

# Message from the Governor

Hawaii's airport system continues to be the most important gateway into the State. As we enter the new millennium, we will strive to ensure that our families, friends and visitors are greeted with Aloha and that their experience at our airports is a pleasant one.

The Statewide Airport System Plan (SASP) forms the basis of the State's commitment to providing quality service in modern and comfortable surroundings. The SASP is a guide based on a vision of working together so that we can meet the challenges of the future. As a strategic plan, the SASP provides a vision for the future of the airport system as a whole. By taking this approach, the resources of the airport system will be directed to the highest value projects that will improve service delivery and improve operations.

The SASP further provides a guide for the development of a business plan for the airport system. This business plan focuses on using the resources of the State in a responsible manner without sacrificing quality or service.

As we enter the 21st century, we are confident that we will be providing facilities and services that live up to the spirit of Aloha.

BENJAMIN J. CAYETANO

Governor

### **PREFACE**

# Message from the Director

This Statewide Airport System Plan (SASP) was prepared in 1997 as a strategic financial and facilities plan for Airports Division to use in keeping airport capacities ahead of demands.

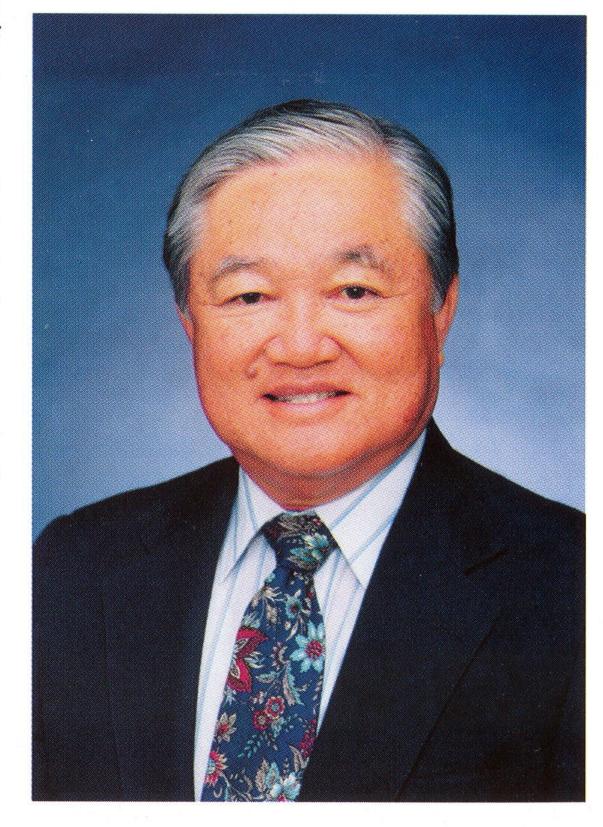
This SASP looks ahead to the year 2020, honing a statewide aviation demand forecast which was prepared in 1994 and the latest state economic forecasts. The plan reviews both baseline and aggressive scenarios to reach the goal of helping keep Hawaii a world-class tourist destination. This effort envisions the active involvement of key airport stakeholders and the use of modern management techniques to optimize revenue generation. Consequently, this SASP sets our sights high and has generated a very ambitious Capital Improvement Plan (CIP).

Economic reality in Hawaii will probably evolve a more modest approach to capital improvements so as to insure that demand-driven construction has the highest priorities. Our intent is to develop a modest international passenger capability at Kahului and Lihue using existing facilities while Honolulu remains the major hub. The overseas/international terminal at Kona will be phased for future construction starting with only two gates. Cargo operations will be facilitated and passengers will experience more modern conveniences within the airports and feel "home grown" aloha.

In future years we will use this SASP as a basis for capital improvements budgets and for revenue bond generation. Like any plan, this document is a guide for estimates and not the only possible path to a progressive future for the State Airports Division.

#### KAZU HAYASHIDA

**Director of Transportation** 



# HAWAII'S AIRPORT SYSTEM. . .

# VISION:

Working together to provide gateways of Aloha.

## GOALS:

Goal 1:

Meet the Current and Forecast Demand for Air Transportation Service

Goal 2:

Position Hawaii as a World-Class Tourist Destination

Goal 3:

Develop a Public-Private Approach between the Airports System and its Key Stakeholders

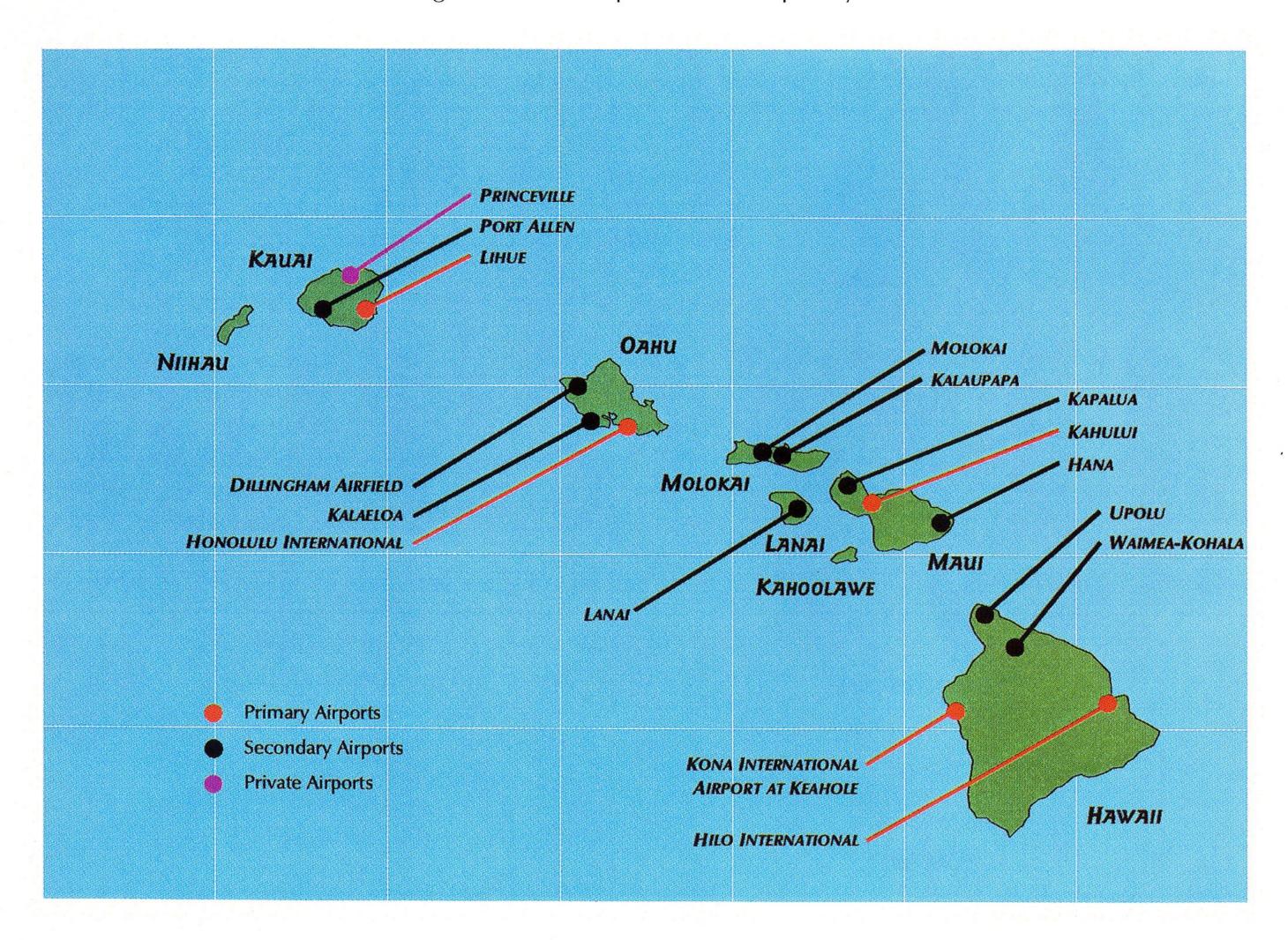
Goal 4:

Implement Modern Techniques in Management of the Airports System

# MISSION:

To develop, manage, and maintain a high quality statewide air transportation system with the spirit of Aloha for Hawaii's residents and visitors.

he Statewide Airport System Plan (SASP) is a long-range development plan for Hawaii's civilian airport system to the year 2020. One of the State's primary interests in developing this plan was to employ an integrated strategic, financial and physical planning approach that would provide the foundation for a near- and long-term business plan for the airport system.



As a *strategic plan*, the SASP employs a topdown approach using existing airport goals to shape development of the airports system. One of the objectives in preparation of the SASP was to develop and use planning and investment criteria to drive decision making on alternative strategies.

As a *financial plan*, the SASP utilizes a comprehensive financial model to predict the revenue and expense impact of facilities development decisions. In addition, the SASP analyzes opportunities for additional revenue development.

As a facilities plan, the SASP emphasizes facilities requirements at airports and recommended development projects, their cost and timing. The facilities plan incorporates, updates and expands upon existing airport master plans.

he Statewide system of airports is extremely important because it provides the aviation-related facilities needed to accommodate the flow of passengers, cargo, and mail between the islands as well as to and from Pacific Basin nations and the Mainland. What is not so well known is the significant contribution the system of Airports make to the State economy.

This contribution consists of the direct, indirect, and induced impacts of airport activities. Direct impacts relate to airport operations and include the expenditures of the airlines, on- airport organizations, travel agencies, and freight forwarders. Indirect impacts relate to the activities of suppliers and vendors to the business that are involved directly in airport operations. Induced impacts relate to the activities of various entities serving households that

94,009 78,547 63,309 58,234 \* billions of 1996 dollars **Employment** (jobs) Output \$2.71 Wages 2000 2010 2020

earn income as a direct result of the direct and indirect impacts. The direct, indirect, and induced economic impacts of the State Airport System, measured in terms of employment, wages, and output (which can also be called sales volume) are summarized here.

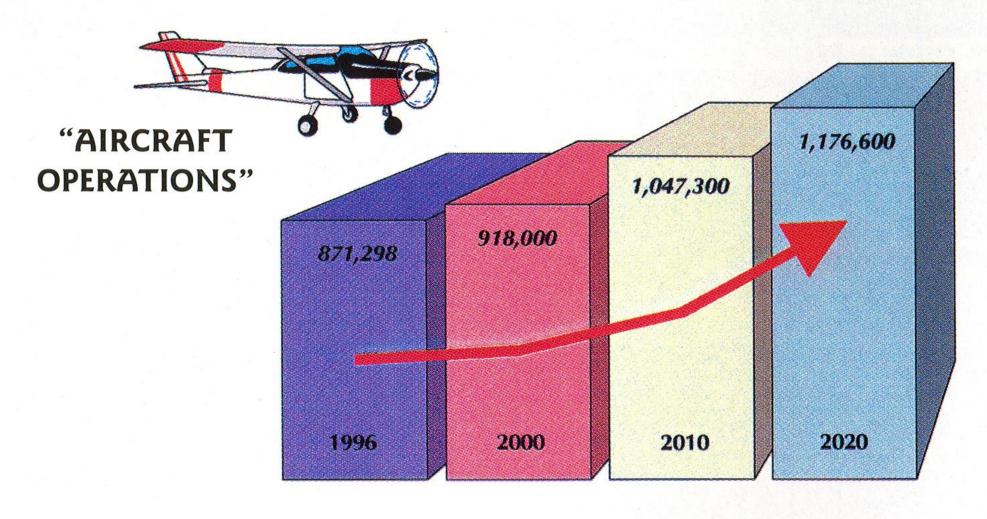
These values were derived from surveys of aviation-related organizations and refer to the impact of the airports in each county, regardless of where the impact was actually realized. For example, purchases of supplies for an airport on Maui County were reported for Maui even though these supplies might have been purchased in another county.

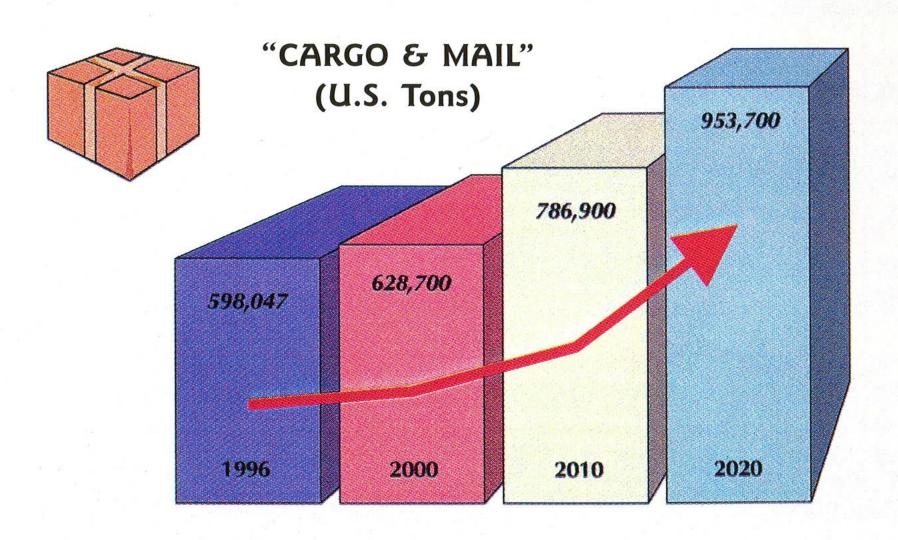
Survey respondents reported that it was not possible to identify exactly where the impacts were realized within the State. The organizations surveyed were:

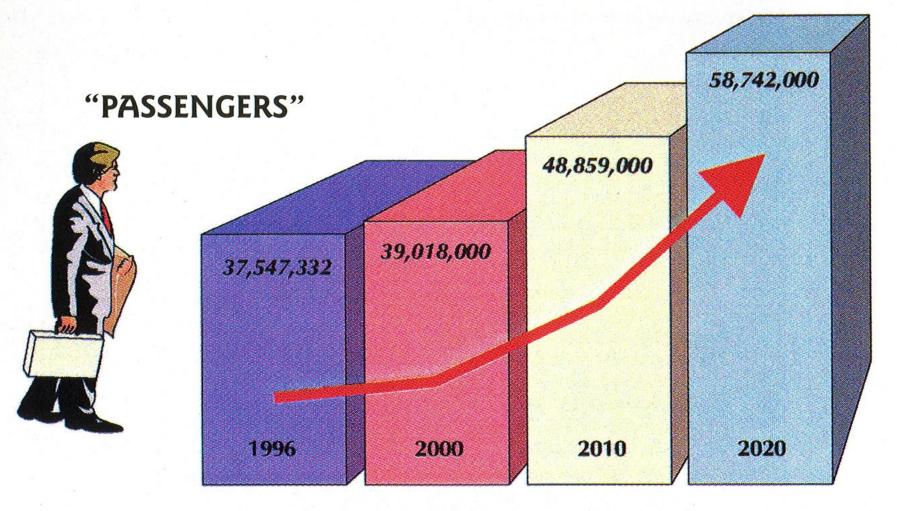
- Airline companies
- Passenger service firms
- General aviation operators
- Tour and transportation firms
- Air cargo operators
- Government agencies
- Airport operators
- Travel agencies
- Other aviation-related organizations

# AVIATION FORECAST (Statewide)

ne of the principal gauges used by the State to measure its ability to serve the public at its airports is the forecast of passenger volumes, cargo, mail, and air port operations. The forecast is used as a basis for planning future airport facilities and assessing the economic impact on the economy of the State. The forecast of passengers considers historic activity, visitor projections as well as population growth factors. The projections shown below assumes moderate growth for the next 20 years.







#### **Aviation Activity**

Annual Forecast	1996*	2000	2010	2020
Passengers		<i>F</i>		
Mainland	10,153,148	11,118,000	13,605,000	15,880,000
International	6,230,534	6,530,000	9,454,000	12,993,000
Inter-island	21,163,650	21,370,000	25,800,000	28,869,000
Total	37,547,332	39,018,000	48,859,000	58,742,000
Cargo & Mail				
Cargo (tons)	486,944	550,700	687,900	832,700
Mail (tons)	111,103	78,000	99,000	121,000
Total	598,047	628,700	786,900	953,700
Aircraft Operations				
Air Carrier	351,360	358,900	412,300	459,600
Commuter/Air Taxi	289,264	282,900	337,600	385,600
General Aviation	180,402	199,500	223,500	257,500
Military	50,2 <i>7</i> 2	76,700	73,900	73,900
Total	871,298	918,000	1,047,300	1,176,600

\* actual

# AIRPORT DATA SHEET

						OPERA	TIONAL F	ACILIT	ES A	ND GAP	ABILI	TIES							SUPPO	RT SERVIC	ES
AIRPORT	Elevation (Ft. Above MSL)	Runway Length (Ft)	Runway Width	Runway Alignment	Navigational Aids	Air Traffic Control	Approach Aids	Instrument Approach	Rotating Beacon	Runway Lighting	Taxiway Lights	Wind Indicator (Lighted)	Airport Area (Acres)	Flight Weather Service	Terminal Bullding (Sq. Ft.)	Aircraft Gates	Cargo Area (Sq. Ft.)	Fuel	Maintenance	Hangars/T-Hangars	Parking Spaces
COMMERCIAL SERVICE - PRIMARY AIRPORTS	intminumintminimimimimimimi intminumintministriinimimi	märnärnämärnämärnämärnämärnämärnä märnäänäänäänäänäänäänäänäänäänäänää			en et en													printing and all and	egis skotiesia sieskimiesikoi		
Honolulu International Airport	13	12,360 9,000 6,948 12,001	150 150	8L-26R 4R-22L 4L-22R 8R-26L	VORTAC NDB	ATCT ASR UNICOM	REIL	YES	YES	HIRL MIRL	YES	YES (L)	4220	YES	3,250,000	47	200,000	YES	YES	34/150	7,266
Kahulul Airport	57	7,000 5,000	150 150	2+20 5-23	ILS VORTAC	ATCT ASR UNICOM	VASI MALS/R DME	<b>医连连连接</b>		HIRL MIRL	(建設整理課題)	YES (L)	1391	YES	373,000	14	25,000	YES	YES	54/22	1.046
Kona International Airport at Keahole	43	11,000	150	17-35	ILS VORTAC	ATCT	VASI MALS/R DME PAPI	YES	YES	HIRL	YES	YES (L)	3409	YES	89,000	8	20,000	YES	YES	9/29	480
Lihue Airport	149	6,500 6,500	150 150	17-35 3-21	ILS VORTAC	ATCT	VASI MALS/R DME REIL	YES	<b>海南海州県</b>	HIRL MIRL	YES	YES (L)	872	YES	88,040	3	100,000	YES	YES	7/30	860
Hilo International Airport	37	9,800 5,600	150 150	8-26 3-21	ILS VORTAC	ATCT ASR	VASI MALS/R DME REIL ODALS	YES	YES	HIRL MIRL	YES	YES (L)	1391	YES	250,000	14	25,000	YES	YES	54/22	1,760
OTHER COMMERICAL SERVICE AIRPORTS											en enterentation of		etisktintentetisktintetisk Heliologisktintetisktinte					endendumblen ben um der ender mit en ender der en	embimbimambimbimbimbimbimbimbimbimbimbimbimbimbim		elintintintintintintintintintintintintinti
Hana Airport	77	3,600	100	8-26	NONE	NONE	NONE	100000000000000000000000000000000000000		en en ar	and decire has decire	YES (L)	NOTICE OF THE PROPERTY.	YES	2,208	2	NONE	NO	YES	0/6	22
Kajaupapa Airport	26	2,760	50		NONE	NONE	NONE		Anader New York at the Chest	MIRL	aler Harter die Hart		nak nienienienienienien knie	YES		•	NONE	NO	YES	0/0	11
Lanal Airport  White the property of the prope	1308 455	5,000 4,500 3,100	150 100 100	3-21 5-23 17-35	VORTAC	NONE	VASI REIL PAPI	ni ninda ini ni ni	ni mi minimi minimi	MIRL	Contractor on more	YES(L) YES(L)	an and an an an an and Sometiment woman and and	YES	13,561	3	917 NONE	YES	YES	0/3 2/17	123
Waimea-Kohala Airport	2671	5,200	100	4-22	VOR	NONE	VASI DME					YES(L)	90	YES	10,677	2	1,900	NO	YES	6/9	81
Princeville Airport  Kapalua Airport	362 256	3,400 3,000	50 100	5-23 2-20	NONE	UNICOM	NONE			NO NO	NO NO	YES	20 50	YES YES	4,000 15,000		NONE	NO NO	NO NO	0/0	100 75
GENERAL AVIATION AIRPORTS			Lectural control of the			VICTORIA				AREALANIAN MARANANA Sandan dan dan dan dan dan dan dan dan da		159		chinamical physicists	10,000			INIT I		ww	7.0
Dillingham Airfield	15	9,000	75	8-26	NONE	UNICOM	NONE	NO	NO	NO	NO	YES	272	YES	NONE	0	NONE	YES	NO	25/35	40
Port Allen Airport	24	2,450	60	9-27	VOR	NONE	VASI	NO	NO	NO	ΝО	YES	180	YES	NONE	0	NONE	NO	NO	0/6	50
Upolu Airport	96	3,800	75		VORTAC	NONE		es en English part		20001132200127	2 2 3 2 2 2 3 3 5 5 5	YES(L)		YES	960		NONE	NO	YES	0/22	10
Kalaeloa Airport (1) (Formely, Naval Air Station, Barbers Pt. Facilities to be available 1999)	N/A (1)	8,330 8,330 8,411	200	4L-22R 4R-22L 11-29	N/A (1)	YES	N/A (1)	YES	YES	N/A	YES	YES	900	YES	NONE	N/A	N/A	YES	YES	N/A	N/A

		JSER(S	(199	9		E	EMAND (	1998)	CLASS	IFICATION 8	PLANS	
International	Overseas	Interisland	Commuter/Air Taxi	General Aviation	Milliary	Annual Operations (x1000)	Annual Passengers (x1000)	Based G.A. Aircraff	Master Plan	Service Level	Airport Role (1997)	
												COMMERCIAL SERVICE - PRIMARY AIRPORTS
YES	YES	YES	YES	YES	YES	372	24,327	204	YES	L,PR	TR,L	Honolulu international Airport
NO	YES	YES	YES	YES	YES	179	5,906	48	YES	M,PR	TR,L	Kahulul Airport
YES	YES	YES	YES	YES	YES	77	2,524	50	YES	M,PR	TR,L	Kona International Airport at Keahole
NO	YES	YES	YES	YES	YES	106	2,562	41	YES	M,PR	TR,L	Lihue Airport
NO	YES	YES	YES	YES	YES	88	5,906	48	YES	M,PR	TR,L	Hilo International Airport
					SUPERIOR CONSTRUCTION	Androins Services		2-01-01-01-01-01-01-01-01-01-01-01-01-01-		*		OTHER COMMERICAL SERVICE AIRPORTS
NO	NO	NO	YES	YES	YES	11	11	3	NO	N,PR	GU,S	Hana Airport
NO.	NO	NO		YES		8	8	0	YES	N,PR	GU,S	Kalaupapa Airport
NO	NO	YES	YES		o Bolgrigg o British	10	168		YES	N,PR	TR,S	Lanal Airport
NO	NO	YES	YES	YES	YES	49	247	3	YES	N,PR	TR,S	Molokal Airport
NO	NO	NO	YES			5	2	7	YES	N,PR	GU,S	Walmea-Kohala Airport
NO	NO	NO	(単語電話)	YES		25	13	11	NO	N,PR	GU,S	Princeville Airport
N(e)	NO	N(O)	YES	NO.	N(9)	2/3	1,67/	10	NO	N,GA	GU,S	Kapalus Airport
												GENERAL AVIATION AIRPORTS
NO	NO NO	NO		YES	YES	75	MIN	44	YES	N,GA	GU	Dillingham Airfield
NO	NO		CERCE PROPERTY.		YES			8	YES	N,GA	BU	Inclu Almort
NO	NO			and an interpolation	YES	demission and a second	0	0 195 (2)	YES	N,GA N,GA	GU GU	Upolu Airport  Kalasios Airport (1)
							<b>y</b>	144 (2)		N, GA		(Formely, Naval Air Station, Barbers Pt. Facilities to be available 1999)

	LEGEND ( )
OPERA'	TIONAL FACILITIES
Navigational Aids	
ILS	Instrument landing system
NDB	Nondirectional beacon
VOR	Very high frequency omnidirectional range
VORTAC	VOR and tactical air navigation (TACAN)
Traffic Control	
ASR	Airport surveillance radar
ATCT	Airport traffic control tower
UNICOM	Universal communications (radio frequency)
Approach Alds	
DME	Distance measuring equipment
MALS	Medium intensity approacy lights system
MALS/F	MALS with sequencing flashing lights
MALS/R	MALS with RAIL
ODALS	Omnidirectional approach lighting system
RAIL	Runway alignment indicator lights
REIL	Runway end identifier lights
VASI	Visual approach slope indicator
PAPI	Precision Approach Path Indicator
AIRPOR	T SERVICE LEVELS
	portyded the community. Corresponds to
	ent Program funding categories for
airport development.	
	Large hub
M	Medulm hub
S	Small hub
PR	Non-hub
CM	Commercial service - primary airport Commercial service
GA	General aviation
	RPORT ROLE
	to the types of aircraft that can be
	air service routes and markets that can be
serfed with nonstop flig BU	
GU	Basic utility
TR	General utility
in in	Transport type
	Long haul (more than 1,500 miles)
**	Medium haul (600 to 1 600 miles)
M S	Medium haul (500 to 1,500 miles) Short haul (less than 500 miles)
M S	Short haul (less than 500 miles)
医骶骨骨髓 的第三时间 超過過過 医外胚性	
医骶骨骨髓 的第三时间 超過過過 医外胚性	Short haul (less than 500 miles)
S S DA	Short haul (less than 500 miles)  DEMAND  Minimal  TA SOURCES
Š	Short haul (less than 500 miles)  DEMAND  Minimal  TA SOURCES
S S DA	Short haul (less than 500 miles)  DEMAND  Minimal  TA SOURCES  ort System Plan, 1997
S MIN DA Hawali Statewide Airpo	Short haul (less than 500 miles)  DEMAND  Minimal Hall Hall Hall Hall Hall Hall Hall H
Hawaii Statewide Airport Airport Master Record Airport Master Plans, I	Short haul (less than 500 miles)  DEMAND  Minimal  TA SOURCES  ort System Plan, 1997  et System Plan, 1990  Form 5010  atest issue
Hawaii Statewide Airport Airport Master Record Airport Master Plans, I. Department of Transport	Short haul (less than 500 miles)  DEMAND  Minimal  TA SOURCES  ort System Plan, 1997  t System Plan, 1990 , Form 5010
Hawaii Statewide Airport Airport Master Record Airport Master Plans, In Department of Transport NOTES:	Short haul (less than 500 miles)  DEMAND  Minimal  TA SOURCES  Ort System Plan, 1997  It System Plan, 1990  Form 5010  atest issue  Ortation, Airports Division
Hawaii Statewide Airport Airport Master Record Airport Master Plans, In Department of Transport NOTES:	Short haul (less than 500 miles)  DEMAND  Minimal  TA SOURCES  ort System Plan, 1997

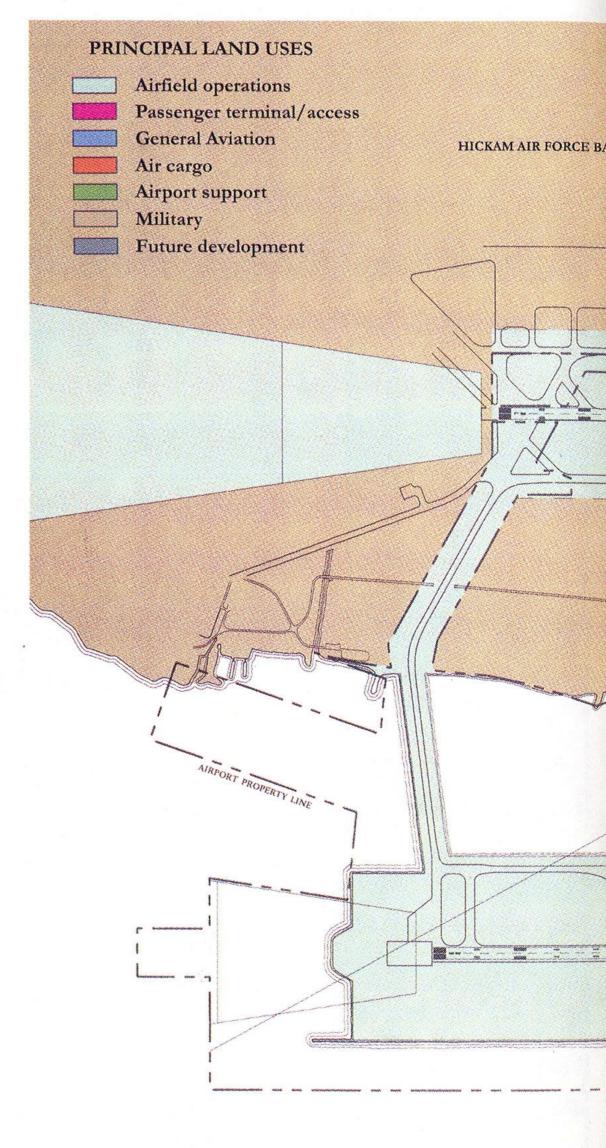
onolulu International Airport is the major aviation gateway for the State of Hawaii. It is the primary hub for domestic overseas and interisland flights and is currently one of two State airports accommodating international flights. Honolulu International also functions as joint military-civilian airport sharing airfield facilities with Hickam Air Force Base.

The airport occupies 2,200 acres of land and 2,000 acres of water about three miles west of Downtown Honolulu, and seven miles from Waikiki. The airfield consists of two pairs of parallel runways and associated taxiways and navigational aids. Facilities include a complex of general aviation, air cargo, and airport support facilities at the South Ramp near Ke'ehi Lagoon and the passenger terminal complex at the North Ramp. A complex of maintenance and air cargo facilities, principally for the interisland airlines, is located west of the terminal complex. Primary vehicular access is from Interstate Highway H-1 and the Nimitz Highway, both paralleling the airport to the north. H-1 off-ramps lead directly to the passenger terminals at the North Ramp. Rodgers Boulevard, Lagoon Drive, and Elliott and Aolele Streets provide secondary access from the Nimitz Highway to the North Ramp, interisland maintenance, and South Ramp facilities.

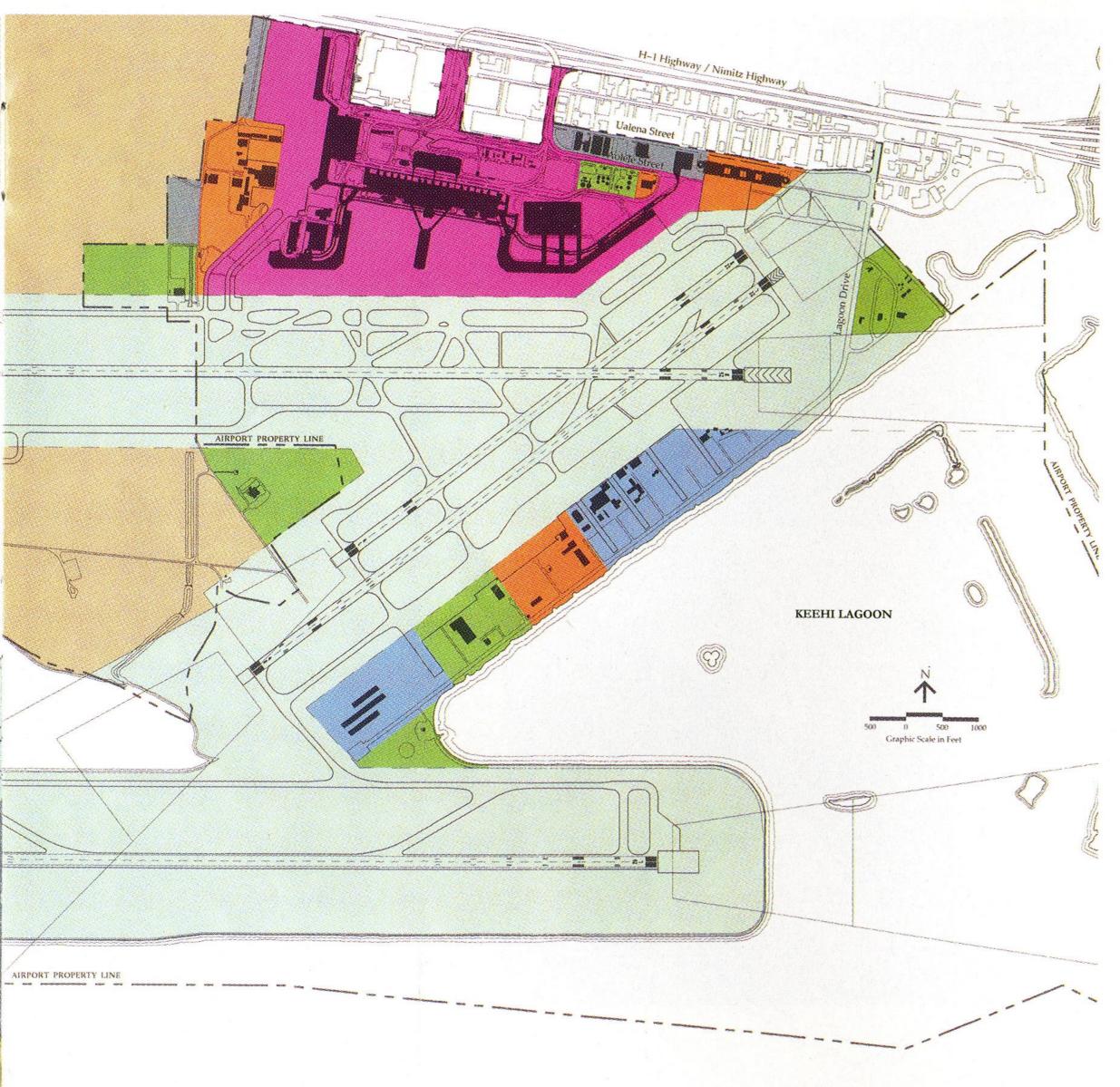


# Planned Facility Improvements (HNL)

The Honolulu International Airport is envisioned to continue its role as the primary gateway into the 50th State. In order to realize this vision, the State will undertake actions to upgrade aging facilities; modernize equipment and buildings; and embark on a program to replace outdated and inefficient facilities. To accommodate forecast increases in passenger volumes and airline activities at the passenger terminals and concourses, the State intends to undertake a variety of improvements to the existing Overseas Terminal, including extending the Ewa and Diamond Head concourses. The State is also considering plans for a second international arrivals building to



# HONOLULU INTERNATIONAL AIRPORT



#### **Aviation Activity & Forecast**

<u>Year</u>	1996*	2000	2010	2020
Passengers				
Mainland	8,468,827	8,894,000	10,340,000	11,434,000
International	6,181,606	6,530,000	9,454,000	12,993,000
Subtotal	14,650,433	15,424,000	19,794,000	24,427,000
Inter-island	9,676,304	9,943,000	12,497,000	14,789,000
Total	24,326,737	25,367,000	32,291,000	39,216,000
Cargo & Mail				
Cargo (tons)	384,325	442,000	558,000	681,000
Mail (tons)	96,033	78,000	99,000	121,000
Total	480,358	520,000	657,000	802,000
Aircraft Operations				
Air Carrier	203,671	202,000	235,000	263,700
Commuter/Air Taxi	62,516	66,300	80,300	88,600
General Aviation	82,541	103,000	112,000	130,000
Military	23,540	24,200	22,200	22,200
Total	372,268	395,500	449,500	504,500

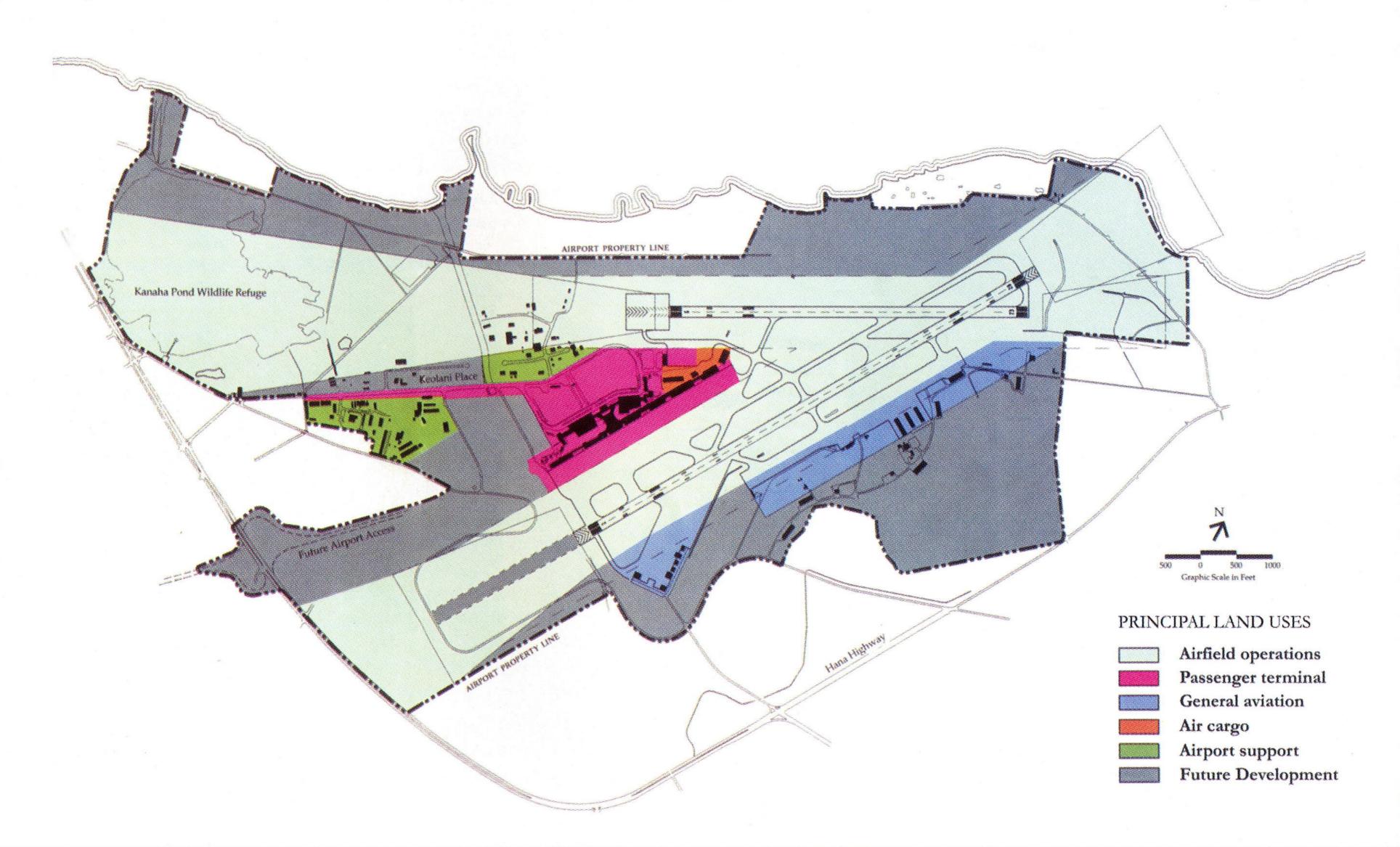
\* actual

accommodate the planned increases in international passengers. For improved passenger convenience and safety, the State plans to replace the Wiki Wiki bus system with an enhanced people-mover system. The technology to be employed is currently under consideration. Other significant improvements planned by the State include new overseas and interisland cargo facilities, improved maintenance facilities, improved bulk fuel storage, new public and employee parking facilities and upgrades to the existing roadway system and public parking lots.

To assure that future capacity constraints are satisfactorily resolved, the State is moving to establish Kalaeloa Airport for general aviation activities. The reliever airport will divert a significant number of the general aviation operations from Honolulu International and would effectively reduce the demand for additional airfield facilities.

## KAHULUI AIRPORT

ahului Airport is located on the northern edge of the land bridge between Haleakala and the West Maui Mountain Range on the island of Maui. The airport occupies 1,391 acres of land and is located three miles east of the town of Kahului. The airport has two intersecting runways and full range of air carrier facilities for domestic overseas and interisland commercial service. Kahului Airport provides commuter/air taxi and general aviation operations, including helicopter operations in separate locations. Vehicular access to the passenger terminal, commuter/air taxi, cargo, scenic-tour operators, general aviation facilities and airport support facilities is via a roadway network that connects to the Haleakala and/or Hana Highways.





#### Planned Facility Improvements (OGG)

Kahului Airport is envisioned as the State's second gateway into the State. The first action planned is the extension of the primary runway to accommodate future direct international and long-haul domestic air service. The extended runway will allow unrestricted payloads to mainland and far east destinations. The passenger terminal will require upgrading to provide a high level of service for the expected users of the airport. The development of facilities to accommodate international arrivals is being planned. The State intends to improve the primary access to the terminal complex by constructing a new access roadway system generally south of Keolani Place. The State is in the process of acquiring property to permit construction. Long-term expansions are also planned for general aviation, air taxi, helicopter, and air cargo facilities. In the long term, additional land will be acquired for runway development and for relocation of certain facilities.

#### Aviation Activity & Forecast

<u>Year</u>	1996*	2000	2010	2020
Passengers				
Mainland	1,365,578	1,557,000	2,041,000	2,541,000
International	82,898			
Subtotal	1,448,476			
Inter-island	4,457,659	4,744,000	5,947,000	7,171,000
Total	5,906,135	6,301,000	7,988,000	9,712,000
Cargo & Mail				
Cargo (tons)	40,211	42,000	51,600	62,300
Mail (tons)	5,928	5,000	6,400	7,700
Total	46,139	47,000	58,000	70,000
Aircraft Operations				
Air Carrier	67,136	66,900	80,700	93,100
Commuter/Air Taxi	78,722	90,000	112,300	134,500
General Aviation	29,976	41,000	49,000	58,000
Military	2,756	12,000	11,700	11,700
Total	178,590	124,800	253,700	297,300

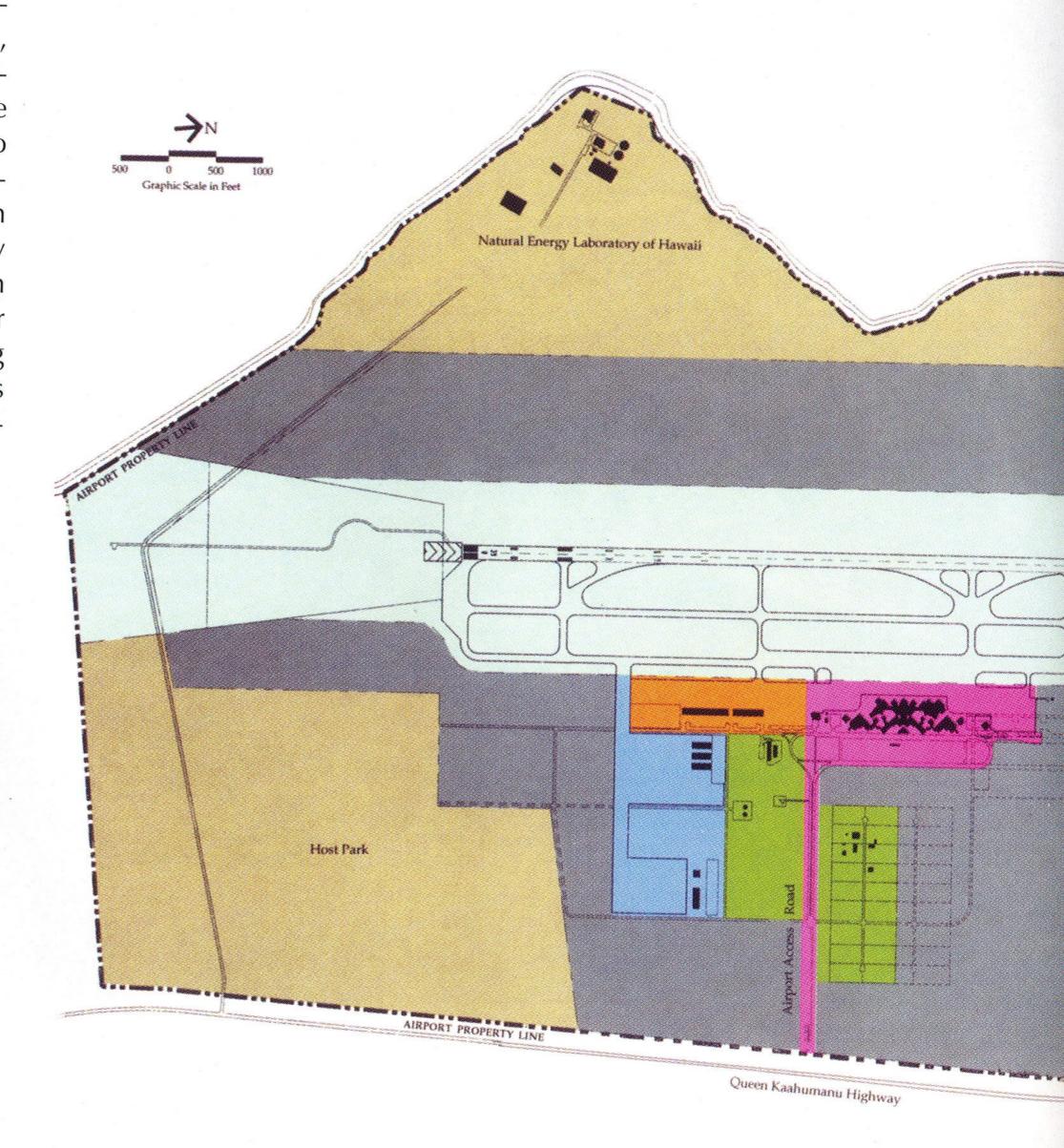
\* actual

ona International Airport at Keahole occupies 3,450 acres of land about seven miles northwest of Kailua-Kona on the island of Hawaii. The airport accommodates domestic overseas, international, interisland, commuter/air taxi, and general aviation activities. It has an 11,000-foot runway and a complex of facilities at the eastern edge of the airfield for arriving and departing passengers, air cargo and mail, airport support, and general aviation operations. These facilities are served by an access roadway extending from the Queen Kaahumanu Highway. At the passenger terminals, the access roadway forms a one-way loop enclosing public parking and rental car check-in facilities. An additional complex of facilities, used primarily by rental car agencies for returns, general maintenance, and storage is located along the airport access roadway, midway between the passenger terminals and the highway. General aviation, cargo, and related facilities are located to the south of the passenger terminals and the access roadway.

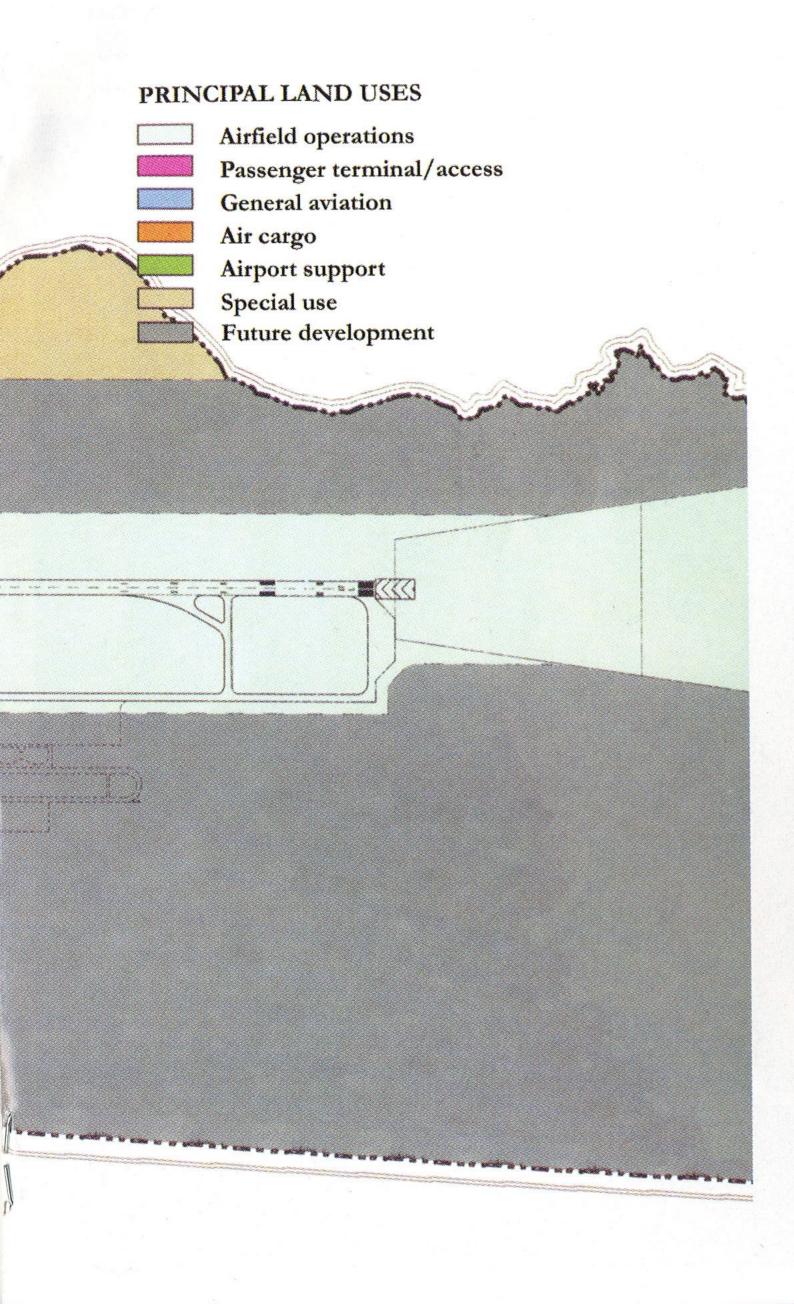
Aviation A	Activity	& Forecast	
------------	----------	------------	--

<u>Year</u>	1996*	2000	2010	2020
Passengers				
Mainland	236,454	445,000	816,000	1,270,000
International	39,437			1,270,000
Subtotal	275,891			
Inter-island	2,248,211	2,209,000	2,385,000	2,510,000
Total	2,524,102	2,654,000	3,201,000	3,780,000
Cargo & Mail				
Cargo (tons)	22,486	22,900	28,100	32,600
Mail (tons)	2,449	3,100	3,900	4,400
Total	24,935	26,000	32,000	37,000
Aircraft Operations				
Air Carrier	29,195	32,100	34,300	37,000
Commuter/Air Taxi	16,556	13,400	15,800	18,200
General Aviation	21,591	20,000	22,000	24,000
Military	9,683	12,900	12,700	12,700
Total	77,025	78,400	84,800	91,900

\* actual



# KONA INTERNATIONAL AIRPORT AT KEAHOLE



#### Planned Facility Improvements (KOA)

To accommodate projected increases in domestic and international tourism and business development, several significant improvements are planned. A new passenger terminal is envisioned to better accommodate domestic overseas and international passengers. The new terminal building will provide passenger ticketing, baggage claim, concession facilities, and aircraft boarding. An international arrivals facility for processing and clearing international passengers will be constructed as part of the terminal improvements. Air cargo facilities will be expanded and new general aviation facilities will be built east of the existing cargo area. As a complement, the aircraft and vehicular parking facilities and the roadway will be improved. Facilities for helicopters are also being considered.



## LIHUE AIRPORT

ihue Airport occupies 872 acres about 1.5 miles east of Lihue, on the southeast coast of the island of Kauai. The airport provides passenger and aircraft facilities for domestic overseas carriers, interisland carriers, commuter/air taxi, air cargo, and general aviation activities. Airfield facilities include two runways, taxiways, aprons, navigational aids, airport traffic control tower, and helipads. Vehicular access to the airport is provided by Ahukini Road, which extends from Kapule Highway. The passenger terminal is served by a one-way loop roadway branching off Ahukini Road and encircling a public parking lot. The remaining facilities are served directly by Ahukini Road.

#### **Aviation Activity (LIH)**

The attractiveness of Kauai is reflected in the volume of passengers traveling to the island regardless of diverse natural events such as hurricanes Iwa (Nov. 1982) and Iniki (Sept. 1992).

#### **Aviation Activity & Forecast**

<u>Year</u>	1996*	2000	2010	2020
Passengers				
Mainland	708	222,000	408,000	635,000
International	8,174			
Subtotal	8,882			
Inter-island	2,552,925	2,647,000	2,945,000	3,203,000
Total	2,561,807	2,869,000	3,353,000	3,838,000
Cargo & Mail				
Cargo (tons)	12,313	18,200	22,900	27,700
Mail (tons)	2,623	2,800	3,100	3,300
Total	14,936	21,000	26,000	31,000
Aircraft Operations				
Air Carrier	29,246	33,200	35,600	38,300
Commuter/Air Taxi	60,489	73,900	86,300	98,600
General Aviation	12,705	9,500	10,500	11,500
Military	3,892	8,200	8,200	8,200
Total	106,332	124,800	140,600	156,600

\* actual

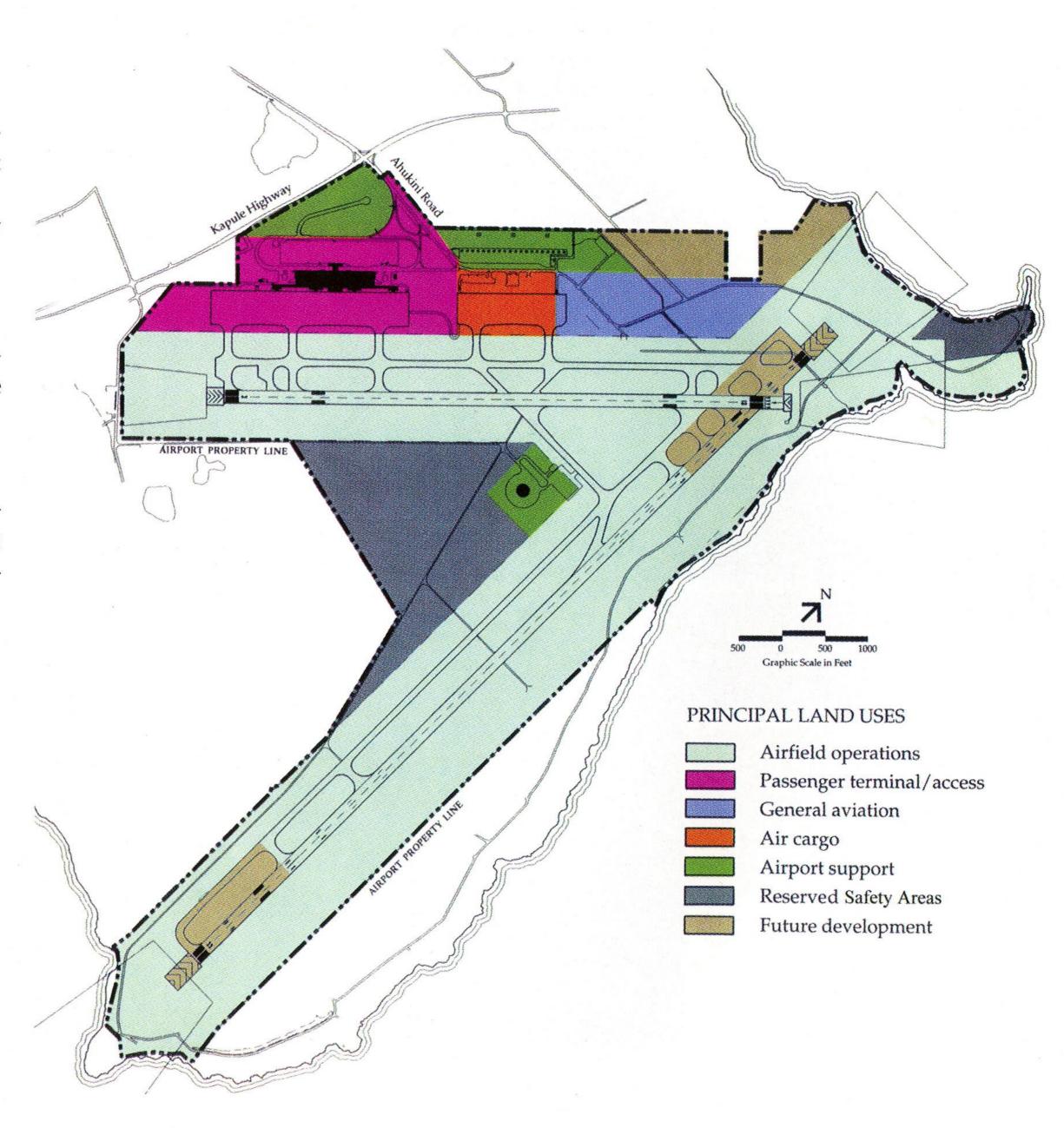


#### Planned Facility Improvements (LIH)

Improvements planned for Lihue Airport include:

- extension of the primary runway to accommodate direct international and overseas domestic air service by large aircraft.
- land acquisition and improvements to safety facilities on the airfield.
- relocation of the airport traffic control tower.
- a new commuter/air taxi facility, and
- a new cargo facility that would consolidate existing facilities to be developed northeast of the terminal complex.

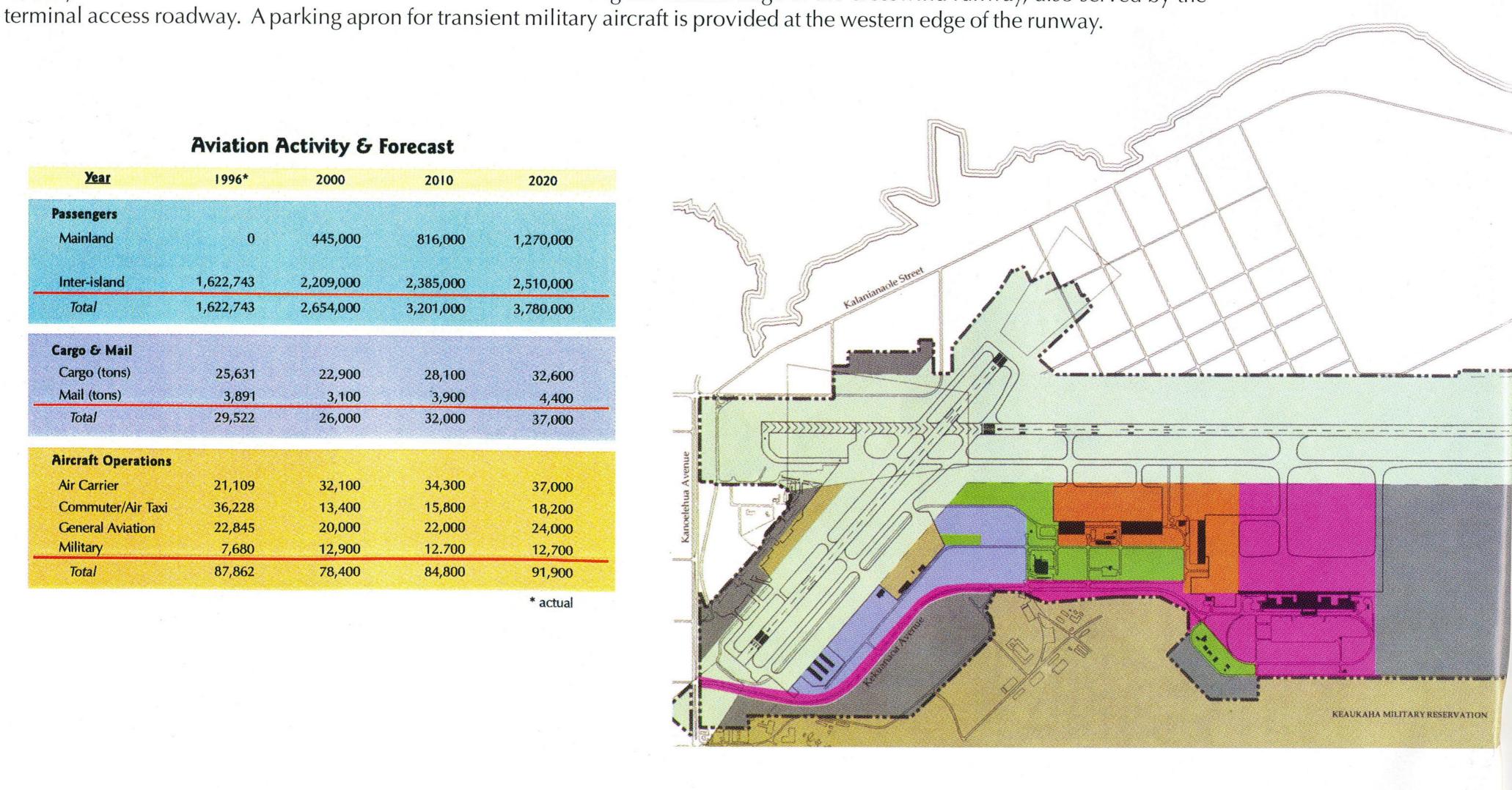
Additional terminal improvements are planned for concourse extensions and the possible development of an international arrivals facility to accommodate the processing of international passengers.



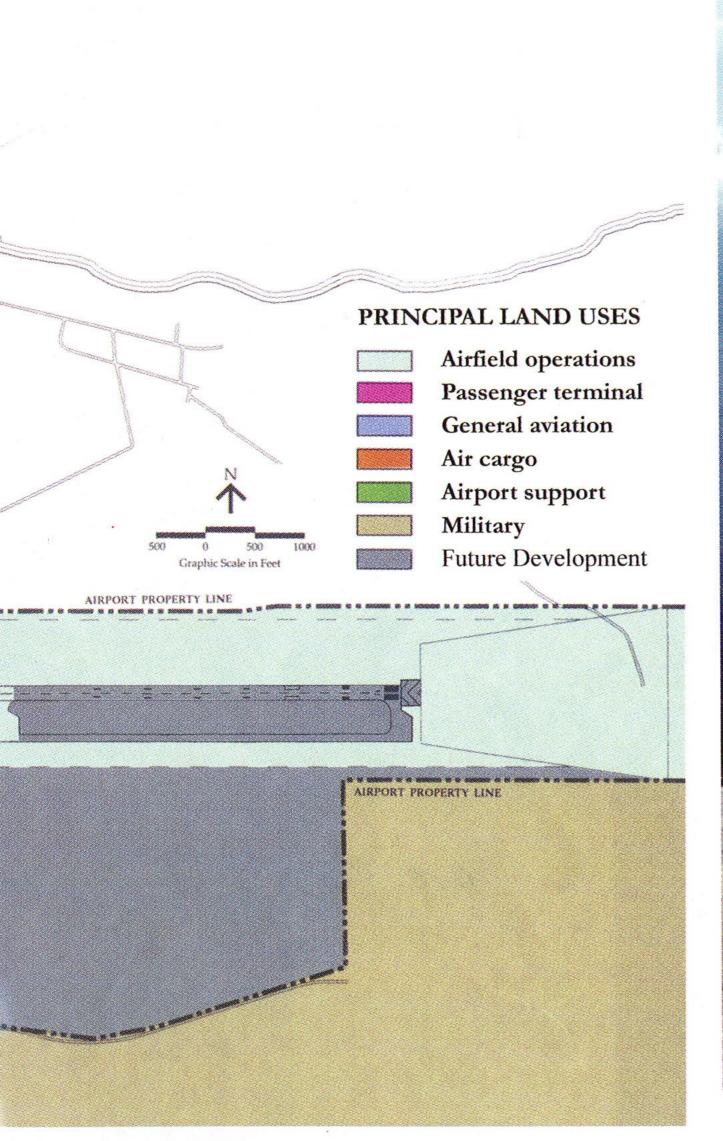
nown as General Lyman Field prior to 1989, Hilo International Airport occupies 1,391 acres about two miles east of Hilo, on the eastern shore of the island of Hawaii. The airport's primary runway (8-26) is 9,800 feet long and is used principally for air carrier operations. Crosswind Runway 3-21 is 5,600 feet long and is used mainly for general aviation operations. The passenger terminal complex, including commuter facilities, is at the southern edge of the airport and is served by an access roadway from Kekuanaoa Avenue that encircles the public parking lot. An airport support complex providing fuel, maintenance, air cargo, postal facilities is also located along Kekuanaoa Avenue, between the passenger terminal complex and the crosswind runway to the west. General aviation facilities are located along the eastern edge of the crosswind runway, also served by the

Aviation	Activity	& F	orecast

<u>Year</u>	1996*	2000	2010	2020
assengers				
Mainland	0	445,000	816,000	1,270,000
Inter-island	1,622,743	2,209,000	2,385,000	2,510,000
Total	1,622,743	2,654,000	3,201,000	3,780,000
argo & Mail				
Cargo (tons)	25,631	22,900	28,100	32,600
Mail (tons)	3,891	3,100	3,900	4,400
Total	29,522	26,000	32,000	37,000
Aircraft Operations				
Air Carrier	21,109	32,100	34,300	37,000
Commuter/Air Taxi	36,228	13,400	15,800	18,200
General Aviation	22,845	20,000	22,000	24,000
Military	7,680	12,900	12.700	12,700
Total	87,862	78,400	84,800	91,900



## HILO INTERNATIONAL AIRPORT





#### **Planned Facility Improvements** (ITO)

Hilo International Airport generally has adequate airfield and terminal facilities to accommodate forecast demand. For operational efficiencies, helicopter, air taxi, cargo, and support facilities are proposed to be relocated from the old terminal areas to areas closer to the terminal complex. In addition, improvements to terminal use are proposed for the air carriers and parking area. General aviation facilities will be consolidated southeast of Runway 3-21. A new air cargo facility is planned south of the passenger terminal to meet forecast demand and to permit the development of a cargo distribution center. Land acquisition is recommended adjacent to the runways to permit future runway extensions and to protect airfield operations. Concerns relating to the mitigation of adverse effects of airport operations on local communities will be studied and addressed.

## SECONDARY AIRPORTS

he State also operates and maintains eleven secondary airports for commercial and recreational aviation activities. These airports provide basic services and facilities for the diverse general aviation and recreational interests of Hawaii's residents and visitors. The following is a brief overview of the facilities available at these airports and the State's plans for improvements.

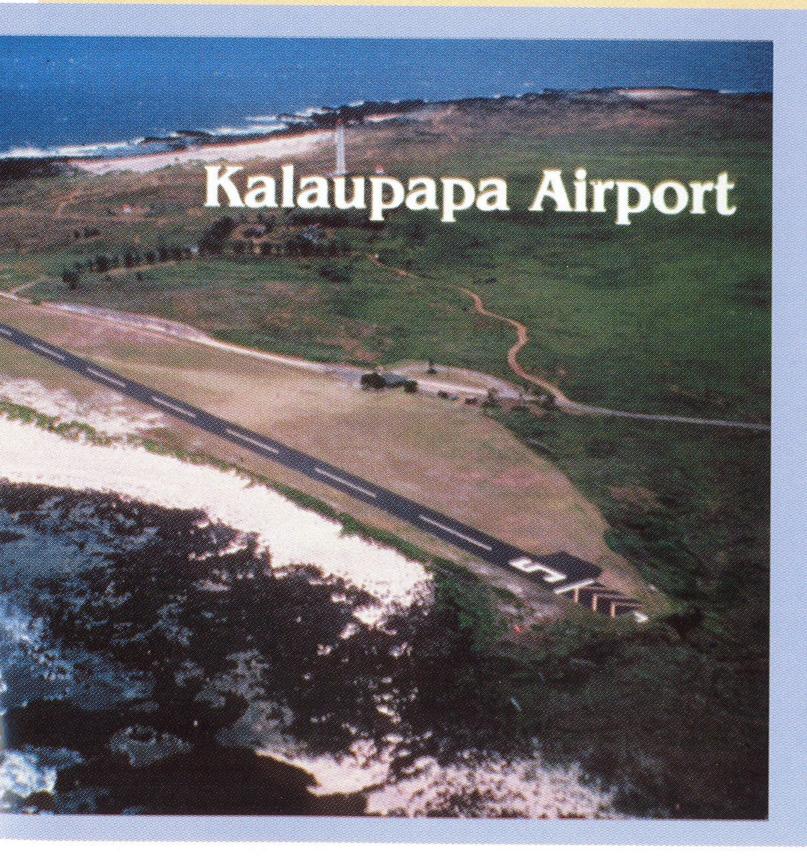
#### Dillingham Airfield

Dillingham Airfield is a general aviation joint-use facility on the north shore of Oahu near the community of Waialua. The airfield has one runway, a State-operated control tower, several hangars, and a tie down area for recreation aircraft, but no other facilities. Air traffic is limited to daytime operations by small single-engine and light twin-engine aircraft, sailplanes, ultra-lights aircraft, and helicopters. Traditionally, the airfield has been used mainly for recreation, such as glider soaring, hang-gliding, parachuting, and sky jumping. No major facility improvements are planned.



#### Hana Airport

Hana Airport supports commuter, unscheduled air taxi, and general aviation activities on a 119-acre site on the east shore of Maui, about three miles northwest of the town of Hana. The single runway serves the passenger terminal and general aviation and airport support facilities south of the runways. Vehicular access to the airport from Hana Highway is provided by Alalele Place. Future improvements contemplated include a taxiway paralleling the runway, widening of the access road, and expansion of the passenger terminal and parking facilities. These facilities will be pursued as air traffic increases.

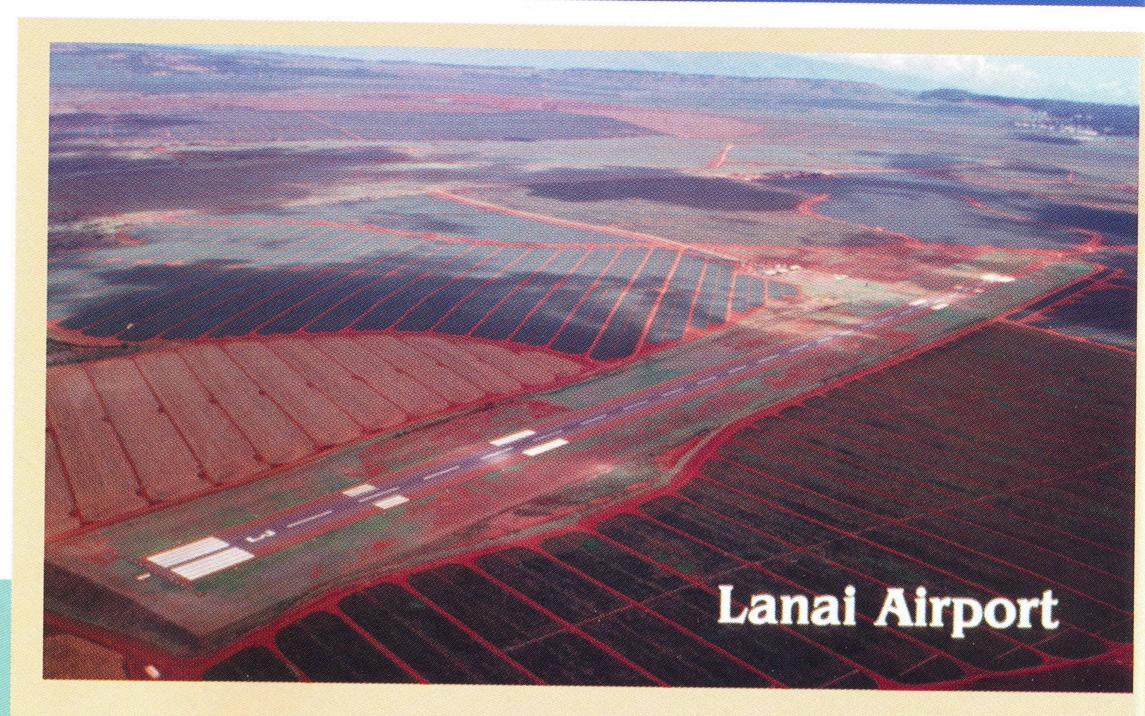




#### Kalaupapa Airport

Kalaupapa Airport occupies 55 acres on the northern peninsula of Molokai, two miles north of the Kalaupapa community. The airport serves commuter/air taxi operations and some air cargo operations. Facilities at the airport include a single runway, a small passenger terminal, and airport support areas. The airport does not have a control tower. To comply with the wishes of the community and to minimize disturbance to the surrounding national park, no significant improvements are currently planned.





#### **Upolu Airport**

Upolu Airport is at the northern tip of the island of Hawaii, three miles from the town of Hawi. This general aviation airport has a single runway (without taxiways) and two aircraft parking areas south of the runway. The east parking area supports passenger terminal operations and the west parking area provides tie down facilities for general aviation aircraft. The airport does not have a control tower, aircraft rescue and fire fighting facilities, or discrete air cargo facilities. Access to the airport is provided by a one-lane roadway off of Akoni Pule Highway. No significant near-term improvements are planned. In the long term, if traffic increases, the State envisions building a parallel taxiway south of the runway, and to move the existing terminal facilities farther from the runway to provide improved clearances and additional aircraft parking.

## SECONDARY AIRPORTS

#### Lanai Airport

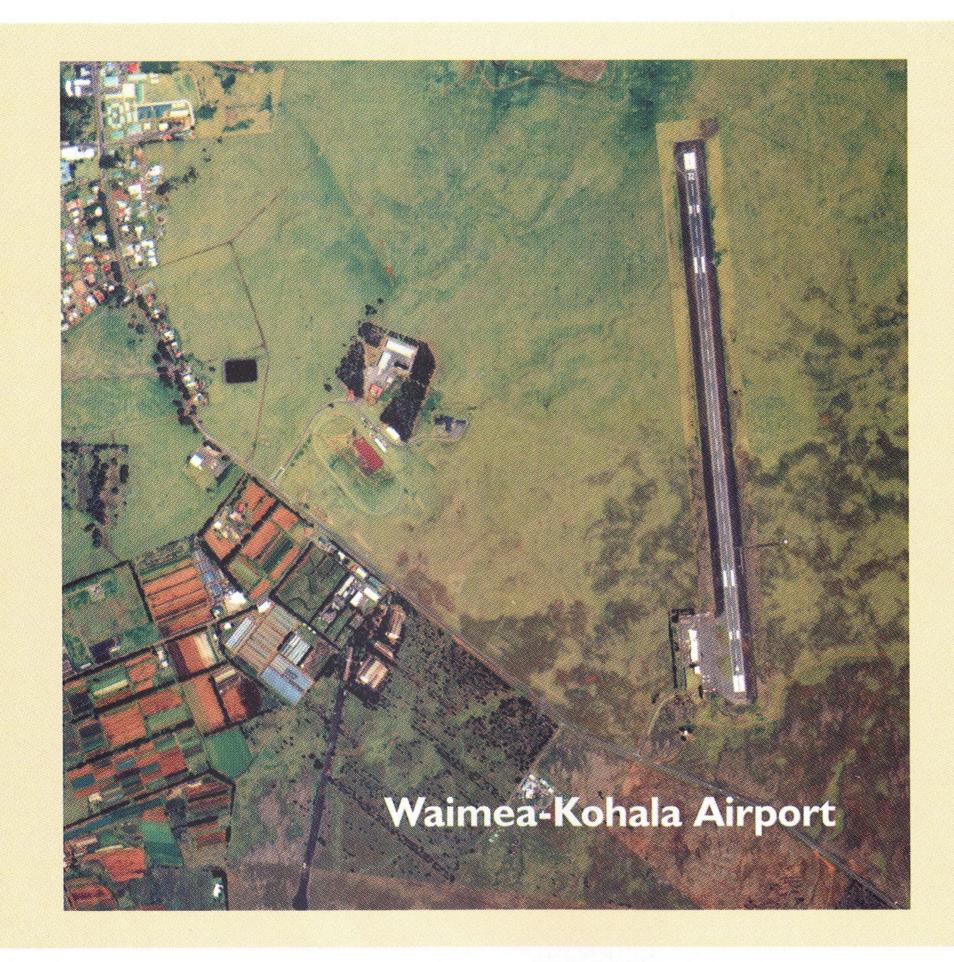
Lanai Airport occupies 505 acres about three miles southwest of Lanai City on the island of Lanai. The airport has a single runway and primarily serves scheduled interisland and commuter/air taxi traffic, with some unscheduled charter and general aviation activity. A new passenger terminal complex was recently constructed to replace the aging facilities. The new complex includes improved roadway access, parking, and rental car facilities, as well as new cargo and airport support facilities. The runway is proposed to be extended in the future to permit use by jet aircraft without payload restriction. The existing airport access roadway from Kaumalaupau Highway will continue to serve as the primary access route from Lanai City.

#### Molokai Airport

Molokai Airport occupies 288 acres on the central plateau of the island of Molokai. The airport has two runways that accommodate commuter/air taxi and general aviation activities, as well as some military flights. The passenger terminal complex and general aviation facilities are north of the runway intersection; the passenger terminal complex is near the principal runway and the general aviation facilities are near the crosswind runway. Vehicular access to these two areas is provided by separate access roadways, each connecting with Keonelele Avenue. Existing facilities are generally adequate to meet foreseeable demand; therefore, there are no plans for significant improvements except those commensurate with increased in demand. However, if demand were to increase dramatically as a result of tourism or other influences, both the existing runway and passenger terminal facilities would need to be expanded significantly.



## SECONDARY AIRPORTS



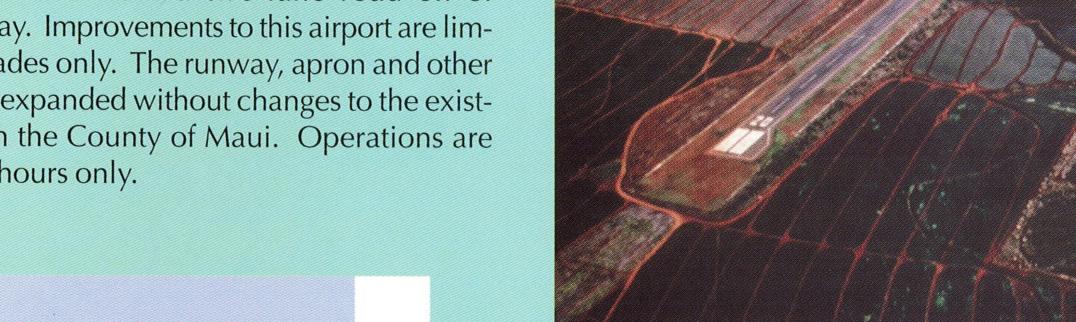
#### Waimea-Kohala Airport

Waimea-Kohala Airport occupies 90 acres on the Island of Hawaii, one mile south of the town of Kamuela. The airport has a single runway, without taxiways and an aircraft parking apron at the west end of the runway serving the passenger terminal and general aviation facilities. No fueling or airport traffic control tower facilities are provided. An aircraft rescue and fire fighting facility shares space in the airport maintenance facility. Vehicular access to the terminal and other facilities is provided by a short connecting roadway extending from the Mamalahoa Highway. Modest enlargement for fixed-wing and helicopter hangars is being considered.



#### Kapalua Airport

The Kapalua Airport is a commercial service airport that is served by commercial propeller air carriers and commuter/ air taxi aircraft only. This facility started as a private facility until its acquisition by the State. The facility consists of a single runway, terminal facilities, and support facilities. There are no air cargo facilities at this airport. Access to this airport is provided from a two-lane road off of Honapiilani Highway. Improvements to this airport are limited to certain upgrades only. The runway, apron and other facilities cannot be expanded without changes to the existing agreement with the County of Maui. Operations are limited to daytime hours only.



#### Kalaeloa Airport

Kalaeloa Airport, formerly Naval Air Station, Barbers Point, is currently being planned as a general aviation facility that uses 750 acres of the former Naval facility. The State will operate the three runways at the airport, the control tower and support facilities. General aviation facilities on the South Ramp of Honolulu International Airport (HIA) will be relocated to this facility. The move of general aviation from HIA will mean a reduction of approximately 103,000 general aviation operations by the year 2000. In addition, space will be made available to fixed base operator at Kalaeloa Airport.

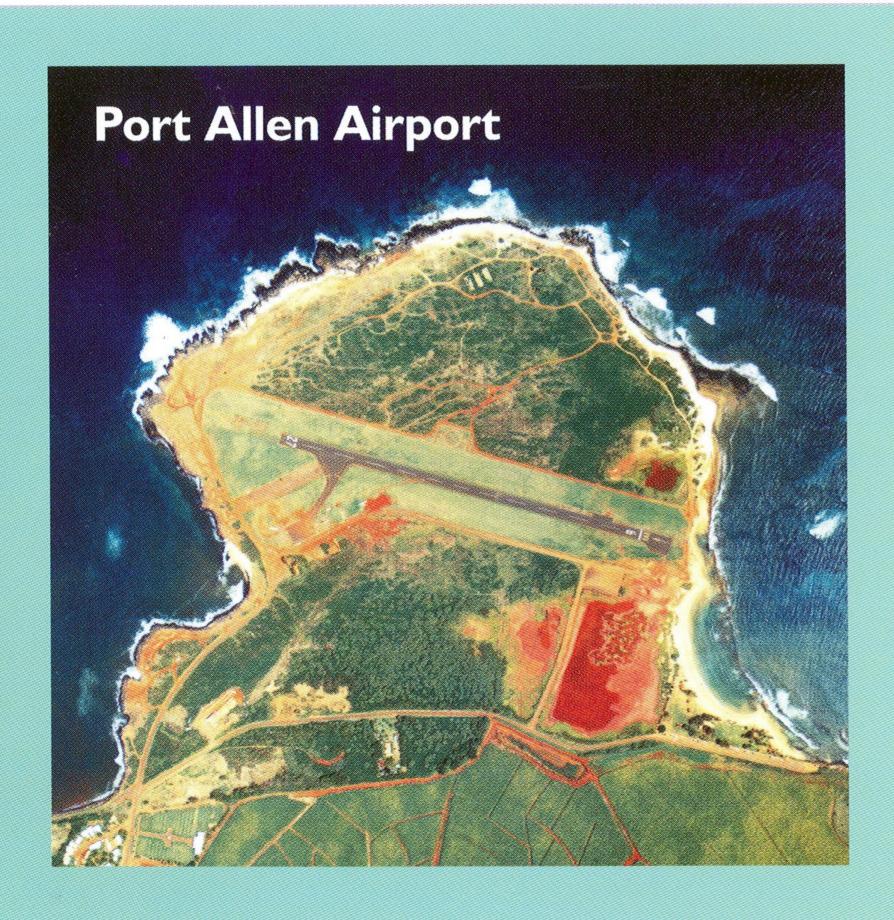
KAPALUA AIRPORT

#### Princeville Airport

Princeville Airport is situated on approximately 29 acres of land, 16 miles north of Lihue. Princeville Airport consists of a runway, commuter terminal, support facilities, and tour helicopter facilities. This airport is one of two airports on the island that provides scheduled commercial services. The State currently operates the airport under a lease agreement with the owner, Princeville Corporation. The existing runway and ramp area can only accommodate one scheduled DHC-6 commuter aircraft, and one single or twin-engine propeller aircraft and existing helicopter operations. Improvements at the airport are limited to actions that would increase safety and increase capacity. Should the State decide to acquire this airport, and should air traffic increase, then additional airfield and terminal improvements will be considered.



## SECONDARY AIRPORTS



#### Port Allen Airport

Port Allen Airport occupies 180 acres one mile southwest of the town of Hanapepe on the south shore of Kauai. This general aviation airport has a single runway, separate parking areas for fixed wing aircraft and helicopters, and a public parking area. There are no other public facilities at the airport. Access to the airport is provided by Kaalani Road, which connects the airport with Lolokai Road and Highway 50. The principal planned improvements are the development of helicopter lease lots to the eastern end of the airport, construction of public comfort stations, and minor roadway improvements.



# Airports Division Department of Transportation State of Hawaii