

Relocation of U.S. Navy's Keehi Beach facilities was necessary to clear the site for the runway construction. The marina was to be relocated to Rainbow Bay in Pearl Harbor and the swimming and sunbathing activities were moved to Barbers Point. The State reimbursed the federal government for the cost of replacing these facilities in their new locations. The total estimated cost was \$1,598,000 and payment was made as work progressed. As of June 30, 1973, the work was about 10 percent completed under the Navy contract.

Although the Reef Runway was designed to improve the environment as well as provide for traffic gains into the 1990s, it was opposed on environmental grounds, including its possible effects on bird life and fishing grounds. The project's effectiveness in reducing noise was also questioned.

The bid opening was originally set for November 9, 1972. On November 8, Federal Judge Martin Pence signed a temporary restraining order which forbade the DOT to open the bids. The restraining order was granted on a complaint filed on behalf of four groups and four individuals. The groups were Life of the Land, the Hawaii Audubon Society, the Sierra Club and Friends of the Earth. The four individuals were men who lived and worked in the area which would be affected by the Reef Runway.

The order remained in effect until after hearings before Federal Judge Samuel P. King were completed, and his decision announced. On December 22, 1972, Judge King ruled that the environmental impact statement on the proposed Reef Runway was adequate and that construction could begin.

Bids received up to November 9 were opened on December 28, 1972. The low bid was higher than expected, and the problem of choosing the best plan and finding ways to pay for it caused further delays. The contract was not awarded until February 28, 1973.

The Reef Runway job was the biggest contract ever awarded by the State of Hawaii. The basic figure was \$46,374,039, but \$3 million or so was added when the State exercised an option to have the contractor dredge an additional 1.8 million cubic yards of fill.

The \$46 million and \$49 million figures represented downward negotiation of the original bid of \$52 million for a full design suitable to the Air Force as well as the airlines and the FAA.

That configuration included a taxiway paralleling the full length of the 12,000-foot runway, plus a series of other support taxiways, high-speed turnoffs and shoulders extending 1,000 feet each side of the runway centerline. The contractor was able to reduce its bid price largely because the State agreed to stretch the construction period from 19 months to 26 months.

The DOT had legislative authority to finance the difference between the Federal contribution and the contract price through reimbursable general obligation bonds, approved by the 1972 Legislature. The State hoped to raise money for the runway through this system without imposing any great increase in the airline landing fees and other charges which support the airport system.

Total federal grants and allocations for the Reef Runway project rose to \$24,022,139 during FY 1973. This sum included the \$14,033,000 granted by the FAA in May 1972 for the runway itself, \$7,033,150 allocated in the fall of 1972 for embankments and ancillary facilities, and an additional \$2,955,989 granted in 1973 to cover increased costs and to construct a wildlife habitat in Pearl Harbor.

The contractor was ordered to begin work on the Reef Runway May 7, 1973. Soon draglines, clamshells and tractors had constructed dikes in the Hickam area to confine the coral and other materials to be dredged for the future land fill. By June 11, a small dredge was in operation and work had been progressing 24 hours a day. That night, work halted because of the expected issuance of a court injunction.

On June 12, the 9th Circuit Court in San Francisco issued a temporary injunction in response to the appeal of the suit from the lower court. The injunction was expected to remain in effect at least until August 1973 when the 9th Circuit Court was scheduled to hear arguments as to whether the order should be made permanent. Defendants in the case were the U.S. DOT and the Hawaii DOT.

At the end of FY 1973, the Reef Runway project was idle, but work was progressing satisfactorily under a \$350,881



Above: United Air Lines parks at the Diamond Head Concourse.



92

Above: The Hawaiian Stilt were relocated to new nesting grounds in Pearl Harbor during construction of the Reef Runway.

contract to relocate bird habitats the runway would displace.

Honolulu International was the 29th busiest in the U.S. during 1972 according to the FAA.

In February 1973 the FAA instituted its new security program and imposed upon all airport operators serving certificated air carriers a requirement to provide law enforcement officers at each position where preboard screening of airline passengers was conducted. The airport was forced to employ off-duty police officers to meet the requirement. The arrangement proved to be prohibitively costly and specifications were drawn to replace them with contractual guard services.

The airport certification program, also instituted by the FAA, became effective during the fiscal year. Honolulu International Airport was certified to meet the standards promulgated by Federal Aviation Regulations, Part 139.

Highlights

August 17, 1972 A contract was awarded for construction of Baggage Claim Area, Diamond Head, Existing Terminal Building, at a cost of \$661,830. Completed July 20, 1973.

October 18, 1972 A contract was awarded to remodel and build an addition to the Ticket Lobby Area, \$1,545,000. Completed July 18, 1973.

October 24, 1972 A contract was awarded to relocate five existing carousels to International Arrivals, \$164,195. Completed September 18, 1973.

November 22, 1972 A contract was awarded for the installation and testing of a public address system, \$88,743. Completed August 8, 1973.

January 11, 1973 Culvert Pipe for Runway 8-26 was installed at a cost of \$46,465.

February 21, 1973 A contract was awarded for an addition to the Governor's Lounge and alterations to the Administration Building, \$171,386. Completed August 24, 1973.

February 28, 1973 A contract was awarded for the dredging, offshore grading and drainage and protective structure for the Reef Runway, \$46,374,039.

March 6, 1973 A contract was awarded for the relocation of airline offices for Braniff International and Philippine Airlines, \$42,000. Completed July 24, 1973.

April 6, 1973 A contract was awarded to relocate bird habitats for the Reef Runway, \$350,881.

May 11, 1973 Millwork for the International Arrivals, Main Terminal Building was completed at a cost of \$226,500.

May 17, 1973 Construction of the Ewa Service Court Cross Road was completed May 17, 1973, at a cost of \$115,934.

June 22, 1973 Three Complete Baggage Claim Units were installed at a cost of \$107,106.

1973-1974

Work began on the Reef Runway on May 7, 1973, but appeals by environmental groups to the 9th Circuit Court of Appeals and the U.S. Supreme Court resulted in two separate injunctions and suspension of all off-shore work for a total of 112 days. The Supreme Court on April 22, 1974, let stand the lower court's decision upholding the legality of the Environmental Impact Statement and permitted work to resume.

A new Animal Quarantine Station was placed in operation at Honolulu International on June 1, 1974. The facilities were provided at no cost to the State Department of Agriculture, which provided the necessary personnel for staffing 24 hours per day. The new services eliminated the previous practice of airlines holding animals in their cargo terminal and facilitated the quarantine processing of animals and birds imported into Hawaii.

On January 2, 1974, the off-duty police who were providing security services required by the FAA regulation were replaced by Hawaii Protective Association, Ltd. personnel. Under the provisions of a one-year contract, the security service was being provided by a private security organization, at a cost considerably less than under the previous arrangement.

Distinguished visitors to Honolulu during the year included Queen Elizabeth of England, other leaders of foreign nations bordering the Pacific Basin, Governors of several states, Cabinet Officers, Congressmen and returning astronauts.

Work was progressing on the installation of security fencing at the airport.

Elliott Street was relocated in coordination with the U.S. Postal Service for its new Main Post Office which was being built at the airport.

A project was underway to improve and realign Lagoon Drive. The section between Nimitz and Aolele will be improved with curbs, gutters and sidewalks with appropriate underground utilities. The realignment at the South Ramp will make more space available for aeronautical use.

Highlights

July 5, 1973 Three Existing loading bridges were relocated, \$305,879.

October 31, 1973 A contract was awarded for landscaping of the Ewa Extension, Main Terminal Building, \$278,684. Completed July 1974.

December 18, 1973 Demolition and Fill of the Continental Airlines Lease Property was completed, \$180,819.

February 6, 1974 A contract was awarded to construct the Diamond Head Concourse Gates 7, 8 and 9, \$8,163,000.

April 5, 1974 Concrete apron repairs were completed, \$42,577.

April 15, 1974 Furniture for the Third Level Holding Rooms, International Arrivals, was installed, \$41,117.66.

April 24, 1974 A contract was awarded for the relocation of Elliott Street and parking lot modifications, \$544,210. Completed April 10, 1975.

May 24, 1974 A contract was awarded for improvements and realignment of Lagoon Drive, \$570,000. Completed March 21, 1975.

1974-1975

The Reef Runway project was progressing with the construction of alternate wildlife habitats and the relocation of the Navy recreational facilities completed. Projects underway included dredging, offshore grading and drainage, and protective structures; paving, on-shore grading and drainage; relocation of the sewer line, construction of the Worcester Road underpass, and Building T-145.

Construction of subdivisions for ground transportation maintenance yards and fixed base operators on Lagoon Drive were started.

The passenger traffic at Honolulu International increased to 10,639,503 during the year.

The FAA set new standards for staffing and for equipment which are required for Crash/Fire/Rescue operations. A reduction in force by Hickam Air Force Base, which previously had furnished all crash/fire rescue services at Honolulu International, and the use of larger interisland

Below: Aircraft park amid construction activity on the Diamond Head Concourse.



jet aircraft were the principal reasons for increases in staffing and equipment. Twenty-six Crash/Fire/Rescue positions were authorized by the Legislature for Honolulu International Airport to create a professional Crash/Fire/Rescue squad.

The FAA, acting under the authority of the Airport and Airway Development Act of 1970, tightened its grip on both the airport certification and security programs. More painstaking and detailed inspections were held.

Kentron Hawaii, Inc. was awarded a contract to prepare a Statewide Airport Systems Plan. The project was scheduled for completion in February 1976.

Distinguished visitors to Honolulu International included the Queen of England, Cardinal Midzenty, seven prime ministers, three presidents, as well as many notables of lesser ranks.

Burns International Security Services, Inc. was the low bidder on the contract to provide armed guards to back up airline-hired security guards while the latter perform baggage searches. Burns provided other security services as well. The guards began their performance January 2, 1975. Their contract ran through June 1, 1976, with an option to extend for an additional year.

Action was taken to implement the Fair Labor Standards Act and the Occupational Safety and Health Act (OSHA).

Highlights

July 1974 Landscaping of the Ewa Extension, Main Terminal Building, was completed, \$71,380.

July 9, 1974 A contract was awarded for Construction of Hardstands 5, 6 and 30, \$2,366,400. Completed February 1975.

July 15, 1974 A covered walkway between the Parking Structure and Pedestrian Underpass was completed, \$71,380.

August 3, 1974 Furnishings for the addition to the Governor's Lounge were installed, \$18,324.

October 2, 1974 A contract was awarded for inclined conveyors for the International Arrivals Building, \$134,442.

October 18, 1974 Landscaping of the Enplaning/Deplaning Roadway Approach Ground Level and the Parking Area was completed, \$211,908.74.

October 18, 1974 Security Fencing and related work was completed, \$59,385.50.

December 4, 1974 A contract was awarded for airport security improvements, \$261,000. Completed July 1975.

January 27, 1975 A contract was awarded for fencing and demolition of Buildings 200, 202, 203, \$32,484.

April 1, 1975 A contract was awarded for construction of miscellaneous projects for the Main Terminal Building, \$515,660. Completed May 1976.

April 4, 1975 A contract was awarded for landscaping the walkways and roadways, Main Terminal Building, \$209,486. Completed November 1975.

April 18, 1975 A contract was awarded for the Lagoon Drive Sewer Line and Pump Station for the Reef Runway, \$1,497,475. Completed September 1976.

May 20, 1975 A contract was awarded for furnishing, delivering, installing and testing two Aircraft Passenger Loading Bridges, \$357,748. Completed August 1975.

June 3, 1975 A contract was awarded to relocate one loading bridge from Gate 28C to 30C, \$18,474. Completed July 1975.

June 5, 1975 A contract was awarded for improvements for Lagoon Drive and the Air Taxi Lease Lots, \$1,457,740. Completed June 1976.

June 15, 1975 A contract was awarded for construction of the Worcester Road Underpass, \$2,433,277. Completed February 1976.

June 25, 1975 A contract was awarded for paving and offshore grading and drainage for the Reef Runway, \$8,346,781. Completed September 1976.



The Reef Runway

The Reef Runway at Honolulu International Airport was the first major runway in the world built entirely offshore on an underwater fringing coral reef.

Planning for the runway began in 1967 to mitigate noise during aircraft takeoffs. The runway was planned as a preferential takeoff runway for heavy three and four-engine aircraft. Its offshore location insured that it would reduce noise levels around populated areas, as well as increase safety by changing flight paths away from the downtown Honolulu area.

Studies for the project involved the use of three-dimensional hydrodynamic models to determine the runway's overall effect on circulation patterns in the Keehi Lagoon, as well as wave forces on the structure. Tests were also made to protect the runway on the ocean side.

The final plan called for constructing the runway on coral fill. By the time it was finished more than 19 million cubic yards of dredged material had been used, pumped by three hydraulic suction dredges from four offshore borrow areas, to form the land mass. An additional 800,000 tons of quarried stone and 18,100 four and six-ton dolosse concrete armor units comprise the protective structure separating the runway from the ocean.

Great care was taken to minimize the environmental impact on surrounding areas, with the result that water quality was improved and provision made for the indigenous bird population of the region. The quality of water in the marine pond created by the runway was carefully considered by installing eleven 72-inch diameter culverts to allow for tidal circulation and mixing from the Manuwa Drainage Canal.

Other environmental protections included the construction of small islands in Keehi Lagoon for the Hawaiian Stilt, a rare and endangered species which could be affected by the impact of the construction. In addition, two large bird sanctuaries designed for the Stilt's nesting were constructed in nearby Pearl Harbor.

Although the Runway was planned before Congress passed the National Environmental Policy Act of 1969, the project was one of the first airport facilities having to file an Environmental Impact Statement (EIS). The EIS was com-



pleted and approved in 1972, but environmental groups obtained a temporary restraining order to stop the project.

After going through three courts, and ending up on the doorstep of the U.S. Supreme Court, the runway EIS was ruled adequate, affirming the action of a lower court. The legal action stopped work on the runway for more than three months.

The Reef Runway structure is 16,100 feet by 2,050 feet, with the runway proper 12,000 feet by 200 feet. More than 1,000 acres of new land was created by the dredging of more than 19 million cubic yards of material. All dredged fill was placed in one to 30 feet of water. The circulation channels were dredged to -45 MSL.

The project was constructed in three phases:

- In Phase one, the Dredged Fill & Protection Structure was begun in May 1973 and completed in August 1976.
- Phase two was the pavement, Increment 1, which began in September 1975 and was completed in September 1976.
- Phase three was completion of the pavements and lighting, increment two. It began in November 1976 and was completed in September 1977. The work included completion of the taxiway pavements, paving of the runway and taxi shoulders, and installing the airfield lighting and navigation equipment.

The runway was completed and dedicated for use on October 14, 1977 at a final cost of \$81 million.



Opposite: Artist's concept of the Reef Runway.
Top left: The runway begins to take shape in 1973.
Center left: Construction in 1975.
Bottom left: The dredge is visible in the lower left in this 1976 photo.
Below: The completed Reef Runway in 1987.



1975-1976

Below: Pan American's Boeing 707 is framed by coconut palms at HNL.
Bottom: Diamond Head Concourse nears completion in 1975.



A contract was given to Ronald A. Darby and Associates to plan and design a noise monitoring system on and around the airport. The system consisted of 12 to 14 remote monitoring stations at the periphery of the airport supplemented by on-airport monitors. All monitoring stations reported their data to a central processing center that provided a visual display of results. The center recorded and stored the results so that location of noise sources exceeding the prescribed threshold could be played back and pinpointed in time and space to identify the specific aircraft source.

A contract was let to EG and G Washington Analytical Services Center, Inc. of San Diego, California, to supply equipment for the noise monitoring system.

A large scale emergency and medical exercise was held at HNL. It was the culmination of the long-range program undertaken to improve detailed emergency medical plans in the airport's operations manual.

Work continued on the long awaited Reef Runway.

Thirty-one new space permits and seven new leases were processed and by the end of the fiscal year; 132 space permits and 109 leases were in effect.

Two 3,000 gallon crash/fire trucks and one rescue truck were added to the inventory of one Ansul jeep and one quick-response vehicle.

The Airport Division's administrative offices were moved from the sixth and seventh floors of the Honolulu International Airport Administration Building, to the mezzanine floors of Gates 29 and 30 in the Ewa Gull Wing.

Honolulu International handled 11,306,443 passengers, representing a 6.96 percent increase over the previous year. Cargo passing through the airport increased by a significant 15.7 percent and amounted to 253,124,381 pounds. The volume of mail handled decreased by 6.1 percent. Mail amounted to 54,235,925 pounds.

Highlights

July 1, 1975 A contract was awarded for construction of the Gate 29 Concession and the Airports Division Office, \$346,240. Completed April 1976.

August 8, 1975 A contract was awarded for the construction of the Ewa Baggage Claim and Tenant Areas of the Main Terminal, \$308,107. Completed July 1976.

November 19, 1975 A contract was awarded for the furnishing and delivering of taxiway guidance signs, \$11,925.

November 20, 1975 A contract was awarded for landscaping of the Parking Structure Entry and Bank area, \$104,450. Completed April 1976.

November 24, 1975 A contract was awarded for landscaping of the Ewa Service court, Phase I, \$90,886. Completed May 1976.

March 18, 1976 A contract was awarded for improvement of the Lagoon Drive Lease Lots Sewage Pump Station, \$104,111. Completed June 1976.

May 10, 1976 A contract was awarded for stabilization of Runway 4L Shoulders, \$87,761. Completed: June 1976.

May 19, 1976 A contract was awarded for resurfacing and



grooving Runway 4R-22L, \$313,459. Completed October 1976.

June 28, 1976 A contract was awarded for site preparation for remote monitoring stations, \$55,517. Completed April 1977.

1976-1977

Honolulu International Airport celebrated its golden anniversary with a ceremony that included several aviation pioneers. The original airport was dedicated as John Rodgers Airport on March 21, 1927.

Honolulu International served 12,182,519 passengers during calendar year 1976, a seven percent increase over the previous year. Air operations totaled 320,565. This figure represented only 789 more operations than 1975; however, the large increase in passenger volume indicated a larger percentage of wide-bodied aircraft using the facility.

On December 14, 1976, a disaster exercise, Porpoise 76, was conducted, based on the airport's required operational plan. The exercise was beneficial, considering its scope, complexity and many participants. Participation by airline personnel in future exercises would enhance performance and would prepare more effectively for a real disaster.

The airport had written agreements for disaster coverage with Airport Medical Services Inc., Hickam Air Force Base dispensary, City and County of Honolulu Health Department, Tripler Army Hospital and the Honolulu County Medical Society, as well as Oahu Civil Defense, State of Hawaii Health Disaster Center, U.S. Coast Guard Joint Rescue Center, American Red Cross, City and County of Honolulu Medical Examiner and the Airlines Operations Committee.

Construction continued on the Reef Runway.

The one millionth airport operation since the State started leasing Ford Island in 1970 occurred in 1977. Ford Island's operations continued to grow modestly but steadily and serve to relieve a major congestion problem of general aviation training activity at Honolulu International.

Operations at Dillingham Field continued to increase. The field supports very diversified activities such as soaring, glider instruction and towing, aircraft landings and take-offs, parachuting and sky diving, as well as helicopter instruction and military usage.

The Oahu General Aviation Master Plan Study was finished by Kentron, Ltd. The preliminary conclusions of the study were presented to the public in a series of information meetings and also were presented to the Legislature. An environmental impact assessment report and negotiations with the U.S. Army were begun with the goal of obtaining a 25-year lease on the airfield at the Dillingham Military Reservation.

Nine firefighters qualified as scuba divers, an important factor since the airport has over-water approaches and departures. Thirty-five HNL firefighters completed multimedia first aid courses.

Certification inspection by the FAA was successfully conducted.

The Civil Air Patrol underwent a change of leadership and was given a site in the HNL industrial subdivision for the construction of a Hawaii Wing Headquarters building.

General aviation subdivision lots on the South Ramp were completed and their assignment started. Two tenants began construction of hangars pending the completion of lease terms.



Above: Driving on Nimitz Highway in the vicinity of Lagoon Drive and Puuloa Road area was challenging during the construction of the H-1 Freeway.



Highlights

September 17, 1976 A contract was awarded for the paving, lighting and onshore grading and drainage for the Reef Runway, \$9,960,331.

October 31, 1976 The State closed Lagoon Drive permanently because of the Reef Runway construction and placed a fence across the road, blocking the Hickam gate which had been used in the past to gain access to the beach and fishing areas on Hickam.

February 4, 1977 A contract was awarded for restriping of runway markers, \$35,864. Completed March 1977.

April 17, 1977 A contract was awarded for construction of Gates 12, 13, 24 and 25, Central Concourse, \$4,802,734.

May 11, 1977 A contract was awarded for grading, paving and lighting of Taxiway 4R and construction of revetments for the Reef Runway, \$1,452,192.

June 13, 1977 A contract was awarded for security enclosures of Gates 7 and 11 and miscellaneous improvements, \$81,940.

June 25, 1977 A contract was awarded for construction of the Reef Runway Fire Station, \$35,864. Completed September 1977.

June 24, 1977 A contract was awarded for the stabilization of taxiways, shoulders and slurry seal, \$377,808.

1977-1978

To alleviate the aircraft noise patterns over Honolulu and surrounding areas, the Reef Runway was constructed adjacent to the existing airport complex on a coral reef. The \$89 million project, completed in October 1977, was the world's first major runway built entirely offshore. Great care was taken to minimize the environmental impact on surrounding areas, with the result that water quality was improved and provision made for the indigenous bird population of the region.

The quality of water in the marine pond created by the runway was carefully considered by installing eleven 72-inch diameter culverts to allow for tidal circulation and mixing from the Manuwai Drainage Canal. At first the pilots didn't like the new 12,000

foot runway. The FAA added instrument landing aids in mid-1979 and built a new Tower between the Reef Runway and Runway 8L-26R in 1984. This left a complaint that there was a long ground run from the terminal to point of takeoff, a common situation at many airports.

In a tribute to the engineering achievements of the Reef Runway, the project received three awards:

- The 1978 Outstanding Civil Engineering Achievement Nominee, American Society of Civil Engineers;
- One of the Ten Outstanding Engineering Achievements in the United State in 1977, National Society of Professional Engineers;
- The Aviation Environment Award, Federal Aviation Administration. This was only the second time that this award had been presented.

The project engineer was the late Frank T. Okimoto, P.E., airports civil engineer from 1967 to 1978. Frank was truly a friend of the environmentalists giving his full support to the environmental surveys from conception to post-period construction. His insight, questions and exacting standards motivated the highest goals from everyone connected with the project. In respect and affection from co-workers the Reef Runway was called "Frank's Runway".



Highlights

October 14, 1977 The Reef Runway was dedicated by the State, with both a military and a commercial aircraft taking off from the new facility. The Reef Runway, 8R/26L is located 6,700 feet south and parallel to Runway 8L/26R on a fringing coral reef. The Reef Runway structure is 16,100 feet by 2,050 feet with the runway proper 12,000 feet by 200 feet. More than 1,000 acres of new land was created by the dredging of more than 19 million cubic yards of material. All dredged fill was placed in 1 to 30 feet of water. The circulation channels were dredged to -45 feet. The project cost was \$89 million.

December 12, 1977 A contract was awarded for Loading Bridges for Gates 12 through 25, \$3,147,803.

December 16, 1977 A contract was awarded for tenant relocations and temporary holding rooms, \$401,000.

January 3, 1978 A contract was awarded for the extension of the existing storm drainage system, \$998,475.

March 29, 1978 A contract was awarded for remodeling of Building 391, \$295,250.

April 11, 1978 A contract was awarded for relocation of the Lei Stands, \$587,000.

May 19, 1978 A contract was awarded for Security fencing for the Reef Runway, \$218,487.

June 16, 1978 A contract was awarded for the construction of Gates 14-23, Central Concourse, \$14 million.

1978-1979

On October 24, 1978, the President of the United States approved the Deregulation Act of 1978, which became Public Law 95-504. This law was hailed as the most significant piece of aviation legislation since the passage of the Civil Aeronautics Act of 1938. Though the Act contained several provisions which were apparently intended to soften the impact on Hawaii, the Civil Aeronautics Board made radical changes in its policy and encouraged competition and lower air fares by all air carriers. At the end of the fiscal year, it was certain that at least a dozen new overseas carriers would be authorized to serve Hawaii from cities in the U.S. domestic air market.

The FAA ordered the grounding of all DC-10s on June 6, 1979 until the cause of the May 25, 1979 crash of a DC-10 at Chicago could be determined. This effectively stopped all service by Continental and Western Airlines, which operated all DC-10 fleets with the exception of a few B-720s and one B-727. In addition, service by Philippine Airlines and Air New Zealand was disrupted by the grounding of their DC-10s.

On March 31, 1979, members of the International Association of Machinists and Aerospace Workers struck United Airlines throughout its system. The strike continued through May 25, 1979 with a significant impact on travel to Hawaii. United carried about 50 percent of the West Coast to Hawaii passenger traffic and 90 percent from the East Coast to Hawaii passengers.

During hearings of the U.S. House Ways and Means Committee Oversight Subcommittee in Honolulu on March 30,



Opposite top: Construction is progressing on the HNL complex.
Opposite bottom: Celebrating the Golden Anniversary of Hawaii aviation are DOT Director E. Alvey Wright; Emory Bronte, who made the first successful trans-Pacific flight in 1927; Col. Charles H. Dolan, last living pilot of the Lafayette Escadrille; and Martin Jensen, winner of the Dole Derby in 1927.

Above: HNL in the 1970s.



Above: The new Reef Runway points toward Diamond Head in the distance.

1979, the problems of air traffic control pointed again to the need for a reliever airport for some of the general aviation traffic using Honolulu International Airport. The airport recommended proceeding in several areas to relieve the potentially hazardous mix of large and small aircraft by providing reliever facilities through joint use of existing military airfields and the construction of a new airport near Poamoho Village, north of Wahiawa. At the end of the fiscal year a consultant was selected to prepare the environmental studies for the proposed general aviation airport.

In July 1978, the House of Representatives' Select Committee on Narcotics Abuse and Control reviewed U.S. Customs' procedures and spent a day at the airport to examine border clearance facilities.

Continued growth in international traffic created substantial pressure on border clearance facilities operated by federal agencies because of insufficient staffing. To facilitate processing, the Customs Service proposed several modifications to inspection procedures and arrangements of inspection counters through the Customs Accelerated Passenger Inspection System (CAPIS). Unlike previous improvements which were required to be made by the airport, CAPIS was proposed for installation at the expense of the federal government. The airport was required only to furnish additional luggage carts for passenger convenience.

Gates 24 and 25 were dedicated in ceremonies on December 8, 1978 for the first of four new frontal gates close to the waiting lobby of the Overseas Terminal. Gates 12 and 13 were opened later to complete a \$5 million contract.

Construction in the overseas terminal area continued to expand and improve service for greater passenger activity. Construction started on the expansion of the Central Concourse to provide second-level access to aircraft similar to that provided in the Ewa and Diamond Head concourses. Loading bridges, concession facilities and air conditioned comfort were some of the features built in the \$13.25 million contract for Gates 14 to 24 which were designed for wide body aircraft. The popular landscaped garden area was planned to be expanded and improved as part of a separate contract. In addition, restaurant facilities were planned for expansion by 20 feet on three sides of the existing building.

Planning for a new Interisland Terminal Building was started on the existing site to house all interisland air carriers and commuter airlines. The Airports Division recommended the inclusion of commuters in the new terminal as activity in that sector of air transportation grew rapidly with the lessening of the regulatory control by the federal government. The terminal concept included three fingers for passenger safety and convenience with a new multi-story parking structure and two levels of roadway access similar to the Overseas Terminal. Work would also include new aircraft parking aprons and relocation of the existing maintenance facilities. Intra-airport roadways for the Wiki Wiki buses would be extended to provide convenient interlining connections for passengers between overseas and interisland flights.

In August 1978, the airport was given an FAA award for environmental improvements resulting from the Reef Runway. Benefits to the areas of the city previously impacted by aircraft noise and to the ecology of Keehi Lagoon were cited in the award. The Reef Runway Post-Construction Environmental Impact Report was finalized.

Work started on a \$1,075,000 contract for the update of the Honolulu International Airport and Environs Master Plan. The project prepared airfield and passenger forecasts to the year 2000 and recommended development plans to meet the anticipated requirements. A study of aircraft noise impact on the surrounding community recommended appropriate land use polices for consideration by state and county planners in the development of zoning ordinances for these areas. The FAA Planning Grant Program financed 75 percent of the cost of the contract.

Highlights

July 7, 1978 A contract was awarded for concrete hardstand repairs, \$150,000.

July 14, 1978 Dedication of a new 2,900-square foot holding wing at the Interisland Terminal.

September 15, 1978 A contract was awarded for landscaping of the Ewa concourse and connecting link, \$134,300.

August 15, 1978 Construction began on upgrading the Central Concourse at HNL so that Gates 14 through 23 would be able to take wide-bodied aircraft.

October 24, 1978 The Airline Deregulation Act of 1978 was passed by Congress. It allowed entry of new carriers into the Hawaiian market, resulting in a concentration of airlines at busier airports and a reduction in air fare.

November 1, 1978 A contract was awarded for an airport exit roadway, \$8,392,437.

November 15, 1978 A contract was awarded for construction of Hardstands 4, 32 and 33, \$6,154,499.

December 26, 1978 A contract was awarded for furnishing Gates 14 through 23, \$510,000.

January 29, 1979 A contract was awarded for landscaping the Diamond Head Concourse and connecting link, \$159,500.

March 6, 1979 A contract was awarded for a wash water disposal system, \$1,191,000.

May 31, 1979 A contract was awarded for expansion of food and beverage facilities, \$1,780,000.

June 7, 1979 A contract was awarded for repainting various metallic surfaces, \$123,600.

June 26, 1979 A contract was awarded for the installation of a Customs Accelerated Pass Inspection Station, \$437,180.

1979-1980

Deregulation of air transportation provided a potential for new routing and additional carrier service to Hawaii. The Civil Aeronautic Board approved the request of 15 airlines to service the Mainland-Honolulu route. On July 4, 1979, American, Braniff, Continental, Delta, Eastern, Hawaiian, National, Ozark, PSA, Trans Carib Air, Trans International, Western and World received clearance, with World Air making an early move into the Hawaiian air market.

The FAA was under contract to relocate their Honolulu Control Tower. Positioned between the Reef Runway and the Central Terminal Building, the new tower will assist the visual and instrument control of all types of aircraft. The tower will become operational after the improved Diamond Head radar tracking system EARTS (Enroute Automatic Radar Tracking System), has initiated its new service. This will provide improved operations and added safety measures. The estimated cost was \$5.5 million.

Interisland carriers have participated in the economic growth of Hawaii. Fifty years of service was celebrated by Hawaiian Airlines on November 11, 1979. Aloha and Hawaiian airlines serve domestic and connecting overseas passengers, and Air Hawaiian and Royal Hawaiian Air Service provide commuter service throughout the state.

December 1979 was the beginning of the FAA's plan to separate jet and light aircraft planes in the air and on the field. Following up on several requests from both private and state sectors, as well as the International Federation of Air Line Pilots Association, the FAA reported a decline in monthly incidents at Honolulu International Airport. The Professional Air Traffic Controllers Organization counted 25 incidents in October 1979 and only nine incidents in January of 1980.

A "red star" rating from the designated Air Line Pilots Association indicated that group's feeling that there was a threat of an air disaster due to the continued mixing of jets to prop driven planes at HNL. Threatening to issue a "black star" rating, the Pilots Association pushed for tighter control of light aircraft over Honolulu.

The FAA's plan of controlled traffic flow segregated incompatible aircraft. As a result the interisland carriers have longer taxiing periods at a cost of time and fuel. Air traffic noise was noted to be heavier in the Ewa area due to the FAA's most recent runway segregation.

Adjusting to the needs of the commercial and recreational air traffic in Hawaii was a constant concern. With the increased air traffic at HNL and the reported mix of jet aircraft and light prop planes, several studies in the past decade



Top: Construction on the Central Concourse.
Above: Elevated roadway construction.



Top: Federal inspection services.
 Center: Passengers wait to clear security.
 Above: Passengers walk through the Central Concourse.
 Opposite: The Japanese Gardens, with the restaurant building at right.

have prompted the proposal of a reliever airport. Considered in the 10th Legislative Session was the selection for early construction of a reliever field in the Poamoho area near Wahiawa.

The United Public Workers began a statewide strike on October 22, 1979. The airport was kept open throughout the strike.

Act 49, Session Laws of Hawaii 1980, permitted the airport to expediently and expeditiously remove abandoned, unclaimed or improperly stored vehicles at the airport.

Act 81, Session Laws of Hawaii 1980, permitted the airport to operate a lost and found program for articles found on the premises of the airport.

Honolulu International is a joint use facility with Hickam Air Force Base. Since a portion of the airfield is on the Air Force Base, a line of communication and working relationship was accorded the federal and state operations. The major portion of the airfield, including all air carrier and general aviation terminals and facilities are owned and operated by the State of Hawaii.

Overseas passengers totaled more than 9.4 million with a total of more than 400,000 aircraft operations in 1980. Hawaii commands the Pacific Air Flow and provides needed services for many foreign lines.

Modifications to the central baggage claim area were completed and faster, efficient service was provided.

The beautiful Hawaiian Lei Stands were completed in January 1980. They are fully landscaped and allow customers to drive up and park in full view of many floral displays. The open air structures created for the lei makers are one of the most frequently visited areas in the airport.

The Ramp Control section monitored eight control systems on a 24-hour basis. Determining emergency actions necessary to keep the airports open was the essence of their function. With necessary ground movement within the runway and apron areas for maintenance and regular checking of all conditions, the controlling of such movements with aircraft maneuvering was essential. Security of all restricted areas and communication with airlines and their carriers provided the needed continuity within the airport system.

A mock airplane crash disaster exercise was held on April 6, 1980. The drill tested the control and disaster response capabilities of the airport.

1980-1981

In 1981, Honolulu International Airport was ranked as the 15th busiest airport in the world by the Airport Operators Council International (AOCI).

HNL is now capable of accommodating more than 15 million travelers a year, more than double the amount it could handle 10 years ago.

During the year Runway 8L underwent reconstruction and grooving to improve airfield safety.

After an absence of six years, American Airlines re-entered the Hawaii market with its Honolulu flights on December 17, 1980. In March 1980, South Pacific International Airlines began scheduled direct service from Pago Pago and Papeete to Honolulu.

The new Central Concourse was dedicated on July 24, 1980 at an overall construction cost of \$31.4 million. The 10 gates, 14-23, increased the airport's capability of handling wide-body aircraft and allowed passengers to enplane and deplane directly from the holding rooms. The second floor area contained a restaurant, cocktail lounge, newsstand, restrooms, Visitor Information Program booth, telephones and other concession space. Tenant airline administrative and operations offices occupy the ground floor.

Highlights

June 1980 Work began on construction of a new FAA control tower at Hickam AFB. This project was funded by the FAA.

July 24, 1980 Dedication ceremonies were held for the new Central Concourse at HNL.



1981-1982

Prior to January 1, 1981, the right to sell and deliver in-bond merchandise to foreign-bound travelers at Honolulu International Airport was awarded by competitive bid on an exclusive basis. The department was advised that this arrangement might be in violation of anti-trust laws. On January 1, 1981, the department awarded contracts to two concessionaires.

The question of the department's right to grant exclusive concessions at Honolulu International Airport was resolved by the Legislature. Act 90, Session Laws of Hawaii 1982, gives the department the right to offer an exclusive duty free concession.

Honolulu International Airport ranked 17th busiest in the world.

Two beautification projects were completed.

The popular carp (koi) ponds were improved and the Japanese garden area of the Central Concourse was landscaped.

Energy conservation efforts continued. A new ground power system completed in February 1982 resulted in significant aircraft fuel savings for overseas carriers.

Future plans for HNL include changes to improve passenger traffic flow and comfort as well as cargo handling ability.

The Airline Pilots Association upgraded the HNL rating to an orange star. The upgrading was a result of airport safety improvements installed by the airport and FAA including navigational aids, lighting and runway grooving, as well as a decrease in general aviation traffic. However the problem of the mix between jets and propeller driven general aviation aircraft remained. Until a site for a general aviation reliever airport has been established, this problem will persist and even grow in magnitude.

Below: Royal Hawaiian Airlines planes.
Bottom: Planes line the gates at the Central Concourse.



Highlights

August 3, 1981 Members of the Professional Air Traffic Controllers Organization called a nationwide strike which affected air traffic in and out of HNL. The FAA used Navy controllers and retired/former controllers to maintain normal operations at HNL; however, some airline flights were delayed and an air defense exercise was cancelled.

1982-1983

Passenger activity at HNL increased for the sixth consecutive year earning it the distinction of being the 16th busiest airport in the world according to a survey of the Airport Operators Council International.

On September 3, 1982, an agreement was reached on the Amended Exhibit One of the Airport-Airline Lease. These documents established the charges for airlines using the airport system and required signatory airlines to meet the difference between system revenues and expenses through use charges.

During FY 1983, approximately \$97 million worth of Airport System Revenue Bonds were called back and reissued at a savings of \$20.6 million or \$730,000 annually.

Work started on the Diamond Head Extension to the Main Terminal. This project streamlined passenger flow and upgraded baggage processing areas. The \$18.3 million project included 10 baggage claim areas, 19 check in stations, the latest in energy saving devices, security equipment, signs, and landscaping. The project was scheduled for construction in two phases.

A groundbreaking ceremony was held for the South Ramp Development project. The realignment of Lagoon Drive was the first phase of the \$2.4 million project which will maximize land use and promote development of aviation-related support activities. Phase I was scheduled for completion in 1984.

Highlights

September 14, 1982 A groundbreaking ceremony was held for the Diamond Head Extension of the Main Terminal at HNL including an expanded passenger ticketing lobby and baggage claim area, \$38.16 million. Completed November 1986.

November 11, 1982 The Honolulu Fueling Facilities Corporation announced that they had purchased Texaco, Shell and Union fueling facilities at the airport and on the Sand Island Access Road. They also announced a joint-financing venture with Hawaiian Independent Refinery.

November 23, 1982 Hurricane Iwa hit Oahu and Kauai with winds of up to 85 mph. Electrical power was out for several days on both islands and HNL operated on emergency power for a few hours. Flight service was interrupted for a day as aircraft were diverted to Hilo during the storm.

June 20, 1983 A contract was awarded to install revolving security doors for the Ewa Baggage Claim Areas, \$510,000. Completed March 1986.



Top: The Flight Information Display System (FIDS) provides information to passengers in the Central Concourse.

Above: Newly furnished gate in Central Concourse.



Top: Lei stands in the 1980s.

Center: Interisland Terminal.

Bottom: Pre-packaged pineapple awaits passengers.

Opposite: The south end of the Reef Runway provides a beautiful view of Keehi Lagoon on the left, Sand Island in right center, and Honolulu Harbor at right.

1983-1984

Work continued on Phase I of the 539,803-square foot Diamond Head Extension to the Main Terminal. The \$18.3 million project, which was 80 percent complete, included construction of the structure's rough concrete shell. Phase II construction commenced in April 1984 and was 5 percent complete. The \$19.8 million project includes construction of 19 check-in stations, 10 baggage claim areas and office space increasing the airport's total passenger handling capacity by approximately one third. Phase II is scheduled for completion in FY 1986.

The three major interisland air carriers were consolidated at the Interisland Terminal complex. Site work was underway at the Interisland Terminal to help accommodate the increase in traffic. New airfield aprons and taxiways were under construction to create more parking area for the interisland carriers. The \$5.2 million project was expected to be completed in FY 1985.

Within the Interisland Terminal, major renovation was underway in the space used by Hawaiian and Mid Pacific Airlines. The \$632,000 project included improvements to office space, baggage claim, ticket and holding areas. Site work was to be completed by FY 1985. The Interisland Terminal Access Road was widened to increase traffic capacity to the terminal. The \$6.3 million project was scheduled for completion in FY 1985.

An overseas access roadway, connecting the H-1 Freeway with the Main Terminal, was under construction to ease traffic flow into the main airport terminal. The \$1.7 million project was scheduled for completion in FY 1985.

A new \$6.7 million FAA Air Traffic Control Tower, located between the two major East/West runways, was dedicated on June 23, 1984. Considered a much more strategic location than the old tower, the new building, tower and radar approach facility provided better visibility of runways and taxiways making the airport safer for all aircraft.

A new 56,000 square foot Interisland Terminal, on the mauka side of the present facility, was in the design stages. Scheduled to begin construction in FY 1985, the new satellite terminal will expand passenger and flight traffic capacity.

Improvements to the main airport terminal included the installation of 12 new passenger bridges in the Diamond Head, Ewa and Central Concourses. Airlines using these gates have the option of unloading and loading passengers through two bridges instead of one, thereby facilitating passenger flow in the terminal. The bridges were installed at a cost of \$2.7 million. Building modifications to accept the new structures were put in for \$794,000. Both projects were completed in FY 1984.

Also in the Main Terminal, four new security doors were installed to provide access to the baggage claim from a secured area. Once completed in FY 1985, the \$507,000 project will eliminate the need for security guards in the area.

Work continued on the access road towards Lagoon Drive to relocate utility lines underground. The \$653,000 project should be completed in FY 1985. Approximately 90 percent of the utility lines at Honolulu International are underground and this project helps the airport move closer to its 100 percent goal. Underground utility wires are more desirable, especially at an airport facility, because they are safer and more aesthetically pleasing.

The realignment of Lagoon Drive, part of the South Ramp Development project, continued. Phase I of the project, which included landfill, grading and the installation of sewer and drainage lines, was completed at a cost of \$2.4 million. Phase II includes paving, utility relocation and construction of a new cargo terminal building, and will commence in FY 1985. Once completed in 1986, the \$7.6 million project will help promote the development of aviation related support activities in the South Ramp area.

The Pacific Aerospace Museum, a combination high technology educational complex and visitor attraction was scheduled to begin construction in January 1985. The 5,300 square foot facility on the Central Concourse will cost approximately \$150,000.

Construction of a general aviation reliever airport continued to be controversial. The FAA indicated its willingness to assist in making joint use of a military airport a solution to the problem. If accepted by the Department of Defense, this would be a preferred alternative to building a completely new airport.

Rules and regulations for merchandise delivery at airports were implemented. Establishing such rules was very con-





Top: Ticket Lobby in 1983.

Above: HNL and Hickam AFB personnel responded to a runway incident.



1984-1985

Honolulu International Airport ranked as the 17th largest airport in the world. Some 343,818 aircraft passed through HNL. Delta Airlines, All Nippon Airways of Japan and Pacific Air Express all established operations in 1984.

Duty Free Shoppers Limited agreed to sublease a portion of its operations to a bona fide minority business. This meant that the U.S. Department of Transportation/Federal Aviation Administration would release \$33 million of federal airport improvement grants for Hawaii's airports. Out of this amount, \$6 million was allocated for South Ramp improvements.

The Diamond Head Extension to the Main Terminal which began in 1982 was 70 percent completed with the end date targeted for August 1986. The 624-foot extension adds 19 new check-in counters on the departure level and 10 large new baggage claim devices on the ground level. The \$38 million project, when finished, will streamline passenger flow and speed up check-in and baggage claim time considerably.

The Overseas Terminal Access Roadway will also make it more convenient for overseas travelers with a viaduct connecting the Airport Interchange to the Overseas Terminal. Cost is \$1.7 million and it is expected to be finished by February 1986.

A first for Hawaii, the Pacific Aerospace Museum had its groundbreaking on March 4, 1985. The airport spent \$120,400 to construct the museum's exterior which is located in the Main Overseas Terminal, on the second level of the Central Concourse. The non-profit museum's goal of raising \$1.5 million will go towards developing the interiors and for displays to highlight aviation's role in helping the Pacific Region to expand. Special programs and exhibits will also be featured.

Highlights

November 16, 1984 HNL and Hickam AFB personnel responded when a United Airlines 747 jet blew two tires on the Reef Runway. Thirty-seven people were injured from the aircraft's emergency exit chutes.

January 18, 1985 A contract was awarded to widen the median of deplaning and enplaning roadways, \$140,000. Completed May 1986.

March 4, 1985 A contract was awarded for construction of the Pacific Aerospace Museum in the Central Concourse, \$120,000. Completed July 1985.

traversal with off-airport merchants who use airport space at no cost. However, merchandise piled in the ticket lobby created a hazard to the public. The new regulations will provide better control and additional revenues for the airport.

Noise control of both fixed-wing and helicopters is a continuing responsibility by the FAA and the airport. Monitoring of noise and training of personnel keeps the problem from growing beyond manageable proportions.

Highlights

December 19, 1983 A contract was awarded for the construction of Phase I of the Inter-island Airfield Aprons and Taxiways, \$5,240,000. Completed June 1986.

April 1984 A contract was awarded for the construction of the Diamond Head Extension to the Main Terminal, Phase II, \$23.2 million. Completed June 1987.

May 23, 1984 A \$6.7 million Air Traffic Control Tower was put into service at HNL by the FAA.

June 18, 1984 A contract was awarded for the construction of the Overseas Terminal Access Roadway, \$1,700,000. Completed March 1986.

Visitor Information Program

The Hawaii Visitors Information Program was established on July 1, 1962 to welcome passengers at Honolulu International Airport and Honolulu Harbor, to encourage travel to the Neighbor Islands, and to provide information and other help to airport and harbor visitors.

Today the VIP conducts protocol events, rites and ceremonies; provides hospitality, information, assistance and a variety of other services to visitors.

VIP booths are located throughout the airport.



Left: The 1980s VIP staff in their colorful Aloha attire.

Above: A VIP staffer helps visitors in the 1980s.

Top: The VIP booth is a welcome source of information today.

Below: An Aircraft Rescue Fire Fighter suits up for an exercise.
Bottom left: ARFF Station No. 2 located near the Reef Runway.
Bottom right: ARFF crews during a training exercise.



112

July 1985 A contract was awarded for the relocation of Lagoon Drive along the coastline, and development of lease lots, \$100,000. Completed February 1988.

September 4, 1985 A contract was awarded for Phase I, expansion of painter, carpenter and mechanic shops, and alterations to Baseyard Facilities, \$300,000. Completed October 1985.

1985-1986

In rapid succession, Pan American's 50th anniversary on November 22, 1985 of their first flight across the Pacific was followed by the announcement of the sale of their routes west of the islands to United Airlines and then the sudden closing of all operations in Hawaii on April 26, 1986.

Air Hawaii made its inaugural flight to Honolulu on November 22, 1985, and then filed for bankruptcy the following February with its last flight on February 19, 1986.

After 21 years of continuous operations to all the small communities of the state, Royal Hawaiian Air Service ceased to exist on May 22, 1986.

Plagued with financial problems, South Pacific Island Airways changed its schedule as they attempted to reorganize their activities.

After providing late night flights between Honolulu and Kahului, Maui Airlines closed its offices on April 30, 1986.

World Airways no longer appeared on the flight information screens.

Among the new starters were old names to air service in Hawaii. TWA returned to the Islands on June 1, 1986. Hawaiian Air continued to expand its flights to points outside the State. Aloha began late evening B-737 QC or "quick change" jet cargo service to the Neighbor Islands. Regent Air continued to announce start of Mainland to Hawaii flights but never appeared.

The constant coming and going by the air line companies was accompanied by an overall increase in passenger traffic of six percent.



Updating the Master Plan for the Statewide System of Airports started in FY 86 and was completed in late 1987. This complemented the planning work underway at HNL.

Work on the Ticket Lobby was expected to be completed in late 1986 and in mid-1987 on Lagoon Drive. Smoother traffic flows resulted with the opening of the second level bypass link between the H-1 Freeway Interchange and the Overseas Terminal Building on March 19, 1986.

Planning for the new Exit Plaza for the parking lot was completed and prepared for advertising and construction to be completed in 1987.

Apron improvements and the new Elliott Street connection to Nimitz Highway were completed as the initial steps for a new Interisland Terminal. Plans for Terminal 3 of the complex to temporarily house Hawaiian Airlines were close to completion. Studies were underway for the remaining structures which included urgently needed parking facilities in a multi-story structure.

Construction was started on the addition to the International Arrivals Building to accommodate group tour arrivals. In addition visits to Washington were made to discuss the urgent need to supplement the existing staff of federal inspectors for Customs and Immigration. With the assistance of Hawaii's Congressional delegation, authorization for additional personnel was approved.

Studies were conducted to improve waiting areas in the International Arrivals Building since it was expected that federal budget limitations would not result in the larger number of inspectors needed for the program.

Among the new entrants to the international airlines using this building was United Airlines which started international flights on February 11, 1986. Garuda Indonesia and Toa Domestic Airlines were expected to follow in the months ahead with All Nippon Airways changing from its charter operations to scheduled flights.

With the installation of energy management, fire alarm, security and other advanced control systems, it became necessary to provide an efficient monitoring method for maintenance and management personnel. The Airport Operations and Control System provided this capability along with the Flight Information Display System (FIDS). A \$4.1 million contract for a new FIDS to replace the existing, outdated equipment was proposed.

Highlights

September 1985 A contract was awarded for modifications to the International Arrivals Building, Phase II, \$3.6 million. Completed December 1986 (\$4.1 million).

November 22, 1985 Air Hawaii made an inaugural flight to Honolulu, and then filed for bankruptcy in February 1986. Its last flight was on February 19, 1986.

November 1985 A contract was awarded for alterations to the 9th, 10th, and 11th floors of Building 336, \$700,000. Completed December 1986.

November 1985 A contract was awarded for alterations to the ground level of Building 342, \$600,000. Completed August 1986.

January 1986 A contract was awarded for the realignment of Lagoon Drive, Phase II, \$7.6 million. Completed June 1987.

January 1986 A contract was awarded for alterations to the Maintenance and Custodial Facilities, \$500,000. Completed March 1987.

February 1986 A contract was awarded for an Energy Monitoring and Control System, Phase I, \$2.1 million. Completed November 1990 (\$2.4 million).

February 1986 A contract was awarded for airfield apron paving and lighting, Phase I, \$1.6 million. Completed July 1986.

March 1986 A contract was awarded to upgrade the Apron Lighting and Flight Information Display System, \$200,000. Completed November 1986.

April 1986 A contract was awarded for the Flight Information Display System, \$4 million. Completed December 1988



Above: Pan Am closed Hawaii operations in 1986, while TWA returned to the Islands the same year.



(\$4.4 million).

April 1986 A contract was awarded for the Diamond Head Extension Signage and Graphics, \$500,000. Completed September 1986 (\$600,000).

May 1986 A contract was awarded for Signage and Graphics, Phase I, \$1.9 million. Completed December 1987.

1985 Three inter-island air carriers were consolidated at the Interisland Terminal complex at HNL.

February 1986 The Overseas Terminal Access Roadway at HNL was completed. It made it more convenient for overseas travelers with a viaduct connecting the Airport Interchange to the Overseas Terminal.

March 19, 1986 The second level bypass link between the H-1 Freeway Interchange and the Overseas Terminal building opened.

April 26, 1986 Pan American closed all operations in Honolulu except for its daily around the world flight.

April 30, 1986 World Airways ceased operations.

April 30, 1986 Maui Airlines ceased its service.

May 22, 1986 Royal Hawaiian Air Service ceased operations.

June 1, 1986 TWA reinitiated service to Hawaii.

1986-1987



Top: Japanese tourists wait to go through Customs.
Above: A visitor gets a lei and a photo at the airport.

The \$23.3 million Diamond Head Extension to the Main Terminal was dedicated on October 22, 1986. The Diamond Head Extension added 660,000 square feet to the existing Terminal Building. It doubled the space available for airline ticket lobbies and baggage claim areas.

The basement level houses airline outbound baggage conveyors and baggage handling systems. The ground level has 10 inbound passenger baggage conveyors and claim devices, each 100-feet long and capable of handling a full 747 aircraft.

The second level houses baggage check in and ticket counters, airline offices, concession spaces for flowers, newspapers, sundries, toys, jewelry, packaged foods, gifts and security checkpoints leading to the gates.

In December 1986, a new Group Tour Arrivals area was opened in the International Arrivals Building at the Ewa end of the airport. In June, a new Domestic Group Tour Arrivals area was dedicated at the Diamond Head end of the Terminal.

Work was completed on the first phase of new concession facilities at the Diamond Head Extension. This was the first of several projects which resulted in upgraded concession facilities throughout the terminal area and the redistribution of concession spaces based on revised circulation patterns resulting from the opening of the Diamond Head Terminal.

Construction started on the addition of a new Duty Free concession at the Ewa Pedestrian Concourse. Consultants completed design of the second phase of the new Duty Free and Restaurant facilities at the Diamond Head Terminal Extension.

Design was completed on the modernization and additions to the existing Airport Baseyard, and included renovation and reconfiguration of the existing facilities and addition of support structures.

Projects that will modernize the existing facilities include the renovation of the Ewa and Central Ticket Lobbies, renovation of the existing baggage claim areas, improvement to existing concession areas, renovation of the International Arrival facilities, improvements to the frontal gates, improvements to air signage and communication systems, improvements to the Administration Tower and miscellaneous terminal improvements.

Designs for the Ewa and Central Ticket Lobbies have been completed and work will be started on the renovation in the early part of FY 88. The projects, which will upgrade the lobbies to the level of the new Diamond Head Extension, are expected to be completed by mid-1989.

Modernization and upgrading of the International Arrivals Building have continued. Design was underway on various projects to facilitate the processing of international arrivals passengers.

Construction began in March 1987 on the new Exit Plaza for the Overseas Terminal Parking Garage and rental car areas. Completion is anticipated in April 1988. Construction of the Lagoon Drive Realignment, Phase II, began in 1986 and will be completed in February 1988. The project provides a new four-lane roadway as well as 26 lease lots and 190,000 square feet of additional taxiway.

Bids will go out in early FY 88 on drainage improvements and a new Air Cargo Facility on the South Ramp.

Passenger traffic at HNL during FY 87 was 19,496,069.

Ground was broken on November 26, 1986 for the new Terminal No. 3 with completion expected in March 1988. The new terminal has a total area of 66,000 square feet and will provide 14 check-in counter spaces, aircraft access hold-rooms, a restaurant lounge facility adjacent to the waiting lobby, operations and administrative office space for Hawaiian Airlines during construction of the new Interisland Terminal. The baggage claim area features two high-capacity belt claim devices. The terminal is designed for future modifications to a second level aircraft passenger loading operation.

The airfield development phase for the expansion of Terminal No. 3 was partially completed in July 1986. The final increment began in March 1987. It will include the parking apron for the Terminal No. 3 as well as the postal service access road and fuel system for the aircraft parking positions.

Design for the ground level roadways and parking, Phase I, was completed and prepared for advertising. Construction was expected to be completed in April 1988. This will provide groundside access to the new terminal and a new public parking facility accommodating 500 cars.

Highlights

July 1986 A contract was awarded for modifications to Rodgers Boulevard parking areas, \$100,000. Completed December 1986.

October 1986 A contract was awarded for construction of an Elliott Street Lease Lot and Parking Area, \$400,000. Completed July 1987.

October 1986 A contract was awarded for Deplaning Roadway, Lighting and Traffic Signals, \$500,000. Completed July 1987.

October 22, 1986 The \$23 million Diamond Head Extension to the Main Terminal at HNL was completed. This project added 660,000 square feet of Ticket Lobby and Baggage Claim area with a tour group arrivals area.

November 26, 1986 A groundbreaking ceremony was held for Interisland Terminal No. 3 at HNL.

December 18, 1986 A new tour group arrivals area for international groups was dedicated on the Ewa end of the Main Terminal at HNL.

February 1987 A contract was awarded for new concession facilities, Phase IA, \$700,000. Completed May 1987.

February 1987 A contract was awarded for Phase II, Interisland Airfield Apron, \$3.3 million. Completed November 1987.

March 1987 A contract was awarded for the Interisland Airfield Apron, Phase II, \$2.9 million. Completed January 1988.

March 1987 A contract was awarded for expansion of Terminal No. 3, Interisland Terminal Complex, \$8.3 million. Completed March 1988 (\$8.7 million).



Above: A groundbreaking ceremony was held on November 26, 1986 for Interisland Terminal No. 3, now known as the Commuter Terminal.

Below: An American Airlines plane calls at HNL.
Bottom: The old Interisland Terminal was built in the early 1960s.
Opposite: H-1 Freeway ramps connect the airport to the interstate freeway. The parking garage is at center.



116



March 1987 A contract was awarded for the Diamond Head Parking Area and Exit Plaza, \$3.2 million. Completed August 1988 (\$3 million).

May 1987 A contract was awarded to upgrade the airport fire alarm system, \$2.5 million. Completed January 1992 (\$2.8 million).

June 1987 A contract was awarded for hand and guardrail improvements, Phase II, \$1.4 million. Completed February 1988.

August 1987 A contract was awarded for Concession Phase II, Ewa Extension, \$1.2 million. Completed June 1988.

September 1987 A contract was awarded for alterations to Floors 2, 3, 6, 7 and 8 of the Administration Tower Building, \$3 million. Completed December 1988 (\$2.4 million).

June 26 1987 A dedication was held for the new Diamond Head Extension Group Tour Facility.

1987-1988

To coordinate Hawaii's response to an increase in international travel, Governor John Waihee formed the Interdepartmental Task Force on International Aviation in November 1987. Deputy Director Jeanne Schultz headed up the Task Force. The Task Forces' objectives were to increase the number of international visitors to Hawaii, improve the international arrival procedure at HNL and begin planning for international arrivals at Neighbor Island airports. Working with the department were the Departments of Business and Economic Development and Commerce and Consumer Affairs, the Hawaii Visitor's Bureau, the Pacific Basin Development Council, the Federal Inspection Services, Hawaii's Congressional delegation and industry groups.

Existing Noise and Master Plans were reviewed and proposed updates included new forecasts and future improvements at the airport. Proposed changes included the revised South Ramp layout and additions to the maintenance area west of the Ewa Concourse.

The Airport acquired 5.8 acres of land adjacent to HNL from the U.S. General Services Administration for the expansion of the South Ramp.

On October 19, 1987, a ceremony was held to celebrate the 25th Anniversary of John Rodgers Terminal. Employees with 25 years of service at the airport were recognized during the program.

Interisland Terminal No. 3 opened for service on June 2 1988, representing the first phase of the new Interisland Passenger Terminal. Built at a cost of \$23.3 million, Terminal No. 3 included an innovative air conditioning system utilizing ice storage during periods of low electrical consumption with resulting low demand during peak periods.

Hawaiian Airlines was temporarily housed in Terminal No. 3 to allow demolition of the old terminal building for the new structure. Terminal No. 3 will be double-decked later to enable passenger loading using loading bridges.

Ten year concession contracts were awarded to five rental car operators beginning March 1, 1988. This represents an increase over the four operators previously serving the terminal.

The highest bid for a duty free concession in the world was received when bids were opened on February 5, 1988 for the duty free concession at Honolulu International. For the contract period of four years and 11 months, which began July 1, 1988, Duty Free Shoppers agreed to pay more than \$1.15 billion to the Airport Revenue Fund.

Work was underway in FY 88 on a new computer-based airport operations and control system. Initial phases included the Flight Information Display System, fire alarm system and energy management. A security system and public information system will





118

Top row: Artist's concept of the proposed Interisland Terminal.
Above: The view from the ramp control tower, 1987.

be added.

A major upgrading of the terminal ticket lobbies, baggage claim areas and concession space was completed on the Central Concourse and contracts were awarded for the Central Lobby concession spaces. Work on the ticket lobbies and baggage claim areas were awarded in phases to allow the removal of asbestos while at the same time maintaining airline operations.

When completed all lobby and concession spaces will be on a par with the recently completed Diamond Head Ticket Lobby expansion. New, larger baggage claim devices will be installed to reduce congestion. Work to upgrade the administration tower was also in progress. This work will upgrade the tower's external appearance and renovate office spaces and operational areas.

Improvements continued to be made on the South Ramp to develop this area for fixed base operators, air cargo, general aviation and other aeronautical activities. Realignment of Lagoon Drive doubled the available space for the construction of hangars and cargo terminals.

Highlights

October 19, 1987 A ceremony was held to celebrate the 25th anniversary of John Rodgers Terminal at HNL. Employees with 25 years of service at the airport were recognized.

October 1987 A contract was awarded for roof screening at the Main Terminal, \$400,000. Completed February 1988.

October 1987 A contract was awarded for renovations to the Ewa Ticket Lobby, \$8.4 million. Completed June 1990 (\$11 million).

October 1987 A contract was awarded for renovations to the Central Ticket Lobby, \$9.7 million. Completed September 1989 (\$14.9 million).

October 1987 A contract was awarded for interior renovations to the Administration Tower, \$3.8 million. Completed December 1988.

December 1987 A contract was awarded for Roadway and Parking, Ground Level, Phase I, \$2.9 million. Completed June 1988.

January 1988 A contract was awarded for renovation of Concessions, Phase IVA, Central Concourse, \$1 million. Completed April 1988.

February 1988 A contract was awarded for construction of tenant space in the Interisland Terminal No. 3, \$1.5 million. Completed May 1988.

March 1988 A contract was awarded for construction of Concessions, Phase III, Central Waiting Lobby, \$6.8 million. Completed June 1989.

March 1988 A contract was awarded for construction of Concessions, Phase IB, Diamond Head Extension, Makai, \$3 million. Completed August 1988 (\$3.3 million).

April 1988 A contract was awarded for expansion and alterations to the Baseyard Facilities, Phase II, \$2.6 million. Completed April 1990 (\$2.8 million).

May 1988 A contract was awarded for the Operating and Control System, Phase I, \$600,000. Completed October 1990 (\$2 million).

May 1988 A contract was awarded for modifications to the existing Ewa baggage claim, \$8.4 million. Completed February 1992 (\$13.9 million).

June 1988 A contract was awarded for exterior modifications to the Administration Tower, \$900,000. Completed December 1988.

June 1988 A contract was awarded for an Aircraft Guide-In System, \$300,000. Completed December 1988.

June 1988 A contract was awarded for installation of a Potable Water System, \$900,000. Completed August 1989.

June 1, 1988 A dedication ceremony was held for Interisland Terminal 3. Built at a cost of \$23.3 million, the terminal was opened for service on June 2.

1988-1989

Passenger traffic totaled 22.3 million at Honolulu International in FY 89, a seven percent increase. A total of \$41.8 million was spent upgrading airport lobbies, concessionaire shops and restroom facilities in the Main Overseas Terminal complex to give the airport a first-class look and provide airport users with pleasant and convenient areas to eat, buy gifts or just relax while waiting for planes.

While designs on the multi-level Interisland Terminal Complex, new International Terminal Building and South Ramp expansion project were in progress, the airport initiated the renovation of many of the existing airport facilities to accommodate travelers during the interim design and construction phases.

Renovations to the Aloha Airlines gate areas and expansion of its passenger waiting areas were undertaken to accommodate travelers until the new Interisland Terminal is completed.

In preparation for the next phase of the new Interisland Terminal Complex, construction of a temporary steel up-ramp to the Main Terminal began in May 1989.

Waiting room and restroom facilities of the existing International Arrivals Building were expanded to accommodate more foreign arrival passengers and the air conditioning system was also improved to provide a more comfortable atmosphere for passengers.

In response to the long lines in U.S. Immigration and Naturalization Service and U.S. Customs, the airport hired additional Visitor Information Program specialists and International Arrival Passenger Coordinators to expedite the processing of foreign arrival passengers.

Improvements to develop the South Ramp for fixed base operators, air cargo, general aviation and other aeronautical activities, continued.

United Parcel Service began operating at the South Ramp after contractors finished grading and paving the area. Sewer, water, electric and telephone utilities were also installed.

In May 1989, the Reef Runway was chosen as one of several emergency landing sites for the National Aeronautical and Space Administration's space shuttle and the Corps of Engineers began installation of navigational and landing aids.



Top: Central Concourse is busy with passengers waiting for flights.
Center: Ticket Lobby, c 1987.
Bottom: Ticket Counters.

Below: Menehune signs helped travelers through terminal construction in 1988-89.

Bottom: Aloha Fridays were instituted in 1989 to provide a special welcome for arriving passengers.



Efforts to improve airport security were initiated through installation of an operation control system and a new computerized security access system.

New public address and potable water systems were also installed, along with new flight information displays.

Noise Exposure Maps, describing levels of disturbance by aircraft on areas adjacent to the airport were completed. Noise Compatibility Program studies continued. To keep an open line with the public, a 24-hour toll-free telephone line was installed to respond to public complaints relating to aircraft noise.

Efforts to update the Statewide Airport System Plan which forecasts movements of passengers and cargo by air into and through the state continued. During the process of developing and detailing these studies, several public information meetings and public hearings were held to discuss findings and alternative methods to reduce noise conflicts.

The Honolulu International Airport Master Plan was completed in 1988.

To help both tourists and residents find their way through construction detours and airport improvements, the airport launched its innovative Menehune Program on November 16, 1988. Through construction updates, directional signage and helpful airport employees, the Menehune Program helped to ease the construction burden on passengers and aided all airport users.

When all renovations and improvements are finished, Hawaii will have a first-class airport for both residents and visitors. With the help of airport Menehunes who exhibit the spirit of Aloha, construction will be completed quickly and efficiently.

In an effort to create an extra special aloha welcome for visitors, Aloha Friday was initiated on March 31, 1989. Each Friday, hula dancers and musicians played Hawaiian favorites for arriving passengers at the various gates and at Immigration.

Highlights

August 1988 A contract was awarded for Phase II, Operating and Control System, \$100,000. Completed December 1988.

August 1988 A contract was awarded for installation of underground fuel tank and dispenser, Fueling System, \$338,000.

120

