are operational employees. This Department compiles the original texts and executes the training for each type of worker.

The Training Department arranges to dispatch experienced APN operational employees, to training courses held by the National Institute of Professional Formation (INAFORP) which is a Panamanian official institute for labor training. The employees who complete the INAFORP courses usually become trainers for APN internal training courses.

The Training Department also arranges to dispatch APN employees to training courses of International Labor Organization (ILO) held regularly in Central and South American countries.

Official licenses are not required to operate cranes in the port area: an APN worker can operate a crane simply by virtue of becoming Crane Operator. It is prohibited, however, to operate cranes outside of the port area.

10.3 Management of Ports

10.3.1 Management of Water Area

(1) Control of Activities in Water Area

PCC controls the water area within the Panama Canal Zone. Permission of PCC is required for activities in this area. PCC strictly controls navigation of vessels in and around the area. The navigation controlled areas include the port areas of Cristobal and Balboa. Therefore, vessels which enter the port areas of Cristobal or Balboa have to have a PCC pilot on board, even if it is a foreign warship. The only exception is for small ships.

Every vessel which goes through the Panama Canal must adhere to the navigation rules of Panama Canal without exception. PCC pilots must be on board before passing the buoy set in front of the Port of Cristobal. Vessels with dangerous cargo cannot pass each other; the strength of lights are reduced.

Utilization of and activities at the water area within the boundary of the ports is controlled under APN administration.

The Law #42 (Chapter for concession) regulates management of port area. According to the regulation, all entities except APN (for example private companies etc.) must enter into a contract with APN when they want to carry out some activities such that involve the use of water area in port area. They are requested to follow the procedure shown in section 10.3.4. and to submit the required documents to the Concession Department of APN where the documents are examined by the divisions concerned (for example, technical matters are examined by the Engineering Division, the Port Service Division examines matters concerning

Port usage). After being referred to the Executive Committee, terms of the contract are decided. If an entity disregards this rule, APN can invoke measures through the Police force.

The managing system for other areas outside the port and Panama Canal Zone is complicated. APN is in charge of installation of maritime facilities such as lighthouse, buoy in this area. Ministry of Finance and Treasury is in charge of navigation control through the Consular & Vessel Division. Ministry of Justice is in charge of security.

Concerning the water area usage, the competent authority is different according to the nature of activities. For example, Ministry of Commerce and Industry administrates water area usage if the activity concerns mining or fishing, and APN administrates it if the activity concerns port activity. The permission of the relevant Authority is necessary for exclusive use, and for construction work in the area etc..

(2) Management of Ship Entering, Departure and Safety in Port Area

The Chapter of the law #42 for the ship entering regulates the procedure for entering the port and safety in the port area.

All vessels entering, berthing, anchoring in the ports need permission of APN (Port Administrator) except for small ships. Port Administrator decides the site for berthing or anchoring. When entering or departing, the submission of required document or payment for port charge is necessary. All procedures must be checked by an APN clerk.

Concerning the safety in the ports, navigation speed is limited under the advice of the pilot. Tug boats must be used in accordance with Port Administrator's decision. Vessels must hoist their national flags and Panamanian flags, and maintain appropriate illumination in the ports. If necessary, the Port Administrator can indicate vessels to shift to another place. When vessels do not obey the indication, the Port Administrator can take appropriate measures to remove them. The Law also regulates the procedures and measures for dangerous cargo handling.

In order to get mooring service under the regulation of port service, an application form for entering ports must be submitted to the Port Administrator, 48 hours before its entering. Cargo documents such as "Stowage Plan" must also be submitted. The Port Administrator can remove vessels which did not pay charges such as Dockage. The Port Administrator can impose a fine if vessels make irregular handling of dangerous cargo without permission.

The procedure to enter the Port of Cristobal is as follows.

As mentioned above (1), vessels which enter the Cristobal or Balboa port area must have a PCC pilot on board except for small ships, because the PCC navigation controlled area includes the Cristobal port area. The vessels usually take the PCC pilot on board when they pass the breakwater and enter Limon Bay. One or two

tug boats are also required to assist vessels entering the anchorage area in front of the Piers. While APN could provide towing services with their own tug boats, they are now provided by a private company "Smith International Havensleep", under a concession contract of APN. The company has two tug boats, namely "SMIT Duitsland" and "STEENBANK" with power of 2,400 HP and 3,000 HP respectively.

(3) Management of Coast

According to the Law #42, APN administrates the coastal area of Panama except for the Panama Canal Zone. Although APN does not possess any land on the coastal area, anyone who intends to do something concerning port activities must make a concession contract with APN. For example, if someone wants to construct a marina on the seashore, he has to submit the required documents to APN to obtain APN permission. But this procedure is not necessary for activities which are not related to port activities. The area over which APN has jurisdiction is, however, only ten meter wide from the coast line.

10.3.2 Berth Allotment

Berth allotment is generally conducted on a first come first serve basis. At the port of Cristobal, the rule is basically the same. Berthing site schedule for vessels is decided by regular meetings for berth allotment.

Container vessels without crane are given priority, however, at Pier No 9 of the port of Cristobal which has two gantry cranes.

Vessels carrying a sick person on board or in imminent danger are given priority at all ports.

10.3.3 Port Service

(1) Cargo Handling Service

Cargo handling service is provided by the operational departments of APN port administration offices and private companies as well. The degree of commercialization is different at each port.

1) Port of Cristobal

The operational departments of APN Port Administration Office and a private company provide cargo handling service at the port of Cristobal. The name of the private company is "Delcargos Inc.", which is the sole cargo handling company in this port. The private company handles both container cargo and other cargo. This same condition existed before this port was transferred to Panama. APN employees operate two container gantry cranes. APN operates

the container freight station and performs cargo handling works inside the station.

2) The Port of Coco Solo Norte

Cargo handling service is provided by private companies. There is no APN employee for cargo handling at the port of Coco Solo Norte.

A few years ago, some regular container service lines of Sea Land, King Ocean etc. began to call at this port. In December, 1991, Sea Land began shipping service calling Miami, Coco Solo Norte, Pto. Limon, New Orleans and Miami, which is provided currently on weekly basis. Since there is no container crane available in this port, the vessels with gantry crane are assigned, utilizing their own ship crane and two top-lifters for container cargo handling. Sea Land rents about 4,139 square meters of land in Pier No.1 from APN through the concession agreement. By using this area, they are handling about 300 TEU of container cargo per one ship call.

King Ocean provides regular container shipping service every ten days. The service calls Miami, Coco Solo Norte, Pto. Limon and Miami. King Ocean assigns Ro-Ro type vessels in this service.

3) The Port of Bahia Las Minas

Formerly the Port of Bahia Las Minas served mainly for dangerous cargo only, but in recent years Seaboard Marine and CCT (Crowly Caribbean Transport) have begun to provide regular container shipping service.

CCT provides regular container service every five days with Ro-Ro container ships and Ro-Ro container barges, which call Miami, Bahia Las Minas and Pto. Limon. This port has only one general cargo berth with substandard length. Therefore the Ro-Ro vessels and barges are moored with their bow or stern towards the berth. Moreover there is little land space behind the berth. The containers on chassis are drawn into container storage yards around the port by trailers directly from the vessels.

There is no APN employee for cargo handling at the Port of Bahia Las Minas. Cargo handling service is provided instead by a private company named "Muelles, S.A.", which is the sole cargo handling service company at the Port of Bahia Las Minas.

4) The Port of Balboa

Like the port of Cristobal the port of Balboa Administration Office has cargo operation departments which are responsible for cargo handling service in this port. This same condition existed before this port was transferred to Panama. Pier No. 15 is an exception, where the gantry crane is possessed and operated by a private company. This company makes contract with shipping companies (shipping agencies), and company employees operate the gantry crane. In this

case, all other cargo handling operators except those for the gantry crane are APN employees. This type of cargo handling formation seems unique.

(2) Mooring, Water Supply and Bunkering

At the Port of Cristobal and Balboa, each APN Port Administration Office provides mooring and water supply services. The Maritime Services Department of each Port Administration Office is in charge of these services, which are undertaken by their own force.

Bunkering service is provided at the ports of Cristobal and Balboa. The service is carried out by private companies, for example, "APSA" at the Port of Cristobal, using APN facilities.

10.3.4 Concession

All land area of the ports which is owned by APN is managed by each Port Administration Office. APN makes concession contract with private companies to rent a part of the land area. Some kinds of services for example cargo handling, towage, bunkering etc. are provided by private companies based on the concession contract with APN. The outline of the concession procedure is as follows.

- (a) The applicant has to submit to APN completed application documents containing required information such as name of the representative, name of the entities, licenses, outline of the business activities, the term of construction work etc..
- (b) APN examines the application documents submitted, and negotiates the concession fee. The Concession Department of APN central office is in charge of this procedure.
- (c) The Concession Department and Legal Division make the draft of the concession contract and refer it to the monthly Executive Committee meeting (every third Thursday). The Executive Committee examines and decides the terms of the contract.

This system was established in 1976. APN has made 210 contracts to date (November 1992). Normally, APN does not advertise for the applicant companies in newspapers etc. The private companies investigate the port area, and apply for the concession whenever they want. The Concession Department accepts them at all times. There is no standard rule concerning the concession fee, it is decided on a case-by-case negotiation.

Table 10-3-1 List of Concessions (Port of Cristobal)

Name of Company	Activity of Company
Specialized Bunkering Service Inc.	Mnitime services
Smith International Havensleep	Tugboat services
Atrantic Pacific, S.A. (APSA)	Fuel storage installation handling
Environmental protection services	Maritime services
Panama Air Marine Safety and Supply Sub--service	Maritime services
Talleres Industriales, S.A.	Launch service
Inspecciones Tecnicas Marinas	Chemical inspections of vessels
Administradora Portuaria, S.A.	Containers yard operation & development
Atlantic Side Holding, Inc	Administrative services and vessel agency
Banco Nacional de Panama	Bank office
C. Fernie and Co. Inc	Shipping agency
C.B.Fenton, Inc	Shipping agency
Consorcio de Inversiones Diamantina	Office administrative & accounting services
Club de Yates del Area Canalera	Yacht club & restaurant
Delcargo Inc.	Vessel cargo handling
Chevron Marine and Service Co.	Loading & unloading offices, tank#20,34 storage of oil
Esso Marine Supply Co.	Tank#7, #5, #24, #64, #28, #36, #44, #62, #8, storage of oil, Administrative offices
Oficina de pasportes	Passport office
Ofic.de Registro Publico	Public record office
Mobil Sales Supply Co.	Tank#21, #23 storage of oil
Panama Launch Service, S.A.	Launch service
P.A.C.R.O.P.S.A	Shipping agency
Panama Agencies	Shipping agency
Resid-X	Fuel Supertank Handling
Sea Food Joint Venture	Duty free store
Transacuaticos, S.A.	Launch service
Texaco Antilles, LTD.	Tank#10, #41, #19, #25, storage of oil
The Shell CO.(W.I.)LTD.	Tank#63, #48, #45, #26, storage of oil
United Brand	Office administration
Motores Internacionales	Vehicles storage

Source : APN

At the Port of Cristobal, APN has made concession contracts with various entities including shipping agencies, a cargo handling company, oil companies etc. as shown in Table 10-3-1. Among them, there are some companies which had been conducting business in this port before it was transferred to Panama. After that they made a concession contract with APN to continue their business. The cargo handling company, "Delcarga Inc." introduced in section 10.3.3 is one such company. Some branches of the public sector such as the passport office are also concession entities. APN charges a concession fee even for the public sector entities.

10.3.5 Customs Clearance

At the Port of Cristobal, the major part of the container cargoes are bonded cargoes which are carried into the Colon Free Zone. The custom clearance procedure for these cargoes is extremely simple which is one of the great advantages of this area. The inventory checking system used in this area is not as strict as in Miami. Importers can draw out the cargo from the Cristobal port area to Colon Free Zone by merely submitting a simple form to the Custom Office.

10.3.6 Introduction of Computer System

APN has not yet introduced a full scale computer system for the port management works, except for 22 personal computers which have been introduced to certain Departments. There is no on-line network system, but the data base is compatible through interchanging operation by floppy disks.

The Computer Department is in charge of introducing the computer system. They control the whole computer system in APN with the required software for all sections, and execute the maintenance of the systems. There are eight personnel in the Computer Department. Five are Programmers, but there are no system engineers.

The Computer Department developed a system to control the container yard that utilized container files and container location files etc. at the Port of Cristobal and was in use until 1989, but the back-up the software was fortunately untouched.

Data exchange between private company offices is being done through telephone lines with quality of 2400 bite/second. While the telephone communication is interrupted sometimes at this moment, it is expected that the communication infrastructure will not be a bottleneck in introducing an electric data interchange system.

10.3.7 Port Promotion

The Marketing Department in the Planning Division is in charge of the port promotion activities and marketing research.

The Marketing Department uses a brochure printed in 1991 named "Panamanian Ports" and the statistical yearbook etc. as materials for port promotion. The brochure was published as a simple PR magazine and is not suitable for promotional purpose. The statistical yearbook carries two years delayed data, for example, the yearbook in 1992 carries data of 1990. Shipping companies request more up dated data accordingly.

The Marketing Department is planning to make a new brochure to promote the ports. However, it seems unlikely that by this action only will new shipping service lines be attracted because of the actual shortage of container handling capacity at the port of Cristobal; the problem is compounded by the limited budget allocated for port promotion.

10.4 Port Tariff

The APN ports have two different tariff systems, one is the International Port Tariff and the other is the Domestic Port Tariff. International Port Tariff is mainly adapted to the ports of Cristobal and Balboa.

The former tariff before the ports of Cristobal and Balboa were transferred to Panama was in effect until 1982. Now, port tariff is decided on the basis of operational cost of APN. Table 10-4-1 shows the outline of the International Port Tariff.

It is characteristic that the wharfage is based on cargo volume.

Transit and export cargoes are exempt from wharfage charges. When APN employees perform the cargo handling, a cargo handling fee (loading or unloading) is charged in addition to the wharfage. If additional cargo handling equipment of APN, for example forklift and crane, is required, a rental fee is charged. Overtime is calculated based on the number of the gang. Pilotage is not included, because the pilotage service must be provided by PCC in the Ports of Cristobal and Balboa.

The Executive Committee has authority to revise the tariff. The Tariff Department in the Planning Division is in charge of the tariff. The Billing Department in the Financial Division is in charge of the collection of the charge according to the tariff.

The agencies of the Billing Department in these Units actually calculate the charge.

Table 10-4-1 Main Tariff of APN (for International Port)

(Balboa)		
Item	Kind of Tariff	Tariff
Entering the port	Vessels that carry out loading/unloading operation	0.05/GRT
	Vessels that do not carry out loading/unloading operation	0.02/GRT
Lashing/ Unlashing(*)	Lashing/ Unlashing	Up to 9,000GRT 75/maneuver
		Up to 15,000GRT 115/maneuver
		Over 15,000GRT 150/maneuver
Dockage	Vessels that carry out loading/unloading operation (Pier 9 Cristobal)	First period of 24 hours 0.06 (0.075)
		Second period of 24 hours 0.005/GRT
		Subsequent hour 0.0075/hour
	Vessels that do not carry out loading/unloading operation	0.05/GRT, day
Wharfage(**) Cargo transiting over the wharf from or to the vessels.	Unloaded break Bulk Cargo	Liquid in Bulk 0.75/ton
		Solid in bulk 1.00/ton
		Industrial Inputs 1.50/ton
	Full containers	Industrial input 40/TEU
		Food & medicines Exempt
		Not specified 80/TEU
Stowage/Unstowage This does not include cargo handling equipment.	Regular hours Break bulk cargo	Empty 25/TEU
		3/ton
	Unloaded vehicles up to 15 cubic meters.	25/unit
	Container	Full container 60/TEU
		Empty Container 15/TEU
	In-transit Container	20'Container 100/movement
		40'Container 175/movement

Item	Kind of Tariff	Tariff
Stowage/Unstowage	Charges on Overtime Overtime will have an additional charge over the regular fee.	Regular working days: 15:00 ~ 23:00 100/gang, hour 23:00 ~ 7:00 200/gang, hour
		Other days: 7:00 ~ 15:00 100/gang, hour 15:00 ~ 23:00 200/gang, hour 23:00 ~ 7:00 300/gang, hour
Handling The moving of cargo from the cleared slings of vessels to the yard or freight house or vice versa.	Break bulk cargo	5/ton
	Unloaded vehicles up to 15 cubic meters.	50/unit
	Container	Full container 130/TEU
		Empty Container 12.5/TEU
	Container (When the shipping agencies rent private equipment)	Full container 90/TEU
		Empty Container 8.6/TEU
Storage Charge After the free-time period(***) expires.	Stuffing/unstuffing	3.5/ton
	Break bulk cargo	Warehouse Yard (/day, ton)
	On 1st week	2 1
	On 2nd week	3 1.5
	On 3rd week	4 2
	Subsequent period	5 2.5
	Vehicles	10/unit
	Containers	Full 25/day, TEU Empty 15/day, TEU
Rental of Equipment	18 ton truck crane 30 ton truck crane Gantry crane Lifts less than 20 tons Lifts more than 20 tons	Empty Up to 20' - 4/day Over 20' - 6/day
		Empty on chassis Up to 20' - 11/day Over 20' - 14/day
		75/hour
		150/hour
		450/hour
		75/hour
		150/hour

(*) After regular hours, a 100% surcharge over the regular tariff.

(**) This charge applies to all cargo that passes through the docks, whether the ports render other services or not. In-transit and export cargo are exempted.

(***) Free time: Unloaded cargo - 5 working days, Cargo to be loaded - 5 working days, In-transit cargo 30 calendar days, Empty containers - 4 working days

Labor Force Service: For services rendered outside of regular working hours, additional charge will be as follows

Regular days 15 ~ 23 hrs. +50%, 23 ~ 7 hrs. +100%

Sundays, holidays, 7 ~ 15 hrs. +100%, 15 ~ 23 hrs. +125%, 23 ~ 7 hrs. +150%

10.5 Finance

10.5.1 Financial Condition

APN receives no subsidy from National Government. In this context, APN is financially independent from National Government. Conversely, National Government collects contribution from APN as well as other public entities.

Table 10-5-1 shows the financial condition of APN in the last eight years. According to this table, financial position of APN was not good from 1984 to 1989. The revenue structure has been dramatically improving thanks to rapid increase of revenues from cargo handling and concession experienced during the period since 1990. Net revenues from cargo handling gradually increased from 31.2 million Balboas in 1984 to 47.9 million Balboas in 1991. Those from concession also increased from 2.8 million Balboas in 1984 to 5.4 million Balboas in 1991. The fact that no large investment was made in the same period is considered to have contributed to improving the financial status of APN.

The working ratio of port operation (*) was around 90% in 1984-1990. In 1991 it was improved to 63%. However, in order to secure sound operation efficiency, this figure should be further improved up to normal ratios of 50-60%.

(*)Working Ratio : $(\text{Operation Expense-Depreciation})/\text{Operation Revenue} \times 100 (\%)$

APN has made an annual contribution to the Government since 1985. In 1990 it was about 15 million US\$ which seemed to be a major reason for the deficit in this year. MIPPE can make the budgeted bill of the contribution, and submit it to the Parliament. However, the amount of its budget can be changed upon request of the Executive Cabinet according to the financial condition of the nation. It is normally increased in the middle of fiscal year when necessary.

Table 10-5-1 Profit and Loss Statement of the APN

	(Thousand Balboas)							
	1984	1985	1986	1987	1988	1989	1990	1991
Operating Revenue	46,438	44,509	44,467	48,598	32,879	38,557	45,162	56,846
--Revenue from Maritime Service	15,243	11,806	8,848	9,335	7,288	7,815	8,404	8,956
--Revenue from Cargo Handling Service	31,195	32,703	35,619	39,263	25,591	30,742	36,758	47,890
Operation Expense	46,235	45,860	46,031	44,511	44,008	42,240	38,853	42,002
--Personnel Expense	26,205	27,549	30,058	31,592	29,999	28,395	28,199	29,506
--Repair and Maintenance	1,470	1,218	3,448	1,837	1,373	1,375	898	1,505
--Material Consumption	2,150	1,813	1,511	1,356	1,853	1,474	935	1,041
--Transport Service	619	573	746	711	672	695	77	77
--Operation Service	2,382	1,986	1,801	2,033	2,155	1,897	1,517	2,307
--Administration Expense	1,134	1,518	2,115	2,102	1,348	1,582	1,228	1,218
--Special Expense	369	183	679	398	225	1,058	145	350
--Tugboat	5,992	4,232	64	138	140	123	27	0
--Others	0	752	360	121	13	0	0	0
--Depreciation	5,914	6,036	5,249	4,223	6,230	5,641	5,827	5,998
Operating Income	203	(1,351)	(1,564)	4,087	(11,129)	(3,683)	6,309	14,844
Non-Operating Revenue	5,200	5,474	6,353	6,082	5,378	6,442	6,486	7,780
--Revenue from Concession	2,762	3,341	3,938	4,456	4,289	4,603	5,029	5,362
--Other Revenue	2,438	2,133	2,415	1,626	1,089	1,839	1,457	2,418
Non-Operating Expense	4,808	8,284	4,799	6,581	651	1,675	18,168	5,558
--Provision for Bad Accounts	0	0	0	1,500	500	1,500	0	0
--Provision for Dredging	2,333	2,333	0	0	0	0	0	0
--Interest etc. on Long term Loans	2,475	2,784	4,342	5,081	51	0	3,218	3,689
--Contribution to National Government	0	3,167	457	0	100	175	14,950	1,869
Non-Operating Income	392	(2,810)	1,554	(499)	4,727	4,767	(11,682)	2,222
Surplus or Deficit	595	(4,161)	(10)	3,588	(6,402)	1,084	(5,373)	17,066
Working Ratio(*)	86.8%	89.5%	91.7%	82.9%	114.9%	94.9%	73.1%	63.3%

(*)Working Ratio : (Operation Expense - Depreciation Cost) / Operating Revenue

Source: APN

10.5.2 Budget

The Budget of APN is classified into operational budget and investment budget. Table 10-5-2 shows outline of the investment budget from 1985 to 1992.

The investment condition was drastically changed in 1989 and 1990 when economic and political conditions were confused. In those years, investment budget was not appropriated completely. In 1992 the investment budget recovered the same level as 1985. The construction budget, however, was about five million US\$ including only about 2.5 million US\$ for the Port of Cristobal.

The outline of budget-making procedure of APN is as follows.

- (a) Each Division estimates the coming year's budget in June or July.
- (b) The Planning Division collects them and arranges the draft budget of APN and submits them to MIPPE in August.
- (c) MIPPE examines proposed budgets of all Ministries and institutes of National Government. MIPPE then drafts the National budget.
- (d) MIPPE submits it to the Parliament. The National budget is approved after decision of the Parliament. The budget can not become effective without signature of the President.

For the period of 1991 to 1995, APN proposed its second Five Years Investment Plan amounting 40.4 million US\$. The first was in 1986. Table 10-5-3 shows its outline.

Since the Plan is an internal decision of APN, it is not supported officially by the Budget Law. However each year APN's budget is made on the basis of this Five Years Investment Plan.

The main purpose of the plan is to maintain and rehabilitate ports facilities, including dredging, installation of rubber defense system at the pier etc. The amount projected for the period includes improvement of the two major ports (the Ports of Cristobal and Balboa), 14.7 and 10.0 millions US\$ respectively.

Table 10-5-2 Budget for Investment of APN

(Thousand Balboas)

	1985	1986	1987	1988	1989	1990	1991	1992
- Civil Works	2,146.4	379.3	1,054.4	303.2	0.0	2,836.3	3,771.2	4,952.5
Cristobal	1,466.4	326.4	1,047.7	303.2		1,176.2	2,075.0	2,515.0
Coco Solo Norte	680.0	52.9	6.7				96.7	
Balboa						1,466.4	1,400.3	1,750.0
Vacamonte						193.7	136.9	687.5
Pedregal							62.3	
- Supervision	714.2	56.1	245.3					
- Equipment	2,797.3	1,306.3	2,453.5	0.0	0.0	566.2	1,058.2	1,701.0
Gantry Crane	1,982.1	799.7	1,858.7				1,032.3	
Mobil Equipment	815.2	506.6	594.8					
For Navigation Aid						566.2	25.9	1,701.0
- Rehabili. & Maintain.	175.0	191.0	109.3			468.0	300.0	1,800.0
- Maritime Signal	111.5	52.0		247.2			235.4	245.0
- Dredging	2,800.0						3,557.8	
- Others	1,180.5	518.4	1,296.8	417.9	0.0	(0.0)	0.0	3,080.0
TOTAL	9,924.9	2,503.1	5,159.3	968.3	0.0	3,870.5	8,922.6	11,778.5

* From 1985 to 1990 the funds were engaged

From 1991 to 1992 the budget data is programmed

Source : APN

Table 10-5-3 Project for Five Years Investment of APN

(Million Balboas)

	Total	1991	1992	1993	1994	1995
Port of Cristobal	14.69	1.44	1.75	5.00	5.00	1.50
Port of Balboa	10.01	2.50	2.51	2.00	1.50	1.50
Port of Vacamonte	0.89	0.20	0.69			
Maritime Signaling	0.68	0.28	0.25	0.05	0.05	0.05
Port Dredging	8.65	4.00	2.65	0.00	0.00	2.00
Balboa	3.87	3.00	0.87			
Cristobal	1.14		0.68			0.46
Vacamonte	2.31	1.00				1.31
Coco Solo Norte	1.33		1.10			0.23
Rehabilitation of Minor Ports	1.18	0.20	0.43	0.35	0.20	0.00
Coco Solo	0.28	0.10	0.08	0.10		
La Palma	0.08		0.03		0.05	
Bocas del Toro	0.15		0.10		0.05	
Aguadulce	0.22		0.07	0.10	0.05	
Almirante	0.05			0.05		
Puerto de Panama	0.05				0.05	
Puerto de Pedregal	0.35	0.10	0.15	0.10		
Puerto Mutis	0.00					
Purchase of Equipment for Cargo Handling	2.45	0.75	1.70			
Maintenance and Repair	1.80		1.80			
Total	40.35	9.37	11.78	7.40	6.75	5.05

Source : APN

10.5.3 Procurement System

Procurement procedure articles are strictly regulated by the Fiscal Code, which was established in 1924 and imposes public tender system.

Firstly, the procurement request is submitted from each department to the Purchase Department of APN central office. The Purchase Department must follow the procedure when the price of aimed articles exceeds 100 Balboas.

APN advertises by placing information concerning the required articles in newspapers for three days. Prospective applicants submit estimates to the Purchase Department. On the basis of the estimates, the Purchase Department can enter into a contract in accordance with four different procedural guidelines defined by price level of procurement objectives. (Case 1-4 as shown here below)

Case 1; Total price of procurement objectives is less than 50 thousand Balboas.

The Purchase Department can appoint by itself the most appropriate supplier and send its decision to General Control Office (GCO) for examination. The contract becomes effective through signing by the General Director of APN.

Case 2; Total price of procurement objectives is 50 or more than 50 thousand Balboas and less than 150 thousand Balboas.

The Technical Committee organized by Ministry of Finance and Treasury, GCO and APN appoints the most appropriate supplier. Afterward documents are checked and examined by GCO. The contract becomes effective by signatures of the General Director of APN and General Comptroller.

Case 3; Total price of procurement objectives is 150 or more than 150 thousand Balboas and less than 500 thousand Balboas.

The Technical Committee organized by Ministry of Finance and Treasury, GCO and APN appoints the most appropriate supplier for examination by the Executive Committee of APN and GCO. The contract becomes effective through signature of the General Director of APN and General Comptroller.

Case 4; Total price of procurement objectives is 500 or more than 500 thousand Balboas.

The Technical Committee composed of representatives of APN, Ministry of Finance and Treasury, MIPPE, GCO and Ministry of Presidency appoints the most appropriate supplier for examination by the Executive Committee of APN. Afterward, the supplier must be approved by the Economic Council and the Executive Cabinet. The contract becomes effective through signature of General Comptroller.

It takes at least 30 days to complete procurement procedures, because it is strict and complicated. In urgent cases, a simpler procedure can be adopted. This procedure, however, is allowed only when the total procurement price is less than 2.5 thousand Balboas.

The Supply Department which is in Balboa is in charge of the inspection of the procured articles. Inspectors are dispatched to all sites where inspection is required.

10.6 Commercialization

10.6.1 National Modernization Policy

On January 18th 1991, President Endara gave an administrative policy speech in which he indicated creation of employment, removal of corruption of former government, promotion of free market economy, promotion of efficiency of National entities, commercialization etc. were priorities. According to the speech, MIPPE formulated "Strategy of National Development and Economic Modernization " as a basis for discussion. In the chapter of "Modernization of the National Government" of this "National Strategy", the following items are indicated.

- (a) Promotion of commercialization
- (b) Promotion of efficiency of State Autonomies
- (c) Market opening of State business
- (d) Deregulation to State Autonomies (to strengthen the function of the Executive Committee and independent position, to simplify procurement system, introduction of personnel promotion system linked to working efficiency, deregulation concerning budget use, etc.)
- (e) Reformation of Social Security
- (f) Reformation of Personnel System

Then the Cabinet meeting approved "Action Plan of National Development and Economic Modernization "on 29th of August, which shows concrete items to be reformed and its action schedule, based on the "National Strategy". According to the "Action Plan", various reformation plans shown in the "National Strategy" shall be executed in three years, namely from 1991 to 1993. The principle of the "Action Plan" can be summarized as follows.

- (a) To Improve the market economy
- (b) To promote the private sector
- (c) To promote an export oriented economy
- (d) To modernize State operations

As a measure for state modernization, a commercialization program is indicated in the

program component of this "Action plan", in which unnecessary activities of the National government functions shall be transferred to private sectors. The detailed actions are shown as follows.

- (a) Commercialization of "Air Panama", "Chiriqui Citrus", etc.
- (b) Sale of State assets, for example "Taboga Hotel", "Washington Hotel" etc.
- (c) Commercialization of cargo handling service of National Ports as a cost saving measure and means to improve port productivity
- (d) Commercialization of "National Telecommunication Institute" (INTEL) as one of the measures in improving telecommunications
- (e) Others

Concerning commercialization of port service, transference of operational activity and equipment to the private sector through concessions and licenses at the Ports of Cristobal, Balboa, Bahia Las Minas and Coco Solo are referred to in the National Strategy as a way to introduce commercialization.

10.6.2 Port Commercialization

In the "National Strategy" and "Action Plan", the commercialization of port service activities is called for with a view to improve productivity of Port of Cristobal. Therefore, APN is formulating "Guideline for modernization of the Port of Cristobal". Detailed modernization plans which are to apply to each pier of the port will be described in this "Guideline".

With a view to conducting a special study on promoting commercialization of port operation, APN plans to organize, under IDB (Interamerican Development Bank) financing, a special Unit consisting of eight specialists and APN staff. The study is to be carried out under close coordination with MIPPE during the period from the end of 1992 to March or April 1994. The fields of specialists include tariff, concession, civil engineering, port development, environment, organization, law and man-power.

In 1990, IDB requested APN to reduce its number of personnel, which is a fundamental requirement for introducing commercialization into the ports.

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