A BRIEF HISTORY OF MASTER PLANNING FOR
HONOLULU INTERNATIONAL AIRPORT (HNL)

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The Army and Navy had progressively pioneered aviation on Oahu from 1913 with Luke Joint Flying Field in Pearl Harbor in 1919 and Wheeler Field established in 1922. The Territorial Legislature appropriated funds in 1925 to purchase the land for John Rodgers Field, which was dedicated on March 21, 1927.

The Territorial Aeronautical Commission had its first meeting on June 2, 1927. Initial planning appears to have been focused on extending the trade wind coral runway from 1,000 feet to 2,050 feet by 300 feet in 1929 and providing a 2,200 foot crosswind runway. Inter-island Airways was flying S-38 amphibians from John Rodgers Field from November 11, 1927 and a hangar had been built.

In 1932 the Legislature transferred the duties of the Aeronautical Commission to the superintendent of Public Works and by 1937 there was a Superintendent of Airports. Not much work was done on the airport during the depression (1929-1933) but some WPA money and prison labor was applied to runway work in the period 1935-1937.

The first planning document after the map which accompanied the 1925 deed appears to be the Civil Aeronautics Authority's map of John Rodgers Airport, Moanalua, Oahu, Territory of Hawaii (TH), and June, 1940. The title block spelled Rogers incorrectly but the map shows two graded runway areas, an asphalt macadam takeoff strip (50' x 1000'), four hangars and a borrow pit.

The elevation of the airfield is given as 4.28 feet. The only hint of future planning is a note on the southwest side of the map which says extension of John Rodgers Airport. The CAA had been established by the Air Commerce Act of 1926. Air Mail Acts of 1925 and 1934 and the CAA Act of 1938 also assisted in early airport development, primarily on the mainland USA.

The Hawaii DPW Map of May, 1944 shows the majority of the WWII work done on the three seaplane runways and construction of four major runways with the initial John Rodgers Airport runway as kind of an almost parallel taxiway. This map is endorsed by the CAA in 1947. The only planned projects are a location for a proposed Inter Island Terminal and a proposed breakwater at the makai end of seaplane runways A and B. A note says land to be acquired

The Master Plan of 1950 was done by Clark M. Kee. It has three sets of parallel runways 8-26, 4-22 and 14-32. It enlarges the fuel farm which handled NAS Honolulu during WWII, has a golf course between Aolele Street (then called North Road) and Lagoon Drive (then called Keehi Lagoon Road), and develops a marina and hotel in and adjacent to Keehi Lagoon.

The 1955 Master Plan is extracted from the annual report by the Territorial Aeronautics Commission (Airports at the Crossroads). It shows $26 million of improvement projects under consideration including a new terminal building, maintenance building, hangars, flight kitchen, aprons, runway lights, roads; fencing, and a new runway (11-29). Runway 8L-26R is shown at 13,104 feet in length and what we now know as Aolele Street is named Kaimana Road and Yorktown Avenue.

The major event of the fifties and sixties at HNL was the move of the main overseas terminal from Lagoon Drive (South Ramp) to the North side in order to get the airport into the jet age. The terminal building and tower were designed by Architect T. Vierra and have no resemblance to the master plans of 1950 or 1955. By 1963 Austin Tsutsumi & Associates had done a preliminary engineering study for a new runway 11-29 and a parallel seaplane runway. This concept would have taken a considerable portion of Fort Kamehameha and Hickam Air Force Base and was not popular.

In the mid-sixties Leigh Fisher Associates, Inc. was hired as the planning consultant for HNL. They produced a master plan for 1985 which envisioned major economic growth and aviation activity increases. They noted that passenger volumes had increased from 1.6 million in 1960 to 3.4 million in 1966 and predicted 18.5 million passengers in 1985 along with 400,000 tons of cargo and 143,000 tons of mail.

They looked ahead to the B747 and provided a gate layout around the existing Central Concourse and expanded on both sides to provide up to 38 wide body gates, 35 Inter-Island gates and 10 commuter gates. They envisioned a parallel runway 8-26 with two seaward 8-26 runways and a mid-field satellite terminal. They envisioned runways 4-22 being phased out.

In 1967 a private citizen proposed filling in Keehi Lagoon which would have another runway 4-22 as well as a new runway 11-29 on the reef and a cargo city next to Honolulu Harbor. The local papers thought this was an interesting concept.

In the early 1970s the Ralph M. Parsons Company was hired to manage airport development at HNL and by 1975 has designed a revised central concourse along with Ewa and Diamond Head Concourses and was in construction on the reef runway.

In 1971 LFA, which had become Peat Marwick & Mitchell & Co., did a study on locations for an Inter-Island Terminal. The Central Concourse was evaluated against the Ewa mauka area and the conclusion was that the Central Concourse location would save 1.2 minutes per aircraft arrival or departure taxi time. The design of the H-l freeway over Nimitz Highway affected planning at HNL in the mid 1970s.

The location of airport access ramps to and from the H-l freeway at John Rodgers Boulevard and Paiea Street connected to the airport ground level and second level roads but also allowed for an Inter-Island terminal on South Ramp off Lagoon Drive. These airport access roads were partially funded from airport funds. The Ewa and Diamond Head Concourses were built in the 1970s.

The Reef Runway was constructed from 1973 to October 1977 and increased the airfield capacity from 70 to 110 air operations per hour while increasing aviation safety and taking noise away from Honolulu.

In mid-1981 PMM worked up an Airport Development Plan for HNL which looked ahead to needed expansion by 1985 and 2000. This plan laid out what exists today with the exception of having the Inter-Island parking garage separate from the Inter-Island terminal. It also showed the County Rapid Transit System coming through the airport. The 1985 expansion would have expanded the International Arrivals Facility to the west and the 2020 expansion would have expanded the main terminal to the east and added Diamond Head gates all the way to Aolele Street.

The 1989 Airport Development Plan for HNL was done by KFC Airport, Inc. and had a westward expansion of the International Arrivals Building: a new Inter-Island terminal with two piers; property to be acquired from Hickam AFB, Kapalama Military Reservation, and from Aolele to Koapaka Street; and a spur connection to the County Rapid Transit line which was to parallel Salt Lake Boulevard.

By 1990 this plan was obsolete, having been overtaken by a new approach framed by KPMG-Peat Marwick for the Airports Division. International arrivals as high as 12,000 per day were overwhelming the International Arrivals Building and gate holds of hours were occurring. Additional immigration inspectors were needed and the intra-terminal transportation system was deemed outmoded and unable to handle the demand.

A new International Terminal Complex was designed including an arrival and departure terminal to handle 4,000 passengers per hour, seven additional wide-body gates, an AEG-Westinghouse People Mover and a cargo city expanding on to the makai side of Ualena Street. A new Inter-Island Terminal with combined 1,800 car parking garage was also designed. These improvements were estimated to cost $800 million and be in place by the end of 1994.

These massive changes were incorporated into the HNL Master Plan for 2010 which was done by E.K. Noda & Associates in 1994. A programmatic EIS was done for the major projects in 1991. The 1994 Master Plan for 2010 included new inter-island maintenance facilities, realigned inter-island taxiways, relocation of the fuel farm, development of a marina in Keehi Lagoon along with filling in the center triangle, a ground transportation center, cargo and general aviation development on South Ramp.

HNL and the FAA did a Capacity Enhancement Plan for the airfield in 1992. It recommended 18 alternatives including another runway (8C-26C) or finding a reliever airport.

The airlines fought the ITB and APM concepts and got the Governor to cancel the projects in 1993. Reduction in Duty Free revenues after the Persian Gulf War caused the airlines to fund more airport costs upon partial renegotiation of the signatory carrier lease in 1994.

Additional gates 31-34 were built in 1994 after the new Inter-Island Terminal was completed in 1993. The Airlines Committee of Hawaii effectively blocked all major airport development at HNL for the next decade.

A State Airport System Plan (SASP) was updated in 1998 by R.M Towill Corp. under Airports Division direction. The SASP looked ahead to 2020 and included an aviation demand forecast. The new Inter-Island Terminal, APM and most of the 1994 Master Plan projects were retained along with additional airfield and ground transportation projects. The airlines fought the SASP completely and lobbied with the Governor for low rates and no changes. FedEx, UPS and AIC/Kitty Hawk/Kalitta developed cargo facilities on South Ramp.

In July 1999, HNL achieved a 30-year old goal of finding a general aviation reliever airport at Kalaeloa through the Navy's closure of Barber's Point Naval Air Station. Thus a 757 acre airport was added to the Oahu District at no cost except the annual maintenance costs. In 2000 Hickam AFB declared 329 acres of their portion of Runway 8L and corresponding area surplus to their needs. This land was added to HNL at no cost except annual maintenance costs.

In the late nineties, Continental Airlines built a large aircraft hangar at South Ramp, HNL and United Airlines built a cargo building on Aolele Street using airport special facility revenue bonds. The FAA built a new Center Radar Approach Facility in 2000 next to the Air Traffic Control Tower on leased land from Hickam AFB to relocate the function from Diamond Head Crater.

The only significant airport development projects accomplished by the Airports Division in the time period 1997-2002 were a large culvert extension creating more useable ramp, a peripheral road linking North Ramp and South Ramp with two bridges and a renovation of the existing International Arrivals Building, along with several maintenance and minor improvement projects.

The Federal Detention Center was not master planned. U.S. DOT looked at 50 sites on Oahu. Nobody wanted a jail in their backyard. When Kapolei turned down a proposed site at Kalaeloa, the airport was approached as a last resort. U.S. DOT condemned four acres of land on Elliott Street, which had been a parking lot. The airport allowed FDC to use its water, sewerage and drainage systems. An EIS was prepared. The FDC opened in August 2001.

In 2002 a Financial Strategic Plan was done by Leigh Fisher & Associates. It recommended negotiation of a new signatory agreement with the airlines which would involve a hybrid residual-compensatory airport financing mechanism. Taking more advantage of federal grants and passenger facility charges and optimizing revenues are the major recommendations. This document has a thorough summary of airport compliance requirements, aviation trends and Hawaii activity, financial performance and potential development. It shows Hawaii's cost per enplaned passenger to be $4, which is low compared to many other mainland airports.

In 2002-2003 a new HNL Master Plan Update has started. The aviation demand forecast shows that post September 11th HNL has lost 18% of its passengers and won't get them back until 2020 because of the trend of direct flights to neighbor islands.

The ground traffic study says vehicular traffic at HNL is about the same as it was in 1994. When the new International Terminal Building and Automated People Mover will be built at HNL remains to be seen. Whether the 2003-04 HNL Master Plan to 2020 gets completed also remains to be seen.