

Panama Canal Review
1979-1981

+
986.3005
P187



Digitized by the Internet Archive
in 2010 with funding from
University of Florida, George A. Smathers Libraries

<http://www.archive.org/details/panamacanalrevie1980pana>

PANAMA CANAL
REVIEW

OCTOBER 1, 1969

OCT 8 1969
SERIALS SECTION

X
186.3005
P187



D. P. MCAULIFFE
Administrator

WILLIE K. FRIAR
Editor

FERNANDO MANFREDO JR.
Deputy Administrator

VICKI M. BOATWRIGHT
Assistant Editor

VICTOR G. CANEL
Information Officer

PANAMA CANAL REVIEW

OCTOBER 1, 1980

Writers
FANNIE P. HERNANDEZ, JANET LEN-RIOS

In This Issue

THE PANAMA CANAL COMMISSION, THE NEW AGENCY WHICH operates the Panama Canal, is one year old this month. This edition of the REVIEW is part of the observance of that anniversary and reflected in its pages are some of the many changes resulting from implementation of the new Panama Canal treaty which created the agency.

A close look reveals a change in the REVIEW itself. The logo, which appears on the cover and above, has been slightly modified while a new insignia is being created to replace the Canal Zone seal, which had been included in the name from the time the first issue appeared May 1, 1950.

The cover story is a special tribute to the Atlantic side employees. Written by Susan Stabler, who lives on the Atlantic side, it emphasizes the great diversity of outdoor life and the beauty of the unspoiled beaches on the "Gold Coast." A nostalgic look at an Atlantic side landmark of yesterday is provided by Canal pilot Norman Werner who writes of Colon's most famous saloon.

Graphic Branch photographers whose work appears in this edition are: Mel Kennedy, Don Goode, Kevin Jenkins, Alberto Acevedo, Arthur L. Pollack, and Bob Rogers. All artwork, unless otherwise credited, is by Carlos Méndez.

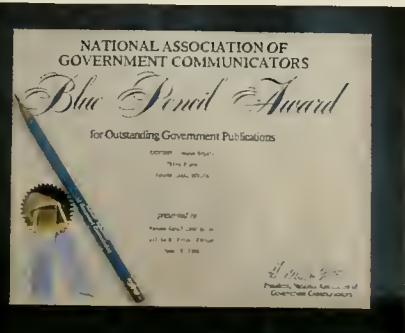
Panama Canal Commission Board of Directors	8
Organization Chart	10
Canal Happenings	11
The "Other Side"	12
Remembering Bilgray's	22
The QE2 Moves Through Gaillard Cut	26
A New Link in the Oil Line	28
The Locomotive Component Repair Facility	34
The Changing Scene	40
Exploring the Gentle Jungle	42
The Canal's Underwater Work Force	45

REVIEW RECEIVES AWARD—Although the 30th anniversary of the REVIEW passed quietly in May, there was cause for celebration a month later when the October 1, 1979 edition won third place in the "house organ" category of the Blue Pencil Awards for outstanding publications. The Blue Pencil Publications Contest is sponsored by the National Association of Government Communicators, a non-profit organization devoted to education and professional development at the local, state and federal levels. This year there were 525 entries and 73 received recognition. Credit for this noteworthy achievement goes not only to the editorial staff, but also to personnel of the Agency Press and Duplicating Center who were responsible for the typesetting and composition.

Official Panama Canal Publication

All articles and illustrations in the PANAMA CANAL REVIEW may be reprinted in full or in part without further permission by crediting the PANAMA CANAL REVIEW as the source. The REVIEW is normally published twice a year. Yearly subscription is \$3 for regular mail and \$6 for airmail. The price for back issues is \$1.50 for regular and \$3 when sent by airmail. For subscriptions, send check or money order made payable to the Panama Canal Commission to PANAMA CANAL REVIEW, Panama Canal Commission Public Information Office, A.P.O. Miami, Fla. 34011. The editorial office is located in Room 100 Administration Building, Balboa Heights, Republic of Panama.

ABOUT OUR PHOTOGRAPHS—A camper's bright red tent adds a spot of color to the tranquil scene photographed for the cover by Mel Kennedy who is also responsible for most of the beach scenes including the "Gold Coast" sunset at left. On the following two pages a panoramic view from atop Ancon Hill shows ships moving through the Canal past the port of Balboa which, along with Cristobal, is operated by the Panama Port Authority. Panama Canal Commission headquarters is in the right foreground. Inside the back cover, a Norwegian dry bulk carrier, followed by a U.S. oil tanker, passes through Gaillard Cut on a misty rainy season morning. Both photos are by Don Goode. Kevin Jenkins visited Charco Azul to photograph the new terminal for the update on the North Slope oil story, page 28-33. The sensitive portrayal of two small children and their father on an outing, pages 42-44 is by Arthur L. Pollack. The center-fold, showing the "QE2" moving through Gaillard Cut, is by Adrian Stallworth. The "QE2", which holds the toll record, paid \$89,154.62 on her seventh transit January 25, 1980.







From The Administrator and the Deputy Administrator of the Panama Canal Commission

The year that has passed since the last issue of the REVIEW appeared has been a time of change, but also a time of continuity and achievement. The enduring mission of the Panama Canal, of course, has not changed. Now in its sixty-seventh year, the waterway continues to carry the ships of the world safely and efficiently across the Isthmus. Larger ships and more tonnage are transiting the Canal than ever before in its history. Also unchanged is the ceaseless effort which goes into maintaining and improving the Canal—the multitude of tasks involved in straightening and deepening the channel, renewing and overhauling the equipment, protecting the banks, and preserving the lakes and watershed which sustain the Canal. The uninterrupted service which this immense

and complex enterprise has continued to provide to the world stands as a tribute to the dedicated and skilled work force of the Panama Canal Commission.

This past year has been remarkable because of the innumerable changes and innovations we have been challenged to carry out by virtue of the new treaty with Panama, while also sustaining the operation of the Canal. We have made good progress in adjusting our management and the entire operating organization to the new situation, as well as in restoring stability to our work force. Our financial footing is sound. Training of our employees, which has always been an important objective, has received renewed emphasis. It is the key to fulfilling the treaty requirement to increase the number of Panamanians at all levels

and in all areas of the Commission.

Panama has cooperated with us and assisted fully in carrying out the treaty's provisions. The channels of communication and coordination by which the new partnership arrangements are put into practice have been established. The binational Board of Directors has assumed its responsibilities in a spirit of cooperation and practicality, and the other binational bodies created to deal with day-to-day problems pertaining to the canal and our work force are functioning effectively.

The Panama Canal Commission is off to a good start in the new treaty era. Future prospects are bright.

All during the treaty negotiations and even after the signing of the Panama Canal treaties of 1977, which went into effect just a year ago, there were many who predicted that the very concept of a partnership between Panama and the United States would not work. They cited cultural, political, economic differences and memories of many past incidents between the two countries as their reasons.

After a year of operation under the new pattern, it is clear that those predictions were unfounded. The Canal is operating effectively and efficiently and we have evolved

during that period of time an even stronger sense of partnership, which is the most crucial element of the transition period for the next 20 years.

Nevertheless, we must recognize that the risks were there and it was only through the good judgment, sense of responsibility and maturity of those involved that the dangers were avoided. Credit must go especially to the officials concerned with binational relations and to the thousands of Panamanians and U.S. workers, many of whom have had to face a number of sacrifices due to the Treaty implementation.

We are living through a particularly challenging time. But the past year has proved that the maritime nations of the world can rely on the new treaty-created agency to operate the Panama Canal in the same efficient manner in the future as it has operated for the past 66 years.



Above left: An Alaska oil tanker transits south as Administrator D. P. McAuliffe, left and Deputy Administrator Fernando Manfredo discuss operations at Miraflores Locks. At right: The Panamanian flag flies in the place of honor in front of the Administration Building reflecting the new relationship between Panama and the United States.



Panama Canal Commission Board of Directors Meets

By Fannie P. Hernandez

THE NINE MEMBERS OF THE binational Board of Directors of the Panama Canal Commission, the United States agency that operates the Panama Canal, met for the first time on June 2 in the Administration Building at Balboa Heights.

During the historic three-day meeting the five U.S. and four Panamanian board members, for the first time, together assumed responsibility for policy-making and supervision of the affairs of the Panama Canal Commission.

The U.S. members of the Board are Assistant Secretary of the Army Michael Blumenfeld and John A. Bushnell of Connecticut; John Clark of Louisiana; Clifford O'Hara of Connecticut and William Sidell of California.

The Panamanian members are Edwin Fábrega, Roberto Heurtematte, Ricardo A. Rodríguez and Tomás Paredes.

Among the actions taken by the Board at that first meeting were the approval of regulations which govern the functions and responsibilities of the Board as specified in

the Panama Canal Treaty of 1977; the election of Blumenfeld as Chairman of the Board; and the designation of Executive, Budget and Finance, and Personnel committees, and the Committee on Long Range Canal Improvements.

Chairman of the Board Blumenfeld was named Chairman of the Executive Committee, whose other members are Bushnell, Deputy Assistant Secretary of State for Inter-American Affairs; O'Hara, Director of Port Commerce, New York and New Jersey Port Authority; Rodríguez, Panama's Minister of Government and Justice; and Paredes, Executive Director of Panama's Treaty Affairs Office. Members of the Executive Committee, with the exception of the Chairman, are elected each year by the Board.

Fábrega, Director General of Panama's Institute of Hydraulic Resources and Electrification, was named Chairman of the Budget and Finance Committee. Members are J. W. Clark, President of Clark Maritime Associates, Inc. New

Orleans; O'Hara and Paredes. These same four Directors constitute the Committee on Long Range Canal Improvements.

Clark was named Chairman of the Personnel Committee and members are Panama businessman Heurtematte; Sidell, former General President of the Carpenters and Joiners Union; and Paredes.

The Board of Directors appointed Michael Rhode Jr. as the Secretary of the Panama Canal Commission, the head of the Canal's Washington, D.C. office.

President Carter appointed the members of the Board of Directors on April 11, following the Senate's approval on April 2 of his choice of candidates announced on January 7.

Assistant Secretary of the Army for Civil Works since May 1977, and former Deputy Undersecretary of the Army, Blumenfeld served on the board of directors of the former Panama Canal Company and as chairman of the Canal Zone Civilian Personnel Policy Coordinating Board. In his capacity as Assistant Secretary of the Army for Civil Works, he also oversees the water resources development program for the Army Corps of Engineers.

Bushnell, Deputy Assistant Secretary of State for Inter-American Affairs since January 1978, has been a Foreign Service Officer since 1959 with experience in several Latin American countries. He also served as Deputy Assistant Secretary of the Treasury for Developing Nations, Finance.

Clark is president of Clark Maritime Associates, a New Orleans shipping firm, and a member of the board of Commissioners of the Port of New Orleans. He is a retired captain of the U.S. Merchant Marine and a 1940 graduate of the U.S. Merchant Marine Academy.



In safety garb, Assistant Secretary of the Army for Civil Works Michael Blumenfeld, Commission Administrator D. P. McAuliffe, right, and Locks Division Chief Lawrence Barca, left, are followed by Lt. Gen. W. H. Nutting, Commander-in-Chief, USSOUTHCOM, and Lt. Gen. Welborn Dolvin, a member of the Consultative Committee, during a tour of Canal operations.

Clark was president and director of the Delta Line from 1959 to 1979 and served as chairman of the Committee of American Steamship Lines. He also was president of the New Orleans International Trade Mart for five years and coordinated the development of the New Orleans international trade complex.

O'Hara has served as director of Port Commerce for the Port Authority of New York and New Jersey since 1962, and as chief of the Port Commerce Division from 1953 to 1962. He is president of the American Association of Port Authorities, past president of the North Atlantic Ports Association, president of the Containerization Institute, and serves on the New York Chamber of Commerce and Industry's World Trade Committee, and Harbor and Shipping Committee.

Sidell, who retired last year as general president of the United States Brotherhood of Carpenters and Joiners of America, a position he held since 1972, is a member of the Executive Council of the AFL-CIO and chairman of its Housing and Urban Development Committee and a member of the committees on Civil Rights, Legislative and Political Education. Sidell is also a member of the Executive Council of the Maritime Trades Department and the Executive Council of the Building and Construction Trades Department.

Fábrega, an architect and former Minister of Public Works, was a member of Panama's negotiating team regarding "Lands, Water and Administration." He has served as rector of the University of Panama and was the principal member of the firm De Diego and Fábrega, S.A., Consultants and Builders. He held the position of Deputy Director



Board members from left, Tomás Paredes, Ricardo A. Rodríguez, Michael Blumenfeld, John A. Bushnell; back row, Roberto Heurtematte, Edwin Fábrega, John Clark, Clifford O'Hara and William Sidell.

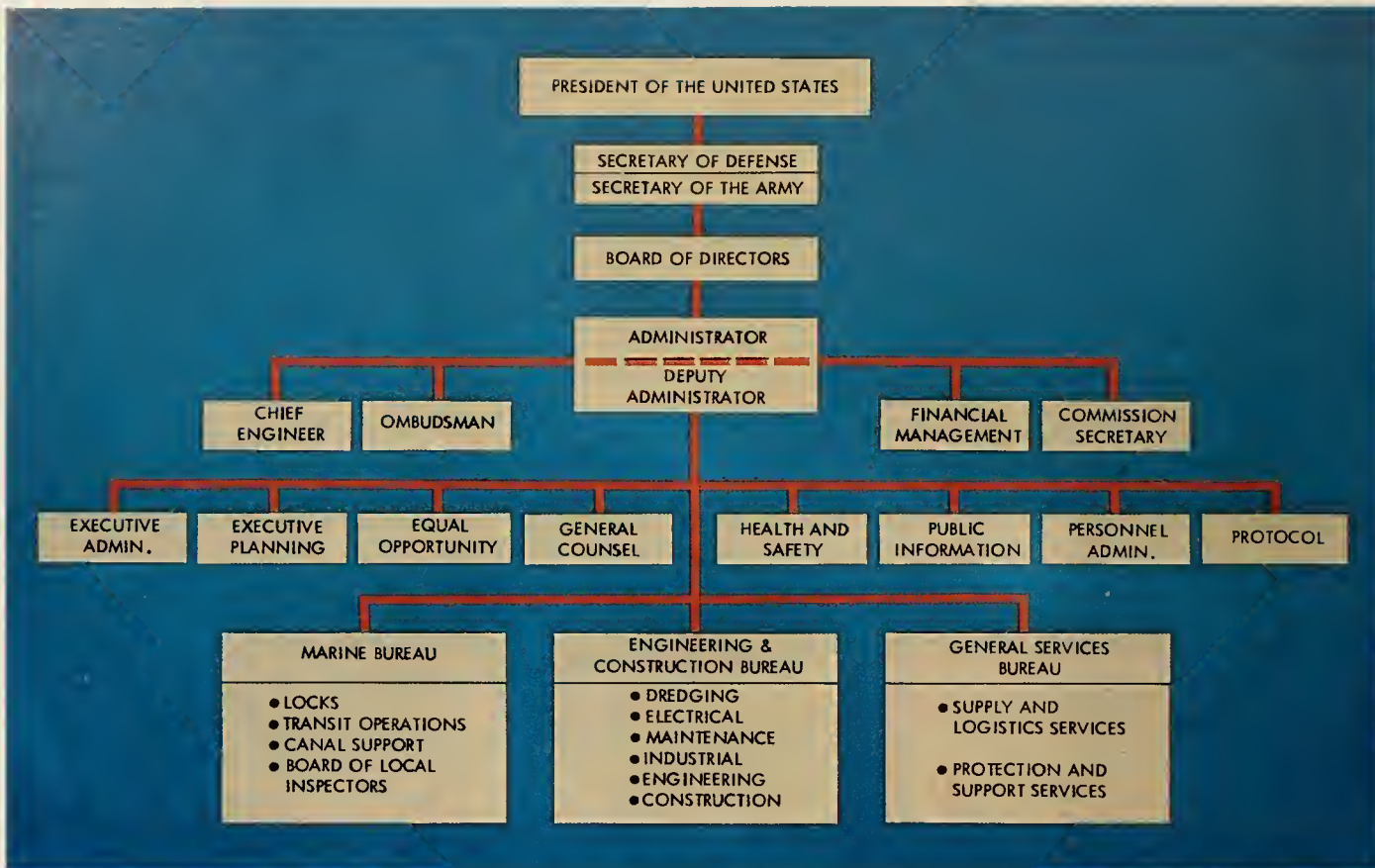
General of the Planning and Administration Office of the Presidencia and has served in a number of other government posts.

Heurtematte served as ambassador to the United States and was concurrently Panama's ambassador-representative to the OAS. He is a prominent businessman with a long public career and was a negotiator of the 1955 Remón-Eisenhower Treaty, Controller-General of the Republic and ex-officio board member of Panama Government autonomous institutions such as Social Security, Economic Development Institute, and the Highway and Waterworks commissions. He served as United Nations Commissioner for Technical Assistance, as Associate Managing Director of the U.N.'s Special Fund for assistance to under-developed countries, and as Associate Administrator of the U.N.'s Development Program. After retiring in 1969, he returned to his business activities and local affairs.

An attorney, Rodríguez is

currently serving as Panama's Minister of Government and Justice. A former member of the law firm of De La Guardia, Arosemena and Benedetti (1961-69), Rodríguez was on two separate occasions a member of the Legislative Commission. He has served as Presidential advisor, and legal advisor to the University of Panama and to the former Panama Canal Authority. Rodríguez was also Minister of Government and Justice from 1974 to 1976.

Paredes, an engineer, was appointed in February as Executive Director of Panama's Treaty Affairs in the Ministry of the Presidencia. He was the director of the former Panama Canal Authority and served also as its deputy director and as director of Planning and Development. Paredes was previously finance manager of Corporación Financiera Nacional (COFINA), and taught engineering at the University of Panama. He also has served on the board of directors of several business firms in Panama.



Shown above is the organization chart of the Panama Canal Commission, the U.S. Government agency, which operates the Canal. The Commission has a binational supervisory board of nine members. The chief executive officer, the Administrator, is a U.S. citizen; the Deputy Administrator is a Panamanian citizen. Beginning in 1990, the positions will be reversed with a Panamanian serving as the Administrator and a U.S. citizen as the Deputy. The Commission has about 8,000 employees, the majority, Panamanian. The Commission replaced the former Panama Canal Company on October 1, 1979; on that date also the Canal Zone and its Government were disestablished.



Heavy traffic in Miraflores and Pedro Miguel locks shows that the Canal is "a highway of water" in this scene taken with a telephoto lens from Ancon Hill. During the first six months of FY80, 7,192 vessels transited the Canal.



Happenings at the Canal

It was "lights, camera, action" at Miraflores Locks for the filming of the "Love Boat," at left, and the "love bug" Herbie, at right; and below, a star of the Cunard fleet, the "Cunard Princess," makes her Canal debut.



THE PANAMA CANAL OPENS its gates to many different kinds of watercraft during the course of a year—from sailboats to supertankers—but 1980 was something special. This year, two "princesses" and a "beetle" made their way to the locks, creating a stir of excitement for Canal watchers.

The Princess Line's *Island Princess*, a regular Canal customer and now the setting for the popular U.S. television series "Love Boat," was filmed on location at Miraflores Locks earlier this year. The weekly TV show concerns the lives and loves of passengers aboard the cruise ship and features a new cast of stars each week, in addition to the regulars who play the captain and crew. Aboard the "Love Boat" on this trip through the locks were Debbie Reynolds, Peter Graves and Ted Knight. Camera crews set up their equipment at the side of the lock wall at Miraflores to film the vessel in transit.

Eight months out of the year the *Island Princess* cruises the Caribbean, carrying 670 passengers on a tour that includes Acapulco, Aruba and San Juan, Puerto Rico.

Another princess that cruises the Caribbean took her maiden voyage through the Canal this year. The *Cunard Princess*, little sister to the *Queen Elizabeth 2*, was on an odyssey that started out in San Juan and culminated with a first-time journey northward to Alaska. Like the *QE2*, the *Cunard Princess* is a floating city, complete with elegant dining facilities, a beauty shop, hospital and even a night club, where passengers can disco the night away.



The sleek, white vessel, about one-third the size of the *QE2*, eased its 75-foot beam through the locks effortlessly as passengers filled the decks to get a look at one of the man-made wonders of the world.

And speaking of man-made wonders, the little Volkswagen beetle "Herbie" motored through the miter gates at Miraflores for a scene from Walt Disney's latest movie about the peripatetic little car that thinks and acts on its own. This particular Herbie (there have been several hundred used in making the popular, G-rated films) was an aquatic version consisting of a VW body mounted on a styrofoam float equipped with a small motor and two propellers. Personnel

and equipment of the Locks, Dredging and Transit Operations divisions and the Panama Canal Information Office assisted the Disney Productions crew with the project, which involved lowering Herbie into the lower west chamber by crane during a lull in ship traffic. Out of camera view in the back of the car was Herbie's keeper, special effects man Hans Metz, who controlled the VW's movements while sitting waist deep in the half-submerged vehicle.

"Herbie Goes Bananas" was released in the United States during the summer and featured some Isthmian residents in its cast, including a couple of Panama Canal control house operators.

The "Other Side": the way it is

By Susan L. Stabler

THOSE OF US WHO LIVE ON "the other side"—that is, around the Atlantic end of the Panama Canal—are reputed to suffer from something called the Atlantic side syndrome, brought on by the isolation of living there.

Now a syndrome is a pattern of symptoms, which suggests illness, and from the sound of the word one might expect an Atlantic sider to have a nervous twitch and an unhealthy pallor. But the truth is that except for an occasional bout of exasperation accompanied by deep sighing, Atlantic siders manifest a remarkable vitality. In fact, the Atlantic side is often referred to as the Gold Coast, and many of its residents prefer to live there rather than on the more populated Pacific side.

No, the Atlantic side syndrome isn't



It is a measure of Gold Coast uniqueness to look out across the lake and see solid and striped sails of yellow, orange, blue, green and purple frolicking around the ships at the entrance to Gatun Locks.



a health problem; but perhaps one could call it a problem of "perception." For its primary symptom is the perception among residents there that planning and provisioning are done by Pacific siders with the Pacific side in mind and with Atlantic side needs and concerns attended to only as an afterthought. Although they recognize that the Atlantic side communities taken together have a tiny population compared to the Pacific side, they interpret the by-the-book dollars and cents approach to the provision of health care, schools and commissary services as lacking the empathy extended to the Pacific side.

It is this perception shared by Atlantic siders that tends to distinguish them from their cousins on the Pacific side in relationship to how they view day-to-day occurrences in the community or on the job.

To deal with this problem, to keep the avenues of communication open, the Canal organization has traditionally assigned a top official to act as unofficial "mayor" of the Atlantic side community to try to add the needed personal touch. The Administrator's representatives push for greater recognition of Atlantic side concerns, but many of the drawbacks of Atlantic side life are not amenable to change.

The Canal administration can't do anything about the overabundant rainfall that makes getting around on the Atlantic side a matter of keeping one eye on the clouds, and it would take an Act of Congress to get a bridge built to span Gatun Locks so that we wouldn't have to sit in our cars and wait for the lock gate bridge to clear when we are on our way to Shimmy Beach or Fort San Lorenzo.

But this brings us to another aspect of the Atlantic side syndrome, the positive aspect that Pacific siders are prone to overlook. In having to accept, or at least tolerate, what cannot be changed, whether it's too much rain or too little attention from Pacific side planners, Atlantic siders are bound together in a close-knit, caring community, sharing each other's concerns and meeting each other's needs.

Oddly, when comparing the two sides of the Isthmus, the fundamental similarities are very striking. Housing on both sides is comparable. Both have their share of vintage housing interspersed with newer, more mo-

dern dwellings. Playgrounds abound in all areas and most communities have ready access to swimming pools. Streets are wide and well lit at night, whether you're in Gatun or Los Rios. So where do the differences lie?

On the Atlantic side, one is struck immediately by the wide open spaces, an abundance of and proximity to both fresh and salt water, miles between communities, small population and minimal traffic. Although comprised of several civilian town-sites — Gatun, Mindi, Margarita, France Field and Coco Solo—and various military areas, the total population size on the Atlantic side is so limited that the entire area seems rather to be one amiable, sprawling small town. It is this small-town atmosphere, coupled with distance from officialdom, limited access to city life and an easy closeness to the outdoors, which makes the Atlantic side unique.

*6 . . . miles and miles of
natural and easily
accessible beaches,
untamed jungles,
gorgeous reefs and
unparalleled beauty. 9*

All Commission employees know that collectively they have an undisputed task—that of putting ships through the Panama Canal. Atlantic siders are particularly focused on this responsibility because by occupation most have a direct association with locks, ships, tugs, launches and channels. The grass roots loyalty they feel to the mission of the Canal is echoed in their attitudes toward each other as well.

As a result, it is more myth than fact to say that Atlantic siders long for life on the more largely populated Pacific side. Bob Lessiack, retired assistant financial vice president of the erstwhile Panama Canal Company, tells a story of his then 7-year-old granddaughter, who, with him, engaged in a conversation one day with former Governor H. R. Parfitt. The Governor asked Leslie, an Atlantic sider, whether she would like to live on the Pacific side where her grandparents lived.

Leslie displayed her amazement at the suggestion and replied, rather cryptically, that she and her mother did not want to move across the Isthmus. When asked why not, she said simply, "Our side is much more peaceful . . ."

Adult impressions of the Atlantic side do not vary greatly from the youthful observations of the 7-year-old. Slow, easy, peaceful, friendly, and unharried are apt descriptions of life on the other side. There is but one traffic light on the Atlantic side, located at the transisthmian entrance to all points. One expects and finds uncrowded commissaries, small schools, and people who almost all know each other's first names. Nearly always, a relaxed, small-town atmosphere prevails.

This atmosphere isn't generated; it plainly just exists, and distance from Panama Canal Commission hierarchy is, at least, a partial contribution. It is the nature of life around the Panama Canal that a surface distance of only 50 miles, or an air distance of only 36 miles, can so isolate one end of the Canal from the other. Gatun boasts the most dramatic set of locks, and, at one time, the Atlantic side was intended to be the Canal headquarters, yet somehow along the way, the hierarchy established itself on the Pacific side. In fact, only one division, the Industrial Division, has its headquarters on the Atlantic side.

Headquarters for all other facets of Commission living are far removed from the everyday life of Atlantic siders; and although this aspect of Atlantic area living contributes to the syndrome, it also contributes to a surprising esprit de corps. The absence of administration breeds an atmosphere of unstrained independence and a deep dedication to the job.

The very distance from the central hubbub, however, also dictates a need for Atlantic siders to travel frequently between the two sides of the Isthmus. Consequently, it is a private joke among Atlantic siders that the reach from Cristobal to Balboa is shorter than that from Balboa to Cristobal. Residents of the Atlantic side must more frequently travel far from home to attend meetings on the Pacific side than is true in reverse. It is a way of life and, oddly, contributes still further to the unity that exists.

If the absence of main offices gives





● *A spirit hovers that is understood, appreciated and treasured by native Atlantic siders.* ●



rise to a closeness among employees on the Atlantic side, the mere size of the population magnifies it. Numbering only about 1,356 employees as compared to an approximate 7,230 employees on the Pacific side, Atlantic siders as a group are closely knit. Any Atlantic area celebration can easily accommodate a maximum crowd in a setting about half the size of a football field. One is reminded in particular of the annual Holy Family Catholic Church Carnival. Here Atlantic siders join hands to put on and patronize a charity event. Always the same faces abound on either side of the counter, and always patrons and workers alike are eager that the charity be a success. It is ever thus, year after year, and no one expects it to ever be any different.

Something else Atlantic siders never expect to be different is their Christmas Eve celebration, replete with a truck-drawn sleigh carrying Santa, his elf, his helpers and piles of gifts. The Cristobal High School stage band and many truckloads of caroling youngsters follow the sleigh, while a police car leads the entourage from townsite to townsite delivering gifts to eager children.

Celebrations and tragedies, too, bring together more than just friends. A spirit hovers that is understood, appreciated and treasured by native Atlantic siders. They embrace and support one another in a way reminiscent of Canal construction days and earlier, nearly forgotten times in American life.

One of the most cherished aspects of Atlantic side living is its schools. Parents personally know teachers, and teachers personally know the students in their classes. Cristobal High School usually graduates a class of one hundred seniors or less. The students are fiercely loyal to each other, and the teachers look on their graduates with pride. It is interesting to note that on the Atlantic side there is a combined Junior-Senior High School comprised of students in grades seven through twelve, with a total of approximately 630 pupils. On the Pacific side, on the other hand, one finds Curundu Junior High School (grades 7 through 9) with a student load of 1,350 and Balboa High School (grades 10 through 12) with students numbering 1,300. With such a striking difference in the total enrollment picture, it is easy to see





why Atlantic side schools have a special aura.

Although there are more and larger schools on the Pacific side than on the Atlantic, their curriculums are essentially equal. Cristobal Junior-Senior High School, however, because of a diminishing number of students, is finding it increasingly difficult to offer as many course selections as are offered on the Pacific side. But quality education remains, and, perhaps because the teachers are concerned about equal education on both sides of the Isthmus, one finds a great deal of teacher sharing in ideas and methodology. Students are students everywhere, and Atlantic side kids behave like any other as they travel that bumpy path of school, athletics, romance and friendship that we call adolescence. In a small community, however, they are ever under the watchful eye of their teachers and their parents and their parents' friends. Little goes unnoticed.

Not only is there a significantly smaller Commission population on the Atlantic side, but also poignantly different are the Panamanian cities of Panama and Colon. On the Pacific side, Panama City has a tremendous

offering of recreational activities. There are abundant theaters, innumerable restaurants, entertaining shows, ample hotels, and frequent cultural offerings. Colon on the Atlantic side, conversely, has been hampered for decades by an inability to spread out and develop. Consequently there is little in that city of an entertainment or dining nature. Restaurants can be numbered on one hand and there is but one inviting theater. The Hotel Washington is lovely, but has nothing of the allure of the night spots in Panama City.

All this means that Atlantic siders either have to do without the bright lights and city people or they have to travel further to enjoy them. Sometimes they travel, but as a rule they do without, and instead provide their own entertainment.

On the Atlantic side, everyone listens for word-of-mouth notice that there is going to be a fish fry at the Tarpon Club, a play, talent show or concert at the high school, steak night, sailboat races, or a St. Patrick's Day celebration at the Gatun Yacht Club, a dance at the Elks Club, or a kite-flying contest in Coco Solo. And not only do they listen for the notice,

but the turnout is always good. Any gathering draws a substantial crowd, and conversations are picked up where they left off the last time.

Atlantic siders often feel that they have the best of both worlds. Whereas they zealously enjoy their life styles, they know always that the Pacific side is there for an evening out, a shopping spree or a change of pace. Pacific siders seldom make a trip to the Atlantic side for like purposes. But ah . . . what they are missing.

It's not by accident that the Atlantic side is fondly called the "Gold Coast." The fisherman, the sailor, the botanist, the biologist, the birdwatcher, the diver, the beachcomber, the water skier, and the surfer, exist on the Atlantic side in an abundance equalled but few places in the world. A mere half hour at most from any front door there are Gatun Lake, Limon Bay, the Chagres River, the Atlantic Ocean, miles and miles of natural and easily accessible beaches, untamed jungles, gorgeous reefs and unparalleled beauty.

No one lives on the Atlantic side for long without becoming something of an outdoor person. Where else in the world could one fish for bass early in

6 *Moving slowly through the waters of the Chagres, the dense jungle of the river banks on either side, one feels a oneness with nature that thrills the soul.*

the morning, go sailing before lunch, motor down the Chagres River in the afternoon and have a cookout at Piña Beach in the evening? Better still, because of their nearness to nature, Atlantic siders can do any of these things in the time they have after work in an afternoon.

Venture out to the Gatun Yacht Club on any afternoon and you will undoubtedly encounter some spirited windsurfers, riders of what is essentially a surfboard with a sail. Windsurfing, fast becoming one of the most popular sailing sports in the world, was introduced into Panama at the Gatun Yacht Club. The first rig was brought to the club by Gary Smith, senior control house operator at Gatun Locks. In less than a year a sort of windsurfing club has grown, and there are now about eleven boards and fifteen proficient windsurfers. It is a measure of Gold Coast uniqueness to look out across the lake and see solid and striped sails of yellow, orange, blue, green and purple frolicking around the ships at the entrance to Gatun Locks. Not too long ago, a visitor went so far as to windsurf from the Gatun Yacht Club to Pedro Miguel.

Dry season and heavy winds are especially appreciated on the Atlantic side. Laser sailboat races are held every other Sunday at the Gatun Yacht Club. There is a fleet of about fifteen boats, crewed by people of all ages, sizes and both sexes. They compete in rigorous but enjoyable races out across the channel to Navy Island and back. At the club a youngster can learn to sail under the tutelage of able adults, and club members act as lifeguards for each other and for their young people.

On some alternate Sundays, larger sailboats as well as some venturesome small ones race out from the Cristobal Yacht Club into Limon Bay. Limon Bay is an anchorage for ships waiting for bunkering services or expecting to begin a Canal transit. It is a calm, sheltered body of water excellent for its intended purpose, as well as delightful for the day sailor or motorboat enthusiast. It is protected by a breakwater which is a few feet less than two miles long and which was built at a cost of \$5,500,000 with rock especially quarried at Porto Bello.

Walking the breakwater is a thrill. Not terribly dangerous on a calm day, it can erupt into a battle against the raging sea when winds grow high. Waves crash over its firmly placed rocks, and the breakwater then becomes a bitter reminder of its own necessity. None of the Cristobal harbor and port areas nor the shores of Colon, Coco Solo, or Fort Sherman could exist as they are without it. There is only a two-foot tide on the Atlantic side, but the ocean is seldom calm.

Down the coast from Limon Bay are the Atlantic beaches. Unless one encounters a syndromatic wait at the Gatun Locks Vehicular Bridge, getting to the beaches requires very little time. Shimmy Beach, located at Fort Sherman, is a public beach replete with lifeguards, snack bars, soda machines and the like. It is protected by a shark net and is a favorite spot for family outings. Further down the coast, however, are the raw beaches that Atlantic siders regard as their real bonanza.

Devil's Beach has something for everyone. Surfers hang ten on its dry season waves, beachcombers seldom go away disappointed, divers delight in its underwater beauty, and bathers bask in its warm water and bright sunshine. And there is a "secret" area of Devil's Beach which one can reach by walking through a small jungle path.

Beyond Devil's Beach are the more hidden beaches, which can be reached only by trek through thick jungle. At least one of them can be approached only by fording a couple of streams

and negotiating a small waterfall. It is at these beaches where privacy is almost sacred. More often than not, patrons respect the claim made by the first automobile parked at the cleared space at the end of the road in.

Probably the best-known beach on the Atlantic side is Piña Beach. It is also probably the most dangerous and therefore, the most respected. The undertow at Piña Beach can unnerve and frighten even the hardest swimmer. Americans and Panamanians alike have built beach cottages at Piña Beach and have on its shores the same sort of hideaways that abound on the shores of the Pacific Ocean at San Carlos, Gorgona, Rio Mar and Santa Clara. Yet the charm of Piña Beach is that its visitors are usually only half an hour away from home.

Enjoyment of the outdoors on the Atlantic side is certainly not limited to its beaches. Wildlife enthusiasts find the Atlantic side to be a virtual wonderland. So unspoiled are the nearby jungles that wildlife hobbyists and professionals rejoice in the

beautiful and rich fauna. On the Atlantic side sloths, possums, and gato solos still abound and are seen regularly making their way across not-too-busy streets. Recently in Gatun a jaguarundi was spotted as it darted quickly from one side of the road to the other, a fleeting reminder of our untamed tropical surroundings.

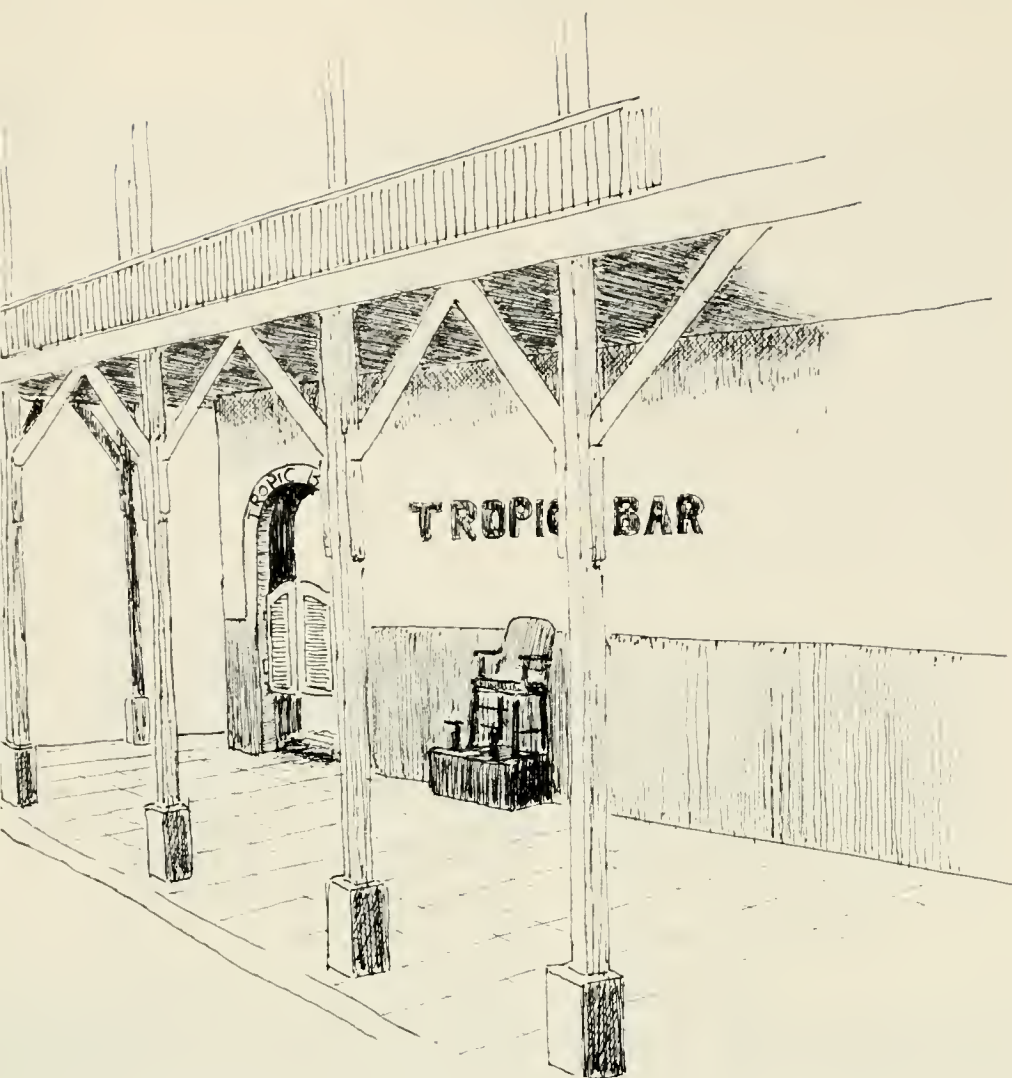
The lush vegetation on the Atlantic side provides a perfect haven for hundreds of species of tropical and migrating birds. Bird watchers are guaranteed good luck any time they make an outing, for the Atlantic side holds a record for sightings in the Audubon Society's yearly Christmas bird count.

The same lush vegetation which harbors the birds and wildlife is a study in itself. Atlantic siders seem to be surrounded by jungle, and the botanical beauty of the jungle creeps readily into Atlantic siders' backyard. There are orchids and bromeliads in abundance and houseplants can be found readily by the sides of jungle roads. Over the years the jungles have remained virtually untouched.

Nowhere on the Atlantic side do the two great beauties of jungle and water come together more exquisitely than on the Chagres River. Motorboating down the river during the daylight or moonlight hours is a favorite pastime of many Atlantic siders. Moving slowly through the waters of the Chagres the dense jungle of the river banks on either side, one feels a oneness with nature that thrills the soul. And yet getting to the Chagres River is no more complicated or time-consuming than getting to a little league baseball game.

And that's how it is on the Atlantic side—in the absence of bright lights and city people, Atlantic siders provide their own entertainment; because of their virtual isolation from the powers-that-be, they rely greatly on their own ingenuity; due in large part to their small population size, Atlantic siders draw together in a spirit of loyalty and supportiveness; and, with their townsites nestled so deliciously close to the ocean, the lake, the river and the jungle, they embrace the tropical outdoors.





Remembering Bilgray's

by Norman A. Werner

Sketches by
John B. Morton

ON THE CORNER OF 10th Street and Bottle Alley in the Panama Canal terminal city of Colon stands an aged two-story building of European design. The upper story houses living quarters open to balconies cluttered with laundry drying in the warm Caribbean breeze. The ground level is occupied by a commercial enterprise advertising Asian-made electronic equipment. Passersby seem unaware that the building was for fifty years the Gold Coast de facto civic center and gathering spot for the famous and powerful who had occasion to visit the Isthmus of Panama. From 1924 to 1974 the antiquated building housed the world renowned Bilgray's Tropic Bar and Restaurant, an oasis alongside a major ocean trade route.

Bilgray's Tropic Bar was a saloon in the finest tradition of the term. Like similar establishments located where shipping lanes constrict, such as the Cabo de Hornos Hotel on the Magellan Straits, it welcomed travelers and local patrons alike, as there were few other reputable places in town.

The Tropic Bar shunned juke boxes, bright lights, and flashy ladies at a time when across the Isthmus in Panama City, Kelly's Ritz, the most well-known cabaret during Panama's boisterous era, packed them in to hear "a thousand pounds of harmony," four pleasingly plump girls who could really sing.

Bilgray's Tropic featured a fifteen-foot long, stand-up bar of heavy dark mahogany, paralleled by a brass foot rail, where a thirsty customer could perch and be sure of getting his money's worth. Below slowly revolving ceiling fans were circular mahogany tables twenty-six inches in diameter standing on the tile floor. Bartenders and waiters in white shirts, black ties, and black trousers attended the customers at the tables, scurrying in with food from the adjacent restaurant. The restaurant was operated by a Chinese concessionaire who had remained in Panama after his people had finished their contribution to the creation of the Panama Canal.

The walls of Bilgray's Tropic were hung with autographed photos of the great and near great who had

passed through the doorless entrance. Among them were stars of the silver screen, such as Dick Powell, Joan Blondell, and the swashbuckling Errol Flynn. There were also photos of two of the Pentagon's greatest stars: Admiral "Bull" Halsey and General Dwight Eisenhower. Ike cashed his paycheck at Bilgray's when he was a junior officer stationed at a nearby base. Later he visited the Tropic as a full general on an official tour of the Isthmus.

Most first-time customers to Bilgray's, the ocean-weary seamen, yachtsmen, or passengers from ocean liners in port, crowded in to have a tall, cool drink at a fair price. Local customers, who ranged from Latin American politicians and U.S. servicemen and businessmen to beachcombers, were drawn to the Tropic to pass the time of day with its proprietor, saloonkeeper extraordinaire Max Bilgray.

Bilgray was an expatriate in Panama by way of Chicago and California. He was a remarkable human being. Beloved by the people of Colon for his generous

6 Many a Canal worker stranded in the U.S. could depend on Max Bilgray to cable funds for the return passage.9

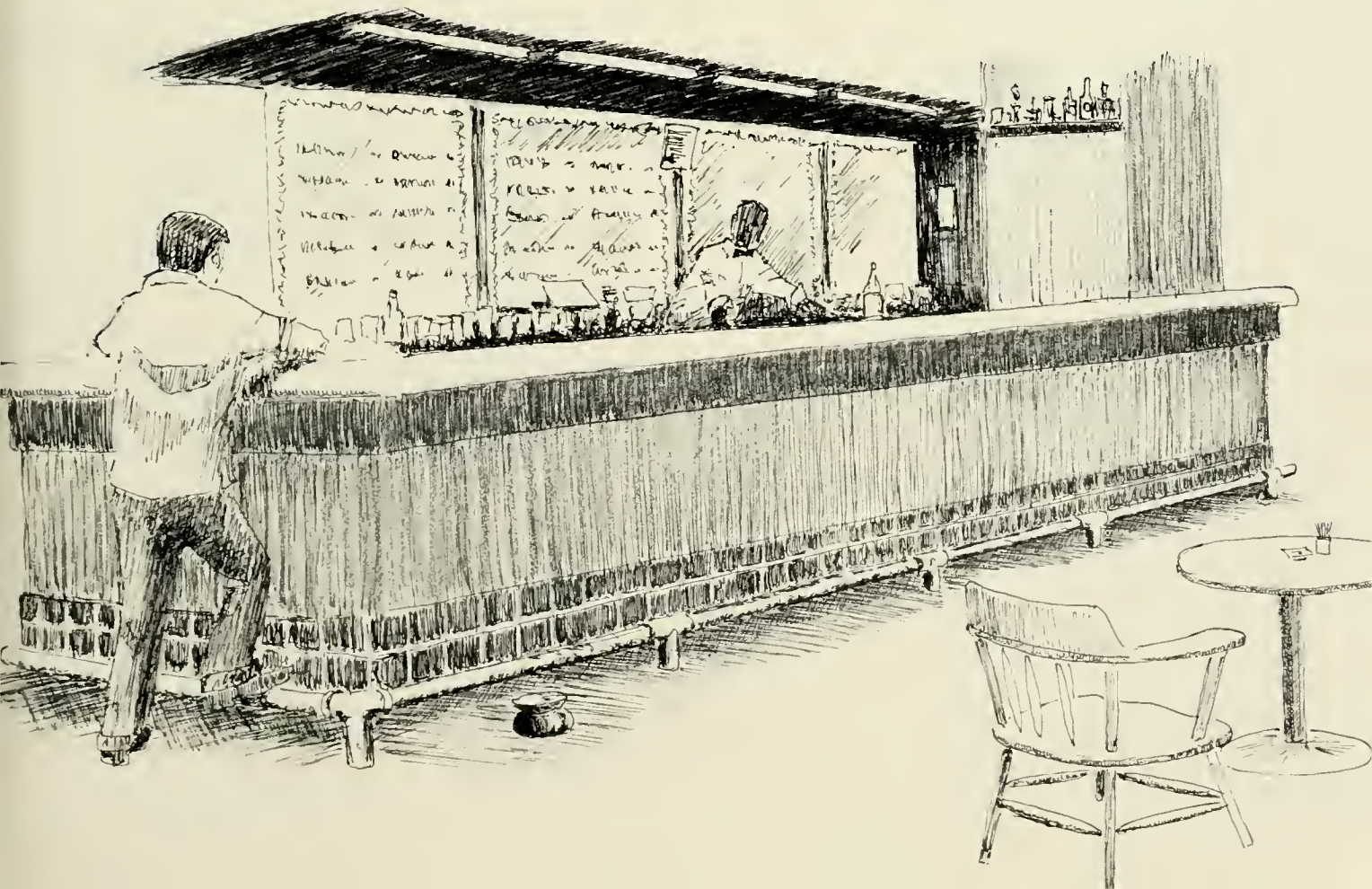
philanthropic contributions, he was considered a living legend by his many friends. He could frequently be found sitting at his corner table, always attired in white clothes and white shoes, entertaining Latin American heads of state, past, present or exiled (Argentina's Juan Perón cooled his heels at the nearby Washington Hotel during the 50's) or Panama Canal Company employees whom he termed collectively "canal diggers." Often this klatch would attract so many friends that a second or third table had to be brought to his corner.

Max Bilgray's name became synonymous with the port of Colon. Renowned as a good samaritan, he welcomed all to the Tropic Bar. During the war years his tenet was to give the serviceman an even

break, while other cantinas were bent on detaching the GI from his modest paycheck as quickly as possible. Servicemen, in turn, made a point of telling their comrades throughout the world to patronize Bilgray's when in Panama. And many a Canal worker stranded in the U.S. could depend on Max Bilgray to cable funds for the return passage to the Isthmus.

One of his favorite charities was the Nursing Sisters of Mercy, a semi-cloistered order in Colon. When one of the sisters would come to the Tropic seeking a charitable donation, tenderhearted but tough-talking Bilgray would cajole his cronies to ante up, with a stream of profanity that would leave the sister blushing.

His friends like to recall Bilgray's



pungent aphorisms. Once, when he spied a bejeweled patron trying vainly to fit an ashtray from his bar into her purse, he quipped, "Alfonso, get the lady a proper bag for her ashtray." When an old friend neglected his bar bill for several months he received a lyrical note from Bilgray, "Hi Mo, how about some dough." A Latin American chief of state, experiencing administrative difficulties, asked Bilgray for his opinion. The retort was brief and to the point: squinting one eye, Bilgray said, "Kid, you're trying to play in the major leagues with sandlot ball players."

During the construction of the Panama Canal, Colon was a frontier-style boom town. To North Americans, Panama was the western hemisphere equivalent of East of Suez to the British—a place where one could disregard the regulations and restrictions of conventional society. One incognito visitor to Bilgray's during the 30's who let her hair down was well-known evangelist and temperance leader Aimee Semple McPherson. Bilgray's impish imagination was up to the occasion. To mark the event he concocted a special drink in her honor and dubbed it the "Hallelujah Cocktail."

*Babylonian grape brandy
Ice from the crest of Mount Sinai
Lemon from the desert of sin
Gomorrhah and Sodom vermouth
Rum aged in Noah's ark
Add Cain's syrup from the Garden
of Eden*

*You then give it the Hebrew shake,
and
say "Hallelujah" after drinking*

Aimee's husband at the time, David Hutton, sued Max Bilgray for slightly less than a million dollars. The suit was subsequently dropped after generating sufficient publicity.

Those were the days when a horse-drawn buggy on the streets of Colon was more common than an automobile. Carriages, driven by blacks of West Indian origin known as "cocheros," would regularly discharge their fares at the Tropic. One evening as enormous sheets of tropical rain were slanting down, a buggy pulled up to the saloon with the laughing "cochero" sitting like a

6 Songbird and Alfonso had to wrap the horse's hooves with burlap. 9

potentate in the back. Driving the rig through the deep puddles was famous, bushy-browed comic Groucho Marx.

During the years of World War II Colon had the dubious distinction of being one of the most boisterous, freewheeling, wide-open seaports in the world. Ships of war, troop and supply ships had to wait at anchor for their turn to traverse the elevated belt of water called the "big ditch." The Tropic, which was open twenty-four hours a day, enjoyed a heyday of activity. Soldiers and sailors emptied glass after glass in the saloon or had their shoes shined

or hair cut at the outdoor enterprise set up against one wall of the building. Occasionally, a free-for-all would break out among the hard drinking servicemen. After the military police had returned the revelers to their ships, Bilgray, surveying the damage and gesturing toward the cash register, would say, "I don't mind as long as that 'typewriter' keeps clicking." The Tropic "typewriter" made a wealthy man out of Max Bilgray.

Longtime Tropic bartender Alfonso once recalled a night when the bar was dead as a tomb. A jovial black man whose face seemed

poised to explode into hearty laughter at the least provocation, Alfonso was checking his receipts when he heard some customers come clapping in from Bottle Alley behind him. He turned and was greeted by Canal employee

"Songbird" Palmer, who said, "Let's have a couple of drinks." Songbird had brought his horse into the bar.

Startled, Alfonso threw up his hands, spooking the horse, whose legs flew out from under him on the slick tile floor. Songbird and Alfonso had to wrap the horse's hooves with burlap so that the animal could regain his footing.

Following the war years Colon's growth was tied to standard Canal commerce. Shipping agents kept funds in the Tropic's safe so ships could be serviced twenty-four hours a day. Atlantic-side residents continued to consider Bilgray's the community center, even holding wedding receptions in the saloon. Since the Tropic was located midway between the U.S. residential district of New Cristobal and the commissary, which stood across from the present Colon train station, it was a favorite place for Canal employees to stop off after a shopping trip.

In Colon, the Free Zone was created and expanded rapidly. Saloonkeeper Max Bilgray, who was recognized as an astute businessman, was appointed chairman of the Board of Directors of the Free Zone, where he served until he was incapacitated by failing health.

In 1955 the governments of the United States and Panama signed the Remon-Eisenhower treaty. One proviso of the treaty turned over New Cristobal, including the huge commissary, to the Republic of Panama. The document also eliminated the restrictions on the

sale of alcoholic beverages in the Canal Zone, which had allowed only 3.2 percent beer. This change made fraternal and military clubs in the Canal Zone popular with the U.S. community, and Bilgray's business declined accordingly.

When Max Bilgray suffered a stroke he decided it was time to close out his ownership of the renowned old Tropic Bar and Restaurant. He sold out to Archie Leon, a restaurant concessionaire, and cancelled over \$40,000 in yellowed IOU's left by customers during his more than thirty years of business.

Cherished as one of Colon's leading and most illustrious citizens, many honors were conferred upon the barkeeper from Chicago. President Ricardo (Dickie) Arias awarded Max Bilgray Panama's highest decoration for civic contribution, the Order of Vasco Núñez de Balboa—doubtless a unique honor for a saloonkeeper.

The Tropic continued to operate under several different managers until 1974, and a parched seaman could still slack his thirst or order an incomparable shrimp curry and rice while listening to a selection on the recently installed juke box. But when Max Bilgray left the Tropic, the spirit went out of the place.

Many Atlantic side residents of Panama, however, still remember Colon's famous saloon and grow nostalgic at the mention of Bilgray's name. One Colon old-timer said, "Sure, I remember Bilgray's. It was the very best."





Terminal At Charco
Azul on Panama's
Pacific Coast Provides

A New Link in the Oil Line

By Willie K. Friar

AFTER COMPLETING ITS 9,800-mile journey from the Arctic snows of Prudhoe Bay, Alaska oil comes ashore briefly among the tropical palms of Panama before resuming its voyage through the Panama Canal to the East Coast and Gulf ports of the United States.

The oil, transported in supertankers down the west coast of the United States from the pipeline terminal at Valdez, is pumped ashore at Charco Azul near Puerto Armuelles where a new terminal facility has been

built. The new terminal, Petroterminal de Panama, which cost \$60 million, is a cooperative venture of Northville Industries Corp., and Corp. Financiera Nacional, the economic development agency of Panama. Completed in 15 months by a construction workforce of 1,000 Panamanians, it opened April 11, 1979. Prior to that time, the oil was handled by two British supertankers anchored in Parita Bay to serve as offshore terminals.

Petroterminal de Panamá, S.A. is located about 20 hours by ship from



The Alaska Pipeline stretches from Prudhoe Bay to Valdez where supertankers take on oil for shipment to the terminal at Panama. Below, at left: Tanks at Petroterminal de Panamá process ballast water. Below: The "Overseas Chicago" takes an oil at Charco Azul.



Supertankers from Alaska and smaller vessels able to transit the Panama Canal anchor in the tranquil waters of Charco Azul to discharge or take on oil at the transshipment facility operated by Petroterminal de Panamá, while a tug with special equipment cleans up a small oil spill.



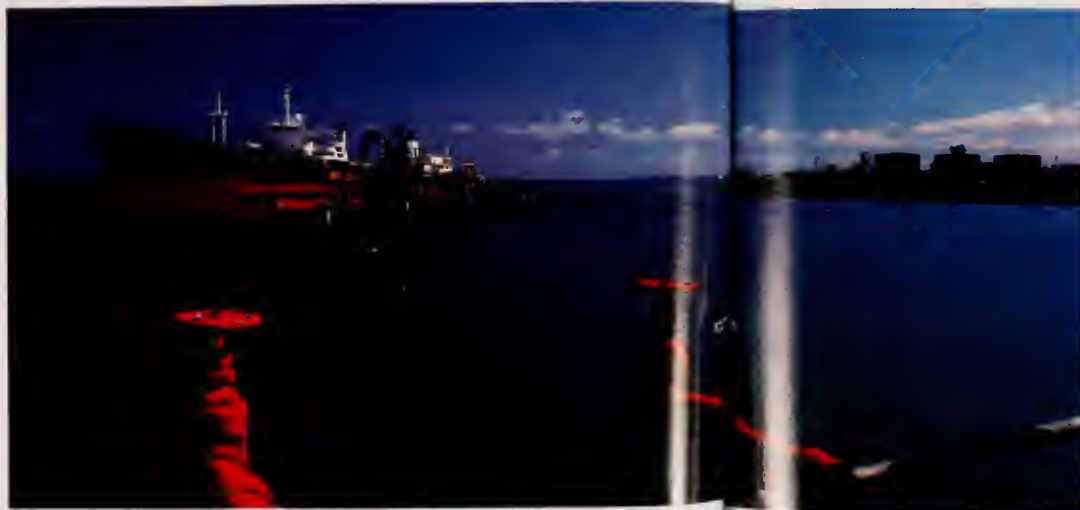
the Canal. Storage facilities consist of three tanks of 833,000 barrels capacity each for handling oil and three smaller tanks with a capacity of 120,000 barrels each for receiving and treating ballast water. The ballast water is processed through a series of separators which remove the oil and then discharge the water into the sea after careful monitoring to make sure it meets the pollution control regulations of the petroleum industry. In the past, ballast water had to be returned to Valdez for processing.

There are berthing facilities designed to handle very large crude carriers and smaller vessels. Pier No. 1 can service supertankers of 270,000 DWT tons, Pier No. 2, vessels of 120,000 DWT tons, and Pier No. 3 ships of 60,000 DWT tons.

Floating equipment used in the operation includes three very powerful tugs, three launches and an oil skimmer.

The terminal has its own water treatment and electrical generation plants and an access road suitable for use by buses and taxis. The latter makes it possible for the crews to come ashore and travel to nearby towns for recreation or shopping while the ships are discharging or taking on cargo.

Careful attention is given to the prevention of oil spills and quick clean-up is begun immediately with the



slightest spillage. The tugs have special equipment for handling spills and as a backup, assistance is available from United Brands which has facilities in the area and has equipment that can be used for spraying chemicals.

José Arosemena II, General Manager of Petroterminal de Panamá, S.A., considers the on-shore operation a safer way to handle the oil and points out that it also makes a greater

contribution to the economy of Panama than the off-shore operation since it provides more than 40 direct jobs and about 300 indirect or ancillary ones. Of the workforce, all are Panamanian except for three American engineers and three British pilots.

Since opening last year, the terminal has handled more than 5 million barrels of oil.

The transportation of oil through the Panama Canal involves two fleets

of U.S. flag ships. About 30 ships are engaged in transit cycles of laden and ballast voyages between Charco Azul and the East and Gulf coasts ports of the United States, Puerto Rico and the Virgin Islands. Supertankers too large to transit the Canal bring the oil down from Valdez to Charco Azul. There it is pumped into the storage tanks of Petroterminal de Panamá for transfer to smaller tankers able to fit into the 100 by 1,000 feet Panama Canal locks.



PRUDHOE BAY OIL FIELD

VALDEZ

PANAMA CANAL





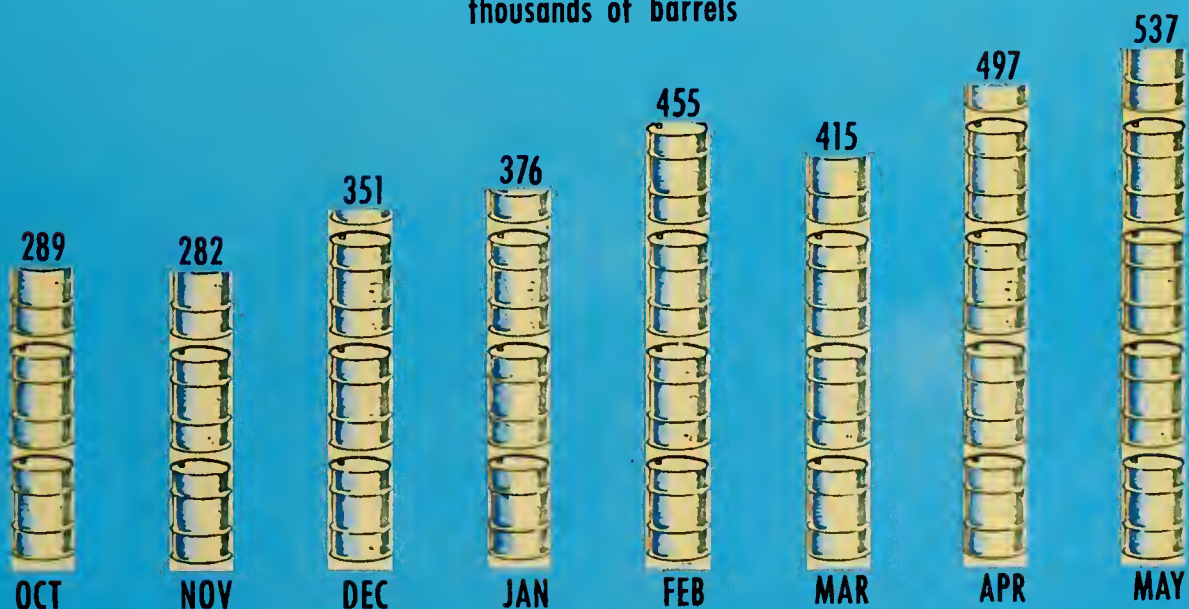
The "Overseas New York," which set a new Canal cargo record April 28, 1978, when she transited with 64,603 long tons of Alaska oil, moves through Miraflores Locks on a northbound voyage.

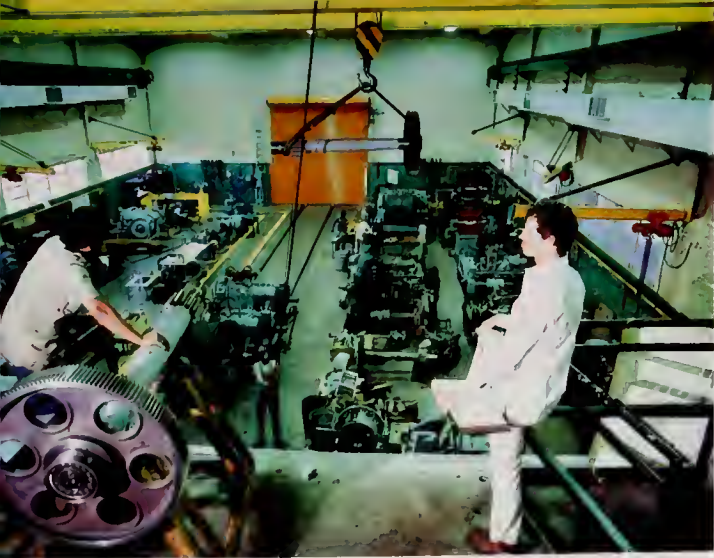
Because of the draft restrictions of the Canal, tankers larger than 50,000 deadweight tons normally cannot transit the waterway when fully loaded and most vessels over 90,000 deadweight tons cannot transit even when only partially loaded.

North Slope oil is the largest single commodity moving through the Canal. From August 31, 1977, when the *Washington Trader* transported the first North Slope oil through the Canal, to May of this year, 2,023 Alaska oil tankers have transited carrying 46.1 million long tons of oil and paying \$63.8 million in tolls.

The average toll paid by these tankers for the first eight months of FY 80 was \$42,267 laden and \$33,592 in ballast.

**AVERAGE DAILY SHIPMENTS OF NORTH SLOPE
CRUDE OIL THROUGH THE PANAMA CANAL
FY-1980
thousands of barrels**





“One feels that here exists an easy companionship between human and machine.”

The LCRF—where Canal ‘mules’ get TLC

Transiting vessels depend on Commission towing locomotives to guide them safely through the locks chambers. The towing locomotives, in turn, depend on the Locomotive Component Repair Facility to keep them running at peak efficiency.



Top left, a windlass unit shaft is lifted to the shop mezzanine under the watchful eyes of foreman Joe Carlisle, right, and David Castillo; top right, Castillo has a “close encounter” with a windlass unit component; above, the crane boat “Atlas” transfers a locomotive from one side of the locks to the other; and right, working locomotives finish the task of guiding the “Dock Express” through Pedro Miguel Locks.



By Janet Len-Rios

THE WIDE FRONT DOOR rolls up and a flatcar trundles in carrying a huge, gray hunk of machine. As workmen cluster about, an enormous crane whispers across the room on ceiling-high rails to pause above the flatcar. A large, shiny metal hook slides down to deliver a harness that will be fastened to the machine for lifting. When all is ready the workmen stand clear. At the press of a button the crane lifts, giving a slight shudder as it connects with its load and flexes its mechanical muscles. White-gloved hands and strong arms turn and steady the machine as it is hoisted to its assigned location and lowered into position. The crane, once delivered of its load, murmurs back across the ceiling, the flatcar rattles out, and the door slides shut.

The activity just described takes place regularly in the Locomotive Component Repair Facility (LCRF) at Pedro Miguel. The LCRF overhauls, reconditions and/or modifies various component parts of the electric locomotives or "mules" that run along the rails on both sides of the locks chambers to control the ships as they pass through, and is one of the many indispensable ingredients that go into the operation of the Panama Canal. Delays caused by malfunctioning locomotives can seriously affect ship traffic, so the work performed by the LCRF is a vital part of the whole maintenance program that is so essential to the efficient functioning of the waterway.

Six craftsmen, one leader and one foreman are currently employed in the facility. The crew also regularly includes several apprentices.

The idea for the repair facility took root in the early 1960's coincidental with awarding of the contract for construction of the new locomotives. The building itself encloses a 6,000 square foot space which includes a work area, office, storeroom, sanitary facilities and a mezzanine for storage. An outside covered area provides additional storage and a disassembly area as well as a location for steam-cleaning parts.

The building contains a 10-ton bridge crane, which runs on tracks the length of the building and bridges it from side to side. This crane is used for lifting the heavy components,

some of which weigh over eight tons. There are also seven two-ton cranes with projecting arms that are used to transfer lighter loads from place to place within the shop. Railroad tracks lead into the building to facilitate transportation by rail of the locomotive component parts.

Anyone anticipating a hot, noisy, dirty, offensive place will be agreeably surprised to find that it is none of these. In addition to being air-conditioned, the building has special acoustical insulation to mute sounds so that under normal conditions there is no need for the workers to wear hearing protection. And, although there are oil spots staining the floor, the facility is very clean considering its function.

6 Delays caused
by malfunctioning
locomotives
can seriously
affect ship
traffic. 9

The locks locomotives were made in Japan with the manufacture and assembly of the component parts taking place in various Japanese cities. Robert D. Donaldson, now assistant chief of the Panama Canal Commission's Engineering Division, and his family spent a total of five years living in Japan while he was the resident inspector overseeing the manufacture and assembly of the locomotives. Fifty-seven of the new locomotives were acquired by the Panama Canal Company between 1959 and 1965 and eight more have been received since that time. These locomotives replaced the original ones that had been in service since the opening of the Canal in 1914. The new locomotives, which are both faster and more powerful than those they replaced, have been a major factor in making it possible to transit a greater number of ships, as well as larger ships, through the Canal.

The locomotives are designed so that the large component parts are

"plug-in" units, that is, they are self-contained so that an entire unit can be removed and brought in for repair. This feature of the locomotives greatly facilitates their repair since the work can be more efficiently sent to one specialized central shop rather than sending the workers and the necessary equipment to each of the locks.

Should anything go wrong with either a traction unit (the part that allows the locomotive to maneuver along the rails or track) or a windlass unit (the part that controls the cables to the ships), of any of the sixty-five locomotives presently deployed at the three Panama Canal locks, the unit is removed and brought by truck or rail to the Pedro Miguel repair facility. When a unit arrives at the shop, it is drained of oil, steam-cleaned, and inspected to find the cause of its malfunction.

The massiveness of the machinery is impressive. A windlass unit weighs over eight tons and a traction unit over six tons. When it comes into the facility, the unit is lifted by crane onto a stand where it remains during the overhaul while the smaller parts are removed and taken to other locations in the shop for individual disassembly, cleaning and repair. When the individual parts have been repaired or replaced, the unit is reassembled, shafts are realigned, and the unit is painted. The process is not complete, however, until the unit has been bolted down to the test stand and tested to assure that it will, indeed, function properly in the field.

For testing the windlasses, the cables that would be attached to the ships as they pass through the locks are anchored in place to a large "double bitt" where the unit can be subjected mechanically to the same stresses endured under actual working conditions. While the shop has no facility to subject the traction unit to loading, the unit is connected to a motor and run to insure that it is operating properly. When a unit has passed final testing it becomes a spare and will be placed back into service when it is needed as a replacement unit in another locomotive. Records are kept on each job to provide information that may help in future improvements, repairs or modifications.

The facility is equipped to repair or



Left, Wilford Smith discusses a modification to the traction units with Japanese engineer Katsuro Fukumoto of Mitsubishi Heavy Industries, builders of the locomotives. Below, Elmer Anderson operates the controls of the bridge crane to lift and move on overhauled traction unit.



rehabilitate about three traction units and one and a half windlass units per month. Some of the units have been in the field for many years without major repair, a fact that attests to the reliability of their complicated design. At the present time the facility is just keeping up with work on a demand basis. However, plans are under way to place the locomotives on a regular overhaul program which will mean that at the scheduled time the traction unit and the windlass units will be removed from the locomotive for reconditioning at the repair facility. At the same time the frame, together with the electrical and pneumatic systems it contains, will be overhauled in the field. In effect, each locomotive will be completely rebuilt from the rails up. It is expected that through this program twelve locomotives will be rebuilt each year.

The traction units are currently being modified to what is called "dry sump" operation. In the original design, the machine's oil was stored in a reservoir below the gears with the lubricant pumped up and fed down over them. In the modified design, while the oil is still fed down over the gears for lubrication, it is immediately pumped back up and stored above the gears. The new system eliminates most of the current leakage and will cut down considerably on the \$50,000 in man hours and materials consumed per year to clean up the oil from the locks walls, in addition to the cost of the oil itself. The first dry sump was installed in November 1978.

The average cost of overhauling a traction unit is \$30,000 and \$40,000 for a windlass unit, including parts and labor. That may seem like a lot of money, but the figure is understandable when you consider that the last locomotives purchased cost \$588,000 each and a single replacement gear can cost up to \$2,500.

Both new and reconditioned replacement parts are used at the facility. While a complete supply of spare parts is maintained by the Division of Storehouses at Balboa, a large number are stocked at the facility in what is known as the "back room." On rare occasions it may be necessary to have a part made locally.

Safety is a prime concern at the repair facility, a place where, according to foreman Joe Carlisle, "everything is dangerous," and safety



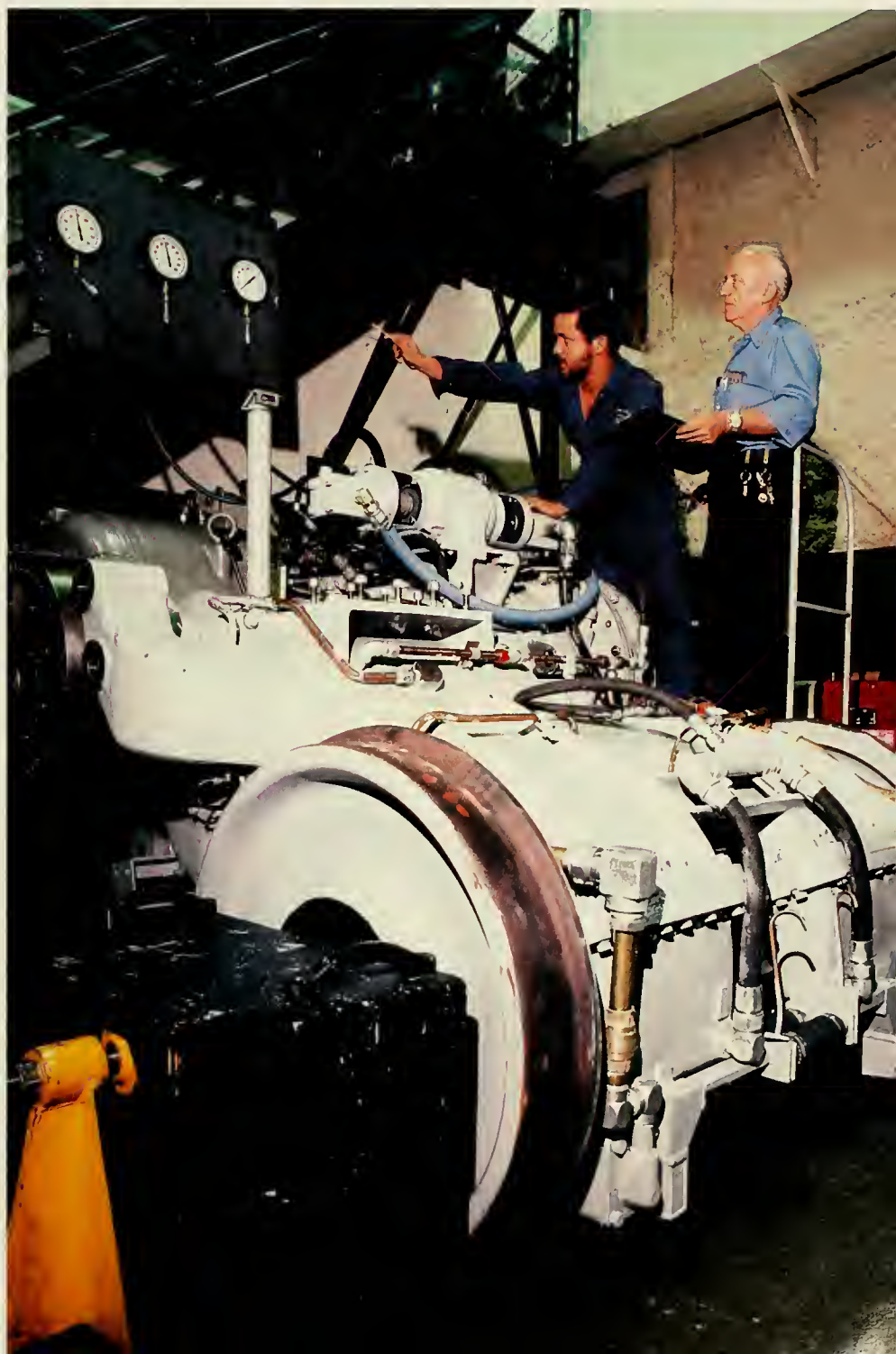
meetings are held regularly. The movement of heavy equipment is routine in the shop, and everyone watches out not only for himself, but also for his co-workers. It's "heads up" as a huge crane glides overhead carrying a part that may weigh from a couple of hundred to several thousand pounds. A notice reads, "work safely, you are a valuable person." With such a positive attitude toward safety, it is no wonder that the shop has never had a disabling injury or that there has not been a lost-time injury among the craftsmen now employed.

For anyone who appreciates machines, the shop is a fascinating place to visit with its clean, well-run atmosphere and its storeroom stocked with shelves and bins full of various

sized bolts and washers, warm colored brass cylinders, gleaming bearings in shiny races, and with fresh new gaskets hanging on the wall. The cranes are painted bright sunshine yellow, and interesting-looking tools are seen everywhere. One feels that here exists an easy companionship between human and machine. There is an aura of awareness among the craftsmen about the value and importance of what they do and their pride in their work is obvious. A quotation that Carlisle has placed above the office door in both Spanish and English typifies the attitude of the facility's employees, it reads, "the priceless ingredient of every product is the honor and integrity of him who makes it."



Working in what is no longer exclusively a man's sphere, machinist apprentice Myrna del Cid, at left, checks the hydraulic system of a windlass unit; above, Helio Alves and José González take a look at drawings depicting a windlass unit's inner workings; while, above right, machinist apprentices Ethelbert Mapp, Alvin Lim and Marcos Gutiérrez listen attentively as Enrique Cumberbatch explains the unit's operation. At right, a traction unit is checked by machinist apprentice Jarge Moreno and machinist leader Jerzy Bressel during final testing before it is put back into service.



The Changing Scene

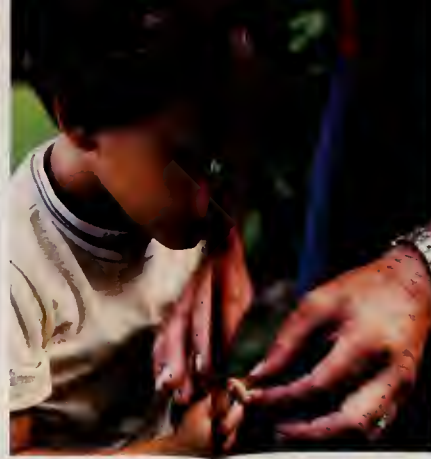


Commission police officers and members of the Panama National Guard share responsibility for protecting the lives of citizens in Canal townsites. The movie marquee at the Balboa Theater, the signs above the entrances to the piers and the logo on the sides of railroad cars appear in Spanish, an indication of new management. Panama Canal official vehicles sport the name of the Canal entity, the Panama Canal Commission, on their doors. The last Canal Zone stamps are pulverized. These and other scenes below reflect some major changes that have taken place over the past year following the disestablishment of the Canal Zone and are evidence of the new relationship between Panama and the United States.





TO BE A CHILD IS TO SEE the world through eager eyes and with a mind innocent enough to believe what it sees but inquiring enough to ask why. Nature teases the child's curiosity with a world of delightful colors and shapes. In the tropical climes, there is no end to the array of remarkable plants and trees which invite closer observation and admiration. An outing to look at these wonders of nature can appropriately be called child's play.



Father and sons explore the gentle jungle of the Canal area

By Jan Meriwether

Growing up in
Panama



Ted Arias is not a child, but he enjoys sharing his love and knowledge of tropical plants with his two sons Trey, age 6 and Donovan, age 4. Ted is a competent guide because his work leads him to spend more time in the jungle and on the rivers than behind a desk. As a hydrological technician for the Meteorological and Hydrographic Branch of the Engineering Division, Ted is out in the field a great deal of the time, working on such projects as watershed conservation, river gauging and rainfall measurement. After a lifetime in Panama, Ted can tell you the names of tropical plants, which ones are edible and how to prepare them. A nice thing about knowledge is that it can be shared, and Trey and Donovan learn a lot on outings with their father. Of course, the learning is just a happy consequence of having a good time together.

Picking canned fruits and nuts off shelves in a grocery store may be convenient, but it is not nearly as interesting or as much fun as going to the source and taking the prize with your own two hands. Growing up in Panama, Trey and Donovan have learned that almonds and pineapples do not have tin can shells; and cannonballs are not always made of iron, but can also grow on trees. Like most Isthmian children they know that a cashew nut is attached to the end of a reddish, pear-shaped fruit and is safe to eat only after being roasted. And they have observed that bananas start as tiered rows of tiny flowers inside a pinkish bud and that the plant dies after it has fruited. While people living in colder climates might find mangos, papaya and breadfruit strange and exotic, to Trey and Donovan they are as familiar a sight and a taste as apples or peaches.

(Far left) A bunch of bananas can be a whole bunch of fun. (Top row, from left) The breadfruit is easy to spot once you know what to look for. Some tropical curiosities such as the land crab require a firsthand look. A closer examination of the blossoms of the cannonball tree can be a prickly problem. (Second row, from left) Donovan and Trey ponder the novelty of almonds fresh off the tree. To pluck an avocado from a sea of green is well worth the climb. A sprawling cashew tree provides a comfortable perch as well as delicious cashew nuts. (Bottom left) A calabash in the hand is worth two on the tree unless you have a taller brother to help out.



Homeward bound

Perhaps the best part of the day is the end, when Ted and the boys return home to show off their delicious finds and to enjoy the fruits of their labors with Ginny, the woman in their lives.

*Below left:
Ted
frequently
works against
a backdrop of
lush tropical
vegetation.
Below right:
Ginny Arias
bestows a smile
of approval for
the fresh
papaya which
the boys offer
as proof of
an afternoon
well-spent.*



Commission Divers

Canal's underwater work force

Hidden away on the shores of Gatun Lake on the Atlantic side of the Isthmus is one of the lesser known aspects of Canal operations, the Industrial Division's Diving and Salvage Depot. Numbering among its responsibilities the underwater inspection and repair of all Panama Canal Commission floating equipment and the underwater assessing of damage done to and by transiting vessels, the 33-man unit is a vital part of the Canal team.



Above, a diver climbs from the water after completing his underwater work; below, divers balance on a bobbing pontoon, one of several used to raise the sunken vessel "Tairona" from the Cristobal Harbar entrance.





While the repair of damaged commercial vessels is normally done by commercial enterprises, Commission divers, may, under special circumstances, be asked to assist. They are also involved in the task of controlling erosion under the locks and in keeping the waterway clear of sunken debris.

The job performed most often by the divers is the routine support given to other divisions in maintaining the Canal's floating equipment. Additionally, the divers clean a lot of "sea strainers," the screens over the water cooling systems of ships' engines. The job the divers like least, and which fortunately occurs infrequently, is the search for bodies after an accident.

The Industrial Division operates a diving school to supply personnel for the division's various underwater projects. Though the diving course is not regularly scheduled, the school is called into session on the average of once a year as it becomes necessary to replenish the diving staff due to attrition, promotion and retirement. The school is under the direction of

Kenneth H. Willis, supervisor of salvage and diving.

Candidates for the school are selected from among craftsmen employed by the Industrial and Locks divisions and are drawn from such skills as machinist, welder, electrician and pipefitter. The Locks Division and the Industrial Division like to maintain a minimum force of about ten active divers each. Willis and Elbert T. Chappel, assistant supervisor of salvage and diving, are the only two assigned full time to the diving unit. The other divers, who must apply and be accepted for training at the school, work at their regular jobs until they are needed for a diving assignment. Diving is an "additional pay assignment," that is, during the time that a person is assigned to diving duty he receives a higher rate of pay.

Students at the diving school learn basic salvage theory, diving physics, underwater physiology, first aid and cardio-pulmonary resuscitation (CPR). They also learn how to prevent, recognize and treat air or gas embolism and decompression sickness. Above all, they learn to respect their limitations as land-dwelling, air-breathing mammals.

The diving facility is housed in a wooden structure most of which is a big open storage area for equipment and supplies. Large tables hold seemingly miles of hoses laid out in neat array, while on shelves in a small room toward the back of the building stand a variety of masks and helmets in orderly file. The room is heated to keep it dry and to prevent the growth of mold and mildew. All equipment is kept in top condition at all times so that when heading out on a job divers need only grab what they need and go to work, having no worry as to whether or not equipment will function properly.

The school's office and classroom are located to one side of the building, where nameplates salvaged from sunken ships decorate the outside walls.

The Industrial Division currently has seventeen active divers, including the two diver supervisors; ten are Panamanian, seven are U.S. citizens. There are also sixteen diver tenders, those who help dress the divers, run the compressors and generally handle the above-water equipment. Diver

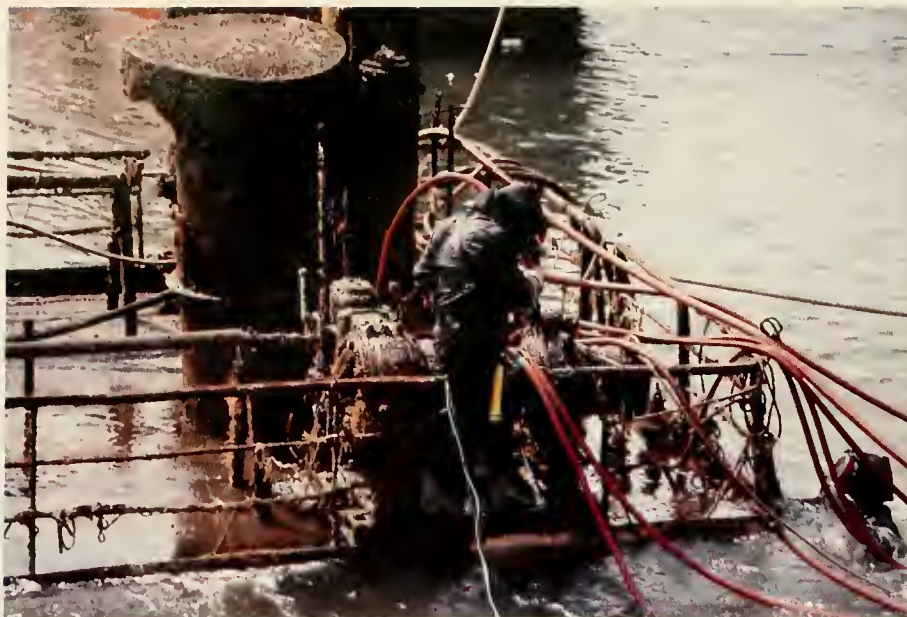
Far left, a diver tender waits and watches topside while a diver performs an underwater inspection on the "Lloyd Liverpool"; above left, a diver gets an assist as he suits up for a dive; bottom, the red and white flag signifying "use extreme caution, divers in the water" flies from the diving barge as divers prepare to descend

tenders are recruited from the ranks of the craftsman helpers.

The diving course consists of six, 40-hour weeks and begins with a rigorous physical examination which includes an oxygen tolerance test. During this test students are seated in the recompression chamber and are "taken down" to a depth of sixty feet where they breathe 100 percent pure oxygen for thirty minutes. "Taking down" means that the air pressure within the chamber is altered to simulate the pressure encountered when diving to a particular depth. Ninety-nine percent of the candidates pass the test, but the one percent who cannot would encounter serious trouble as divers and are not permitted to enter the program.

While it sometimes happens that an applicant is an ex-Navy diver, for example, and after the physical examination needs only to take a qualifying dive to become a member of the team, most candidates are novices and start the training from the very beginning. Divers are trained to use all types of diving equipment from deep sea to light gear. Most Commission diving is done with air supplied by surface air compressors located on barges.

Actual diving begins in a special 10-foot deep, 10-foot in diameter tank which is equipped to allow communication between student and instructor and also observation through glass portholes. It is in this tank that the divers, already skilled craftsmen, learn to use the tools of their trade underwater. After becoming proficient in the tank, student divers are graduated to practice in Gatun Lake, where training takes place at depths between 10 and 65 feet. Actual diving depths range from very shallow to about 160 feet, while the average is around 40 feet.



At left, divers examine the barnacle-encrusted "Tairona" after it is raised from the sea; left below, the Diving and Salvage Depot on the shores of Gatun Lake; below, the recompression chamber.



One of the reasons why this particular site on Gatun Lake was selected for the diving school is the availability of a sunken ship, the "M.V. Brion," for making practice dives. The ship sank in January of 1934 about thirty feet off shore. Due to the slope of the bank, the ship, which is lying on its port side, has its bow in 12 feet of water and its stern in 65 feet. This gives students the opportunity to test their skills in an authentic situation and to become aware of the problems they will face.

It would be difficult to overestimate the importance of the practical training the divers receive. Since diving is, in and of itself, a dangerous operation, adding a variety of hand and power tools can only increase the danger. Although most of the tools are pneumatic, both electric arc and flame welding equipment are used underwater by the divers.

Besides using tools with which they are already familiar, students must also learn to use the various types of



OCEANGOING COMMERCIAL TRANSITS BY NATIONALITY

Nationality	6 Months FY 1980		6 Months FY 1979	
	No of Transits	Long Tons Cargo	No of Transits	Long Tons Cargo
Belgian	48	1,097,718	48	963,208
British	427	4,778,019	513	5,638,581
Chilean	89	476,320	84	839,428
Colombian	84	588,287	85	588,867
Cypriot	45	233,540	22	39,883
Chinese, Nationalist	60	643,702	60	665,140
Danish	163	1,459,392	162	2,983,865
Ecuadorian	137	720,521	133	1,285,861
French	47	562,008	50	472,153
Greek	746	11,384,563	658	10,817,253
German, West	175	1,538,850	218	1,720,694
Honduran	41	80,106	51	81,063
Italian	92	935,748	104	692,154
Japanese	564	5,144,668	505	4,686,440
Liberian	917	16,743,637	962	17,588,995
Netherlands	114	942,151	100	552,427
Norwegian	244	3,321,572	215	3,508,931
Panamanian	553	4,685,084	529	4,561,344
Peruvian	111	1,038,459	104	982,689
Philippine	60	679,962	36	506,157
Singaporean	82	795,580	96	1,371,854
South Korean	77	1,098,356	77	1,020,390
Spanish	57	184,869	57	172,455
Swedish	95	839,712	97	822,423
United States	862	13,494,914	865	13,400,876
U.S.S.R.	278	1,097,725	236	1,104,734
Yugoslavian	49	474,556	50	547,959
All other	352	3,682,148	370	1,989,618
Total	6,569	78,722,167	6,487	79,605,442

OCEANGOING COMMERCIAL TRANSITS OVER PRINCIPAL TRADE ROUTES

Trade route	6 Months FY 1980	6 Months FY 1979
	1980	1979
East Coast United States—Asia	1,515	1,531
East Coast United States—West Coast South America	745	765
Europe—West Coast South America	655	573
East Coast United States—West Coast Central America	636	608
Europe—West Coast United States/Canada	464	452
West Indies—West Coast South America	232	160
East Coast United States/Canada—Oceania	192	185
United States Intercoastal (including Alaska and Hawaii)	191	192
South America Intercoastal	160	179
East Coast Canada—Asia	160	166
Europe—Oceania	103	112
All other	1,516	1,564
Total	6,569	6,487

OCEANGOING COMMERCIAL TRAFFIC BY MONTHS

Months	Transits		Tolls (In thousands of dollars) ¹	
	FY 1980	FY 1979	FY 1980	FY 1979
October	1,122	1,115	\$23,813	\$18,279
November	1,036	1,089	22,007	17,611
December	1,079	1,087	23,266	18,232
January	1,120	1,072	23,719	16,849
February	1,048	949	22,613	15,162
March	1,164	1,175	24,809	19,443
Total	6,569	6,487	\$140,227	\$105,576

¹ Before deduction of any operating expenses
Statistics compiled by Executive Planning Staff

specialized salvage equipment. According to Willis, one of the tools that he has the most trouble getting beginners to respect is the underwater jetting or trenching device. This consists of a 2½-inch fire hose with a brass nozzle through which water, under 125 pounds of pressure per square inch, is passed. The jetting device is used, for example, to wash out a trench to pass a cable or chain under a sunken vessel or to clear out eroded material that has settled in the locks chambers. Novice divers find it difficult to comprehend, until they have experienced it, just how awkward it is to handle a hose under pressure, especially considering their own underwater weightlessness. Willis knows that he must be ready to turn off the water pressure quickly when divers begin to be tossed about.

While Locks Division employees trained as divers at the school do any underwater work required on locks maintenance and overhauls, the Industrial Division is involved with erosion protection of the locks. The first phase of any job is to find out what the problem is and to report the findings. Then it is up to the Engineering Division to design methods of control. The divers are called in again when actual construction begins and will very likely do the job of setting and building the forms, of guiding the hoses for pouring concrete, and of inspecting of the work as it progresses. Any transit damage to the locks is usually "topside," above the water level, and can be handled by the Maintenance Division.

One of the larger and more interesting jobs performed by Industrial Division divers was putting a 40 x 30 foot patch on the "M.V. Tarpon Sealane." The vessel had torn a hole in its side when it hit another ship while leaving Cristobal harbor. Divers went down and took the measurements of the hole to use in making a template that would fit the curvature of the ship and serve as a pattern for a steel patch. Industrial Division personnel were able to build a patch that conformed exactly to the ship's contours. Weighing in excess of 40 tons, the finished patch was lowered into position, where divers fitted it into place, bolted and sealed it.

The object of any repair or patching work done to transiting vessels is to keep them afloat until drydocking

PANAMA CANAL TRAFFIC

		6 Months	
		1980	1979
TRANSITS (Oceangoing)			
Commercial		6,569	6,487
U.S. Government		40	47
Free		4	7
Total		6,613	6,541
TOLLS¹			
Commercial	\$140,269,644	\$105,617,016	
U.S. Government	619,490	452,425	
Total	\$140,889,134	\$106,069,441	
CARGO² (Oceangoing)			
Commercial	78,722,167	79,605,442	
U.S. Government	189,486	92,992	
Free			
Total	78,911,653	79,698,434	

¹Includes tolls on all vessels, oceangoing and small.

²Cargo figures are in long tons

Statistics compiled by Executive Planning Staff

facilities can be reached. Since drydocking is very expensive, the ability to perform maintenance work underwater with as little interruption in service as possible results in considerable savings. This is true not only for transiting vessels, but also for Commission floating equipment such as barges, tugs, cranes, launches and dredges on which routine underwater inspection and maintenance are regularly scheduled.

Most diving is done with very little visibility, usually a foot or two, and often it must be done by feel alone when there is no visibility whatsoever. About 25 percent of diving work is done at night, sometimes due to its emergency nature and sometimes because of scheduling convenience.

Willis enjoys the fact that a Commission diver's work is constantly changing, that even jobs appearing to be routine never really are because they are seldom done twice under the same conditions.

A very special feature of being part of the diving crew is the close camaraderie, the esprit de corps, that develops among members of the group. Theirs is a special, shared elation when a difficult task is successfully accomplished, for they are perhaps the only ones who fully comprehend the difficulties involved in the job, its dangers, the cooperative effort needed for its completion, and the sensation of having to depend on and to trust, in a very personal and immediate way, the skill and concern of others, for your very life.

PRINCIPAL COMMODITIES SHIPPED THROUGH THE CANAL

(in long tons)

Atlantic to Pacific

Commodity	6 Months FY 1980	6 Months FY 1979
Corn	6,003,810	7,126,998
Petroleum and products	5,924,963	5,643,842
Coal and coke	5,786,899	5,624,675
Soybeans	3,683,640	3,363,955
Phosphates	3,052,916	2,795,941
Sorghum	1,641,871	1,446,366
Chemicals and petroleum chemicals	1,284,548	1,119,858
Metal, scrap	1,057,776	1,937,733
Wheat	962,815	2,851,969
Manufactures of iron and steel	863,326	816,912
Fertilizers, unclassified	717,055	567,414
Ores, various	559,729	696,038
Caustic soda	540,502	403,210
Sugar	507,426	735,883
Paper and products	346,457	281,420
All other	6,232,769	5,752,866
Total	39,166,502	41,165,080

Pacific to Atlantic

Commodity	6 Months FY 1980	6 Months FY 1979
Petroleum and products	16,028,921	16,370,359
Ores, various	3,098,519	2,364,664
Manufactures of iron and steel	2,967,477	2,761,109
Lumber and products	2,440,626	2,707,316
Coal and coke	1,065,064	1,562,542
Food in refrigeration (excluding bananas)	970,094	933,267
Sugar	944,819	933,722
Sulfur	866,269	633,396
Pulpwood	808,940	868,870
Metals, various	787,145	692,966
Wheat	746,200	396,348
Autos, trucks and accessories	658,882	549,006
Bananas	599,164	755,764
Molasses	484,072	379,850
Salt	392,486	456,742
All other	6,696,987	6,074,441
Total	39,555,665	38,440,362

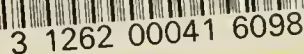
CANAL TRANSITS—COMMERCIAL AND U.S. GOVERNMENT

6 Months FY 1980				6 Months FY 1979
	Atlantic to Pacific	Pacific to Atlantic	Total	
Commercial:				
Oceangoing	3,463	3,106	6,569	6,487
Small ¹	291	122	413	485
Total	3,754	3,228	6,982	6,972
U.S. Government:				
Oceangoing	21	19	40	47
Small ¹	126	44	170	148
Total	147	63	210	195
Grand Total	3,901	3,291	7,192	7,167

¹Vessels under 300 net tons, Panama Canal measurement, or under 500 displacement tons. Statistics compiled by Office of Executive Planning







Duo	Returned	Duo	Returned
APR 01 1987	JAN 19 1987		
MAY 11 1987	APR 16 1987		
OCT 17 1988	SEP 30 1988		
MAR 16 1992			
APR 07 1992			
MAR 27 1992			
APR 07 1992	APR 13 1992		

