BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
AIR-P
02.0402

October 24, 2002

TO: GENEVIEVE SALMONSON, DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

FROM: BRIAN K. MINAAI
DIRECTOR OF TRANSPORTATION

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR
LIHUE AIRPORT HELIPORT IMPROVEMENTS
LIHUE, KAUAI, HAWAII
TMK 3-5-01: PORTION 8
STATE PROJECT NO. AK1046-23

The State of Hawaii, Department of Transportation Airports Division, has reviewed the comments received during the 30-day public comment period, which began on May 8, 2002. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the October 28, 2002, Office of Environmental Quality Control (OEQC) Environmental Notice.

We have enclosed a completed OEQC Publication Form and four copies of the final EA. Please have your staff contact Mr. Gene Matsushige, Project Manager, at 838-8826 or Ms. Lynette Kawaoka, Planner, at 838-8812, to clarify any questions you may have.

Enclosures: OEQC Publication Form
Final EA (4)

c: KFC Airport, Inc., Myra Masuda (w/o enclosures)

107

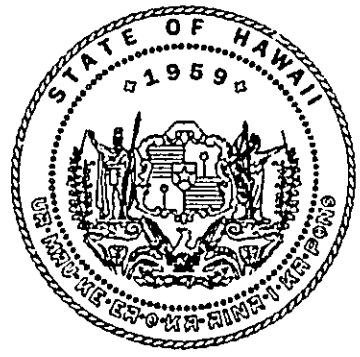
2002-11-08-KA-FEA-

FINAL ENVIRONMENTAL ASSESSMENT

FOR

LIHUE AIRPORT HELIPORT IMPROVEMENTS
LIHUE AIRPORT

LIHUE, KAUAI, HAWAII



DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
STATE OF HAWAII

OCTOBER 2002

KFC AIRPORT, INC.

LIHUE AIRPORT HELIPORT IMPROVEMENTS
FINAL ENVIRONMENTAL ASSESSMENT

State Project No. AK1046-23

Tax Map Key: 3-5-01: portion 8

Proposing Agency:

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819

Responsible Official: _____ OCT 2 3 2002

Brian K. Minaai
Director of Transportation
State of Hawaii

DATE

Prepared by

KFC Airport, Inc.
3375 Koapaka Street, Suite F220-48
Honolulu, Hawaii 96819

October 2002

This document is prepared pursuant to Chapter 343, Hawaii Revised Statutes

PREFACE

This final environmental assessment (EA) and notice of anticipated Finding of No Significant Impact (FONSI) are prepared pursuant to Chapter 343, Hawaii Revised Statutes, Title 11 (as amended), Chapter 200, Administrative Rules, Department of Health and Federal Aviation Administration Orders 5050.4A (October 8, 1985), 1050.1D (December 21, 1983) and its appendices. The proposed action is an agency action involving the expenditure of State funds by the Department of Transportation, Airports Division. This final EA and notice of anticipated Finding of No Significant Impact will be filed with the State Office of Environmental Quality Control by the proposing agency for public review pursuant to ACT 241, Session Laws of Hawaii (1992).

The proposed action assessed herein is the construction of improvements to the Lihue Airport Heliport, including the addition of helicopter aprons and take-off/landing pads, and site work for tenant lease lots.

SUMMARY

LIHUE AIRPORT HELIPORT IMPROVEMENTS
Lihue Airport, Lihue, Kauai Hawaii

District:	Lihue, Kauai
Tax Map Key:	3-5-01: portion 8
Proposing Agency:	State of Hawaii Department of Transportation Airports Division 400 Rodgers Boulevard., Suite 700 Honolulu, Hawaii 96819
EA Preparer:	KFC Airport, Inc. 3375 Koapaka Street, Suite F220-48 Honolulu, Hawaii 96819
Existing Land Use:	Heliport Facility
Proposed Action:	Proposed action consists of improvements to the existing heliport through the addition of: helicopter aprons, helicopter take-off/landing pads, site work for tenant lease lots and accompanying employee and public parking. Construction of this project will utilize standard erosion control and dust control procedures to minimize the surface water and dust impacts during the construction. The other mitigative measures are detailed in the enclosed final environmental assessment.

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SECTION I

PROJECT DESCRIPTION

I. PROJECT DESCRIPTION

1.1 PURPOSE

This Environmental Assessment (EA) is prepared for the proposed Lihue Airport Heliport Improvements pursuant to Chapter 343, Hawaii Revised Statutes, Title 11 (as amended), Chapter 200. The purpose of an environmental assessment (EA) is to quantify the environmental impacts, if any, which may result from implementing the proposed action or alternatives. If the decision-making authority determines, based on the EA and according to the Office of Environmental Quality Control (OEQC) criteria, that the proposed action would not significantly affect the human environment, a Finding of No Significant Impact (FONSI) can be issued and the proposed action can proceed. If the EA finds that significant unmitigable environmental impacts may occur with implementation of the proposed action, an Environmental Impact Statement (EIS) must be prepared. The proposing agency is the Department of Transportation, Airports Division (DOT-AIR) and the accepting authority is the Department of Transportation. This EA is prepared because the proposed project will use State of Hawaii land and funds, and involves modification of an existing helicopter facility.

1.2 SUMMARY OF THE PREFERRED PROJECT

The State of Hawaii, Department of Transportation, Airports Division, is proposing to construct supplementary heliport facilities at the existing heliport at Lihue Airport.

The purpose of the proposed project is to construct those facilities that will provide more efficient and safer helicopter operations at Lihue Airport. The improvements will allow the Airport to provide a better aviation environment to accommodate existing and forecast aviation demand. It should be noted that the project would not significantly increase or decrease the Heliport capacity to accommodate aircraft operations. Any increase of aircraft operations would be due to other factors such as the economy, population, tourism demand, etc., which would occur with or without the preferred project.

The preferred alternative consists of the following improvements (see figure 1-1):

- Construction and preparation of ten lease lots for helicopter operator use, with accompanying employee and public parking;
- Two relocated take-off/landing areas;
- Four new helicopter aprons for transient helicopter refueling;

- An associated paved roadway;
- Associated infrastructure improvements;
- Realignment of a portion of Ahukini Road;
- Landscaping for beautification and dust control.

1.3 RATIONALE FOR ACTION

1.3.1 INTERIM HELICOPTER FACILITY

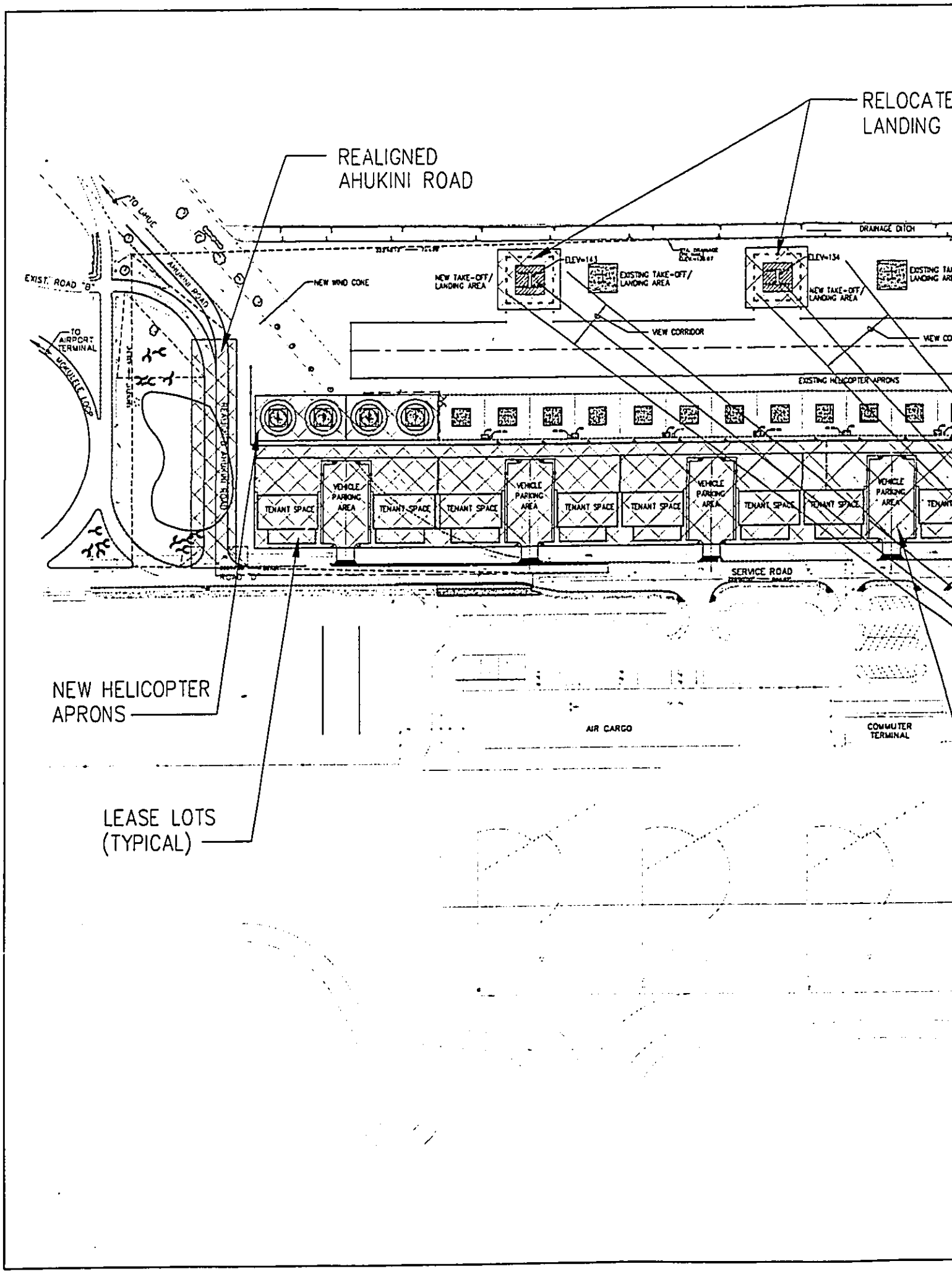
The existing heliport facilities were constructed in 1990 as an interim helicopter facility, established as a phase of the 1975 – 1995 Lihue Airport Master Plan and the *Lihue Airport Development Plan Update: April 1986*. The completion of the interim facility in 1990 increased the safety aspects of the Lihue Airport by:

- Providing a facility that separated fixed wing aircraft from rotary aircraft;
- Providing a minimum helicopter facility that conformed to the FAA standards for heliport design;
- Consolidating the helicopter operations and providing a heliport facility that could serve the helicopter operators using the facility at that time;
- Developing a new operational area in the shortest time possible to reduce the period of congested conditions.

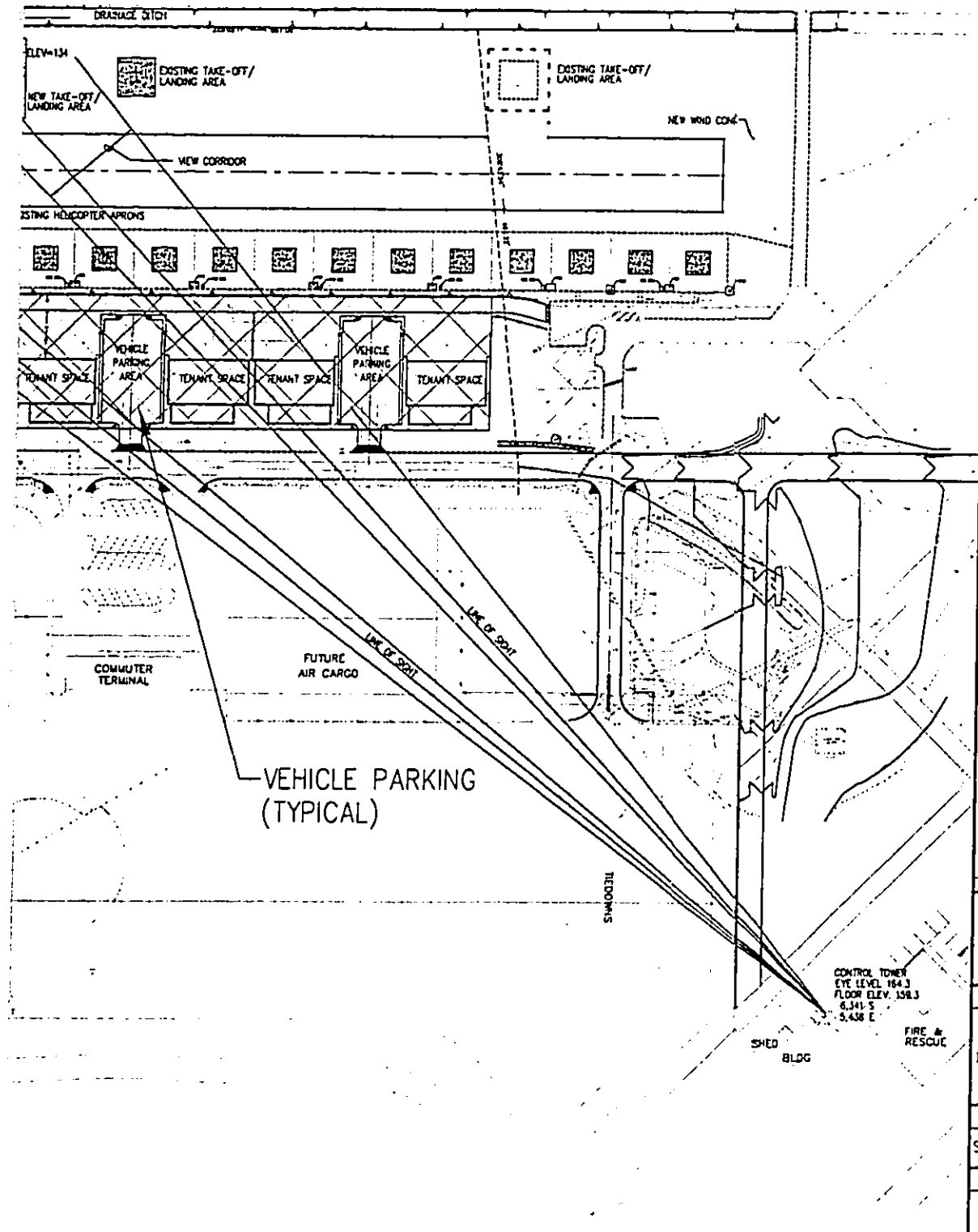
The interim facility provided three takeoff/landing areas, a grass surfaced taxi route, and twenty (20) 62.5 foot by 62.5 foot asphalt concrete passenger-boarding pads (aprons). Much needed support facilities for the heliport were not constructed, as there were plans for a permanent helicopter facility to be constructed at an inland site. That project, however, was hampered by long-standing problems with site-selection, land acquisition, environmental considerations, and funding constraints.

1.3.2 FUTURE AVIATION DEMAND

Analysis of historical and projected passenger, cargo and mail volumes, as well as aircraft operations, form the basis for estimating the type of airport facilities required to meet the future air transportation needs of an airport. Aviation demand forecasts for Lihue Airport were developed as part of the *1989 Lihue Airport Master Plan*. The 1989 Lihue Airport Master Plan forecasts were subsequently updated in 1990 as part of the *Statewide Aviation System Plan* (SASP) prepared for DOT-AIR. The forecasts were updated again in 2001 as


REALIGNED
AHUKINI ROAD
RELOCATE
LANDING
NEW HELICOPTER
APRONS
LEASE LOTS
(TYPICAL)
TO LIHUE
AHUKINI ROAD
EXIST. ROAD "B"
TO
AIRPORT
TERMINAL
MOKULELE LOOP
NEW WIND CONE
DRAINAGE DITCH
NEW TAKE-OFF/
LANDING AREA
ELEV=143
EXISTING TAKE-OFF/
LANDING AREA
ELEV=134
NEW TAKE-OFF/
LANDING AREA
VIEW CORRIDOR
EXISTING HELICOPTER APRONS
TENANT SPACE
VEHICLE
PARKING
AREA
SERVICE ROAD
AIR CARGO
COMMUTER
TERMINAL

RELOCATED TAKE-OFF/
LANDING AREAS



Airports Division

DSGN.	DRWN.	CHKD.	APPD.

KEY PLAN / NOTES :

NO.	DATE	REVISIONS

PROJECT TITLE :

LIHUE AIRPORT
HELIPORT IMPROVEMENTS

PROJECT NO. :

STATE PROJECT NO. AK1046-23

SHEET TITLE :

SITE PLAN OF
PREFERRED ALTERNATIVE

DATE :

DWG. NO. :

1-1

part of the *Hawaii Aviation Demand Forecasts* (2001 Hawaii Update) prepared for DOT-AIR by Aries Consultants. Ltd.

The *2001 Hawaii Aviation Demand Forecasts* projects continued growth of aviation activities on Kauai. The 2001 report clearly indicated the recovery of aviation activities from the effects of Hurricane Iniki in 1992. The following aviation demand forecasts are from the 2001 Hawaii Demand Forecasts.

Aircraft Aviation activity in 2000 included 2,883,472 passengers and 113,850 total operations. Forecasts for the Lihue Airport projects passenger and aviation activity to increase to 3,750,300 passengers and 174,100 aircraft operations by 2025.

Commuter/air taxi operations (e.g. DHC-8, Piper 31, helicopters) are forecast to increase from 57,883 in 2000 to 101,750 operations by 2025. About 85 percent of the commuter/air taxi operations were helicopter operations prior to Hurricane Iniki, and the helicopter operations are forecast to maintain this proportion in the future.

Although, the tourism industry on Kauai did experience a dramatic decrease in the period following Hurricane Iniki in 1992, the average daily helicopter departures and arrivals at the Lihue Heliport have increased from 67 in 1996 to 76 in 2000 or from 134 daily operations to 152 daily operations.

The forecasted growth in operations at Lihue Airport is based on future demand independent of the proposed improvements. There are no permanent helicopter support facilities at the Airport. The helicopter companies' use tent, trailers and portable toilets to conduct business, sell tours, and process customers. Additionally, since there are no hangers at the heliport, the companies must conduct maintenance on their helicopters away from the heliport.

However, even with the lack of permanent facilities, the helicopter companies continue to operate at Lihue Airport due to public demand for their services. And, in spite of the lack of helicopter facilities, the total number of based helicopter aircraft is expected to increase from 17 based helicopters in 1999 to 30* based helicopters in 2025. *(*Note: this number may be revised in the Aviation Demand Forecast, which is currently being updated. The new Aviation Demand Forecast will also reflect the impacts of the events of September 11, 2001.)*

Construction of the proposed improvements will not affect demand for helicopter tours or the decision of tour operators to operate at Lihue Airport. Consumers demanding tours and operators providing tours currently use the Airport without the improvements and will continue to do so according to the Demand Forecasts. Therefore, the proposed project will:

- Allow for the completion of the existing heliport by the addition of support facilities such as office space, helicopter maintenance areas, customer parking, etc.;

- Allow for safer and more efficient helicopter operations.

- Fulfill the airport function by providing facilities for existing demand, and the facilities to be provided are primarily for existing helicopter operators with capacity to meet the interim growth objective.

1.4 LOCATION

The Lihue Airport is located on the southeastern coast of the island of Kauai, the fourth largest of the Hawaiian Islands. The Airport is situated approximately 1.5 miles east of downtown Lihue, the island's governmental, business/commercial, and industrial center. The heliport encompasses approximately 18 acres of land and is part of Lihue Airport, which is owned by the State of Hawaii (see figure 1-2 and 1-3).

The heliport is located northeast of the Airport Terminal, along Ahukini Road. There are no official hours of operation for the heliport, however unofficially the heliport is in operation from dusk to dawn.

The project site is defined by Tax Map Key: 3-5-1:8 and 3-5-1:13. The Heliport lies on a relatively flat plain where the surrounding terrain slopes away from the site in the northeasterly direction.

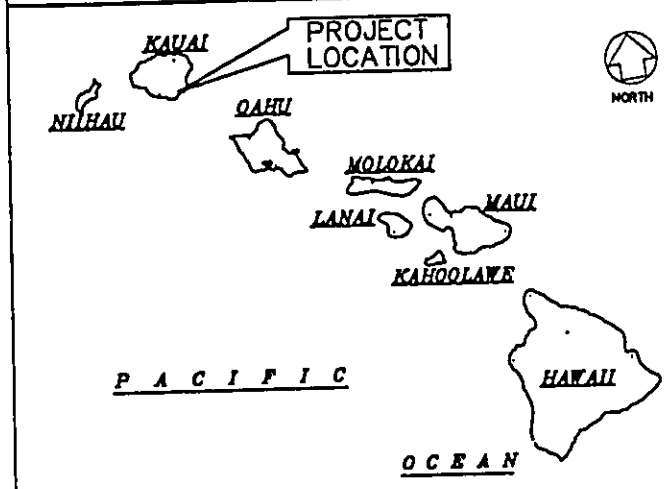
1.5 DESCRIPTION

There are no permanent helicopter support facilities at the Airport. The helicopter companies' use tents, trailers and portable toilets to conduct business, sell tours, and process customers. Additionally, since there are no hangers at the heliport, the companies must conduct maintenance on their helicopters away from the heliport.

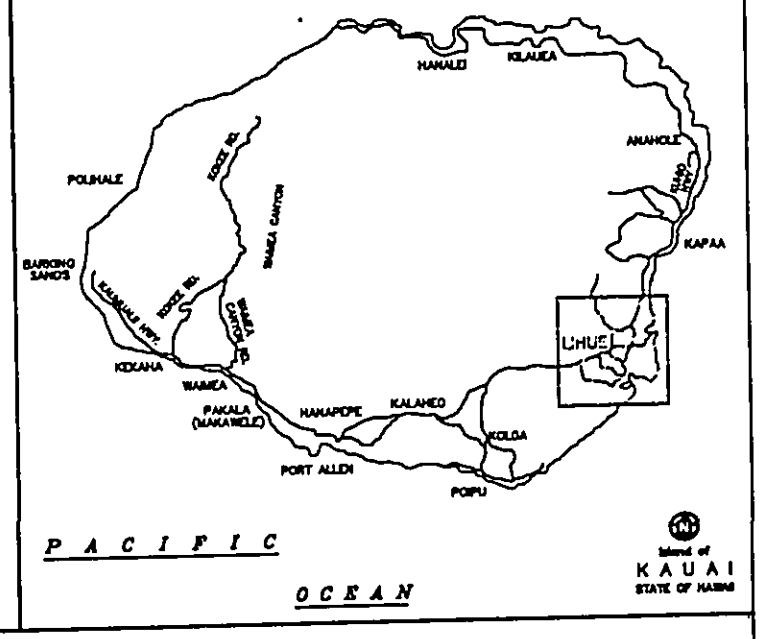
The heliport currently serves eight commercial helicopter companies and their operations. All of the companies at the Lihue Heliport operate under a thirty (30) day revocable permit issued by the State Department of Transportation, Airports Division and utilize the existing asphalt concrete apron pads and three takeoff/landing areas.

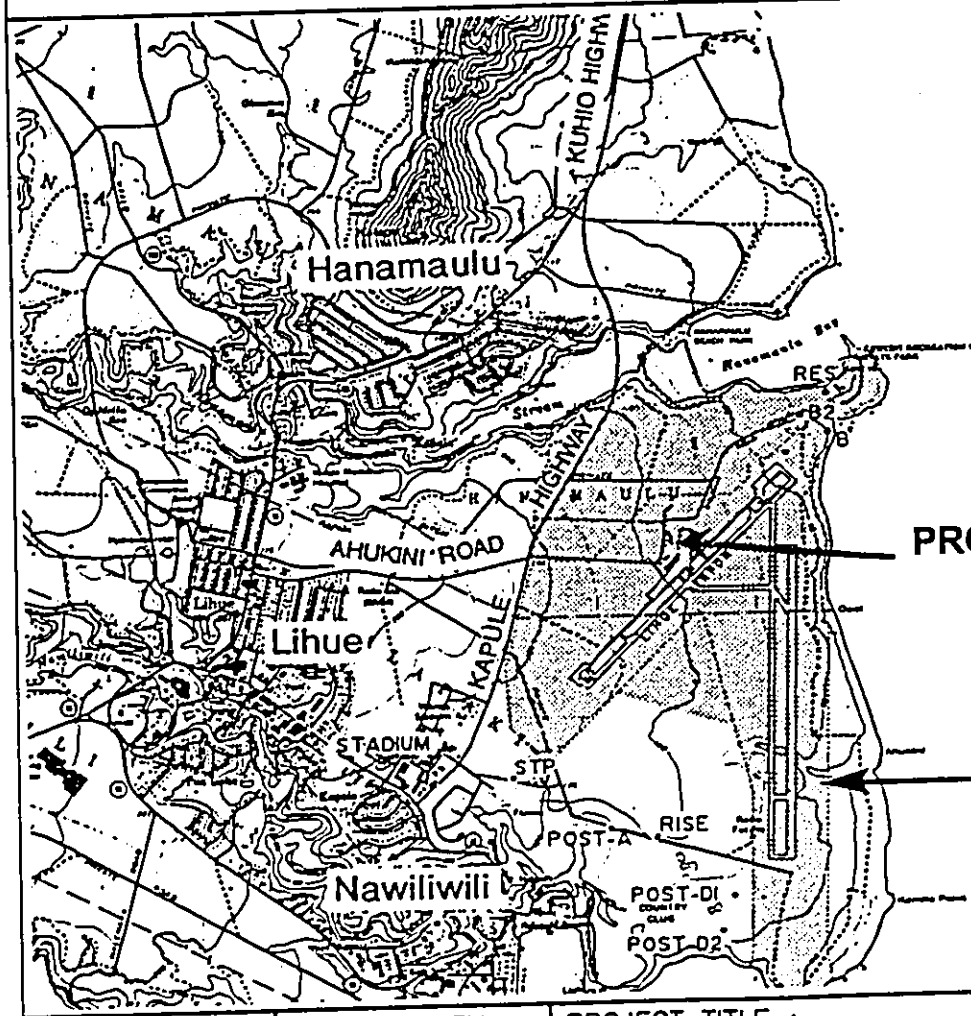
As stated in Section 1.2, the proposed improvements include the addition of four helicopter aprons. The project will also include 10 new lease lots to be used by helicopter operators, and each lot will be assigned two aprons. The addition of the four new aprons will bring the total number of aprons to 24; four of these

LOCATION MAP STATE OF HAWAII

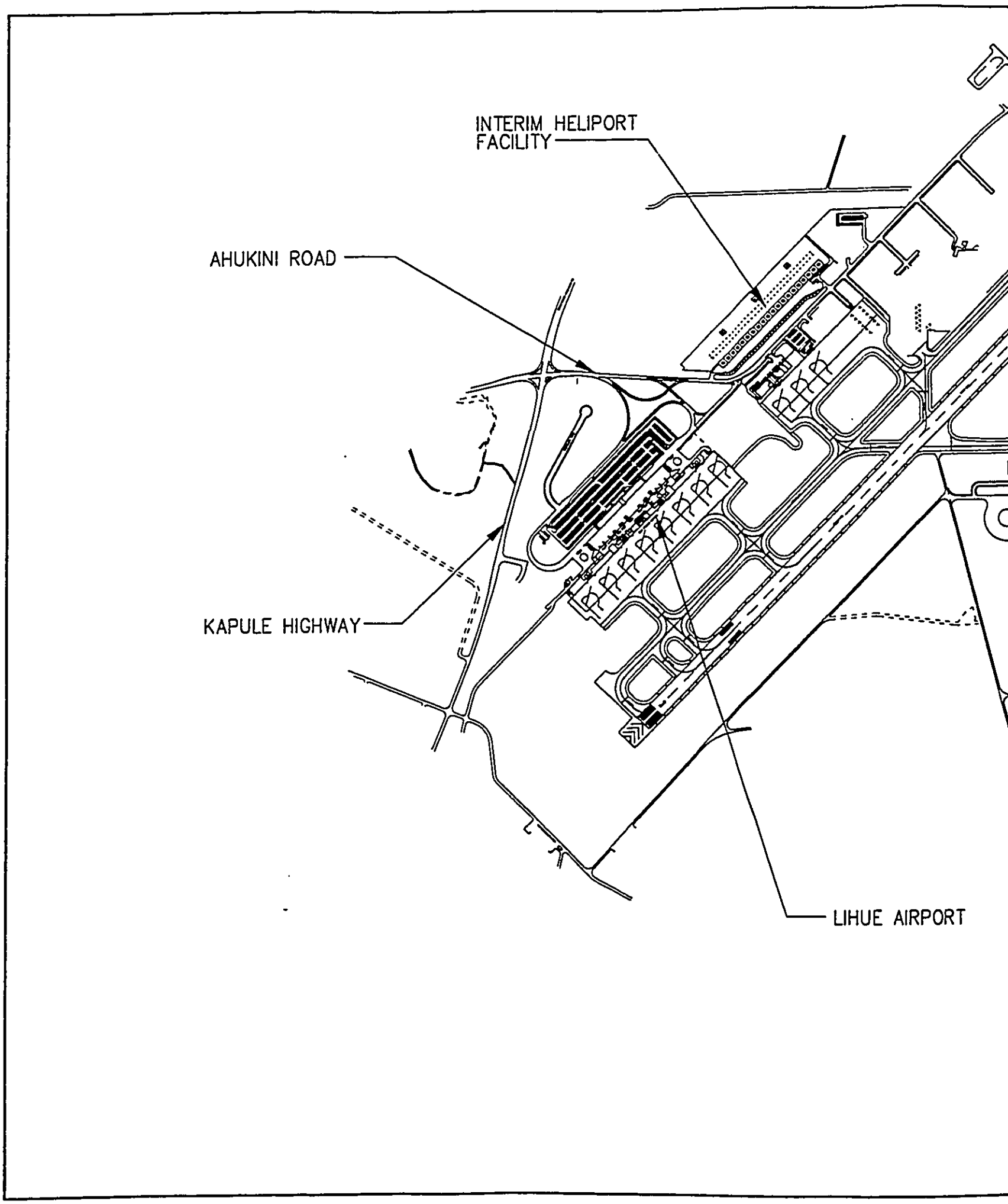


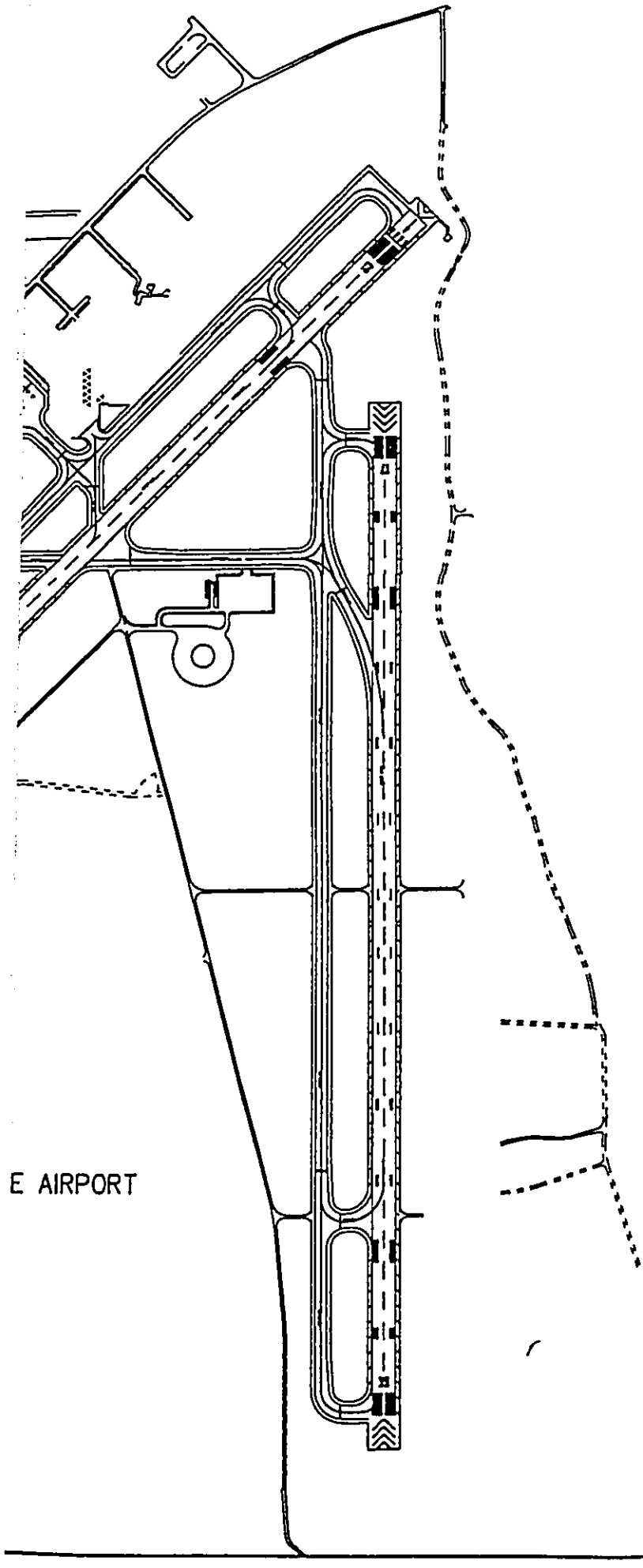
LOCATION MAP ISLAND OF KAUAI





Airports Division, DEPARTMENT OF TRANSPORTATION, HONOLULU HAWAII	PREPARED BY : KFC AIRPORT, INC., PROJECT MANAGEMENT CONSULTANT	PROJECT TITLE : LIHUE AIRPORT HELIPORT IMPROVEMENTS	DATE : / DWG. NO.:	FIGURE 1–2


INTERIM HELIPORT FACILITY
AHUKINI ROAD
KAPULE HIGHWAY
LIHUE AIRPORT



Airports Division

DSGN.	DRWN.	CHKD.	APPD.

KEY PLAN / NOTES :

NO.	DATE	REVISIONS

PROJECT TITLE :

LIHUE AIRPORT
HELIPORT IMPROVEMENTS

PROJECT NO. :

STATE PROJECT NO. AK1046-23

SHEET TITLE :

LIHUE AIRPORT
SITE MAP

DATE :
JANUARY 2002
DWG. NO. :

1-3

aprons will be used for transient helicopter refueling and will not be associated with any lease lots or permanent facilities.

As stated in section in section 1.3.1, a permanent facility was never constructed at the Lihue Airport, as there were plans for a helicopter facility to be constructed at an inland site. The proposed lease lots will provide the helicopter companies with the ability to build permanent facilities for their operations at the Lihue Heliport. These much needed facilities will allow the companies to conduct business, sell tours, and maintain their helicopters at the heliport.

Helicopter arrival and departure operations are limited to daytime visual flight rules (VFR) flight operations. Passengers board the helicopters, which are parked on the helicopter aprons; helicopters then hover from the aprons to the takeoff/landing area and depart from there. Two of the three existing takeoff/landing areas will be relocated to the southwest, however there are no plans to add new takeoff/landing areas.

There are 10 fueling stations located next to the aprons and two above ground storage tanks and pumping facilities are located to the northeast of the heliport. Maintenance hangars and tiedowns are located at the Lihue Airport on the southeast side of Ahukini Road.

1.6 PROPOSED ACTION

1.6.1 EFFECTS OF THE PROPOSED ACTION ON DEMAND

The proposed improvements to the Lihue Heliport were derived based on planning criteria established by the Federal Aviation Administration (FAA) and other recognized references on airport planning. Since the Lihue Airport is a public facility, all general aviation aircraft including helicopters, have a right to use the Airport as long as they do so in a safe manner. Helicopter tour operators are currently using the Lihue Heliport without the proposed improvements, and will continue to do so as long as there is a demand for their services at the Airport and it is in their business interest to provide the services.

As the Demand Forecasts in Section 1.3.2 indicate, the number of helicopter operations at Lihue Airport is expected to grow independent of the proposed improvements and the number of helicopter tour operations occurring at the Airport. There is no causal relationship between the proposed improvements and the number of helicopter tour operations occurring at the Airport.

The number of helicopter operations at the Lihue Heliport is dependent on aviation demand for air tours because the growth of helicopter operations is not limited by the current facilities; growth would be a function of the economics or popularity of air tour operations. Airports and airport improvements do not create a demand for economic development, but instead accommodate economic

developments. Thus, the planned improvements at the Lihue Heliport will not be the cause of increased helicopter activity.

1.6.2 HELIPORT AIRFIELD FACILITIES

The major improvements proposed for the heliport airfield consist of the following and are shown on figure 1-1.

- Helicopter Aprons – The heliport apron will be expanded by approximately 15,625 square feet with the addition of four new helicopter passenger loading/unloading pads to the southwest of the 20 existing pads. Each new apron will consist of a 62.5 foot by 62.5 foot, square concrete pad enclosed by 3281.25 square feet of asphalt concrete.

- Take-off/landing areas – Two of the three existing take-off landing areas will be relocated in the southwest direction. Each relocated take-off/landing area will consist of a 1,600 square foot asphalt concrete pad.

- Navigation and Landing Aids – Two new wind cones will be located on the northeast and southwest corners of the heliport airfield.

It should be noted that the addition of four aprons to the Heliport does not necessarily mean a 20% increase in flights. Helicopter aprons are used for loading and unloading of passengers as well as parking of helicopters when not in use. All of the helicopters, which use the Lihue Heliport, still need to conduct their take-off/landing operations from one of the three take-off landing areas at the heliport. As stated above, two of the three take-off landing areas will be relocated, however, the total number of take-off/landing areas remains unchanged.

1.6.3 HELIPORT TERMINAL FACILITIES

The major improvements proposed for the heliport terminal facilities consist of the following and are shown on figure 1-1.

- Commercial lease lots – Ten lease lots will be provided to facilitate construction, by each operator, of a helicopter hangar and maintenance building, including office, ticketing, and passenger holding areas. Each lease lot will be approximately 6,500 square feet in size. DOT-AIR will lease the ten lots and helicopter operators will be responsible for constructing and maintaining the lease lots. Refueling would be allowed at each lease lot, either by a privately owned fuel tanker truck or above ground fuel storage tank (AST). DOT-AIR will also provide utilities to the lease lots. The hangars and maintenance buildings of each operator will be independent of each other and will comply with standards and specifications set forth by architects and consultants hired by the State.

The tenant improvements will include landscaping to minimize visual impact and lights. All applicable lights will be designed in accordance with the Department of Land and Natural Resources publication, *The Newell's Shearwater Light Attraction Problem, A Guide for Architects, Planners and Resort Managers*

- Parking Facilities – Five vehicular parking areas will be shared by the ten lease lots. Each parking area will be approximately 6,815 square feet in size and contain 25 parking spaces (2 accessible).

- Ahukini Road Realignment – The addition of the four helicopter aprons will require the realignment of a portion of Ahukini Road. The Ahukini Road realignment work will include any associated infrastructure work such as reconnection of water, wastewater, electricity and telecommunications located in the existing road.

1.7 PERMITS REQUIRED

This improvement project will be located at the Lihue Airport, and will be part of the Master Plan improvements. Therefore, it will require, but shall not be limited to the following permits:

- NPDES Construction Permit – Notice of Intent (NOI) Form 1, Form 'A', and Form 'C'
  Clean Water Branch
  Department of Health
  State of Hawaii

The NOI Form 'C' is required for discharge of storm water runoff associated with construction activity. A NPDES general permit is required for the discharge of hydrotesting and chlorinated water for water line and sewer line construction.

Activities associated with the construction of the project shall comply with the Department of Health's Administrative Rules, Chapter 11-46, "Community Noise Control."

- The contractor shall obtain a noise permit if the noise levels from the construction activities are expected to exceed the maximum permissible sound levels of the regulations as stated in Section 11-46-6(a).

- Construction equipment and on-site vehicles requiring an exhaust of gas or air shall be equipped with mufflers as stated in Section 11-46-6(b) (1) (A).

- The contractor shall comply with the requirements pertaining to construction activities as specified in the rules and the conditions issued with the permit as stated in Section 11-46-7(d) (4).

The project will be designed and constructed in accordance with the County of Kauai and Hawaii State's standards and all associated FAA standards.

1.8 PHASING AND CONSTRUCTION COSTS

The improvements to the Lihue Heliport will be implemented in phases in order to lessen the impact to helicopter operators by keeping any interruptions to helicopter operations to a minimum.
The improvement project will be completed in three phases. **Phase I** and **Phase II** shall consist of off-site work including, but not limited to:

- The demolition and reconstruction of the portion of Ahukini Road affected by the improvements to the heliport.

Phase III shall consist of on-site work including, but not limited to:

- The construction of a temporary access road to allow helicopter operators continued use of the existing helicopter parking apron during construction of the permanent roadway;
- Installation of the two new wind cones;
- Site work for the lease lots;
- Demolition and reconstruction of new relocated takeoff/landing pads, and associated striping;
- Construction of the four additional apron pads and associated striping;
- Construction of the five vehicular parking areas.

All of the phases will be funded by the State of Hawaii, Department of Transportation. The funding will be obtained from the airport development fund. The preliminary estimated construction cost for the improvements is approximately $7.5 million.

1.9 ESTIMATED CONSTRUCTION SCHEDULE

The construction period for the proposed project is anticipated to last twelve (12) months. Construction is expected to begin by the end of 2002.

SECTION II

AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS AND MITIGATIVE MEASURES

II. AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS AND MITIGATIVE MEASURES

2.1 EXISTING LAND USE

2.1.1 STATE LAND USE LAW

The State Land Use Law regulates the classification and use of lands within the State under the provisions of the Hawaii Revised Statutes, Chapter 205. The purposes of the land use regulations are to accommodate growth, development, and to conserve natural resources. All lands in the State are classified by the State Land Use Commission and placed into one of the four major land use districts. The four major districts are "Urban," "Rural," "Agriculture," or "Conservation." The Department of Land and Natural Resources is responsible for land use decisions pertaining to State Conservation lands. The individual counties govern land use within the "Rural" and "Agriculture" districts.

The State Land Use District classification for the airport is "Urban". The portion of the land immediately north of the Airport is designated "Conservation", while lands immediately west and south of the Airport are classified "Agriculture". The nearby-urbanized areas of Hanamaulu, Lihue, and Nawiliwili, including resort areas are classified "Urban" while the shoreline area east of the Lihue Airport is classified "Conservation".

Surrounding land uses in the immediate vicinity of the heliport include sugar cane fields, the Lihue Airport DOT Maintenance Facility, and the Lihue Airport Terminal Parking Lot (see figure 2-1 and figure 2-2).

Impacts and Mitigation Measures

The construction of the proposed project is not anticipated to alter the existing land use in the surrounding area since the project only provides improvements to the existing heliport located at Lihue Airport. The land use in the surrounding areas remains the same.

2.1.2 KAUAI COUNTY ZONING

In compliance with the Kauai County Charter of 1968, the County of Kauai adopted a General Plan (GP) in 1971. The GP (as amended) provides guidance for the County in anticipation of increasing development demands and the need for improved resource management. The plan has significant bearing on rezoning decisions.

The Kauai General Plan was recently updated in November of 2000 and a new Land Use Map was adopted. This map designates the land use of Lihue Airport as Transportation (see figure 2-4). Portions within the northwestern area of the project site are designated Urban Center and the 48 acre area between the runways is designated Open.

The Comprehensive Zoning Ordinance (CZO) for the County of Kauai (County of Kauai Ordinance 164, as amended) regulates the type, size, siting and uses of structures within various zoning district classifications.

Lihue Airport is zoned I-G/ST-P, denoting General-Industrial District/Special Treatment District Public Facilities (see figure 2-3).

The Lihue Heliport is situated outside of Kauai County's Special Management Area.

Impacts and Mitigation Measures

The construction of the proposed project is not anticipated to alter the existing zoning or land use in the area as the project only provides improvements to the existing heliport located at Lihue Airport. The land use and zoning in the surrounding areas remains the same.

2.1.3 LIHUE DEVELOPMENT PLAN

The Lihue Development Plan was adopted in 1976. It provides physical, social, and economic measures, which relate specifically to the Lihue community. The development plan is a tool to implement the goals and objectives of the County's General Plan which provides overall guidance to the future of Kauai.

According to Lihue Planning District Land Use Map of the recently updated Kauai General Plan (Final Draft dated April 2000), the land use designation for the Lihue Airport is "Public." Surrounding lands are designated as "Agriculture" in the updated General Plan. The proposed project use of the heliport conforms to the Lihue Development Plan and is in harmony with the General Plan's agricultural designation of the surrounding lands.

2.2 TOPOGRAPHY AND GEOLOGY

Geologically, the island of Kauai is one of the oldest and most structurally complex islands in the State of Hawaii. The island of Kauai consists of a single great shield volcano, which has been deeply eroded and partly veneered with much later volcanics. The rocks of the Kauai shield volcano are named the Waimea Canyon Volcano series, and the portion that built the main mass of the shield outside the caldera are called the Napili Formation. The caldera of the Kauai shield volcano was filled with lavas from the Olokele formation. A post-

erosional series of lavas, the Koloa Volcanic Series, later covered much of the eastern portion of Kauai.

The Lihue Airport is located on the Koloa Volcanic Series, which includes lava flows of nepheline basalt, metlilite-nepheline basalt, olivine basalt, picrite-basalt, and basanite. The airport is located on a plateau between the Hanamaulu and Huleia Streams and is characterized by uniform soils on slopes of less than 8%.

Impacts and Mitigation Measures

The construction of the proposed project is not anticipated to alter the existing topography in the vicinity and surrounding areas.

2.3 SOILS

The predominant soil type which underlie approximately 90% of the Lihue Airport property belong to the Lihue Series, which consists of the following classifications:

Lihue Silty Clay (LhB) – In a representative profile, this soil sub series consists of a strongly acidic dusky-red silty clay surface layer approximately 12 inches thick. The subsoil is dark-red and dark reddish-brown compact silty clay. The subsoil is more than 48 inches thick and is slightly acid to neutral, with a slope range of 0 to 8%. The substratum is soft, weathered rock. Permeability is moderately rapid, runoff is slow, and the erosion hazard is slight.

Lihue Silty Clay (LhC) – This soil is similar to LhB sub series except that it is found on slopes of 8 to 15%.

Lihue Gravelly Silty Clay (LIB) – This soil is found on slopes of 0 to 8% and is similar to the LhB sub series except that it contains ironstone-gibbsite pebbles.

Boring logs of the adjacent service road indicate the existence of Silty Clay in the vicinity of the Heliport.

Impacts and Mitigation Measures

The construction of the proposed project does not induce any significant negative impacts on the soil. Temporary disturbance of soils will occur during the clearing and grubbing activities. A grading permit may be required for the disposal of excess excavated materials and/or borrow sites. All grubbed material will be disposed of at an appropriate solid waste disposal site. The replacement of existing soil with rock and pipe cushion is not expected to pose any adverse effects on existing conditions. Existing surface conditions will be restored upon

completion of construction. As much of the land in the vicinity of the heliport has been previously graded and is already in urban use, no significant impacts are anticipated.

2.4 SURFACE WATER

Surface water resources on the Island of Kauai generally consist of perennial streams, which flow to the sea. The major streams originate in the rainy Kauai uplands and are relatively large and uniform in flow. Stream water is often diverted into ditch and tunnel systems for sugar cane irrigation purposes. Perennial streams located near the airport include Huleia Stream located approximately 1 mile south of Lihue Airport, and the Hanamaulu Stream located about one-half mile north of the airport.

The Lihue Airport has a natural drainage area of 2,270 acres with extensive crossings of irrigations systems over the sub-basin boundaries. The Airport is not situated in a major drainage course.

Coastal waters adjacent to the Airport are designated Class A waters by the State of Hawaii, Department of Health Administrative Rules, Chapter 54, Water Quality Standards. The objective of the Class A classification is to protect water quality for recreational purposes and aesthetic enjoyment. Generally, discharges, which have not received the best degree of treatment or control, are not allowed in Class A waters.

The Lihue Plantation Company has constructed several small settling ponds adjacent to the coast to settle out suspended solids before water from the drainage basin, including the Airport, is discharged into the ocean.

Impacts and Mitigation Measures

Short-term impacts to water quality are primarily related to storm water runoff from graded areas, which may impair coastal water quality during the construction of the improvements at the heliport. Site preparation and grading activities associated with the improvements to the heliport shall be conducted in compliance with applicable State and County regulations to minimize runoff into coastal waters. An erosion control plan must be approved by the County of Kauai before commencing of grading activities. In addition, a National Pollutant Discharge Elimination System (NPDES) Notice of Intent for Storm water Discharges Associated with Construction Activity will be required by the State Department of Health Clean Water Branch. Appropriate and applicable best management practices shall be established and implemented to reduce the control discharge of runoff from construction areas, thus, significantly reducing impacts to coastal waters.

The long-term effect from construction activities at the heliport is expected to be negligible on water quality in the vicinity of Lihue Airport.

2.5 FLORA AND FAUNA

Intense sugar cane cultivation in the vicinity of Lihue Airport since the late 1800's and early 1900's has replaced almost all of the native (endemic) vegetation. Further impacts on the diversity and prevalence of native vegetation have resulted from urban development, the introduction of aggressive non-native (exotic) species, feral animals, and the use of herbicides in agricultural activities. There are no rare or endangered plant species within the project area. A list of plant species located at Lihue Airport is presented in Appendix B.

Mammals found in the vicinity of Lihue Airport include the Black Rat (*Rattus rattus*), Polynesian Rat (*rattus exulans*), Norway Rat (*Rattus norvegicus*), House Mouse (*mus musculus*), Feral Pig (*sus scrofa*), Feral Goat (*capra hircus*), and Feral Cat (*Felis catus*).

The Hawaiian Hoary Bat (*Lasiurus cinerus sematus*) is the only known endemic or native mammal found on the island of Kauai, although this species has not been observed in the Lihue Airport area.

As native forests of the area yielded to urban development, most native birds retreated to mountainous native forests. Native water birds and wild chickens, continue to inhabit coastal areas in the Airport vicinity; however, very few suitable habitats and nesting areas for endemic and indigenous species are available.

Four endangered bird species have been observed within a 5-mile radius of the Lihue Airport. They include the Koloa Duck (*Anas wyvilliana*), the Hawaiian Coot (Fulica Americana alai), the Hawaiian Gallinule (Gallinula chloropus sandvicensis), and the Hawaiian Stilt (Himantopus mexicanus knudseni). Of the four endangered bird species, only the Hawaiian Stilt and the Hawaiian Coot have been observed in the immediate vicinity of the Lihue Airport. A list of bird species known to habitat the Lihue Airport area is presented in Appendix B.

The threatened Newell's Shearwater is another bird species that nests in Kauai's mountains and valleys, and may traverse through the Lihue Airport area. Circumstantial observations and experimental evidence have shown that artificial lighting can disorient seabirds when flying between inland nesting areas and offshore feeding grounds. This disorientation is caused by excessively bright outdoor lighting and can result in seabird collisions with man-made structures such as light poles and wires. Seabird attraction to lights at an airport could result in increased collisions with aircraft, jeopardizing the safety of passengers and operating personnel.

Impacts and Mitigation Measures

No significant impact to flora at the airport is anticipated from the proposed improvements to the heliport. The proposed improvements will occur on lands currently in airport related uses. No rare or endangered plant species were identified and no native ecosystems will be affected by construction or development activities.

The fauna on the project site consists primarily of species commonly found in other areas of Kauai. The heliport area does not contain suitable habitats for the threatened or endangered species known to inhabit the Lihue area.

As the Newell's Shearwater may over fly the heliport, all applicable lights for the proposed project should be in accordance with the Department of Land and Natural Resources' publication, *The Newell's Shearwater Light Attraction Problem – A Guide for Architects, Planners and Resort Managers* to minimize the airfield as a distraction for night-flying birds.

The State will adhere with state and federal laws regarding environmental and endangered species protection, and continue to use best management practices to minimize any potential impacts from the project.

2.6 WETLANDS

Wetlands are defined as those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetative or aquatic life which requires saturated or seasonally saturated soil conditions for growth and reproduction (Executive Order 11990, Protection of Wetlands). There are no wetlands in the area of the proposed project. Prior to development, the Lihue Heliport was used for sugar cane cultivation.

Impacts and Mitigation Measures

Not applicable.

2.7 NOISE

Noise created from aviation activities has always been a concern to communities and businesses bordering airports. The perceived audibility of noise from aircraft operations is influenced by the number and frequency of operations, topographic and meteorological conditions, time and duration of noise events, and the level of ambient background noise in the area.

An acoustic study of the existing helicopter facilities was conducted by Y. Ebisu and Associates in order to determine if the heliport improvements at the Lihue Airport would generate adverse noise impacts on surrounding noise sensitive properties.

Impacts and Mitigation Measures

According to the report, *"Acoustic Study for the Lihue Heliport Improvements (February 2002)"*, there will be minimal risk of exceeding local and federal noise impact criteria and standards due to helicopter noise in the immediate environs of Lihue Airport following completion of the facility improvements. The reason for this is that the helicopter ingress and egress routes to and from the expanded facility will remain essentially the same as existing routes, and the forecasted growth in helicopter operations between 1998 and 2025 are predicted to result in only a 2.7 DNL increase in the cumulative noise exposure from helicopters.

It should be noted that the complaint threshold for helicopter noise can be lower than the more conservative 60 DNL local threshold used for land compatibility determinations in noise sensitive areas, there will always be a risk of annoyance reactions from existing and future residents in the Lihue Airport environs.

In order to minimize the risks of adverse annoyance reactions of residents the following noise mitigation measure should be conducted. The avoidance of overflights of nearby noise sensitive properties, particularly at low altitudes of less than 1,000 feet above ground level. The proposed expansion of the existing heliport facility toward the south should not result in low-level overflights of noise sensitive properties, which are not presently overflown. For these reasons, adverse noise impacts from the improved heliport facility should be avoidable

Audible construction noise will probably be unavoidable during the entire heliport construction period. Existing tenants closest to the south end of the Heliport will likely experience the highest noise levels from construction activities during the project period. Adverse impacts from construction noise are not expected at residential areas due the very large buffer distances between the construction area and the closest residences. The use of properly muffled construction equipment, restricting construction hours during Sundays and holidays, and implementing noise curfew times in accordance with State of Hawaii Department of Health limits will further lessen construction noise impacts.

The Acoustic Study is discussed in detail in Appendix D.

2.8 AIR QUALITY

Air quality in the vicinity of the Lihue Airport is in general, relatively clean and low in pollution. Potential sources of air pollution in the Lihue Airport vicinity include motor vehicles, ash and smoke from agricultural burning, aircraft exhaust, and vagrant dust.

Vehicular-related emissions near the Airport are primarily generated along Ahukini Road and Kapule Highway. Traffic flow near the airport and heliport are fairly low and vehicular emissions do not significantly affect ambient air quality.

Sugar cane harvesting is an intermittent source of air pollution in the Airport area. However, this once a year harvesting, does not significantly affect ambient air quality in the airport area.

Impacts and Mitigation Measures

In the short-term, ambient air quality is expected to temporarily decrease as a result of the construction related activities. Fugitive dust generated during construction will be mitigated through compliance with the State of Hawaii Department of Health rules and regulations relating to general construction activities. Adequate dust control measures will be provided through frequent watering of exposed and loose soils, and immediate paving, reseeding or landscaping of completed areas. Open body trucks will be covered at all times while transporting materials that may generate fugitive dust. All measures taken shall comply with State of Hawaii, Department of Health Administrative Rules, Title 11, Chapters 59 and 60 and all-applicable county ordinances relating to excavation and stockpiling procedures. Strict adherence to approved erosion and dust control plans is expected to minimize any negative impacts.

During construction, air quality is expected to be degraded by exhaust emissions from construction equipment and vehicles. However, the impacts are considered to be insignificant as the construction period is short and emission from automobiles and equipment is negligible.

2.9 TRAFFIC

Access to the Lihue Heliport is via Ahukini Road. A traffic survey was conducted in May of 1998 at the Heliport. The peak hour traffic flow at Ahukini Road fronting the heliport was 168 vehicles. Ahukini Road has a speed limit of 25 miles per hour; therefore the maximum traffic flow per lane is approximately 1,350 vehicles per hour. As the traffic flow was found to be below the maximum traffic flow, a level of service (LOS) of "A" was concluded for Ahukini Road. According to the 1994 Highway Capacity Manual, a LOS A represents a "free flow" condition where individual drivers are not affected by the presence of others

in the traffic system and the level of comfort and convenience provided to the motorist is excellent.

Impacts and Mitigation Measures

Traffic levels during construction will be slightly higher than present levels. However, the increase in traffic flow added by construction activities will be fairly low and are not expected to significantly affect the existing LOS.

2.10 HISTORIC AND ARCHEOLOGICAL RESOURCES

The project site has not undergone an extensive archaeological reconnaissance survey. There are presently no known sites of archaeological or historical value within the existing heliport facilities.

Prior to the construction of the existing heliport, the site had long been modified for intensive agricultural cultivation.

Impacts and Mitigation Measures

Grading and/or development for improvements to the Lihue Heliport have the potential to affect historic or cultural resources, which may be of significance, should any subsurface cultural feature still exist.

In the unlikely event a subsurface feature is unearthed during construction activities, work shall stop and the State Historic Preservation Division (SHPD) Office shall be contacted immediately and a mitigation plan be developed with SHPD, Kauai Island Burial Council and Native Hawaiian individuals or organizations familiar with the proposed project area. "On-call" monitoring by a qualified archaeologist is also recommended. This should include a contractual agreement for an archaeologist to be "on-call" for analysis of any recovered materials.

2.11 SOCIAL AND SECONDARY (INDUCED) IMPACTS

The proposed improvements of the Lihue Heliport facilities would all be located within the existing Heliport's boundaries. There are no residences or local businesses near the proposed site.

Some induced socioeconomic impacts may be expected to occur due to project implementation. The proposed action would accommodate the increase in helicopter operations at the Lihue Airport, and indirectly affect regional growth and employment in the area. This may result in changes in business and economic activities, especially in the area of "flight-seeing" tourism.

Impacts and Mitigation Measures

The proposed action will not involve the need to relocate any residences or local businesses; alter surface transportation patterns; divide or disrupt established communities; or disrupt orderly, planned developments.

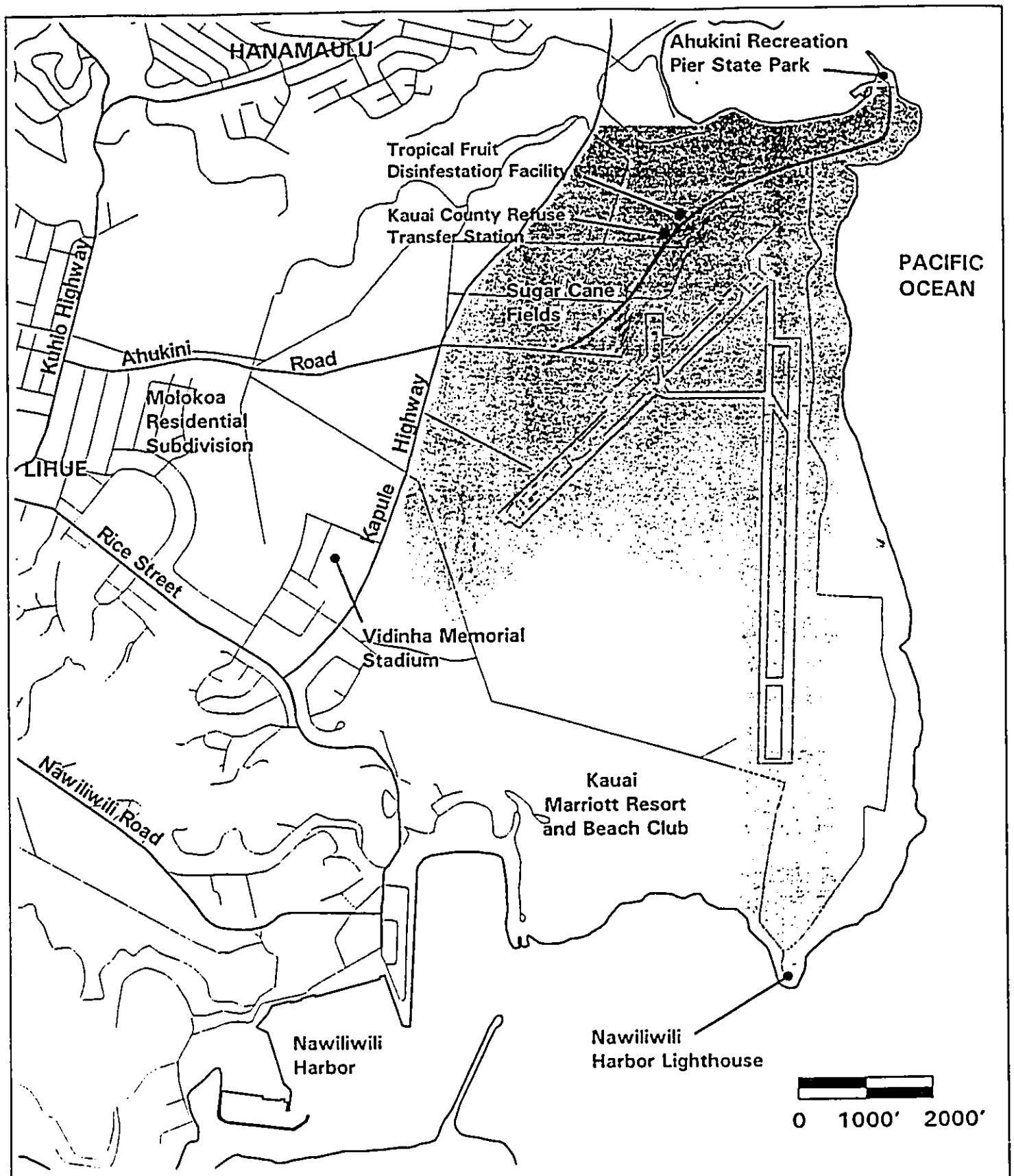
2.12 UTILITIES

The Kauai Water Department maintains two 1-million gallon tanks in Lihue, which serve the entire Lihue area. Two 12-inch ductile iron county lines supply water for public use and fire protection at the airport, one running along Ahukini Road and another running along Kapule Highway.

Solid waste collection and disposal in the Lihue area is handled by a private contract with the Kauai Refuse Company. The County of Kauai also collects and disposes of domestic solid waste materials.

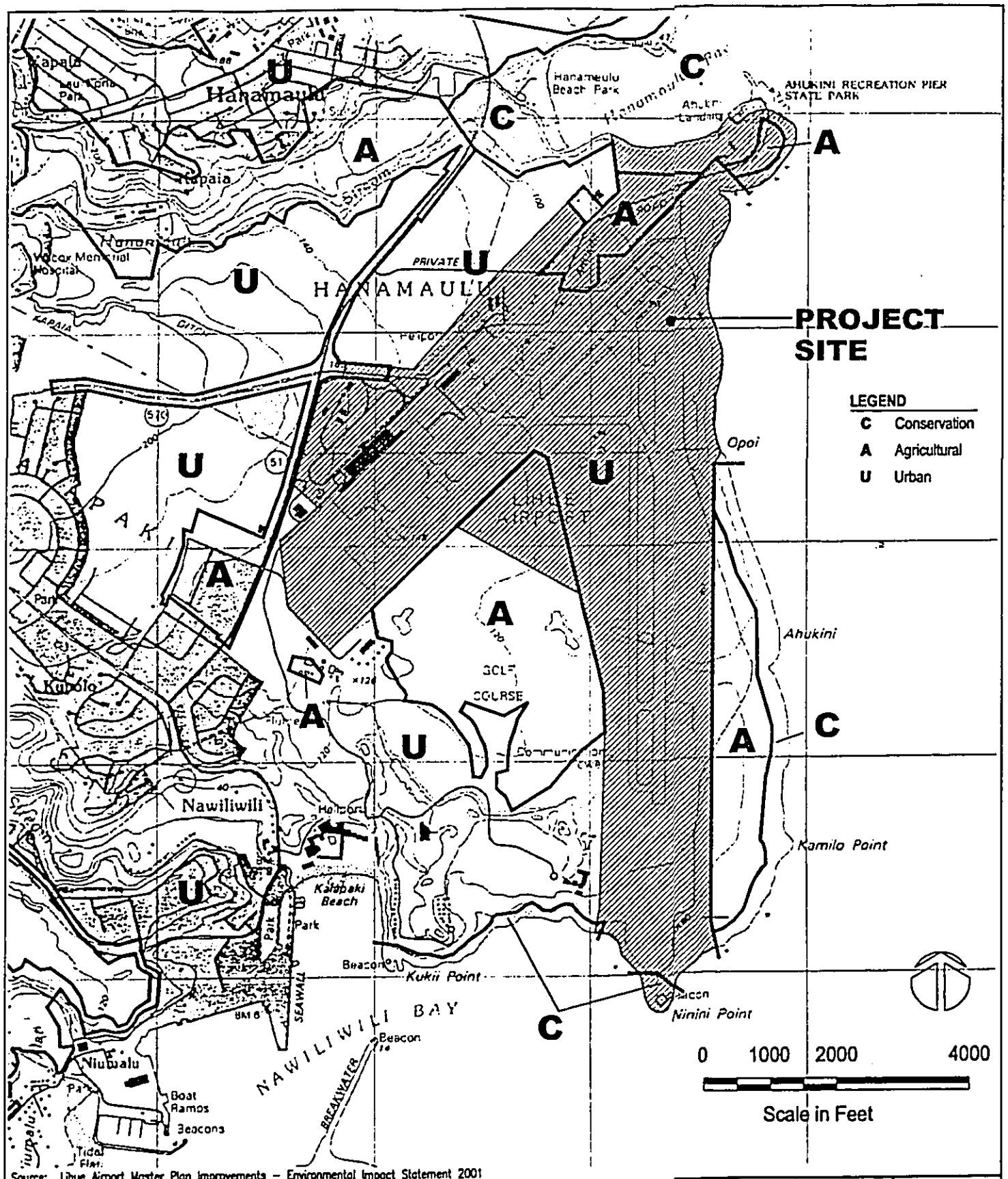
Impacts and Mitigation Measures

Water, sewer, electrical, telephone and other utilities will be provided to the new lease lots for use by helicopter operators. The demand on utilities, which will be generated from the proposed project, will not result in significant impacts and no mitigation measures are necessary.



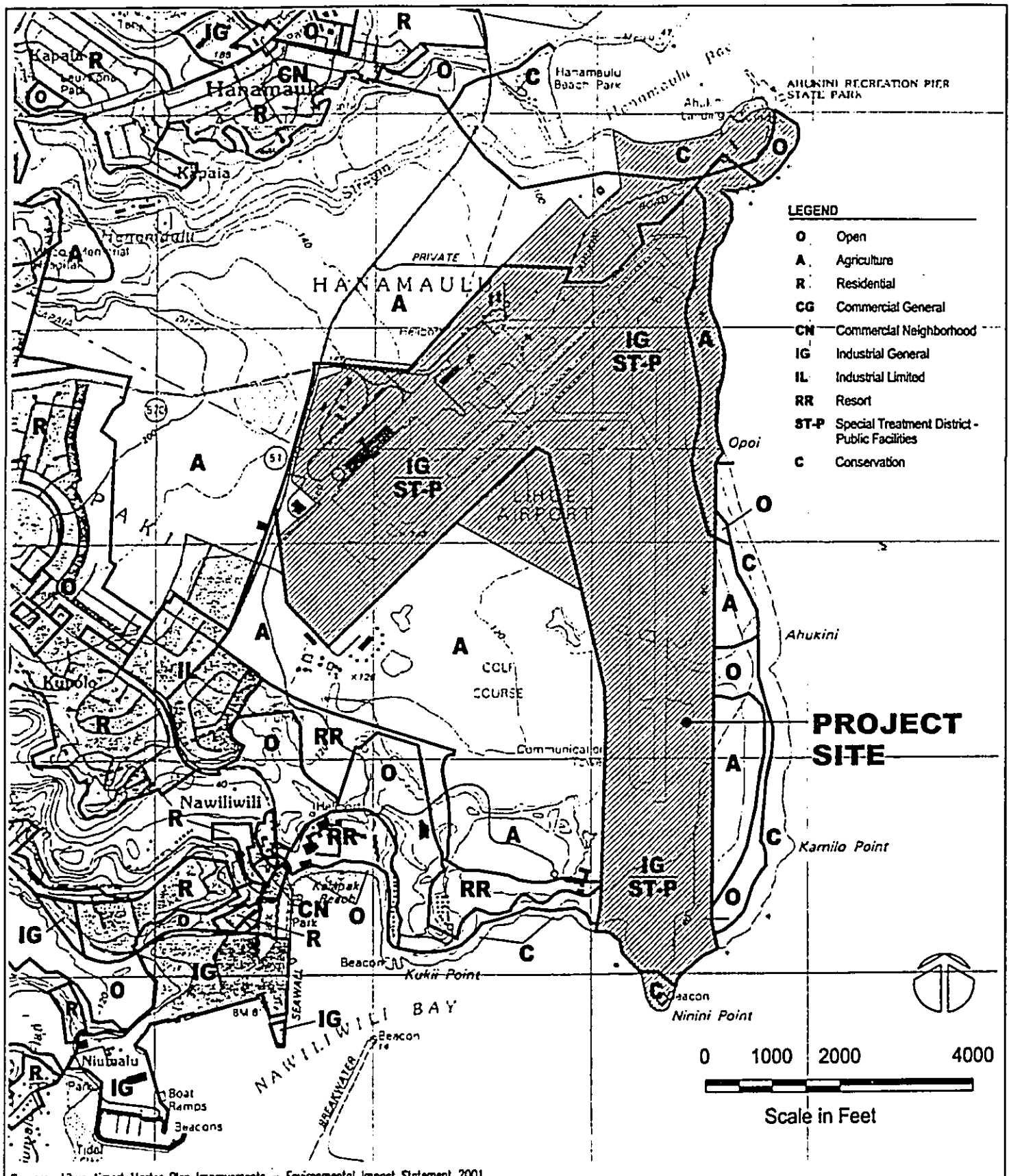
Source: Lihue Airport Environmental Impact Statement, October 1998

Airports Division, Department of Transportation, Honolulu, Hawaii	PREPARED BY : KFC AIRPORT, INC. PROJECT MANAGEMENT CONSULTANT	PROJECT TITLE : LIHUE AIRPORT HELIPORT IMPROVEMENTS	SURROUNDING LAND USES	FIGURE 2-1



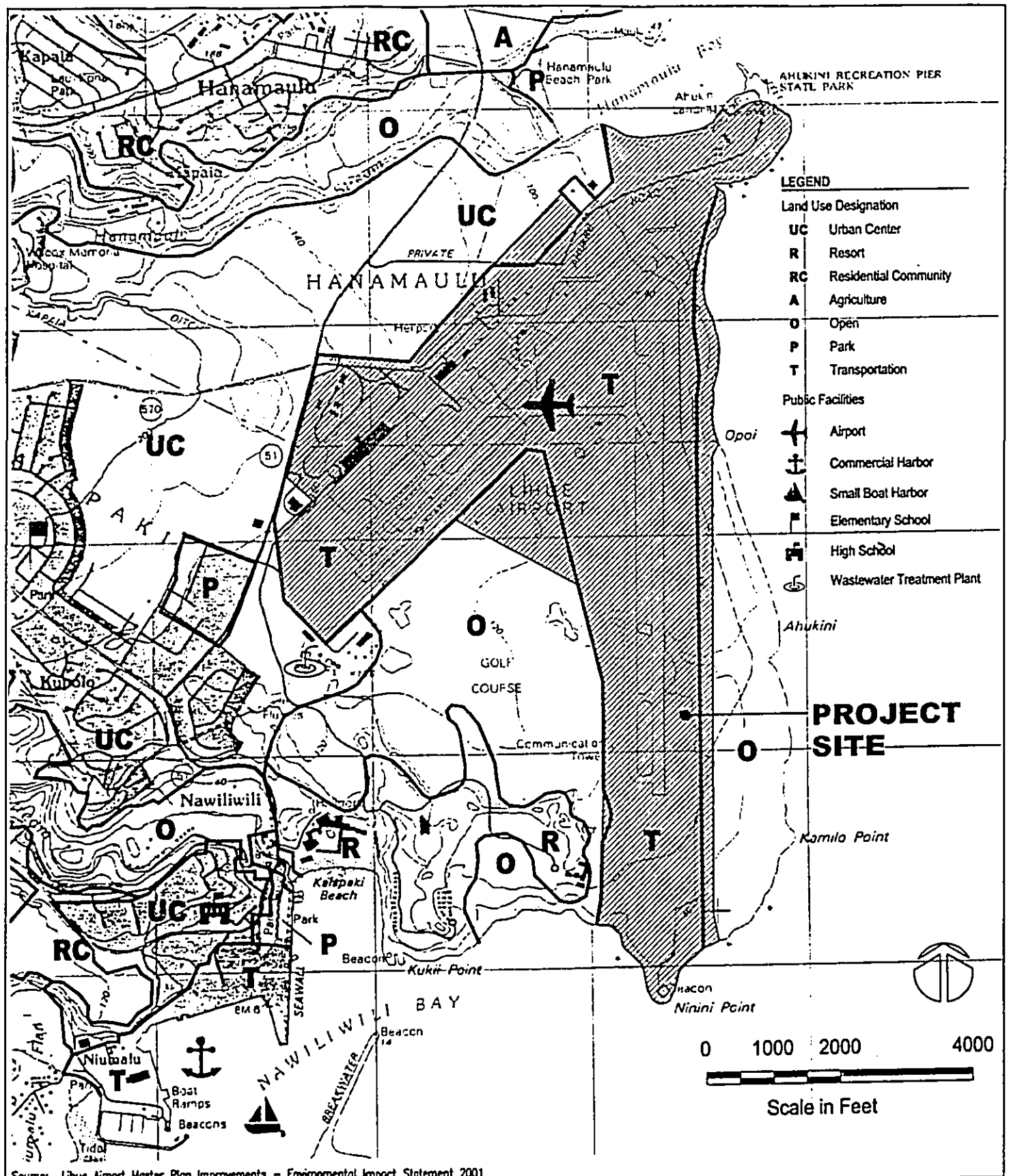
Source: Lihue Airport Master Plan Improvements – Environmental Impact Statement 2001

Airports Division DEPARTMENT OF TRANSPORTATION HONOLULU HAWAII	PREPARED BY : KFC AIRPORT, INC. PROJECT MANAGEMENT CONSULTANT	PROJECT TITLE : LIHUE AIRPORT HELIPORT IMPROVEMENTS	STATE LAND USE MAP	FIGURE 2-2



Source: Lihue Airport Master Plan Improvements – Environmental Impact Statement 2001

Airports Division DEPARTMENT OF TRANSPORTATION HONOLULU HAWAII	PREPARED BY : KFC AIRPORT, INC. PROJECT MANAGEMENT CONSULTANT	PROJECT TITLE : LIHUE AIRPORT HELIPORT IMPROVEMENTS	KAUAI COUNTY ZONING	FIGURE 2-3



Source: Lihue Airport Master Plan Improvements – Environmental Impact Statement 2001

Airports Division, DEPARTMENT OF TRANSPORTATION, HONOLULU, HAWAII	PREPARED BY : KFC AIRPORT, INC. PROJECT MANAGEMENT CONSULTANT	PROJECT TITLE : LIHUE AIRPORT HELIPORT IMPROVEMENTS	KAUAI COUNTY GENERAL PLAN	FIGURE 2–4

SECTION III

ALTERNATIVES TO THE PROPOSED ACTION

III. ALTERNATIVES TO THE PROPOSED ACTION

3.1 "NO ACTION" ALTERNATIVE

The "No Action" Alternative to the proposed action would leave the heliport in its present state, i.e., the proposed improvements would not be built. The heliport would continue to operate under present conditions. The existing facilities would need to accommodate any increase in helicopter operations.

This alternative would not allow for the completion of the existing heliport with the addition of much needed support facilities. As the impacts from construction of the new facilities at the heliport would be small and insignificant, this alternative is rejected.

3.2 RELOCATION OF THE HELIPORT FACILITY

In this alternative, the entire heliport facility would be relocated to another location. The State of Hawaii Department of Transportation (DOT-AIR) previously investigated the feasibility of consolidating helicopter operations at one location on Kauai in the *Site Selection Study for a Kauai Inland Helicopter Facility, February 1991.* The study identified and evaluated six sites and concluded that three of the six sites were feasible for the development of a long-term compatible operation of an inland heliport. However, the concept was deemed unfeasible for two reasons: the helicopter operators realized that an inland helicopter facility and other public airports would have to be open to all helicopter operators, not just the existing operators; and DOT-AIR has no authority to prevent helicopter operations at any public airport since it cannot discriminate against aviation uses at public airports. Therefore, the inland helicopter facility plan was not implemented.

Because DOT-AIR has no authority to relocate helicopter operations and/or tenant facilities from Lihue Airport and because the relocation of helicopter operations does not meet the purpose and need of the proposed improvement project, the relocation of the helicopter facility alternative is not feasible and will not be considered further.

3.3 NO LEASE LOT SITE IMPROVEMENTS ALTERNATIVE

This alternative would retain the heliport "as is" with some improvements to the airfield only.

3.3.1 LAND ACQUISITION

No land acquisition is required for this alternative.

3.3.2 AIRFIELD

The existing twenty apron pads would remain, and four additional apron pads would be constructed to the northwest. Two of the three-takeoff/landing areas would be relocated and reconstructed in the southwest direction. Two new wind cones would also be located on the northeast and southwest corners of the heliport airfield.

3.3.3 TERMINAL AREA

The area presently being used by helicopter operators to accommodate their "flight seeing" operations would remain in its existing condition and location.

3.3.4 UTILITIES

No new drainage, water and other utilities are provided in this alternative.

3.3.5 OFF SITE AND OTHER IMPROVEMENTS

The realignment of a portion of Ahukini Road and all related utilities would be required under this alternative, in order to accommodate the four additional apron pads.

This alternative does not meet the current and long-term operational needs of the helicopter vendors at Lihue Airport. The existing heliport was originally built in 1990 as an interim facility with the intent of constructing a permanent facility at an inland location at a later date. As stated in section 3.2, plans for a permanent inland heliport facility for Kauai have since been abandoned and the existing heliport at Lihue is still in need of support facilities. As this alternative does not meet and fulfill the needs of the helicopter operators at the Lihue Heliport, this alternative is rejected.

SECTION IV

DETERMINATION

IV. DETERMINATION

Based on the foregoing analysis, the Preferred Alternative is recommended. The proposed project (Preferred Alternative) will not have any significant impact on the environment and, therefore, preparation of an Environmental Impact Statement is not required. It is compatible with existing and planned land uses and activities in the area. The applicant will comply with applicable statutes, ordinances and rules of the Federal, State, and County governments. It is recommended that a Finding of No Significant Impact (FONSI) for the Preferred Alternative be prepared and a notice of the availability of the EA and FONSI be published in the Department of Health, Office of Environmental Quality Control "The Environmental Notice" publication. The determination of a FONSI is based on the following:

SIGNIFICANCE CRITERIA: According to the Department of Health Rules (I 1-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying whether significant environmental impacts will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one of the criteria listed below.

1. *Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;*

No irrevocable commitment to loss or destruction of any natural or cultural resources would result. The area affected by the proposed project consists primarily of previously graded land in an Urban land use area and within the boundaries of the Lihue Airport.

As previously noted, no significant archaeological or historical sites are known to exist in the project area. If any archaeologically significant artifacts, bones, or other indicators of previous onsite activity are uncovered during the construction phases of development, their treatment will be conducted in strict compliance with the requirements of the Department of Land and Natural Resources.

2. *Curtails the range of beneficial uses of the environment;*

Although the subject property is classified as "Urban", the areas of the proposed action, as well as surrounding areas, were historically used for sugar cane cultivation. The proposed action would allow for the proper use of the Airport for airport purposes.

3. *Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;*

The proposed development is consistent with the Environmental Policies established in Chapter 344, HRS, and the National Environmental Policy Act.

4. *Substantially affects the economic or social welfare of the community or state;*

The economic or social welfare of the Kauai community and/or the State of Hawaii would not be substantially affected. The proposed action would allow for environmentally sound development of the site. The project will provide positive economic impacts without significant negative social consequences.

5. *Substantially affects public health;*

The proposed action does not substantially affect public health.

6. *Involves substantial secondary impacts, such as population changes or effects on public facilities;*

The proposed project will not in itself generate new population growth, but provide needed improvements to the Lihue Heliport facilities. As the proposed project is minor in scope, it would not result in any foreseeable changes or effects on population or public facilities.

7. *Involves a substantial degradation of environmental quality;*

No significant degradation of environmental quality is anticipated. No adverse environmental impacts are expected. Short-term construction noise, air quality and construction traffic would have a minor impact on the surrounding areas.

8. *Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;*

The proposed action does not involve a commitment to larger actions, nor would the cumulative impacts result in considerable effects to the environment. The proposed action is self-contained and of independent utility.

9. *Substantially affects a rare, threatened or endangered species or its habitat;*

No rare, threatened, or endangered species or their habitats would be affected. The site is located within an airport and urban setting.

10. Detrimentally affects air or water quality or ambient noise levels;

Air quality, water quality and ambient noise would not be detrimentally affected. Grading and construction may have the potential to affect air quality, water quality and ambient noise levels on a short-term basis. Engineering controls incorporated into the proposed project would minimize any impacts.

11. Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion prone area, geologically hazardous land, estuary, freshwater, or coastal waters;

The project would not affect environmentally sensitive areas, such as flood plains, tsunami zones, erosion areas, geologically hazardous lands, estuaries, fresh water or coastal waters. Best management practices will be utilized to minimize runoff and other potential impacts to environmentally sensitive areas.

12. Substantially affects scenic vistas and view planes identified in county or state plans or studies;

There will be no effect on scenic vistas or view-planes in county or State plans or studies. The proposed project does not have a direct impact on vistas or view-planes. Landscaping is also included in the proposed project for beautification purposes.

13. Requires substantial energy consumption.

Construction of the proposed project will not require substantial energy consumption. The majority of the energy used would be during construction and would be a short-term impact.

SECTION V

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V. REFERENCES

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APPENDIX A

LIST OF INDIVIDUALS, ORGANIZATIONS AND AGENCIES CONTACTED

FEDERAL GOVERNMENT

Lihue Airport Air Traffic Tower
Federal Aviation Administration

Department of the Army

Department of the Interior
U.S. Fish and Wildlife Service

Natural Resources Conservation Service
U.S. Department of the Interior

Animal and Plant Health Inspection Service
U.S. Department of the Interior

Honolulu Engineer District
U.S. Army Corps of Engineers

Federal Aviation Administration
U.S. Department of Transportation

Port Director
U.S. Customs Service

U.S. Environmental Protection Agency

Natural Resources Conservation Service
United States Department of Agriculture

STATE GOVERNMENT

Department of Agriculture

Office of Hawaiian Affairs

Office of Planning
Department of Business, Economic Development and Tourism

Land Use Commission
Department of Business, Economic Development and Tourism

Land Transportation Division
Department of the Attorney General

Land Division
Department of Land and Natural Resources

State Historic Preservation Division
Department of Land and Natural Resources

Highways Division
Department of Transportation

Office of the Director of Civil Defense
Department of Defense

Environmental Planning Office
Department of Health

Environmental Quality Control
Department of Health

Environmental Center
University of Hawaii

COUNTY AGENCIES

Department of Planning

Department of Water

Department of Public Works

Office of Economic Development

Civil Defense Agency

Police Department

Fire Department

HELICOPTER OPERATORS AT LIHUE AIRPORT

Air Kauai Helicopters

Bali Hai Helicopters

Inter-island Helicopters

Island Helicopters

Jack Harter Helicopters

Kenai Helicopters

Ohana Helicopters

PD Aviation Consulting, Inc.

Safari Helicopters

South Seas Helicopters

Will Squyres Helicopters

GROUPS AND ORGANIZATIONS

Nature Conservancy of Hawaii

Kauai Chamber of Commerce

Kauai Citizen Helicopter Advisory Board

APPENDIX B

FLORA AND FAUNA

PLANTS AT LIHUE AIRPORT

Common Name	Scientific Name
POACEAE (GRASS FAMILY)	
Pitted beargrass	*Andropogon pertuses*
Sandur	*Cenchrus echinatus*
Swollen fingergrass	*Chloris infalata*
Bermuda grass	*Cynodon dactylon*
Puerto Rican stargrass	*Cynodon nlemfunsis*
Henry's crabgrass	*Digitaria adscendens*
Wiregrass, Goosegrass	*Eulinsine indica*
Molasses grass	*Melinis minutiflora*
Guinea grass	*Pancium maxium*
Hilo grass	*Paspalum conjugatum*
Rice grass	*Paspalum orbiculare*
Natal redtop	*Phynchelytrum repens*
Yellow fontail, bristlegrass	*Rhynchelytrum repens*
Smutgrass	*Seteraia glauca*
Sour grass	*Sporobulus indicus*
California grass	*Tricachne insularis*
Eragrotis	*Brachiaria mutica*
Sprangletop	*Leptochloa uninervia*
CYPERACEAE (SEDGE FAMILY)	
Kili'o'opu	*Kyllinga nemoralis*
Purple nutsedge	*Cyperus rotundus*
BORAGINACEAE (BORAGE FAMILY)	
Heliotrope	*Heliotropium procumbens*
COMMELINACEAE (SPIDERWORT FAMILY)	
Honohono, Day Flower	*Commelina diffusa*
AMARANTHACEAE (AMARANTH FAMILY)	
Spiny amaranth	*Amaranthus spinosis*
PHYTOLACCACEA (POKEWEED FAMILY)	
Phytolacca, Pokeweed	*Phytolacca octandra*
PORTULACEAE (PUSLANE FAMILY)	
Purslane, Pigweed	*Portulaca oleracea*
MALVACEAE (HIBISCUS FAMILY)	
False mallow	*Malavastrum coromandelianum*
Ilima Lei	*Sida cordifolia*
Prickly sida	*Sida spinosa*
PASSIFLORACEAE (PASSION FLOWER FAMILY)	
Scarlet-fruited passion flower	*Passiflora foetida*
CONVOLVULACEAE (MORNING GLORY FAMILY)	
Morning Glory	*Ipomea obscura*

Source: Lihue Airport Environmental Impact Statement, October 1998

PLANTS AT LIHUE AIRPORT (CONTINUED)

Common Name	Scientific Name
CRUCUFERAE (PEA FAMILY)	
Japanese tea	*Cassia leschenaultiana*
Fuzzy rattle pod	*Crotalaria incana*
Indigo	*Indigofera suffruticosa*
Haole koa, Ekoa	*Leucaena leucocephala*
Sensitive plant, hilahila	*Mimosa pudica*
Alfafa	*Medicago setiba*
Black medick	*Medicago spp.*
Bur clover	*Medicago polymorpha*
Slender mimosa	*Desmanthus virgatus*
Wildbean, Cow pea	*Macroptilium lathyroides*
EUPHORBIACEAE (SPURGE FAMILY)	
Graceful spurge	*Chamaesyce hypericifloia*
Garden spurge	*Chamaesyce hirta*
Niruri	*Phyllanthus debilis*
Castor bean	*Ricinus communis*
STERCULIACEAE (COCOA FAMILY)	
'Uhaloa	*Waltheria indica*
UNBELLIFERAE (PARSEL FAMILY)	
Asiatic pennywort	*Centella asiatica*
VERBENACEAE (VERVAIN FAMILY)	
Lantana	*Lantan camara*
Jamaica vervain	*Stachytarpheta jamaicensis*
SOLONACEAE (TOMATO FAMILY)	
Popolo	*Solanum nigrum*
RUBIACEAE (COFFEE FAMILY)	
Buttonweed	*Borreia laevis*
CUCURBITACEAE (GOURD FAMILY)	
Balsam apple, Peria	*Momordica charantia*
ASTERACEAE (SUNFLOWER FAMILY)	
Spanish needle, Beggar tick	*Bidens pilosa*
False daisy	*Eclipta alba*
Floras paintbrush, red pualele	*Emilia sonchifolia*
Hairy horseweed	*Erigeron bonariensis*
Hairy cats-ear	*Hypochoeris radicata*
Indian fleabane	*Pluchea indica*
Dandelion	*Taraxacum officinale*
Asiatic hawksbeard	*Youngia japonica*
Golden crown-beard	*Veresina encelioides*
Wedelia	*Wedelia trilobata*
Pualele, Sow thistle	*Sonchus oleraceus*

Source: Lihue Airport Environmental Impact Statement, October 1998

BIRD SPECIES OBSERVED AT LIHUE AIRPORT

	Common Name	Scientific Name
SEED EATING BIRDS		
	Zebra Dove	*Geopelia striata*
	Spotted Dove	*Streptopelia chinensis*
	Chestnut mannikin	*Lonchura malacca*
	Nutmeg mannikin	*Lonchura punctulata*
	House finch	*Carpodacus mexicanus*
WATERBIRDS		
◈	Pacific golden-plover	*Pulvialis fulva*
◈	Ruddy turnstone	*Arenaria interpres*
⌘O	Hawaiian duck (Koloa)	*Anas wyvilliana*
⌘O	Black-necked stilt	*Himantopus mexicanus knudseni*
◈	Bristle-thighed Curlew	*Numenius tahitiensis*
◈	Cattle egret	*Bubulcus ibis*
UPLAND BIRDS		
⌘O	Hawaiian Goose (Nene)	*Nesochen sandvicensis*
⌘	Short-eared owl (Pueo)	*Asio flammeus sandwichensis*
	Common barn owl	*Tyto alba*
	Ring-necked pheasant	*Phansianus colchicus*
	Western meadowlark	*Sturnella neglecta*
	Red jungle fowl	*Gallus gallus*
URBAN BIRDS		
	Common myna	*Acridotheres tristis*
	House sparrow	*Passer domesticus*
	Java sparrow	*Padda oryzivora*
	Red-crested cardinal	*Paroaria coronata*
	Northern cardinal	*Cardinalis cardinalis*
	Northern mockingbird	*Mimus polyglottus*
MARINE BIRDS		
⌘∴	Newell's shearwater	*Puffinus newelli*
◈	Wedgetailed shearwater	*Puffinus pacificus*
◈	Laysan albatross	*Diomedea immutabilis*
◈	Great frigatebird ('Iwa)	*Fregata minor palmerstoni*
◈	Red-tailed tropicbird	*Phaethon rubicauda rothschildi*
◈	Red-footed booby	*Sula sula rubripes*

Source: Lihue Airport Environmental Impact Statement, October 1998

LEGEND	
⌘	Endemic
◈	*Indigenous*
O	*Endangered*
∴	*Threatened*

APPENDIX C

PRE-CONSULTATION COMMENT LETTERS

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING
235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI F. NAYA, Ph.D.
DIRECTOR
SHARON S. NARIMATSU
DEPUTY DIRECTOR
DAVID W. BLANE
DIRECTOR, OFFICE OF PLANNING

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-9243

October 19, 2001

Mr. Brian K. Minaai
Director
Department of Transportation
Airports Division
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819

Attn: Gene Matsushige

Dear Mr. Minaai:

Subject: Lihue Airport Heliport Improvements, Lihue, Island of Kauai,
TMK: 3-5-01: Portion of 8

The Office of Planning has reviewed the State of Hawaii Department of Transportation Airports Division's (DOT-AIR) Environmental Assessment (EA) and notice of anticipated Finding of No Significant Impact (FONSI) for improvements to the Lihue Airport Heliport. The proposed project will make major improvements to the interim helicopter facility, located on approximately 18 acres of State land northeast of the Lihue Airport Terminal, along Ahukini Road. It should be noted that the maps and plans in the EA do not clearly indicate the location of the interim heliport in relation to the rest of the airport complex or Ahukini Road.

The proposed improvements include the realignment of the portion of Ahukini Road adjacent to the heliport and the preparation of 10 lots to be leased to helicopter operators who would each build their own facility to serve as their hangar, maintenance shop, office, and passenger terminal. The EA fails to identify the square footage of each lot, but does specify that the five parking areas between the lots will be approximately 6,815 square feet each.

The project will also includes extending the present heliport apron in the southwestern direction to provide four additional helicopter passenger loading/unloading pads. It also involves relocating two of the three heliport take-off/landing pads in the same southwestern direction and installing new wind cones on both ends of the facility.

The EA explains that there are no viable alternatives to improving and making permanent the existing, interim heliport. The lack of options is due to proposed requirements in the

The EA explains that there are no viable alternatives to improving and making permanent the existing, interim heliport. The lack of options is due to proposed requirements in the settlement of a lawsuit that originated between one helicopter operator and the State. One of the points of the proposed settlement is that the State cannot pursue any site for the heliport except for the interim Lihue airport site. Approval of this heliport EA and the FONSI will be presented as a preliminary step towards the court determining a final settlement.

Notwithstanding the final settlement of the lawsuit, other possible impacts of the expansion of the heliport seem to be appropriately mitigated, with the exception of noise. The EA relies on a noise study of the existing heliport that is now 13 years old. While the volume of daily helicopter operations may not have increased significantly, new development has been approved or proposed in the general area of the helicopters' mauka routes. The 1988 study should be updated to include consideration of the Lihue-Hanamaulu Master Plan being developed by Amfac/JMB Hawaii and Lihue Plantation, as well as plans for the Hanamaulu Plantation community being proposed by EWM Kauai.

Thank you for the opportunity to comment. Should you have any questions, please call Heidi Meeker at 587-2802.

Sincerely,

David W. Blane, AICP
Director
Office of Planning

c: Anthony Ching, Land Use Commission
Chris Chung, CZM

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO

AIR-P
02.0120

April 8, 2002

TO: DAVID W. BLANE, DIRECTOR
OFFICE OF PLANNING
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT
AND TOURISM

FROM: ROY K. SAKATA
ACTING AIRPORTS ADMINISTRATOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
LIHUE AIRPORT HELIPORT IMPROVEMENTS
LIHUE, KAUAI, HAWAII

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

Additional information regarding the square footage of the proposed lease lots has been included in the Draft EA. Furthermore, the 1988 Noise Study has been replaced with an Acoustic Study completed in February 2002 and is also included in the Draft EA.

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager, at 838-8826 to clarify any questions you may have.

BENJAMIN J CAYETANO
GOVERNOR OF HAWAII

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
LINNEL NISHIOKA

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

October 17, 2001

LOG NO: 28382
DOC NO: 0110NM18

Mr. Gene Matsushige, State Project Manager
Department of Transportation
State of Hawaii/Airports Division
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819

Dear Mr. Matsushige:

SUBJECT: **Historic Preservation Review -- Draft EA for the Lihue Heliport**
Project No. AK1046-23, TMK: 3-5-01: por. 8
Lihue, Kauai

Thank you for submitting the draft EA for our review. A review of our records indicates the absence of known historic sites in this area of the property. The area was used for agricultural purposes, and this past land alteration makes it unlikely that any significant historic sites are present. We, therefore, believe that this project will have "no effect" on significant historic sites.

If you have any questions, please contact Ms. McMahon, our staff archaeologist for the County of Kaua'i, at 742-7033.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

NM:amk

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO

AIR-P
02.0124

April 8, 2002

TO: DON HIBBARD, ADMINISTRATOR
STATE HISTORIC PRESERVATION DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES

FROM: ROY K. SAKATA
ACTING AIRPORTS ADMINISTRATOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
LIHUE AIRPORT HELIPORT IMPROVEMENTS
LIHUE, KAUAI, HAWAII

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager, at 838-8826 to clarify any questions you may have.

BENJAMIN J. CAYETANO
GOVERNOR

ANTHONY J H. CHING
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

October 17, 2001

Mr. Gene Matsushige, State Project Manager
Airports Division
Department of Transportation
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819

Dear Mr. Matsushige:

Subject: Draft Environmental Assessment (DEA) Review
Lihue Airport Heliport Improvements
Department of Transportation
TMK No: (4)3-5-001:portion of 008
Lihue, Kauai, Hawaii

We have reviewed the subject DEA as transmitted by your memorandum dated October 1, 2001, for improvements of the existing heliport at the Lihue Airport at Lihue, Kauai, Hawaii. We confirm that the subject parcel is within the State Land Use Urban District.

Thank you for the opportunity to provide comment on the subject application.

Should you require clarification or further assistance in this matter, please contact Russell Kumabe of my staff at 587-3822.

Sincerely,

ANTHONY J. H. CHING
Executive Officer

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO:

AIR-P
02.0119

April 8, 2002

TO: ANTHONY J. H. CHING, EXECUTIVE OFFICER
LAND USE COMMISSION
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT
AND TOURISM

FROM: ROY K. SAKATA
ACTING AIRPORTS ADMINISTRATOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
LIHUE AIRPORT HELIPORT IMPROVEMENTS
LIHUE, KAUAI, HAWAII

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager, at 838-8826 to clarify any questions you may have.

2176

BENJAMIN J. CAYETANO
GOVERNOR

MAJOR GENERAL EDWARD L. CORREA, JR.
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA
VICE DIRECTOR OF CIVIL DEFENSE

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

PHONE (808) 733-4300
FAX (808) 733-4287

October 24, 2001

Airports Division
Department of Transportation
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819

Draft Environmental Assessment (DEA)
for Lihue Airport Heliport Improvements

We appreciate the opportunity to review and comment on the subject proposal. We do not have any comments or recommendations with regard to this project. Our planners and technicians are available to discuss this further if there is a future requirement.

Should you have any questions, please contact Mr. Norman Ogasawara at 733-4300, extension 531.

Sincerely,

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

c: Kauai Civil Defense Agency
DOD Environmental Office

KFC Airport, Inc.
3375 Koapaka Street, Suite F220-48
Honolulu, Hawaii 96810

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO

AIR-P
02.0121

April 8, 2002

TO: EDWARD T. TEIXEIRA, VICE DIRECTOR OF CIVIL DEFENSE
DEPARTMENT OF DEFENSE

FROM: ROY K. SAKATA
ACTING AIRPORTS ADMINISTRATOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
LIHUE AIRPORT HELIPORT IMPROVEMENTS
LIHUE, KAUAI, HAWAII

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager, at 838-8826 to clarify any questions you may have.

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

October 16, 2001

Mr. Gene Matsushige
Project Manager
Department of Transportation – Airports Division
State of Hawai'i
400 Rodgers Boulevard, Suite 700
Honolulu, HI 96819

HRD01/320

Subject: Draft Environmental Asessment (DEA) for
Lihue Airport Heliport Improvements
TMK: 3-5-01: portion 8
Lihue, Kaua'i, Hawai'i

Dear Mr. Matsushige:

Thank you for the opportunity to comment on the above referenced project. According to the DEA, The State's DOT- Airport Division proposes to construct additional heliport facilities at the existing Lihue Airport. The Office of Hawaiian Affairs (OHA) offers the following comments.

Burials, Historical and Cultural Sites

According to the DEA, no archaeological reconnaissance survey has been done on the project site because no historical or archaeological sites are known to be in that area. Moreover, the site has been extensively altered by agricultural cultivation. However, there still remains the possibility of discovering human burials, cultural or historical sites. OHA suggest archaeological monitors observe grading and excavation activities at the proposed project site.

In the event human burials, cultural or historical sites are discovered, the State's Historic Preservation Division (SHPD) should be contacted immediately, and a mitigation plan be developed in conjunction with SHPD, Kaua'i Island Burial Council, and Native Hawaiian individuals or organizations familiar with the proposed project area.

Environmental Affects

As with any project involving grading, site clearing, and any other activities involved in the proposed improvements, OHA has concerns with the impacts to the natural and human environment such activities may cause. In addition, since the proposed project encompasses the shoreline, runoff from the project may impact ocean water quality and marine life.

In addition, the DEA indicates four endangered bird species have been observed on or near the vicinity of the proposed project site. The DEA does not indicate any impacts or mitigation measures for these endangered bird species.

OHA urges the applicant of the project to adhere with state and federal laws regarding environmental and endangered species protection, and use best management practices to minimize any potential impacts that the proposed project may cause.

Noise

The DEA bases noise impacts and future forecasted helicopter operation impacts at the existing Lihue Heliport from a study done in 1989 (Appendix C). The *January 2001 Hawaii Aviation Demand Forecasts* also indicates proposed helicopter operations at the Lihue Airport.

The DEA should indicate noise impacts and future forecasted helicopter operations based on the proposed project because the 1989 Study does not include the proposed improvements. In addition, the last sentence on page 33, of Appendix C references a "State Helicopter System Planning Study." OHA requests that the DEA address the issues and findings relating to any potential noise impacts the proposed project may cause.

If you have any questions, please contact Mark A. Mararagan, policy analyst at 594-1756, or e-mail him at markm@oha.org.

Sincerely,

Colin C Kippen Jr.

Colin C. Kippen, Jr.
Deputy Administrator

cc: Board of Trustees
Administrator
Kaua'i CAC
OEQC

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO

AIR-P
02.0129

April 8, 2002

TO: COLIN C. KIPPEN, JR., DEPUTY ADMINISTRATOR
OFFICE OF HAWAIIAN AFFAIRS

FROM: ROY K. SAKATA
ACTING AIRPORTS ADMINISTRATOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
LIHUE AIRPORT HELIPORT IMPROVEMENTS
LIHUE, KAUAI, HAWAII

Thank you for your written comments for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). The following are our responses to your comments:

- Additional information regarding archaeological monitors and the notification of the State's Historic Preservation Division (SHPD) office in the event any human burials, cultural or historical sites are discovered, has been included in the Draft EA.

- The State will adhere with State and Federal Laws regarding environmental and endangered species protection, and continue to use best management practices to minimize any potential impacts from the project.

- The 1989 Noise Study has been replaced with an Acoustic Study completed in February 2002. The Acoustic Study examines the noise impacts from expansion of the Heliport and mitigation measures to minimize adverse noise impacts to surrounding areas.

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager, at 838-8826 to clarify any questions you may have.

Hana Like No Ke Ala Aloha
Working Together to Provide Gateways of Aloha

U.S. Customs Service
Pacific Tower, Suite 2500
1001 Bishop Street
Honolulu, HI 96813

October 4, 2001

Mr. Gene Matsushige
State Project Manager
Airports Division
400 Rodgers Blvd., Suite 700
Honolulu, Hawaii 96819

Dear Mr. Matsushige:

This is in response to your letter of transmittal dated October 1, 2001 regarding the Lihue Heliport EA Project #AK1046-23. The letter requested Customs review and comment on the draft environmental assessment for Lihue airport heliport improvements.

After reviewing the draft, We have determined that it is not necessary for Customs to comment at this time.

Should you have any questions, please contact Supervisory Customs Inspector Lisa Leung at 522-8080 ext. 118.

Sincerely,

Harley J. Carter
Acting Port Director

TRADITION

★

SERVICE

★

HONOR

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

IN REPLY REFER TO:

AIR-P
02.0130

April 8 2002

Mr. Harley J. Carter
Acting Port Director
U.S. Customs Service
Pacific Tower, Suite 2500
2001 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Carter:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
Lihue, Kauai, Hawaii

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager at the Airports Division, at 838-8826 to clarify any questions you may have.

Very truly yours,

Brian Minaai

BRIAN K. MINAAI
Director of Transportation

DEPARTMENT OF THE ARMY
U S ARMY ENGINEER DISTRICT, HONOLULU
FT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

October 22, 2001

Civil Works Technical Branch

Mr. Gene Matsushige
State Project Manager
Airports Division
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819

Dear Mr. Matsushige:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Lihue Heliport Project, Lihue, Kauai (TMK 3-5-1: 8). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, a DA permit will not be required for the project.

b. The flood hazard information provided on page 4-3 of the DEA is correct.

Should you require additional information, please contact Ms. Jessie Dobinchick of my staff at (808) 438-8876.

Sincerely,

James Pennaz

James Pennaz, P.E.
Chief, Civil Works
Technical Branch

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO

AIR-P
02.0122

April 8, 2002

Mr. James Pennaz
Chief, Civil Works Technical Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Pennaz:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
Lihue, Kauai, Hawaii

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager, at 838-8826 to clarify any questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

United States
Department of
Agriculture

Natural
Resources
Conservation
Service

P.O. Box 50004
Honolulu, HI
850

Our People...Our Islands...In Harmony

October 22, 2001

Mr. Gene Matsushige
State Project Manager
Department of Transportation
Airports Division
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819

Dear Mr. Matsushige:

Subject: Draft Environmental Assessment (EA) for Preconsultation – Lihue Heliport EA, Project No. AK1046-23, Lihue, HI

We have reviewed the above mentioned document and offer the following comments:

The project area involves only 18 acres and since the area is already in the State "Urban" district and County zone of IG – Industrial General, I would anticipate no adverse impacts on the natural resources from this action.

Thank you for the opportunity to review this document.

Sincerely,

KENNETH M. KANESHIRO
State Conservationist

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. UPASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO

AIR-P
02.0131

April 8, 2002

Mr. Kenneth M. Kaneshiro
State Conservationist
Natural Resources Conservation Service
U.S. Department of Agriculture
P.O. Box 50004
Honolulu, Hawaii 96850

Dear Mr. Kaneshiro:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
Lihue, Kauai, Hawaii

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager, at 838-8826 to clarify any questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

MARYANNE W. KUSAKA
MAYOR

WALLACE G. REZENTES, SR.
ADMINISTRATIVE ASSISTANT

CESAR C. PORTUGAL
COUNTY ENGINEER
TELEPHONE 241-6600

IAN K. COSTA
DEPUTY COUNTY ENGINEER
TELEPHONE 241-6640

AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUA'I
DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MO'IKEHA BUILDING, SUITE 275
LIHU'E, KAUA'I, HAWAI'I 96766

November 7, 2001

State of Hawaii
Department of Transportation
Airports Division
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819

Attention: Mr. Gene Matsushige

Gentlemen:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR LIHUE AIRPORT HELIPORT IMPROVEMENTS PW10.016

We reviewed the subject draft environmental assessment and offer the following comments:

A. Draft Environmental Assessment

1. We are exempting the site preparation and grading activities associated with the proposed heliport improvements from the County's Grading Ordinance No. 695. The site is located within a self-government controlled area. Although we are exempting the State Airport Division from obtaining a grading permit, we expect the State Airport Division to monitor the grading activities and provide and implement best management practices.

2. A grading permit may be required for the disposal of the excess wasted excavated materials and/or borrow sites.

3. Grubbed material needs to be disposed of at an appropriate solid waste disposal site.

Thank you for this opportunity to provide our comments. Should you have any questions, please feel free to contact Wallace Kudo of my staff at (808) 241-6620.

Very truly yours,

CESAR C. PORTUGAL
County Engineer

wk

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JACINE Y. UPASAKI

IN REPLY REFER TO

AIR-P
02.0126

April 8, 2002

Mr. Cesar C. Portugal
County Engineer
Department of Public Works
County of Kauai
4444 Rice Street
Mo'ikeha Building, Suite 275
Lihue, Hawaii 96766

Dear Mr. Portugal:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
Lihue, Kauai, Hawaii

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager at the Airports Division, at (808) 838-8826 to clarify any questions you may have.

Very truly yours,

Brian Minaai

BRIAN K. MINAAI
Director of Transportation

MARYANNE W. KUSAKA
MAYOR

VIRGINIA M. KAPALI
DIRECTOR

COUNTY OF KAUAI
OFFICE OF ECONOMIC DEVELOPMENT
4444 Rice Street, Suite 200, Lihue, HI 96766
Tel: 808-241-6390 Fax: 808-241-6399

October 3, 2001

Department of Transportation
Airports Division
400 Rodgers Boulevard, Suite 700
Honolulu, Hawaii 96819

Attn: Gene Matsushige
State Project Manager

Subject: Pre-consultation on Draft EA-Lihue Heliport

Thank you for the opportunity to provide pre-consultation comments on the subject matter, however, we do not have any comments to offer at this time.

Should you have any questions please email me at gini@kauaioed.org or call the office at (808) 241-6390.

Sincerely,

Virginia M. Kapali
Director

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO

AIR-P
02.0128

April 8, 2002

Ms. Virginia M. Kapali
Director
Office of Economic Development
County of Kauai
4444 Rice Street, Suite 200
Lihue, Hawaii 96766

Dear Ms. Kapali:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
Lihue, Kauai, Hawaii

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager at the Airports Division, at (808) 838-8826 to clarify any questions you may have.

Very truly yours,

BRIAN K. MINAAI
Director of Transportation

DEPARTMENT OF WATER

County of Kauai

"Water has no Substitute – Conserve It!"

October 5, 2001

Mr. Gene Matsushige
State Project Manager
Airports Division
400 Rodgers Blvd., # 700
Honolulu, HI 96819

Dear Mr. Matsushige:

Subject: Draft Environmental Assessment For Lihue Heliport
Lihue Heliport Improvements
Lihue Airport, Kauai, Hawaii
Tax Map Key: 3-5-01: por 008
Project No. AK1046-23

In reply to your transmittal dated October 1, 2001, the Department of Water has no objections to this Draft Environmental Assessement.

If you have any questions, please contact Mr. Keith Aoki of my staff at 245-5418.

Sincerely,

for Ernest Y. W. Lau
Manager & Chief Engineer

RECEIVED
OCT 9 2001
AIR-EC

— 4398 Pua Loke Street, Lihue, Kauai, Hawaii or P. O. Box 1706, Lihue, HI 96766-5706 —
Phone No. (808) 245-5400 – Administration FAX No. (808) 246-8628 – Engineering/Fiscal/Shop FAX No. (808) 245-5813

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
JEAN L. OSHITA
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO

AIR-P
02.0127

April 8, 2002

Mr. Ernest Y. W. Lau
Manager & Chief Engineer
Department of Water
County of Kauai
P.O. Box 1706
Lihue, Hawaii 96766-5706

Dear Mr. Lau:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
Lihue, Kauai, Hawaii

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager at the Airports Division, at (808) 838-8826 to clarify any questions you may have.

Very truly yours,

Brian Minaai

BRIAN K. MINAAI
Director of Transportation

ISLAND HELICOPTERS

10-8-01

Mr. Gene Matsushige
State Project Manager
State of Hawaii
Airports Division
400 Rodgers Blvd, Suite 700
Honolulu, Hi. 96819

Dear Mr Matsushige,

Thank you for sending a copy of the "Draft Environmental Assessment for Lihue Airport Heliport Improvements".

Please note that on page A-1, Appendix A, Inter-Island Helicopters was listed as an operator at Lihue Airport, and Island Helicopters was not. I would like to see this error corrected and the appropriate agencies notified.

Thank you,

Curtis W. Lofstedt
President
Island Helicopters Kauai, Inc.

P.O. Box 831 • Lihue, Kauai, Hawaii 96766 • Telephone (808) 245-8588 • Fax (808) 245-6258

BENJAMIN J. CAYETANO
GOVERNOR

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO

AIR-P
02.0125

April 8, 2002

Mr. Curtis W. Lofstedt
President
Island Helicopters Kauai, Inc.
P. O. Box 831
Lihue, Hawaii 96766

Dear Mr. Lofstedt:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
Lihue, Kauai, Hawaii

Thank you for your written comment for the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA).

We are now submitting the Draft EA to the Office of Environmental Quality Control for publication, and your comments have been included in the draft. A copy of the Draft EA will be available for review at the Lihue Public Library.

Thank you again for your comments. Please call Mr. Gene Matsushige, Project Manager, at (808) 838-8826 to clarify any questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

APPENDIX D

ACOUSTIC STUDY
FOR THE
LIHUE HELIPORT IMPROVEMENTS
LIHUE AIRPORT
LIHUE, KAUAI, HAWAII

Prepared by

Y. Ebisu & Associates, Inc.

February 2002

ACOUSTIC STUDY FOR THE
LIHUE HELIPORT IMPROVEMENTS
LIHUE AIRPORT, LIHUE, KAUAI, HAWAII

Prepared for:

YUJI KASAMOTO, INC.

Prepared by:

Y. EBISU & ASSOCIATES
1126 12th Avenue, Room 305
Honolulu, Hawaii 96816

FEBRUARY 2002

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CHAPTER I. PURPOSE AND SUMMARY

The purpose of this study was to determine if the proposed expansion of the existing tour helicopter facility (Lihue Heliport) at Lihue Airport and the forecasted landings and takeoffs from the expanded facility would generate adverse noise impacts at surrounding noise sensitive properties. The proposed improvements involve the addition of four helicopter parking positions south of the existing parking positions, and the relocation of two of the three existing helicopter takeoff/landing areas toward the south to better accommodate the four new parking positions. The expanded facility will continue to be located northwest (mauka) of Runway 3-21 at Lihue Airport. Helicopter ingress and egress routes in the areas surrounding Lihue Airport with the facility improvements in place are expected to remain the same as existing routes.

This study did not evaluate the possible increase in secondary noise impacts associated with forecasted increases in tour helicopter operations which would originate from the improved facility at Lihue Airport. Because there is currently no regulatory method of limiting helicopter operations at a public use facility such as Lihue Airport, the CY 2025 forecasts for helicopter operations at Lihue Airport were used to evaluate the potential noise impacts with or without the proposed expansion of the existing facility. The secondary noise impact implications of the forecasted growth in tour helicopter operations on Kauai were discussed in respect to projected increases in noise levels along the tour routes. However, a causal relationship between the construction of the expanded helicopter facility and the forecasted growth in tour helicopter operations on Kauai was not assumed.

The findings from the sound measurements which were performed and the helicopter noise contours which were developed indicate that there will be minimal risk of exceeding local and federal noise impact criteria and standards due to helicopter noise in the immediate environs of Lihue Airport following completion of the proposed helicopter facility improvements. The reasons for this is that the helicopter ingress and egress routes to and from the expanded facility will remain essentially the same as existing routes, and the forecasted growth in helicopter operations between 1998 and 2025 are predicted to result in only a 2.7 DNL increase in the cumulative noise exposure from helicopters.

However, because the complaint threshold for helicopter noise can be lower than the more conservative 60 DNL local threshold used for land use compatibility determinations in noise sensitive areas, there will always be a risk of annoyance reactions from existing and future residents in the Lihue Airport environs. This is particularly true for those noise sensitive receptors who are located directly under or near the helicopter flight tracks to and from the existing helicopter facility, or along the tour routes. Recommendations for minimizing risks of adverse annoyance reactions from existing and future residents were provided.

Some residences in the Hanamaulu Bay area will continue to be located within the 60 to 65 DNL noise contours of Lihue Airport, with or without the proposed heliport improvements. Fixed wing, interisland jet aircraft departing on Runway 3 were and will continue to be the major contributors to the airport noise contours at Lihue Airport. Incremental increases in the forecast airport noise levels due to the increased operations at the improved heliport should not exceed 1.5 DNL at those residences who are located within the Lihue Airport 60 DNL contour, and the increases in noise levels attributable to the proposed heliport improvements should not be significant at existing noise sensitive receptor locations. The larger increases in helicopter noise levels are expected to occur in areas south and southwest of the Lihue Heliport, where existing land uses are airport related activities which are not noise sensitive.

The primary noise mitigation measures recommended during operations at the improved tour helicopter facility are those operational procedures which minimize complaint risks from nearby noise sensitive properties and which are possible within the operating constraints of the facility. One of the primary mitigation measures for reducing risks of complaints from noise sensitive properties is to avoid overflights of these properties, particularly at low altitudes of less than 1,000 feet above ground level. The proposed expansion of the existing heliport facility toward the south should not result in low level overflights of noise sensitive properties which are not presently overflown. For these reasons, adverse noise impacts from the improved heliport facility should be avoidable.

CHAPTER II. NOISE DESCRIPTORS AND THEIR RELATIONSHIP TO LAND USE COMPATIBILITY

The noise descriptor currently used by federal agencies to assess environmental noise is the Day-Night Average Sound Level (DNL). This descriptor incorporates a 24-hour average of instantanecus A-Weighted Sound Levels as read on a standard Sound Level Meter. The maximum A-Weighted sound level occurring while an aircraft is flying past a listener (i.e., the maximum sound level from a "single event") is referred to as the "Lmax value". The mathematical product (or integral) of the instantaneous sound level times the duration of the event is known as the "Sound Exposure Level", or Lse, which is analogous to the energy of the time-varying sound levels associated with a single event.

The DNL contours represent the average noise during a typical day of the year. DNL exposure levels of 55 or less are typical of quiet rural or suburban areas. DNL exposure levels of 55 to 65 are typical of urbanized areas with medium to high levels of activity and street traffic. DNL exposure levels above 65 are representative of densely developed urban areas and areas fronting high volume roadways.

By definition, the minimum averaging period for the DNL descriptor is 24 hours. Additionally, sound levels which occur during the nighttime hours of 10:00 PM to 7:00 AM are increased by 10 decibels (dB) prior to computing the 24-hour average by the DNL descriptor. Because of the averaging used, DNL values in urbanized areas typically range between 50 and 75 DNL. In comparison, the typical range of intermittent noise events may have maximum Sound Level Meter readings between 75 and 105 dBA. A more complete list of noise descriptors is provided in Appendix B to this report. In Appendix B, the Ldn descriptor symbol is used in place of the DNL descriptor symbol.

TABLE 1, extracted from Reference 1, categorizes the various DNL levels of outdoor noise exposure with severity classifications. TABLE 2, also extracted from Reference 1, presents the general effects of noise on people in residential use situations. FIGURE 1, extracted from Reference 2, presents suggested land use compatibility guidelines for residential and nonresidential land uses. A general consensus among federal agencies has developed whereby residential housing development is considered acceptable in areas where exterior noise does not exceed 65 DNL. This value of 65 DNL is used as a federal regulatory threshold for determining the necessity for special noise abatement measures when applications for federal funding assistance are made.

As a general rule, noise levels of 55 DNL or less occur in rural areas, or in areas which are removed from high volume roadways. In urbanized areas which are shielded from high volume streets, DNL levels generally range from 55 to 65 DNL, and are usually controlled by motor vehicle traffic noise. Residences which front major roadways are generally exposed to levels of 65 DNL, and as high as 75 DNL when the

TABLE 1

EXTERIOR NOISE EXPOSURE CLASSIFICATION
(RESIDENTIAL LAND USE)

NOISE EXPOSURE CLASS	DAY–NIGHT SOUND LEVEL	EQUIVALENT SOUND LEVEL	FEDERAL (1) STANDARD
Minimal Exposure	Not Exceeding 55 DNL	Not Exceeding 55 Leq	Unconditionally Acceptable
Moderate Exposure	Above 55 DNL But Not Above 65 DNL	Above 55 Leq But Not Above 65 Leq	Acceptable(2)
Significant Exposure	Above 65 DNL But Not Above 75 DNL	Above 65 Leq But Not Above 75 Leq	Normally Unacceptable
Severe Exposure	Above 75 DNL	Above 75 Leq	Unacceptable

Notes: (1) Federal Housing Administration, Veterans Administration, Department of Defense, and Department of Transportation.

(2) FHWA uses the Leq instead of the Ldn descriptor. For planning purposes, both are equivalent if: (a) heavy trucks do not exceed 10 percent of total traffic flow in vehicles per 24 hours, and (b) traffic between 10:00 PM and 7:00 AM does not exceed 15 percent of average daily traffic flow in vehicles per 24 hours. The noise mitigation threshold used by FHWA for residences is 67 Leq.

TABLE 2

EFFECTS OF NOISE ON PEOPLE
(Residential Land Uses Only)

EFFECTS[1] / DAY-NIGHT AVERAGE SOUND LEVEL IN DECIBELS	Hearing Loss	Speech Interference		Annoyance[2]	Average Community Reaction[4]	General Community Attitude Towards Area
		Indoor	Outdoor			
	Qualitative Description	%Sentence Intelligibility	Distance in Meters for 95% Sentence Intelligibility	% of Population Highly Annoyed[3]		
75 and above	May Begin to Occur	98%	0.5	37%	Very Severe	Noise is likely to be the most important of all adverse aspects of the community environment.
70	Will Not Likely Occur	99%	0.9	25%	Severe	Noise is one of the most important adverse aspects of the community environment.
65	Will Not Occur	100%	1.5	15%	Significant	Noise is one of the important adverse aspects of the community environment.
60	Will Not Occur	100%	2.0	9%	Moderate to Slight	Noise may be considered an adverse aspect of the community environment.
55 and below	Will Not Occur	100%	3.5	4%		Noise considered no more important than various other environmental factors.

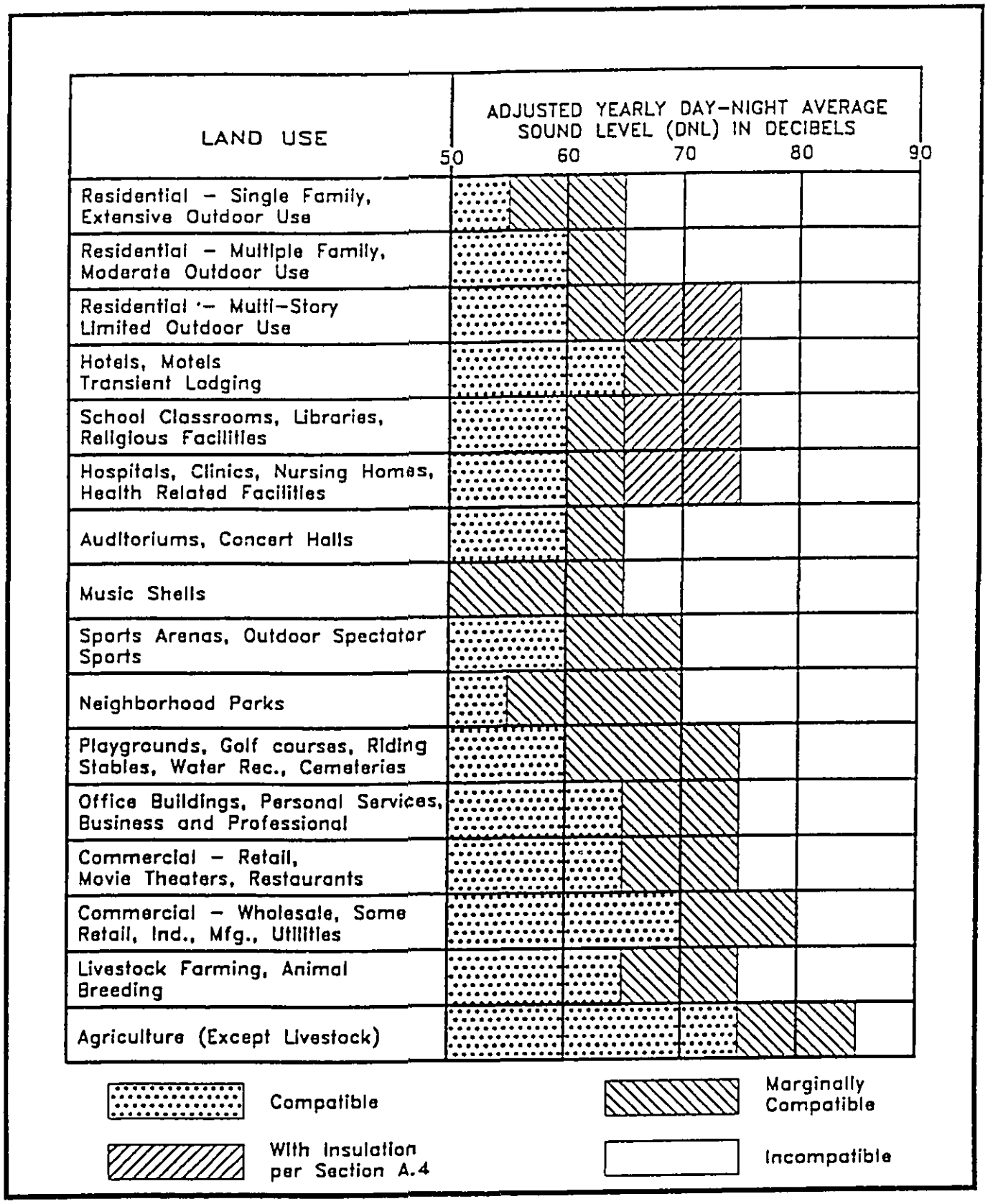
1. "Speech Interference" data are drawn from the following tables in EPA's "Levels Document": Table 3, Fig. D-1, Fig. D-2, Fig. D-3. All other data from National Academy of Science 1977 report "Guidelines for Preparing Environmental Impact Statements on Noise, Report of Working Group 69 on Evaluation of Environmental Impact of Noise."

2. Depends on attitudes and other factors.

3. The percentages of people reporting annoyance to lesser extents are higher in each case. An unknown small percentage of people will report being "highly annoyed" even in the quietest surroundings. One reason is the difficulty all people have in integrating annoyance over a very long time.

4. Attitudes or other non-acoustic factors can modify this. Noise at low levels can still be an important problem, particularly when it intrudes into a quiet environment.

NOTE: Research implicates noise as a factor producing stress-related health effects such as heart disease, high-blood pressure and stroke, ulcers and other digestive disorders. The relationships between noise and these effects, however, have not as yet been quantified.



LAND USE COMPATIBILITY WITH YEARLY AVERAGE DAY-NIGHT AVERAGE SOUND LEVEL (DNL) AT A SITE FOR BUILDINGS AS COMMONLY CONSTRUCTED.
(Source: American National Standards Institute S12.9-1998/Part 5)

FIGURE 1

roadway is a high speed freeway. Due to noise shielding effects from intervening structures, interior lots are usually exposed to 3 to 10 DNL lower noise levels than the front lots which are not shielded from the traffic noise.

For the purposes of determining noise acceptability for funding assistance from federal agencies, an exterior noise level of 65 DNL or lower is considered acceptable. These federal agencies include the Federal Aviation Administration (FAA), Department of Defense (DOD); Federal Housing Administration, Housing and Urban Development (FHA/HUD), and Veterans Administration (VA). This standard is applied nationally (see Reference 3), including Hawaii.

Because of our open-living conditions, the predominant use of naturally ventilated dwellings, and the relatively low exterior-to-interior sound attenuation afforded by these naturally ventilated structures, an exterior noise level of 65 DNL does not eliminate all risks of noise impacts. Because of these factors, a lower level of 55 DNL is considered as the "Unconditionally Acceptable" (or "Near-Zero Risk") level of exterior noise (see Reference 4). For typical, naturally ventilated structures in Hawaii, an exterior noise level of 55 DNL results in an interior level of approximately 45 DNL, which is considered to be the "Unconditionally Acceptable" (or "Near-Zero Risk") level of interior noise. However, after considering the cost and feasibility of applying the lower level of 55 DNL, government agencies such as FHA/HUD and VA have selected 65 DNL as a more appropriate regulatory standard.

For aircraft noise, the State Department of Transportation, Airports Division (DOTA), has recommended that 60 DNL be used as the common level for determining land use compatibility in respect to noise sensitive uses near its airports. TABLE 3 summarizes the recommendations for compatible land uses at various levels of aircraft noise. For those noise sensitive land uses which are exposed to aircraft noise greater than 55 DNL, the division recommends that disclosure of the aircraft noise levels be provided prior to any real property transactions. Reference 5 requires that such disclosure be provided prior to real property transactions concerning properties located within Air Installation Compatibility Use Zones (AICUZ) or located within airport noise maps developed under Federal Aviation Regulation Part 150 - Airport Noise Compatibility Planning (14 CFR Part 150).

For commercial, industrial, and other non-noise sensitive land uses, exterior noise levels as high as 75 DNL are generally considered acceptable. Exceptions to this occur when naturally ventilated office and other commercial establishments are exposed to exterior levels which exceed 65 DNL.

In the State of Hawaii, the State Department of Health (DOH) regulates noise from on-site activities. State DOH noise regulations are expressed in maximum allowable property line noise limits rather than DNL (see Reference 6). The noise limits apply at all of the outer islands, including the island of Hawaii. Although they are not

TABLE 3

HAWAII STATE DEPARTMENT OF TRANSPORTATION RECOMMENDATIONS FOR LOCAL LAND USE COMPATIBILITY WITH YEARLY DAY–NIGHT AVERAGE SOUND LEVELS (DNL)

TYPE OF LAND USE	**** Yearly Day-Night Average Sound Level ****					
	< 60	60-65	65-70	70-75	75-80	80-85
RESIDENTIAL						
Low density residential, resorts, and hotels (outdoor facil.)	Y(a)	N(b)	N	N	N	N
Low density apartment with moderate outdoor use	Y	N(b)	N	N	N	N
High density apartment with limited outdoor use	Y	N(b)	N(b)	N	N	N
Transient lodgings with limited outdoor use	Y	N(b)	N(b)	N	N	N
PUBLIC USE						
Schools, day-care centers, libraries, and churches	Y	N(c)	N(c)	N(c)	N	N
Hospitals, nursing homes, clinics, and health facilities	Y	Y(d)	Y(d)	Y(d)	N	N
Indoor auditoriums and concert halls	Y(c)	Y(c)	N	N	N	N
Government services and office buildings serving the general public	Y	Y	Y(d)	Y(d)	N	N
Transportation and Parking	Y	Y	Y(d)	Y(d)	Y(d)	Y(d)
COMMERCIAL AND GOVERNMENT USE						
Offices - government, business, and professional	Y	Y	Y(d)	Y(d)	N	N
Wholesale and retail - building materials, hardware and heavy equipment	Y	Y	Y(d)	Y(d)	Y(d)	Y(d)
Airport businesses - car rental, tours, lei stands, ticket offices, etc.	Y	Y	Y(d)	Y(d)	N	N
Retail, restaurants, shopping centers, financial institutions, etc.	Y	Y	Y(d)	Y(d)	N	N
Power plants, sewage treatment plants, and base yards	Y	Y	Y(d)	Y(d)	Y(d)	N
Studios without outdoor sets, broadcasting, production facilities, etc.	Y(c)	Y(c)	N	N	N	N
MANUFACTURING, PRODUCTION, AND STORAGE						
Manufacturing, general	Y	Y	Y(d)	Y(d)	Y(d)	N
Photographic and optical	Y	Y	Y(d)	Y(d)	N	N
Agriculture (except livestock) and forestry	Y	Y(e)	Y(e)	Y(e)	Y(e)	Y(e)
Livestock farming and breeding	Y	Y(e)	Y(e)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
RECREATIONAL						
Outdoor sports arenas and spectator sports	Y	Y(f)	Y(f)	N	N	N
Outdoor music shells, amphitheaters	Y(f)	N	N	N	N	N
Nature exhibits and zoos, neighborhood parks	Y	Y	Y	N	N	N
Amusements, beach parks, active playgrounds, etc.	Y	Y	Y	Y	N	N
Public golf courses, riding stables, cemeteries, gardens, etc.	Y	Y	N	N	N	N
Professional/resort sport facilities, locations of media events, etc.	Y(f)	N	N	N	N	N
Extensive natural wildlife and recreation areas	Y(f)	N	N	N	N	N

Numbers in parentheses refer to notes.

KEY TO TABLE 3:

Y(Yes) = Land Use and related structures compatible without restrictions.
N(No) = Land Use and related structures are not compatible and should be prohibited.

TABLE 3 (CONTINUED)

HAWAII STATE DEPARTMENT OF TRANSPORTATION RECOMMENDATIONS FOR LOCAL LAND USE COMPATIBILITY WITH YEARLY DAY–NIGHT AVERAGE SOUND LEVELS (DNL)

NOTES FOR TABLE 3:

(a) A noise level of 60 DNL does not eliminate all risks of adverse noise impacts from aircraft noise. However, the 60 DNL planning level has been selected by the State Airports Division as an appropriate compromise between the minimal risk level of 55 DNL and the significant risk level of 65 DNL.

(b) Where the community determines that these uses must be allowed, Noise Level Reduction (NLR) measures to achieve interior levels of 45 DNL or less should be incorporated into building codes and be considered in individual approvals. Normal local construction employing natural ventilation can be expected to provide an average NLR of approximately 9 dB. Total closure plus air conditioning may be required to provide additional outdoor to indoor NLR, and will not eliminate outdoor noise problems.

(c) Because the DNL noise descriptor system represents a 24-hour average of individual aircraft noise events, each of which can be unique in respect to amplitude, duration, and tonal content, the NLR requirements should be evaluated for the specific land use, interior acoustical requirements, and properties of the aircraft noise events. NLR requirements should not be based solely upon the exterior DNL exposure level.

(d) Measures to achieve required NLR must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

(e) Residential buildings require NLR. Residential buildings should not be located where noise is greater than 65 DNL.

(f) Impact of amplitude, duration, frequency, and tonal content of aircraft noise events should be evaluated.

directly comparable to noise criteria expressed in DNL, State DOH noise limits for preservation/residential, apartment/commercial, and agricultural/industrial lands equate to approximately 55, 60, and 76 DNL, respectively. Because the Lihue Heliport is located on lands designated for industrial uses, DOH noise limits for industrial lands would be applicable along the project boundary lines for any stationary sources, or equipment related to industrial or construction activities. These property line limits are 70 dBA for both the daytime and nighttime periods. For multifamily use, the State DOH limits are 60 dBA and 50 dBA during the daytime and nighttime periods respectively. For single family residential use, the State DOH limits are 55 dBA and 45 dBA during the daytime and nighttime periods, respectively. These noise limits cannot be exceeded for more than 2 minutes in any 20-minute time period under the State DOH noise regulations. The State DOH noise regulations do not apply to aircraft.

CHAPTER III. GENERAL STUDY METHODOLOGY

The noise analysis procedures delineated in References 7 through 9 were used in this study. Helicopter noise contours for 1998 (Base Year) and 2025 were developed. A user generated data base of helicopter noise curves and flight profiles was included with the Federal Aviation Administration (FAA) Heliport Noise Model, Version 2.2 (HNM), to reflect the noise monitoring data and operating conditions at the existing and expanded facility. DNL noise contours for CY 1998 and 2025 were also developed with the FAA Integrated Noise Model Version 6.0 (FAA INM). A user generated data base of helicopter noise curves and flight profiles was also included in the FAA INM to reflect the noise monitoring data and operating conditions at Lihue Airport. The FAA INM is normally used to develop fixed wing aircraft noise contours, because it does not have provisions for static (e.g. hover) helicopter operations, and was used to develop the DNL contours for the Lihue Airport Part 150 Noise Study (Reference 10). The results from the FAA INM should produce reasonably accurate results near the helicopter egress and ingress routes at Lihue Airport. At locations in the immediate vicinity of the proposed facility, the HNM results should be more accurate than the INM results due to the inclusion of hover and taxi operations by the HNM.

The Day-Night Sound Level (DNL) noise descriptor was used to describe the existing and projected aircraft noise surrounding the existing and expanded helicopter facility at Lihue Airport. Existing (or Base Year) helicopter noise contours were developed for annually averaged conditions which occurred during CY 1998 for comparison with total (fixed wing plus helicopter) noise contours developed for the current Master Plan Update Study for Lihue Airport. Forecasts of future helicopter operations at Lihue Airport were obtained from Reference 11. Using these forecasts, helicopter noise contours were then developed for the CY 2025 time period for conditions with and without the proposed facility improvements.

Documentation of the helicopter flight tracks, operations, and noise contours associated with operations at the existing tour helicopter facility at Lihue Airport were obtained from References 10, 11, and 12. FIGURE 2 depicts the location of the existing runways and heliport facilities at Lihue Airport, as well as the helicopter flight tracks to and from the heliport. The helicopter egress and ingress routes to the heliport facility have been established for at least 15 years, and are considered to be the only feasible routes for tour helicopters in and out of the Lihue Heliport. The background in FIGURE 2 depicts the existing land uses in the Lihue Airport environs in CY 1998. TABLE 4 presents a summary of the daily operational assumptions used to generate the DNL contours for the Base Year (CY 1998) conditions at Lihue Airport.

The assumed helicopter flight tracks following completion of the helicopter facility improvements are also depicted in FIGURE 2. A slight displacement of the arrival flight tracks (TR10 and TR16) by 100 feet toward the south was assumed to occur for landings on the southernmost landing area. The helicopter ingress and egress routes

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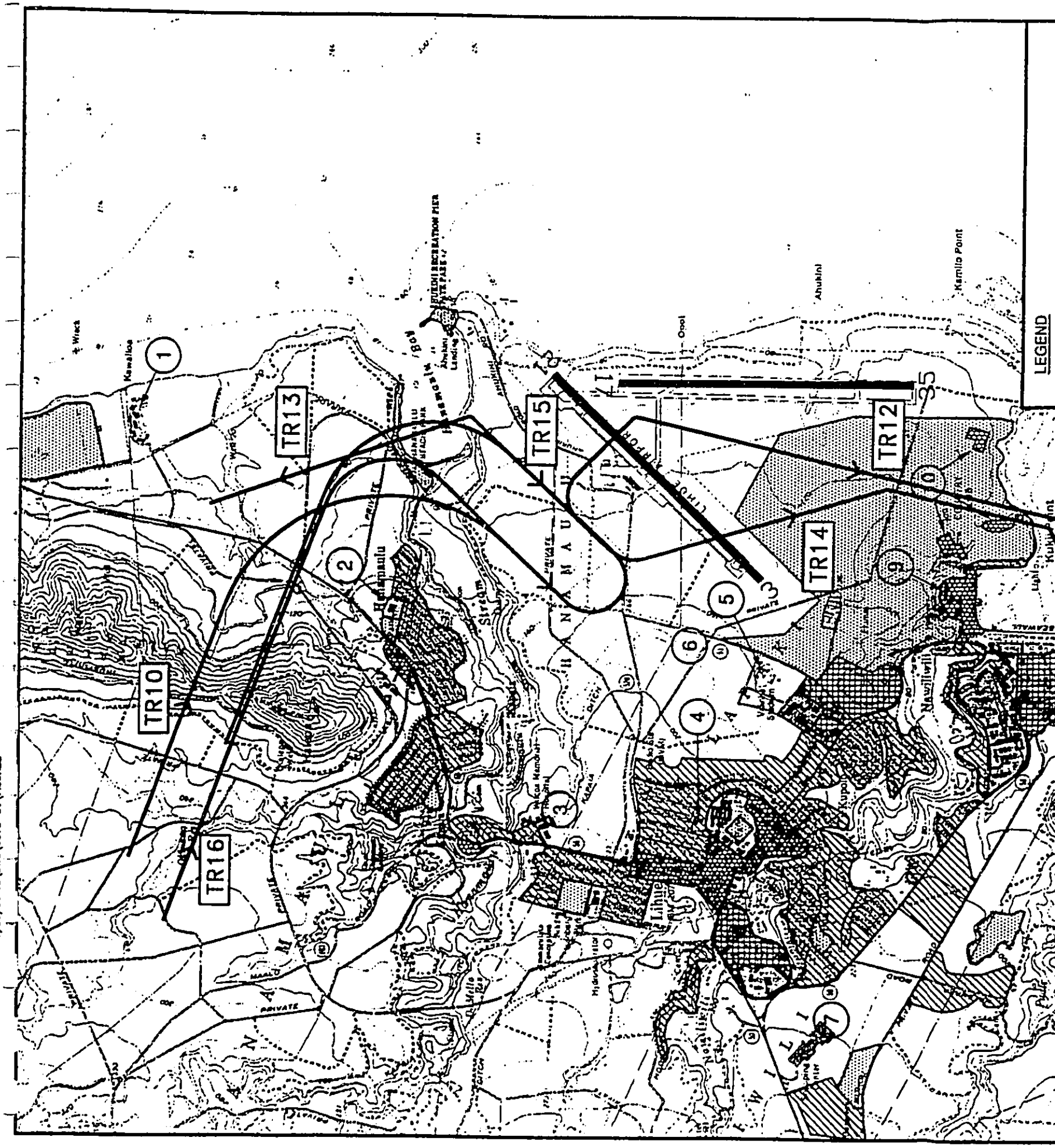

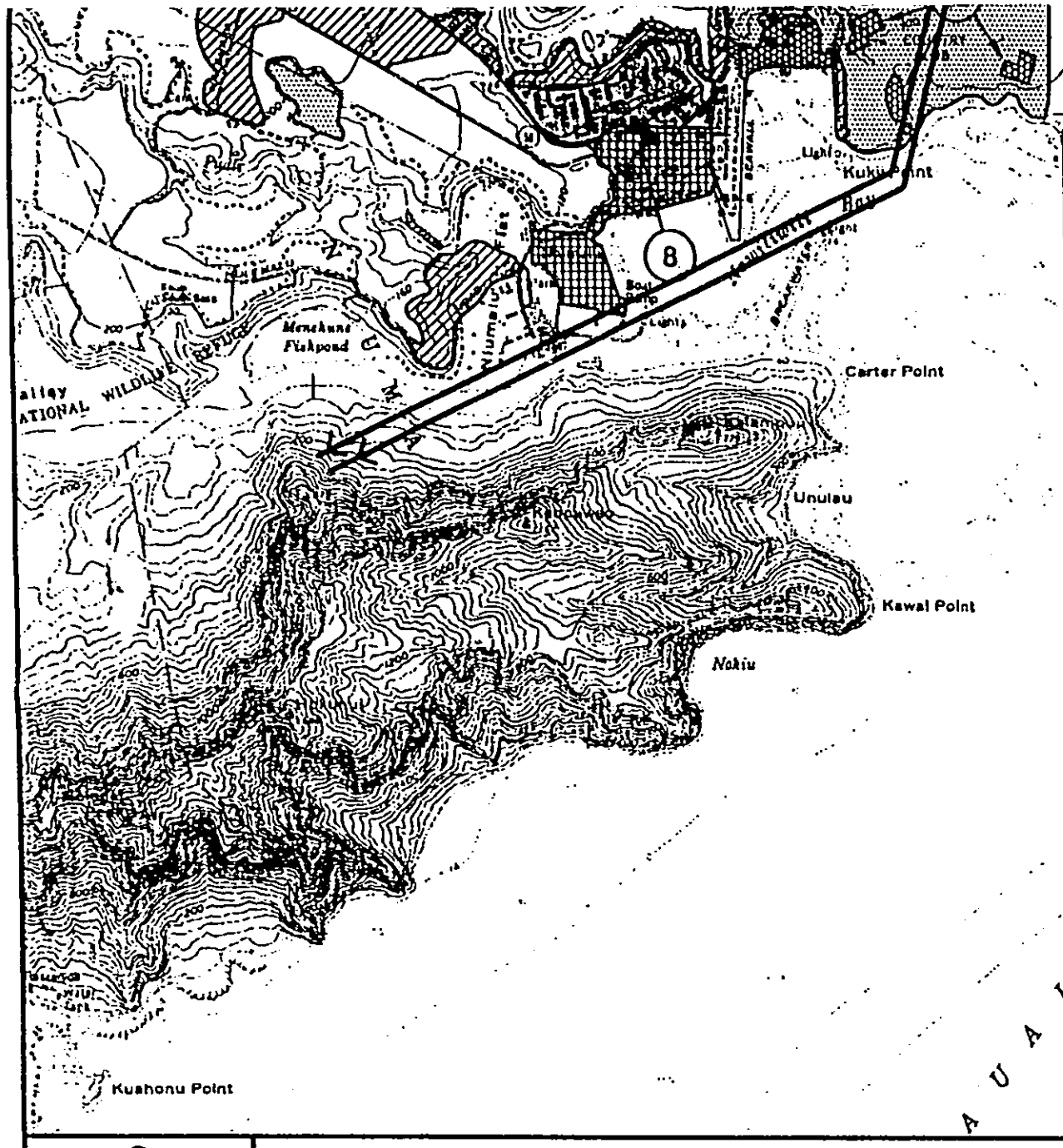

LEGEND

- RESIDENTIAL
- OFFICE
- COMMERCIAL
- INDUSTRIAL
- PARKS & GOLF COURSES

1. Kauai Beach Resort
2. King Kaumualii Elementary School
3. Wilcox Memorial Hospital
4. Wilcox Elementary School
5. Vidinha Memorial Stadium
6. Kauai Veterans Center
7. Kukui Grove Shopping Center
8. Kauai Intermediate, High, & Community School for Adults
9. Kauai Marriott Hotel
10. Kauai Lagoons Golf Clubhouse, Spa, Tennis Center, & Shops

0 1250 2500 5000

Scale in Feet

WILSON OKAMOTO & ASSOCIATES, INC.
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LIHUE AIRPORT

EXISTING AND FUTURE HELICOPTER FLIGHT TRACKS (LIHUE HELIPORT FACILITY)

FIGURE 2

TABLE 4

BASE YEAR (CY 1998) HELICOPTER OPERATIONS
LIHUE AIRPORT

A/C TYPE	TOTAL DAILY LANDINGS	TR10	TR16	TR15
B206L	21.35	9.35	9.35	2.65
ASTAR 350	50.41	4.42	39.74	6.25
Sub-Total (Day):	71.76	13.77	49.09	8.90
Sub-Total (Night):	0.00	0.00	0.00	0.00

A/C TYPE	TOTAL DAILY DEPART'S.	TR12	TR14	TR13
B206L	21.36	19.22	1.71	0.43
ASTAR 350	50.41	45.37	4.03	1.01
Sub-Total (Day):	69.62	64.59	5.74	1.44
Sub-Total (Night):	2.15	2.15	0.00	0.00

were maintained to continue the current southerly flow of helicopter departures toward Nawiliwili Harbor with arrivals from the saddle (or Kalepa Ridge) as shown in FIGURE 2. TABLE 5 presents a summary of the daily operational assumptions used to generate the helicopter DNL contours for CY 2025 with or without the facility improvements. A relatively large (84 percent) increase in helicopter operations is projected to occur from CY 1998 to CY 2025. It was assumed that the future mix of helicopter traffic would not change significantly from the Base Year mix of predominantly Bell 206 and ASTAR 350 helicopters, and that the future mix would be acoustically similar to the current mix of helicopters operating at Lihue Airport.

Helicopter noise level assumptions, in Lse (Sound Exposure Level), were previously developed for takeoff, level flight, and approach flight conditions from published noise characteristics for the Bell 206 and Aerospatiale 350D, and measured helicopter sound level data obtained in 1984 and 1987 at Lihue Airport (see Reference 12). Additional helicopter noise data was also obtained in February 2002 at the existing airport car rental area and at proposed locations of future residential and mixed use development closest to the Lihue Heliport.

The following were also assumed for each tour helicopter flight at the proposed heliport: 10 minutes (600 seconds) of ground idle at the passenger loading pads; 3 seconds of flight idle at the passenger loading pads; and 7 seconds of hover (in ground effect) at the passenger loading pads. These values are considered to be very long, but were used to model worst case conditions at the proposed heliport. Only the HNM Version 2.2 model incorporates the helicopter noise during helicopter idle and ground movements to develop DNL contours around the proposed heliport. The FAA INM Version 6.0 does not incorporate these noise contributions during the static and taxi operations in modeling helicopter noise, so the DNL contours in the immediate vicinity of the proposed heliport are typically underestimated by the FAA INM. For this reason, DNL contours of helicopter and total (fixed plus rotary wing) aircraft were constructed using both the FAA INM Version 6.0 and HNM Version 2.2.

Existing helicopter DNL contours for 65, 60, and 55 DNL were generated using the Federal Aviation Administration Heliport Noise Model Version 2.2 (FAA HNM). Existing fixed wing plus helicopter noise contours for Lihue Airport developed during the Lihue Airport Master Plan Update (Reference 11) with the FAA Integrated Noise Model Version 6.0 (FAA INM) are shown in FIGURE 3. The background in FIGURE 3 depicts the existing land uses in the Lihue Airport environs in CY 1998. Although FAA (Reference 7) does not require the development of noise contours below the 65 DNL level, the development of the lower level contours was considered necessary to depict the changes of the possible helicopter noise impact zones with the addition of the four new parking positions and relocation of the takeoff/landing areas. Additionally, Reference 8 recommends that more conservative noise criteria be used in evaluating the noise compatibility of heliports.

TABLE 5

YEAR 2025 HELICOPTER OPERATIONS
LIHUE AIRPORT

A/C TYPE	TOTAL DAILY LANDINGS	TR10	TR16	TR15
B206L	39.36	17.24	17.24	4.88
ASTAR 350	92.93	8.14	73.27	11.52
Sub-Total (Day):	132.29	25.38	90.51	16.40
Sub-Total (Night):	0.00	0.00	0.00	0.00

A/C TYPE	TOTAL DAILY DEPART'S.	TR12	TR14	TR13
B206L	39.37	35.43	3.15	0.79
ASTAR 350	92.93	83.64	7.43	1.86
Sub-Total (Day):	128.35	119.07	10.58	2.65
Sub-Total (Night):	3.95	3.95	0.00	0.00

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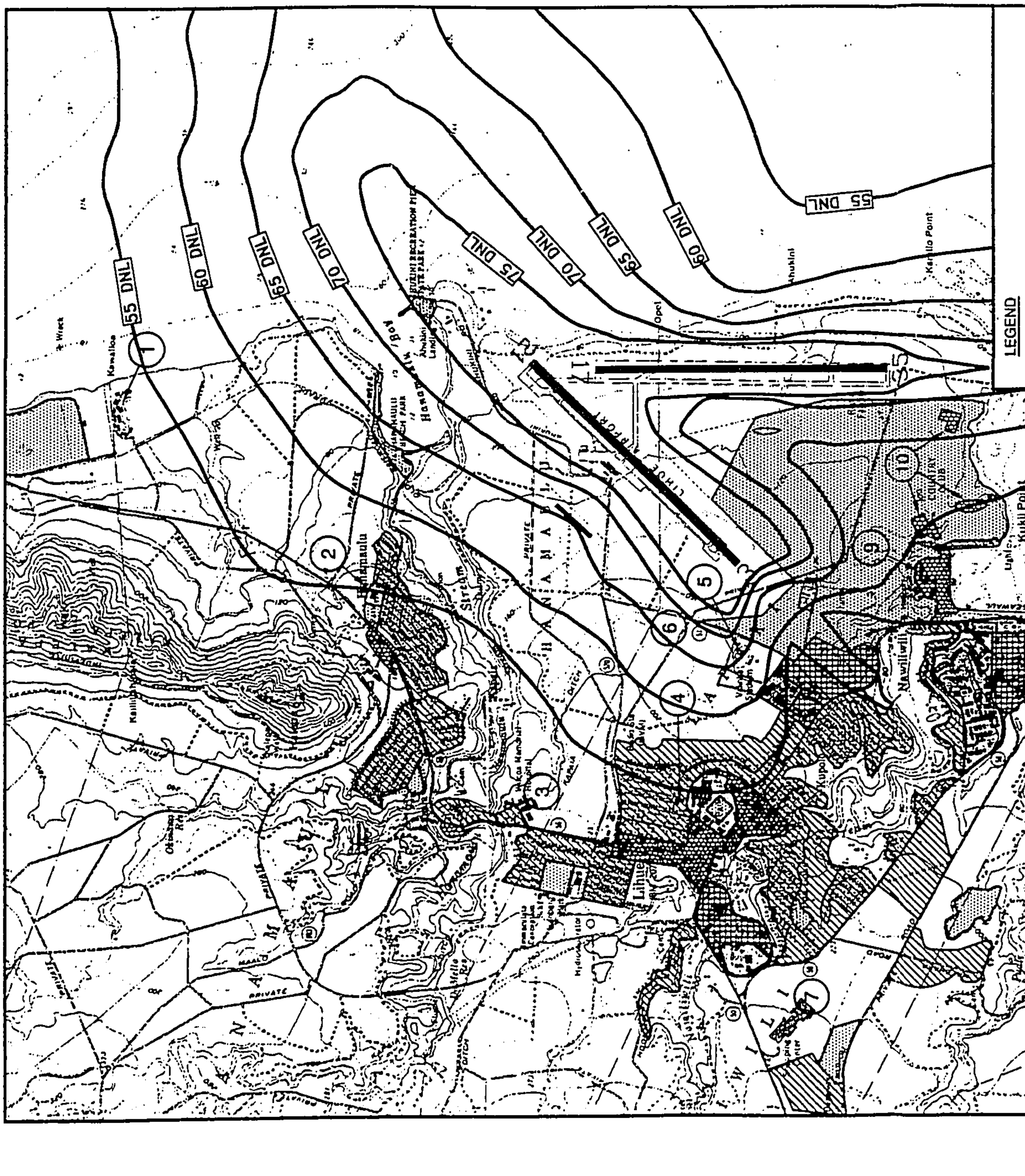
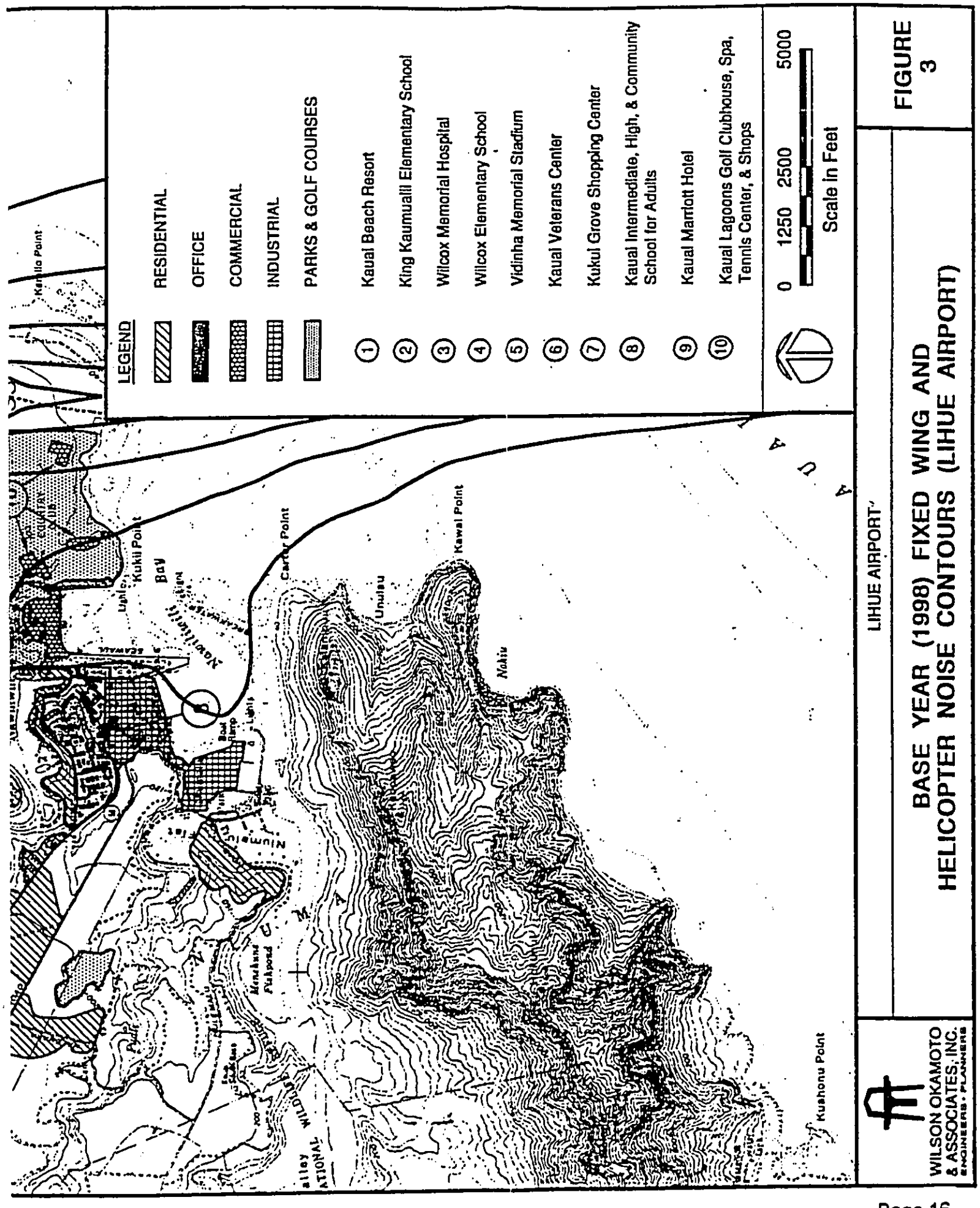


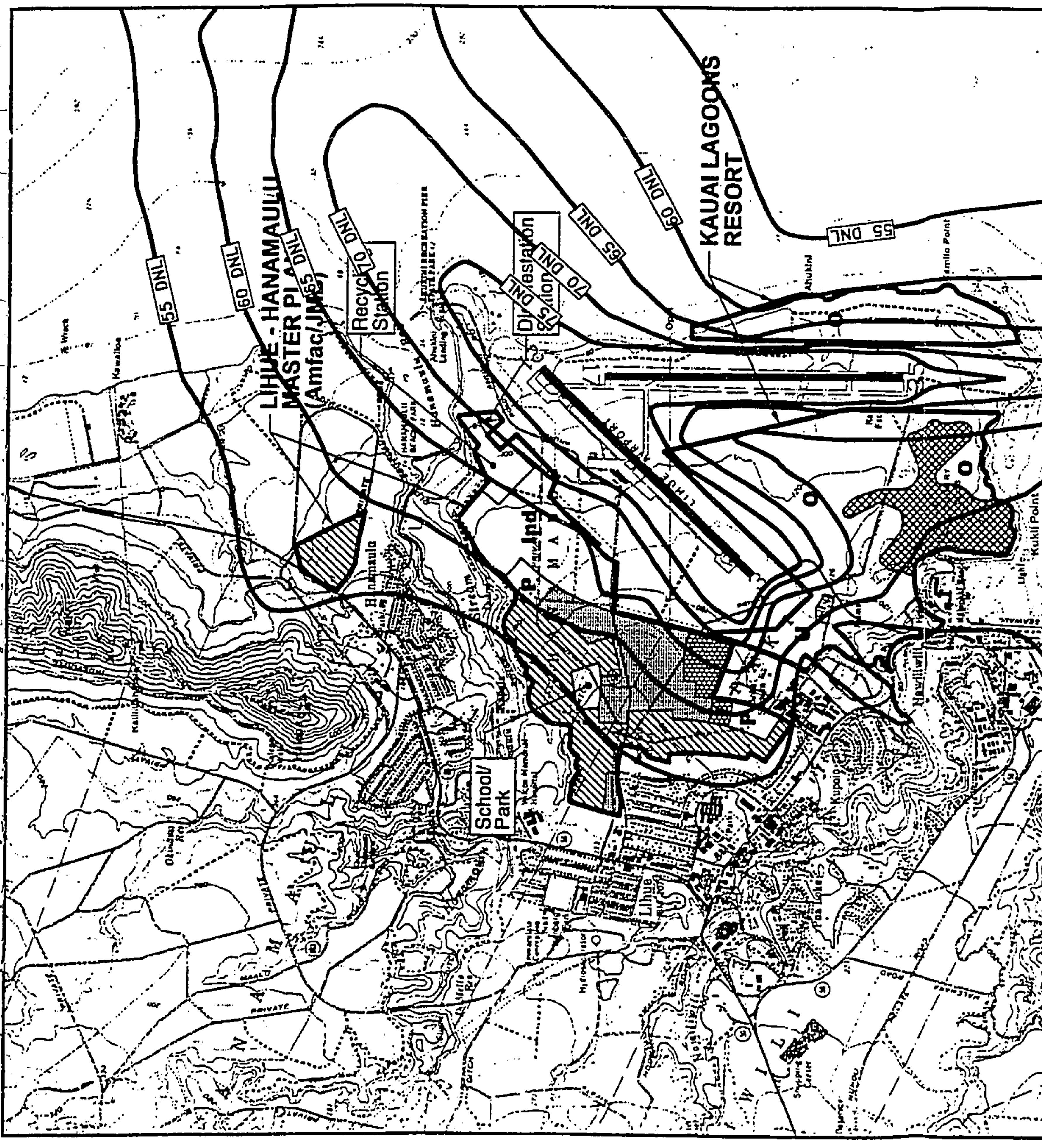


Helicopter noise exposure contours were developed for CY 2025 to depict the projected helicopter noise levels with and without the proposed facility improvements. Future (CY 2025) fixed wing plus helicopter noise contours for Lihue Airport developed during the Lihue Airport Master Plan Update (Reference 11) with the FAA Integrated Noise Model Version 6.0 (FAA INM) are shown in FIGURE 4. The background in FIGURE 4 depicts the proposed land uses in the Lihue Airport environs in CY 1998.

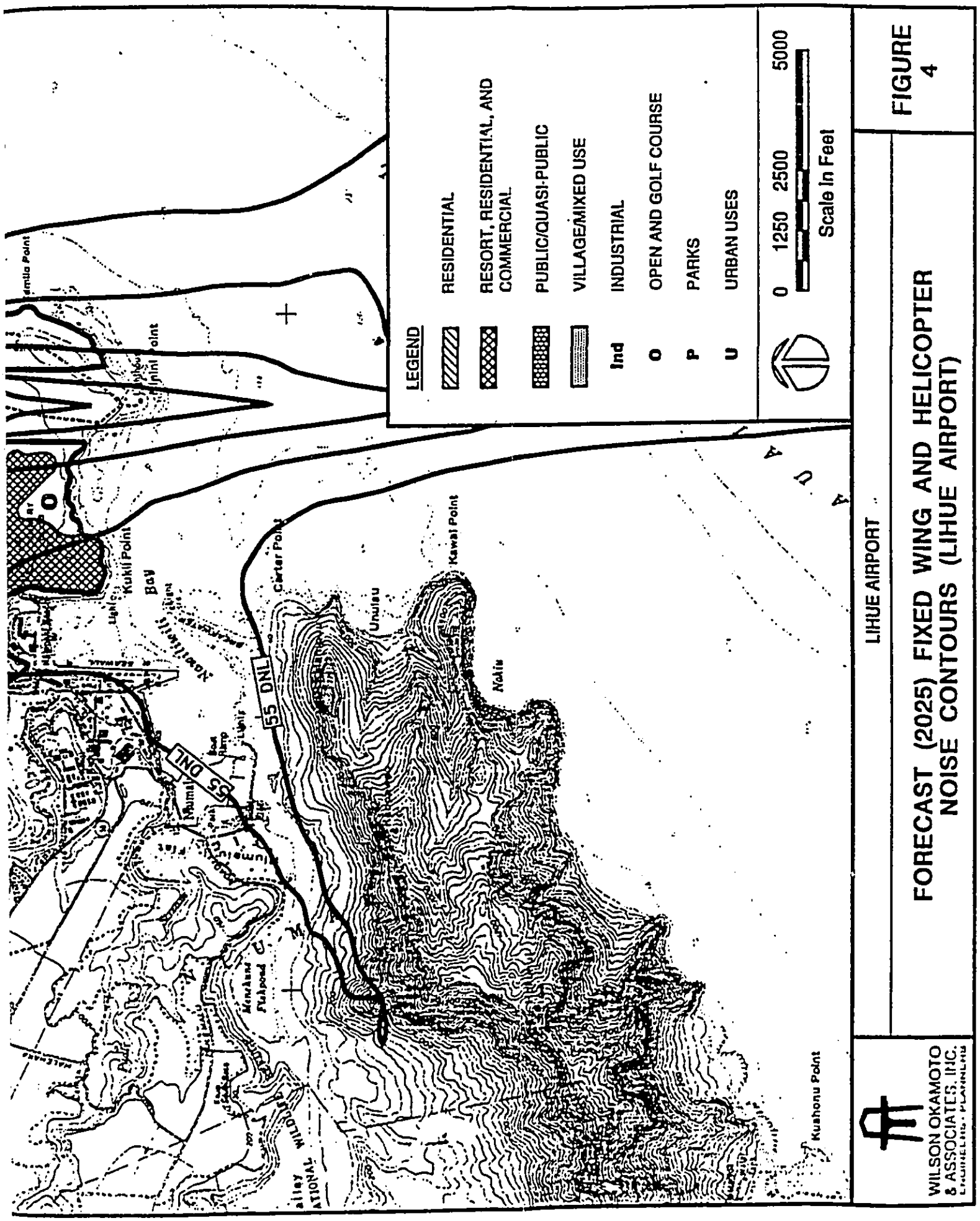
For the No Action (or No Build) Alternative, tour helicopter operations were assumed to continue at the existing facility. Total helicopter operations in 2025 for the No Action Alternative were assumed to be identical to those assumed under the Action (or Build) Alternative, with the general ingress and egress routes of FIGURE 2 used for both the No Action and Action Alternatives.

Helicopter DNL contours for 70, 65, 60, and 55 DNL were developed using the HNM Version 2.2 for the Lihue Heliport facility with and without the proposed improvements. Although FAA (Reference 7) does not require the development of noise contours below the 65 DNL level, the development of the lower level contours was considered prudent to identify the areas of possible complaints and helicopter noise impact zones associated with the proposed facility. Additionally, References 1, 8, and 9 recommend that more conservative noise criteria (rather than 65 DNL) be used in evaluating the noise compatibility of new helicopter facilities.

The helicopter noise contours developed by the HNM and INM models were compared to existing land use compatibility criteria and background ambient noise levels to evaluate the potential noise impacts and complaint risks associated with the expected level of helicopter operations at Lihue Heliport facility. Using the DNL noise contour results and the results of the background ambient noise measurements, evaluations were made of potential noise impacts in the health and welfare category, and of potential annoyance responses from nearby residences. Based on the above evaluations, recommendations for mitigation measures which would minimize risks of health and welfare impacts and risks of annoyance responses from nearby residences and commercial tenants were provided.



2000-PLNDEV DWG 14 05 07/28/00 H:\DWG\6070-01\FIGURES



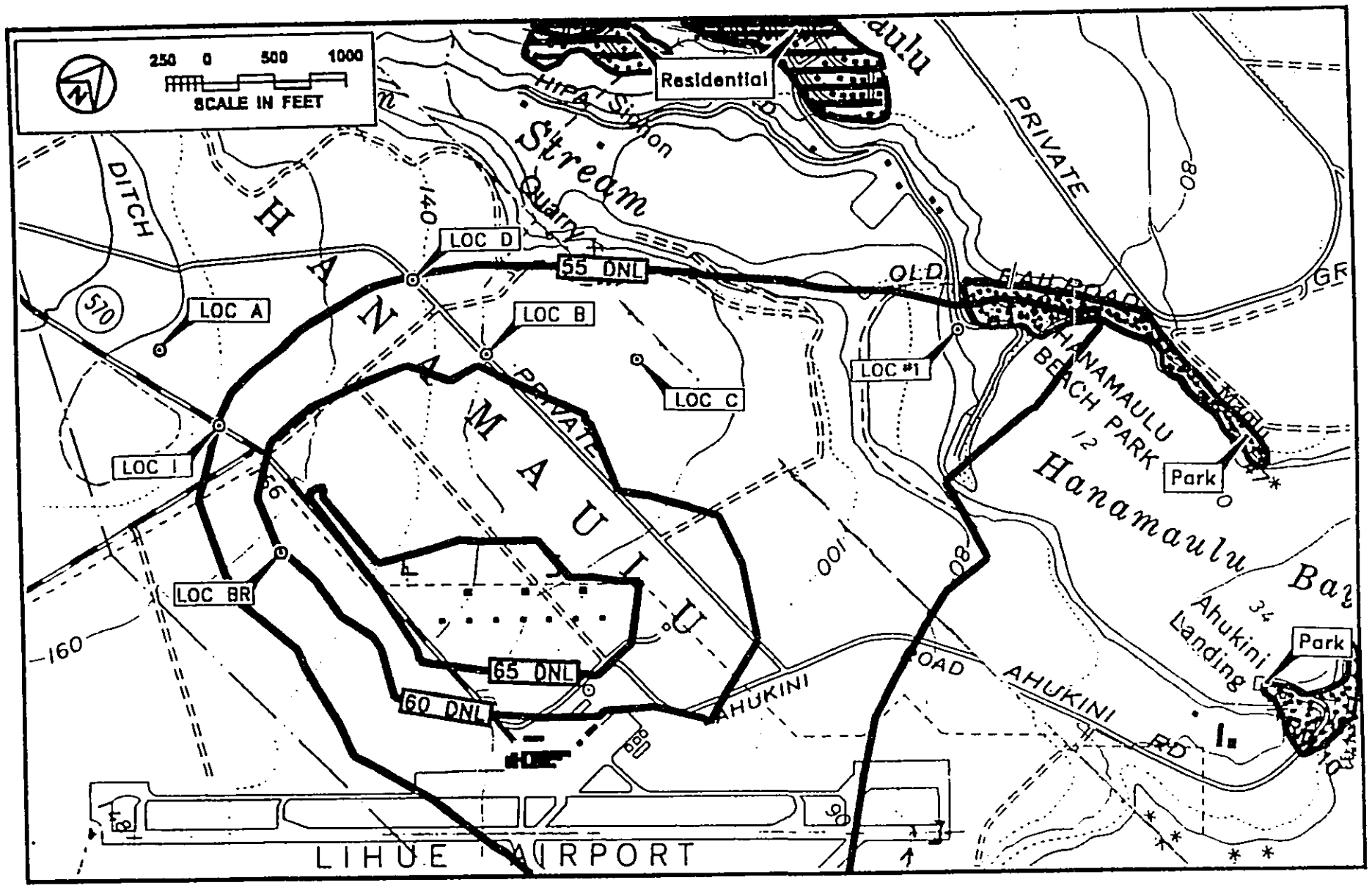
CHAPTER IV. EXISTING BACKGROUND AMBIENT NOISE LEVELS

The existing background ambient noise levels in the vicinity of the proposed expanded helicopter facility are controlled by fixed wing and rotary wing aircraft operations at Lihue Airport, motor vehicle traffic, and the natural sounds of birds, insects, wind, and foliage. The dominant contributors to aircraft noise levels in the area during the 1998 Base Year were the DC-9(50) and B-737(200) interisland jet aircraft which typically depart on Lihue Airport's Runway 03 during trade wind (north flow) conditions. The Base Year (CY 1998) noise contours for Lihue Airport are shown in FIGURE 3, and include the total noise contributions from fixed and rotary wing aircraft. The contours were representative of the Base Year ambient noise conditions in the environs of Lihue Airport, with relatively few noise sensitive areas enclosed by the 60 DNL contour. Residences at Hanamaulu Bay were located between the 60 and 65 DNL contours, with residences at the eastern edge of Hanamaulu town, at the Molokoa Subdivision, and at Nawiliwili enclosed by the Base Year 55 DNL contour. The Ahukini Landing area was in the "Significant Exposure, Normally Unacceptable" category of noise exposure, while portions of the Hanamaulu, Molokoa, Nawiliwili, and Kauai Marriott Resort areas were in the "Moderate Exposure, Acceptable" category.

The Base Year (CY 1998) 65, 60, and 55 DNL contours, which represent the noise from only helicopter operations at Lihue Airport, were generated using the FAA Helicopter Noise Model Version 2.2 (FAA HNM), and are depicted in FIGURE 5. The helicopter noise component of the total Base Year noise contours (FIGURE 3) was significantly lower than those associated with the jet aircraft operations at Lihue Airport. The average noise levels associated with heliport operations in 1998 were in the "Minimal Exposure, Unconditionally Acceptable" category, with levels generally less than 55 DNL. For this reason, risks of adverse health and welfare effects from Base Year helicopter noise were considered to be low.

Also shown in FIGURE 5 are locations which were used to measure existing helicopter noise levels in the environs of the Lihue Heliport. At locations near the helicopter egress and ingress routes, helicopter flyby sound levels range from 65 to 85 dB (Lmax), with measured and predicted sound exposure levels (Lse) at Locations "A", "C", and "#1" shown in TABLES 6 through 8.

FIGURES 6 through 12 depict the results of the background and helicopter noise monitoring effort on February 13, 2002 at Locations "B", "D", "I", and "BR". Locations "B", "D", and "I" (see FIGURE 5) were selected to represent the potential future noise sensitive locations shown in FIGURE 4 which are closest to the proposed heliport site or to the proposed helicopter flight tracks. These locations were also selected to measure the noise levels during static, ground taxi, takeoff, and landing operations at the existing heliport facility so as to predict the future noise levels associated with the expanded facility. Location "BR" was selected to evaluate the potential increase in helicopter noise levels at the closest airport tenant in the car rental area of Lihue



BASE YEAR (1998) HELICOPTER NOISE CONTOURS (LIHUE AIRPORT)

FIGURE 5

TABLE 6

SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE "A"

AIRCRAFT TYPE	MAXIMUM SOUND LEVELS Lmax (in dB)	SOUND EXPOSURE LEVELS Lse (in dB)
B-737(200)	74.3; 78.4; 77.7; 80.7; 77.8; 73.6; 76.5; 81.1 (AVG.=77.5)	83.5; 83.8; 87.6; 86.5; 85.0; 83.7; 82.0; 89.1 (AVG.=85.8) (PRED.=86.3)
B-737(300)	69.9; 69.1 (AVG.=69.5)	76.0; 76.5 (AVG.=76.3) (PRED.=72.3)
DC-9(50)	81.5; 79.4; 81.1; 81.9; 82.4; 83.8; 80.1 (AVG.=81.5)	89.2; 87.5; 90.0; 89.8; 87.9; 90.1; 88.6 (AVG.=89.1) (PRED.=89.7)
HELICOPTER	67.3; 73.1; 78.7; 67.8; 68.4; 68.0; 67.9; 75.8; 70.3; 69.1; 72.0; 67.7; 68.0; 68.4; 68.5; 69.5; 65.9; 72.3; 66.4; 66.7; 67.5; 65.4; 69.8; 68.2; 68.0; 66.1; 68.4; 67.6; 68.4; 70.1; 66.6; 71.3; 69.0; 66.6; 70.9; 69.7; 66.0; 64.4; 67.7; 72.8; 67.9; 72.9; 71.4; 67.7; 65.1; 69.0 (AVG.=68.9)	74.7; 77.4; 73.9; 71.4; 74.3; 75.6; 74.1; 83.7; 72.5; 74.2; 76.8; 72.6; 74.2; 73.1; 72.7; 71.4; 73.0; 77.6; 71.9; 72.9; 71.7; 74.5; 76.7; 71.8; 76.9; 74.7; 71.1; 69.3; 72.7; 72.7; 71.0; 75.3; 73.4; 75.0; 76.1; 75.8; 74.8; 72.6; 71.8; 76.7; 70.5; 74.9; 76.2; 74.8; 71.8; 75.6 (AVG.=75.0) (PRED.=76.1)

TABLE 7

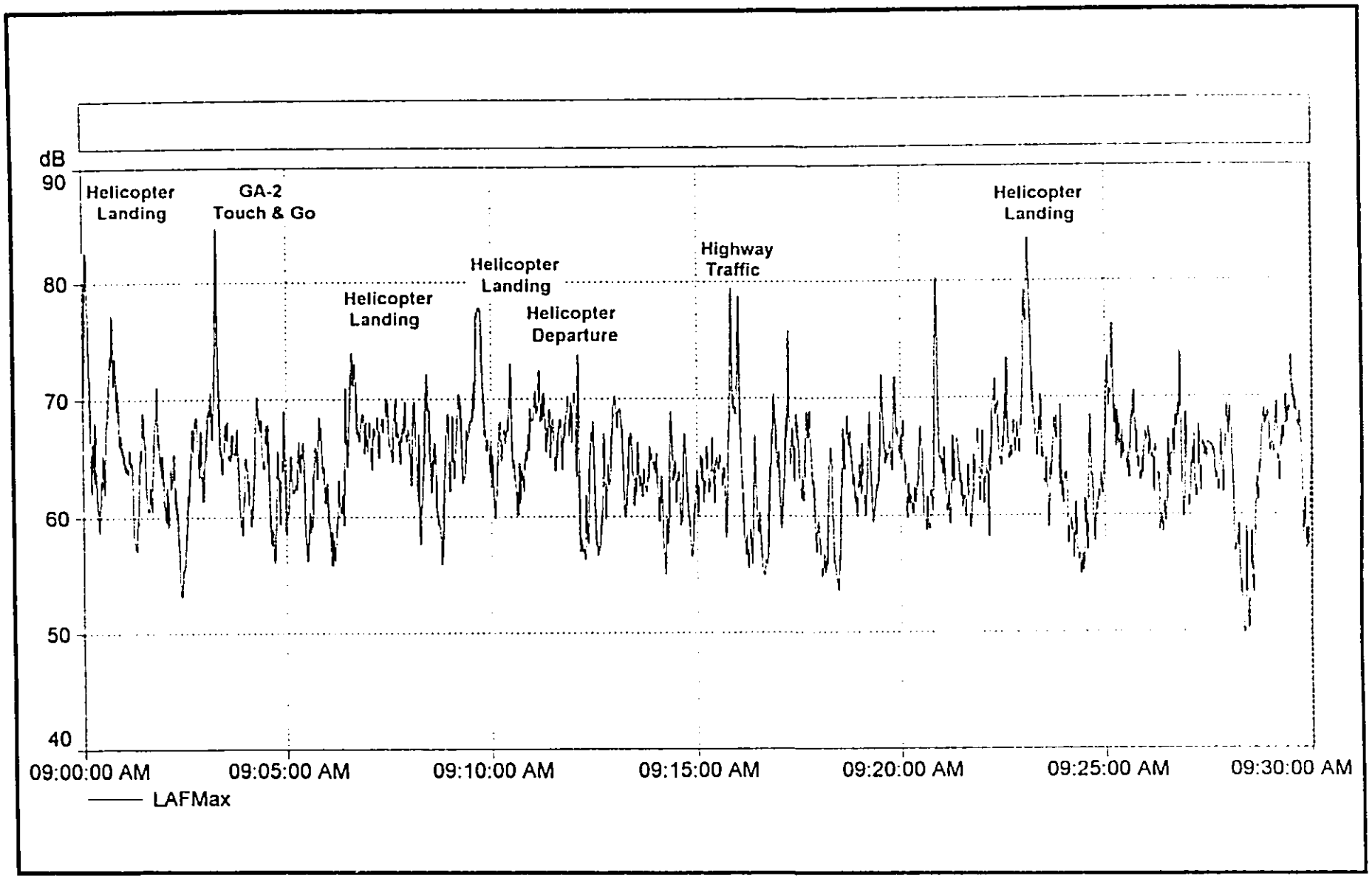
SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE "C"

AIRCRAFT TYPE	MAXIMUM SOUND LEVELS Lmax (in dB)	SOUND EXPOSURE LEVELS Lse (in dB)
B-737(200)	76.5; 81.2; 78.7; 81.0 (AVG.79.4)	85.5; 86.9; 87.4; 85.3 (AVG.=86.4) (PRED.=86.4)
B-737(300)	67.6; 74.4 (AVG.=71.0)	76.5; 80.5 (AVG.=78.9) (PRED.=71.7)
DC-9(50)	81.9; 79.3; 81.7; 84.0; 79.8 (AVG.=81.3)	85.9; 87.6; 88.7; 89.9; 88.1 (AVG.=88.2) (PRED.=88.3)
HELICOPTER	85.8; 77.8; 86.6; 78.7; 78.3; 73.2; 76.6; 78.0; 75.7; 73.9; 83.1; 79.4; 73.2; 81.2; 77.3; 82.0; 90.6; 79.9; 76.7; 82.9; 76.1; 77.5; 73.6; 79.9; 79.9; 83.0; 78.6; 83.0; 80.3; 82.8; 78.2; 80.1; 75.8; 73.7; 77.3; 78.3; 88.1; 80.6; 79.2; 81.2; 75.2; 75.6; 77.7; 77.7; 80.5; 74.3; 74.9; 79.6; 78.3 (AVG.=79.0)	89.4; 85.2; 92.6; 87.8; 85.5; 78.5; 82.0; 83.9; 82.9; 77.6; 88.9; 85.4; 82.0; 88.1; 83.6; 88.4; 93.8; 86.3; 84.3; 88.8; 83.3; 84.8; 80.5; 85.8; 86.0; 89.6; 84.6; 86.6; 86.3; 88.3; 84.4; 86.2; 84.2; 80.0; 84.3; 85.5; 91.0; 84.6; 84.8; 87.8; 84.0; 82.9; 84.1; 84.6; 85.1; 81.7; 83.2; 86.6; 83.3 (AVG.=86.5) (PRED.=88.7)

TABLE 8

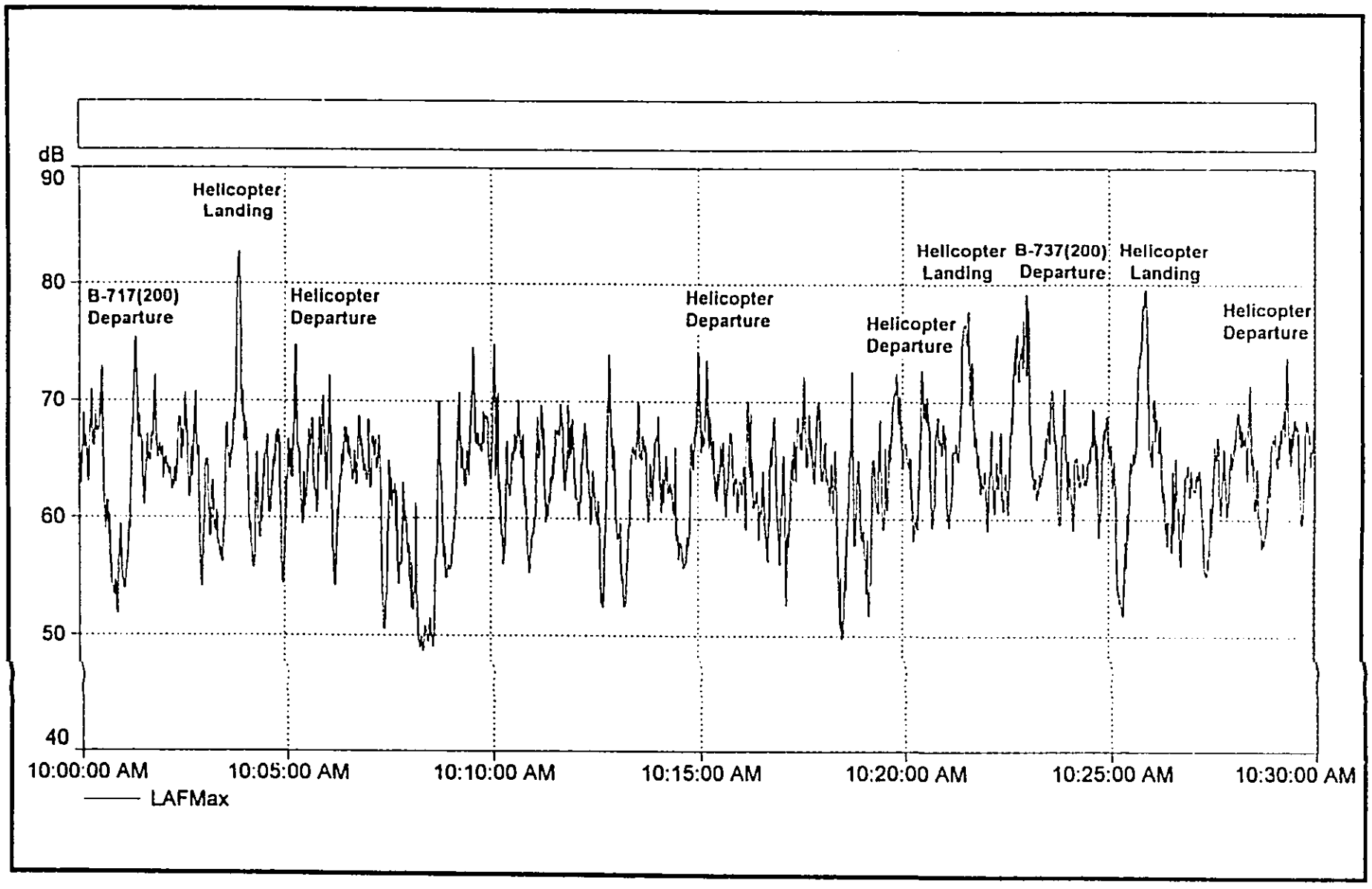
SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE "#1"

AIRCRAFT TYPE	MAXIMUM SOUND LEVELS Lmax (in dB)	SOUND EXPOSURE LEVELS Lse (in dB)
B-737(200)	85.0; 87.8; 84.9; 82.2; 85.1; 80.8; 84.1; 82.8; 86.3; 83.7 (AVG.=84.3)	90.7; 91.4; 90.5; 88.8; 90.0; 87.6; 90.1; 88.6; 90.7; 89.3 (AVG.=89.9; PRED.=91.5)
DC-9(50)	90.8; 87.5; 86.4; 84.9; 85.8; 87.7 (AVG.=87.1)	95.2; 91.7; 91.3; 91.9; 88.1; 92.4 (AVG.=92.2; PRED.=94.0)
HELICOPTER	76.6; 74.0; 75.5; 76.96; 72.2; 77.3; 73.1; 76.8 (AVG.=75.3)	81.8; 79.3; 82.2; 84.2; 78.0; 84.5; 78.3; 83.1 (AVG.=82.0; PRED.=85.3)



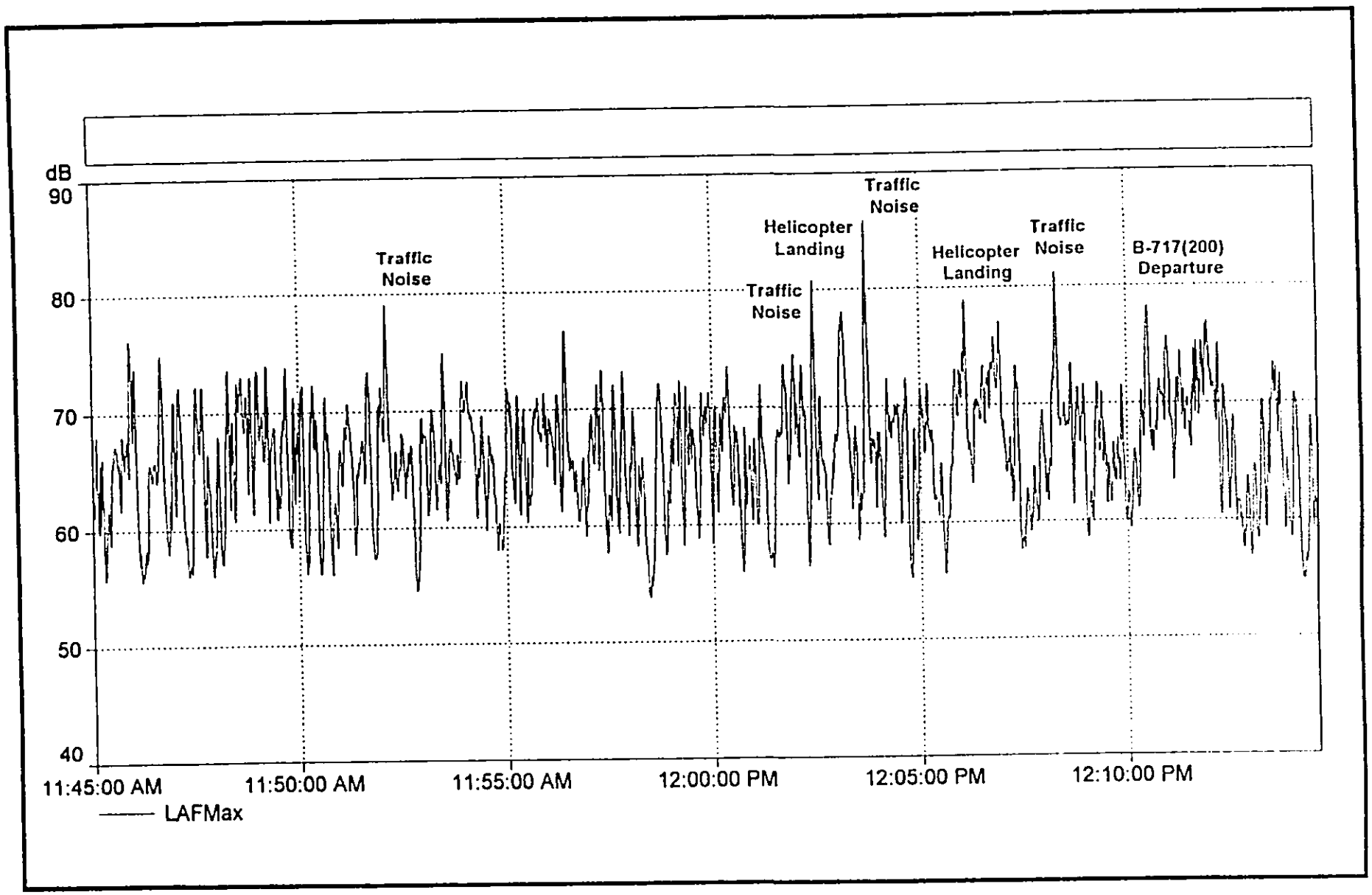
DBA VS. TIME HISTORY OF SOUND LEVELS AT LOCATION "B" (0900 TO 0930 HOURS; 2/13/02)

FIGURE 6



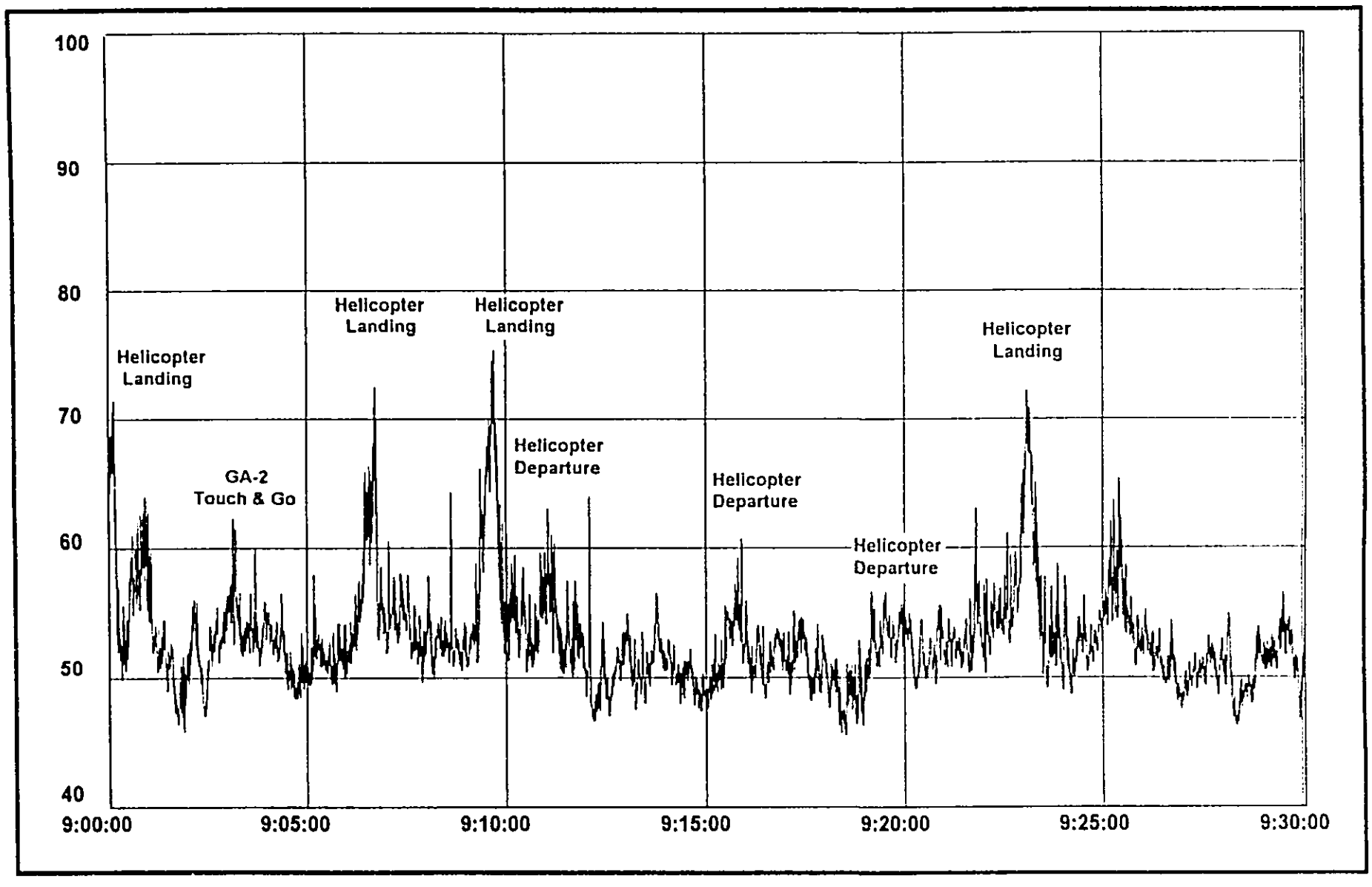
DBA VS. TIME HISTORY OF SOUND LEVELS AT LOCATION "B" (1000 TO 1030 HOURS; 2/13/02)

FIGURE 7



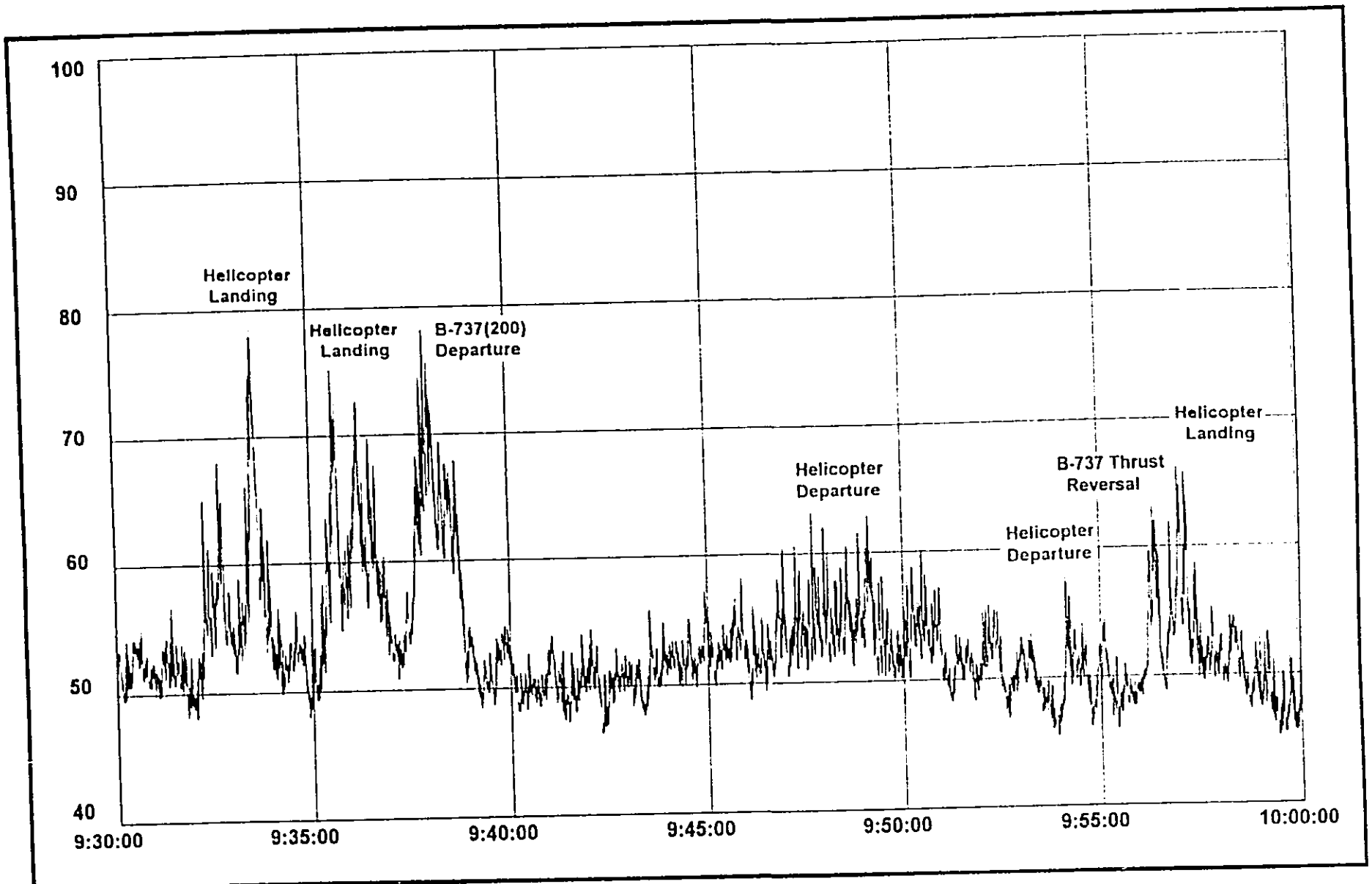
DBA VS. TIME HISTORY OF SOUND LEVELS AT LOCATION "I" (1145 TO 1215 HOURS; 2/13/02)

FIGURE 8



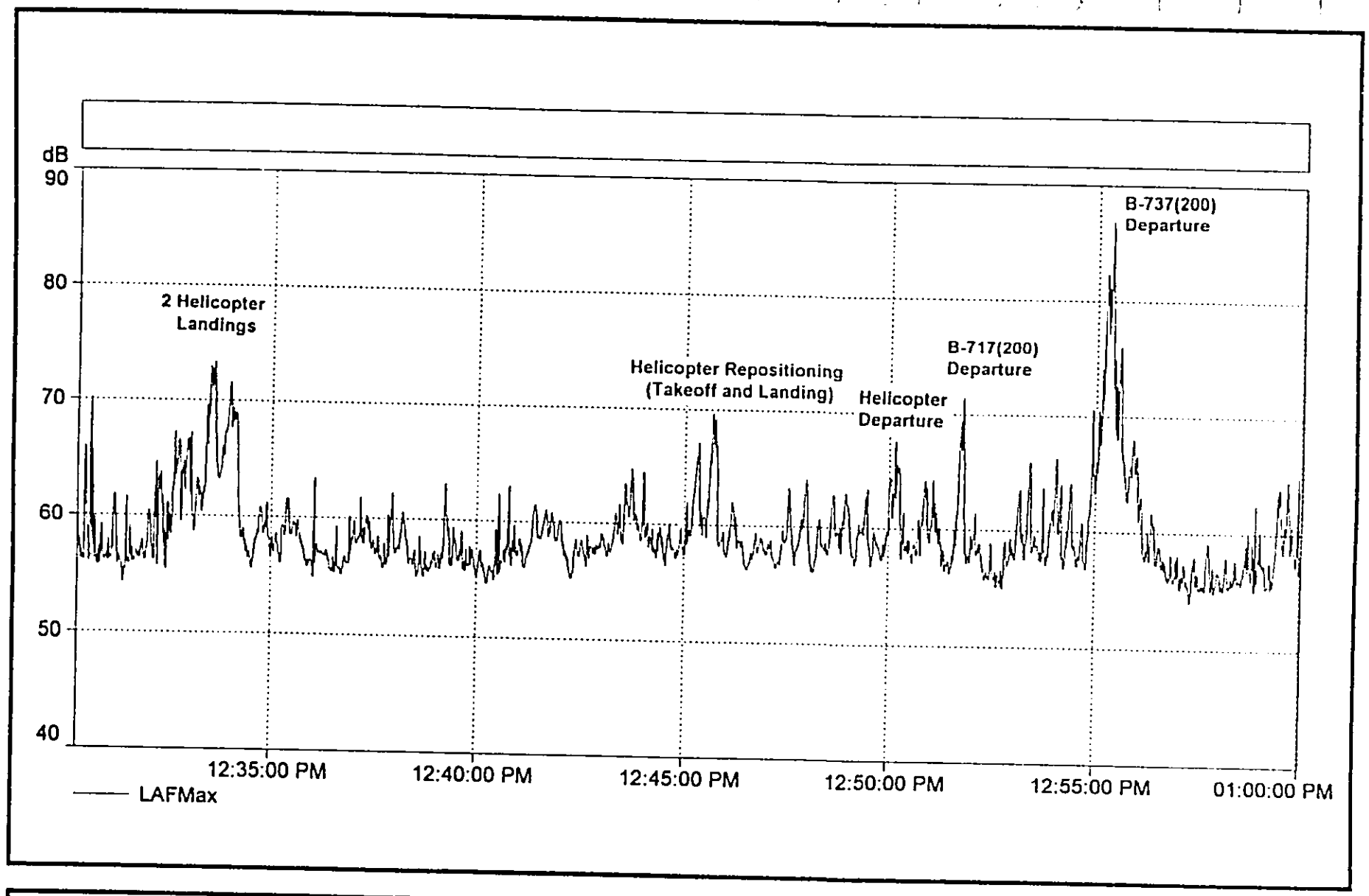
DBA VS. TIME HISTORY OF SOUND LEVELS AT LOCATION "D" (0900 TO 0930 HOURS; 2/13/02)

FIGURE 9



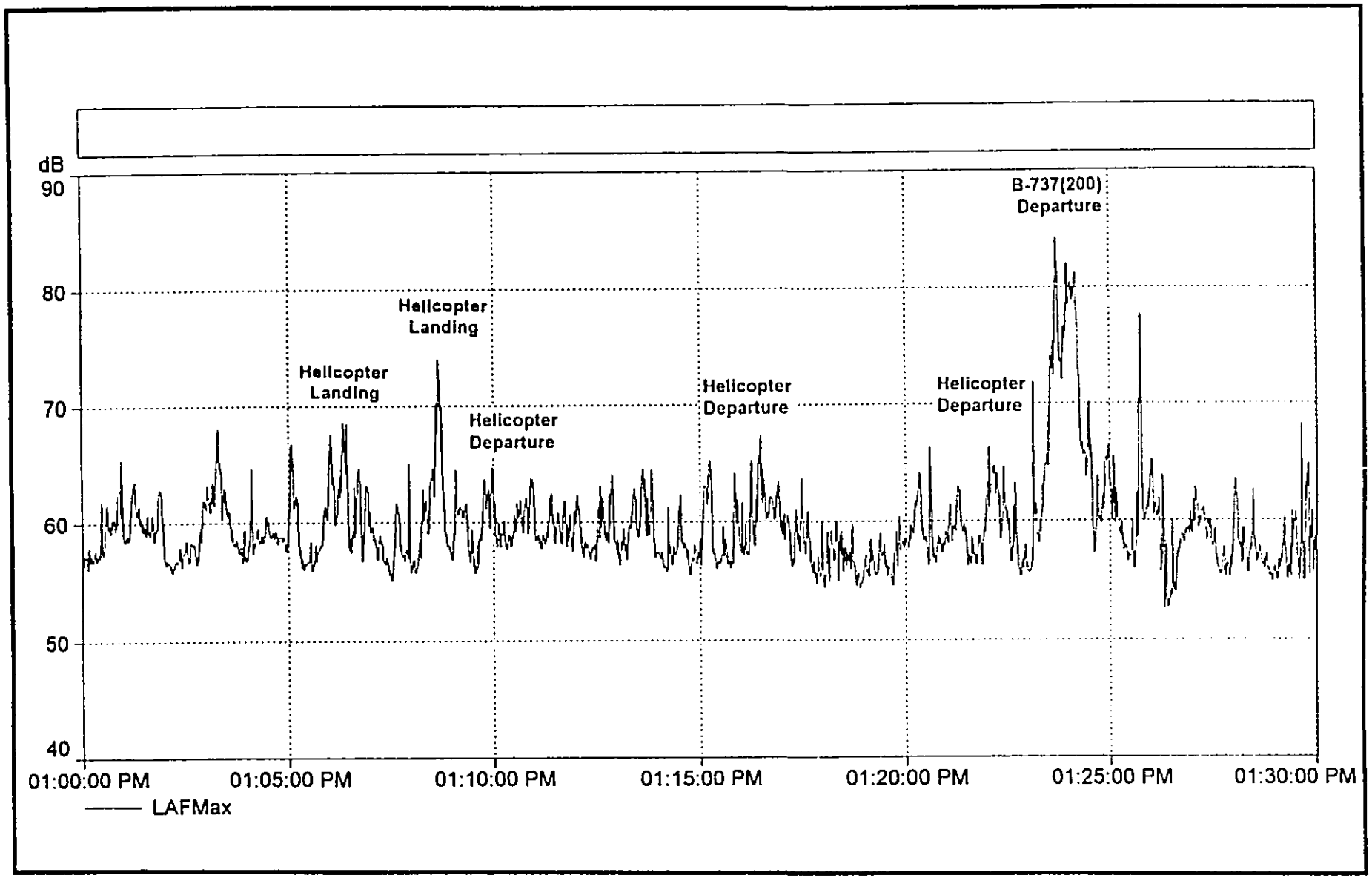
DBA VS. TIME HISTORY OF SOUND LEVELS AT LOCATION "D" (0930 TO 1000 HOURS; 2/13/02)

FIGURE 10



DBA VS. TIME HISTORY OF SOUND LEVELS AT LOCATION "BR" (1230 TO 1300 HOURS; 2/13/02)

FIGURE 11



DBA VS. TIME HISTORY OF SOUND LEVELS AT LOCATION "BR" (1300 TO 1330 HOURS; 2/13/02)

FIGURE 12

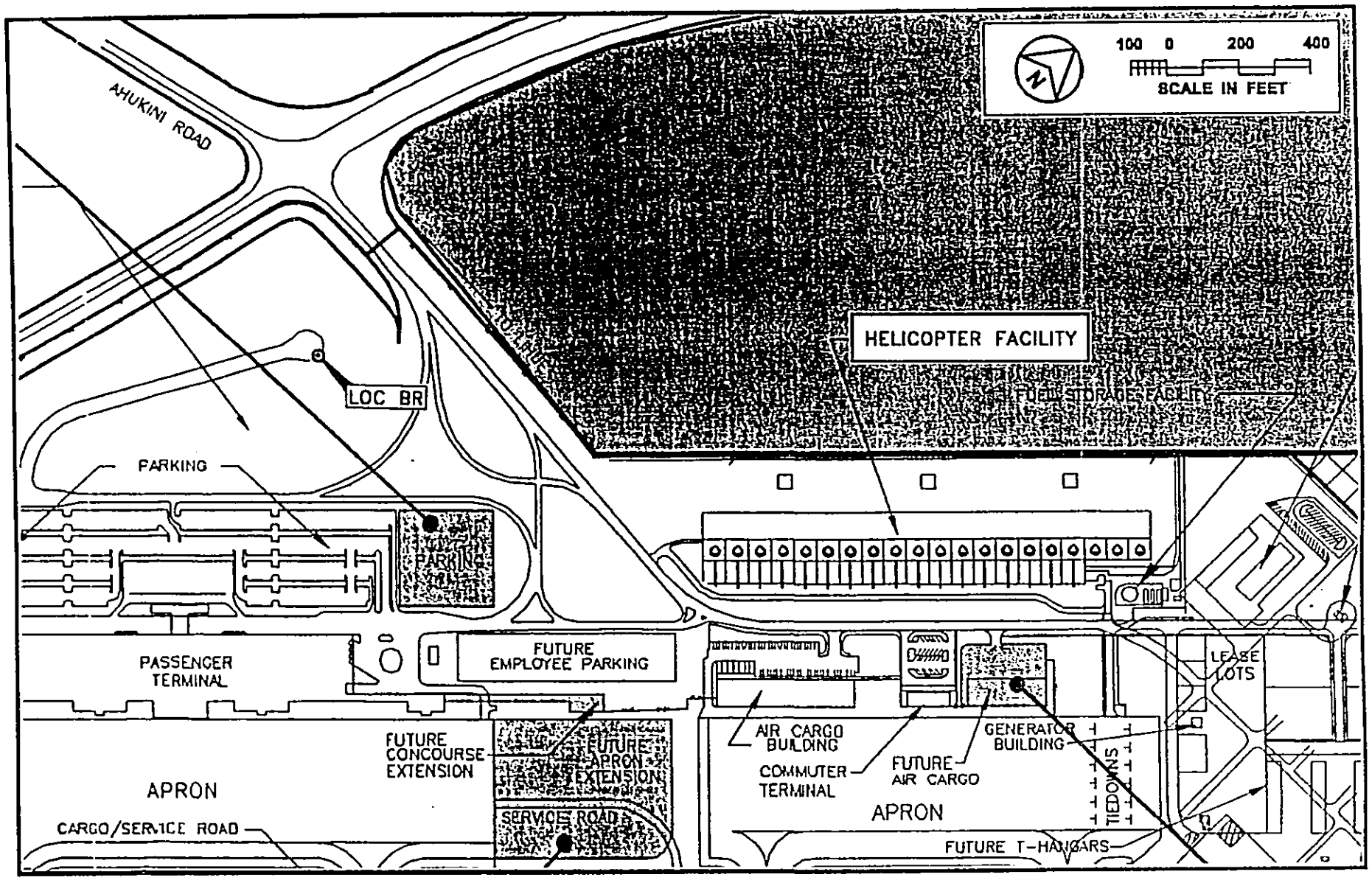
Airport. The noise measurement results shown in the figures depict the measured ranges of sound levels in A-Weighted decibels (or dBA) for various helicopter and aircraft noise events, as well as for general traffic and background ambient noise.

At Locations "B" and "I" which were 132 feet and 66 feet (respectively) from the centerlines of the high volume roadways of Kapule Highway and Ahukini Road, existing average noise levels range from 65 to 70 Leq(h). As shown in FIGURES 6 through 8, the noise from helicopters landing at Lihue Heliport were typically greater than motor vehicle traffic noise, while the noise level during static and ground taxi operations were typically less than motor vehicle traffic noise.

FIGURES 9 and 10 depict the measured helicopter noise levels at Location "D" which was near the proposed future residential area 850 feet west of Kapule Highway. At Location "D", the steady background ambient noise levels were lower due to the greater setback distances from Kapule Highway and Ahukini Road. Helicopter noise during static and ground taxi operations were audible at Location "D", but were much lower than the noise associated with helicopter landing operations, and were typically less than 60 dBA.

FIGURES 11 and 12 depict the measured noise from helicopter operations near the Budget Rent-A-Car facility at Location "BR", which is shown in FIGURE 13. The noise from helicopter landing and takeoff operations were typically less than 75 dBA and were not considered excessive for the commercial facility.

The measured helicopter noise levels did not suggest that helicopter noise levels will be higher in the proposed residential areas west of Kapule Highway due to the relocation of the middle and south landing areas toward the south of their existing locations. Stated in another way, the measured noise levels at Locations "B", "D", "I", and "BR" during existing helicopter operations which occurred at the north, middle, or south landing areas were not noticeably different, so that the relocation of the middle and south landing areas toward the south should not result in noticeable changes in future helicopter noise levels at the four noise measurement locations.



LOCATION "BR" IN RELATIONSHIP TO LIHUE HELIPORT

FIGURE 13

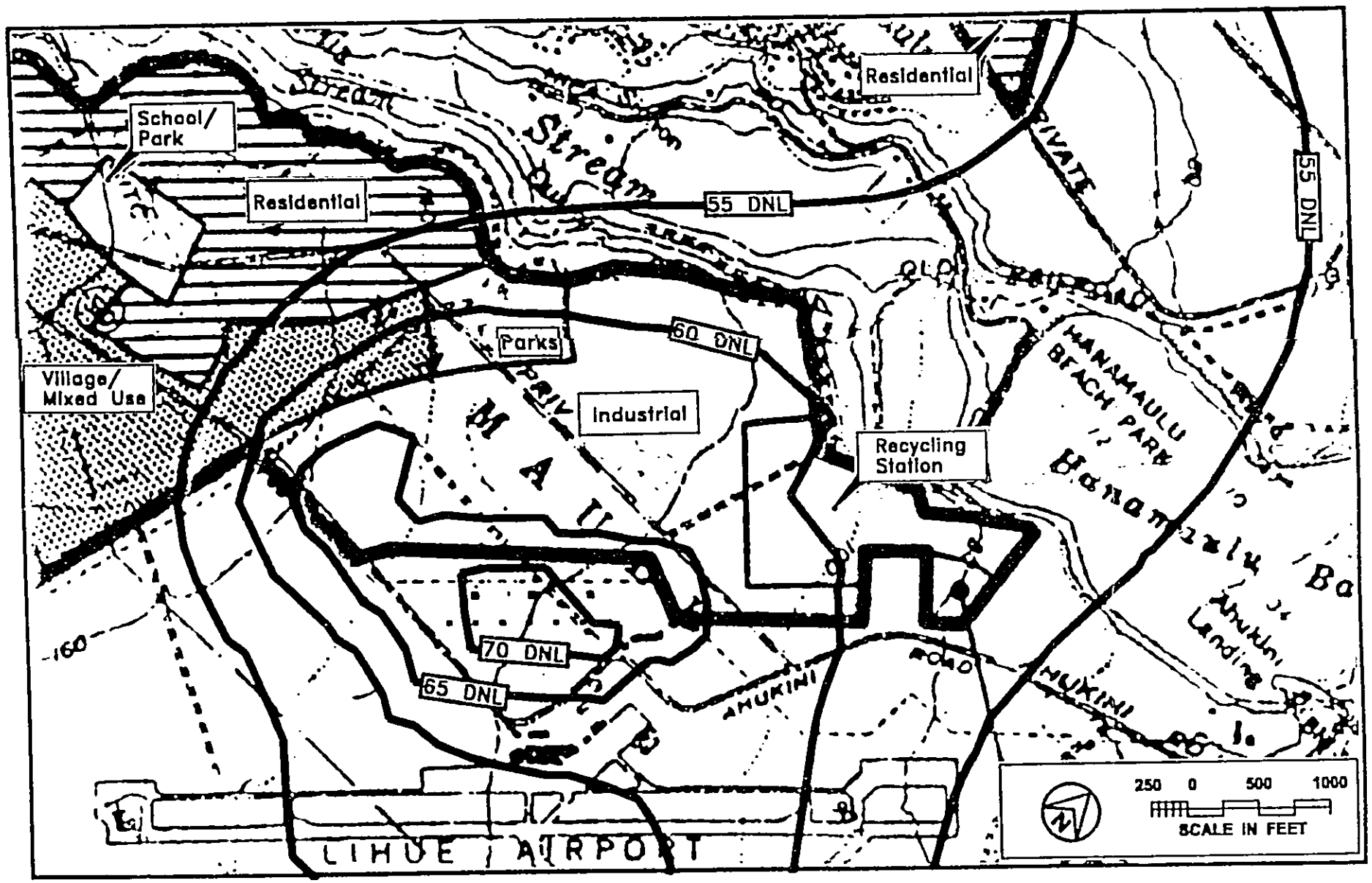
CHAPTER V. FUTURE HELICOPTER NOISE LEVELS

FIGURES 14 and 15 present the forecasted helicopter noise contours for the Lihue Heliport under the No Build and Build Alternatives, respectively, for CY 2025. TABLE 5 summarizes the helicopter operations forecast used, and number of helicopter operations associated with each flight track. The noise contours shown in FIGURES 14 and 15 for 70, 65, 60, and 55 DNL represent the helicopter noise exposure resulting from an average day of flight operations, and are applicable for the CY 2025 period without and with the planned heliport improvements. The backgrounds shown in both figures are the proposed future land uses in the heliport environs. As indicated in both figures, the areas enclosed by the helicopter noise contours are essentially the same for the No Build and Build Alternatives, with a 1 to 2 DNL increase in noise levels predicted for areas south and southwest of the heliport facility.

FIGURE 4 depicts the future total noise levels at Lihue Airport from both fixed and rotary wing aircraft with or without the planned heliport improvements. Future helicopter operations will control the size and shape of the 55 DNL contours south of Lihue Airport in the Nawiliwili Harbor and Niumalu areas, as well as near the Hanamaulu and Kalepa Ridge areas northwest of the airport. With the modernization of the interisland jet aircraft fleet, fixed wing aircraft noise levels are predicted to decrease by approximately 0.5 to 1.0 DNL, while rotary wing aircraft noise levels are expected to increase by 1.5 to 3.5 DNL.

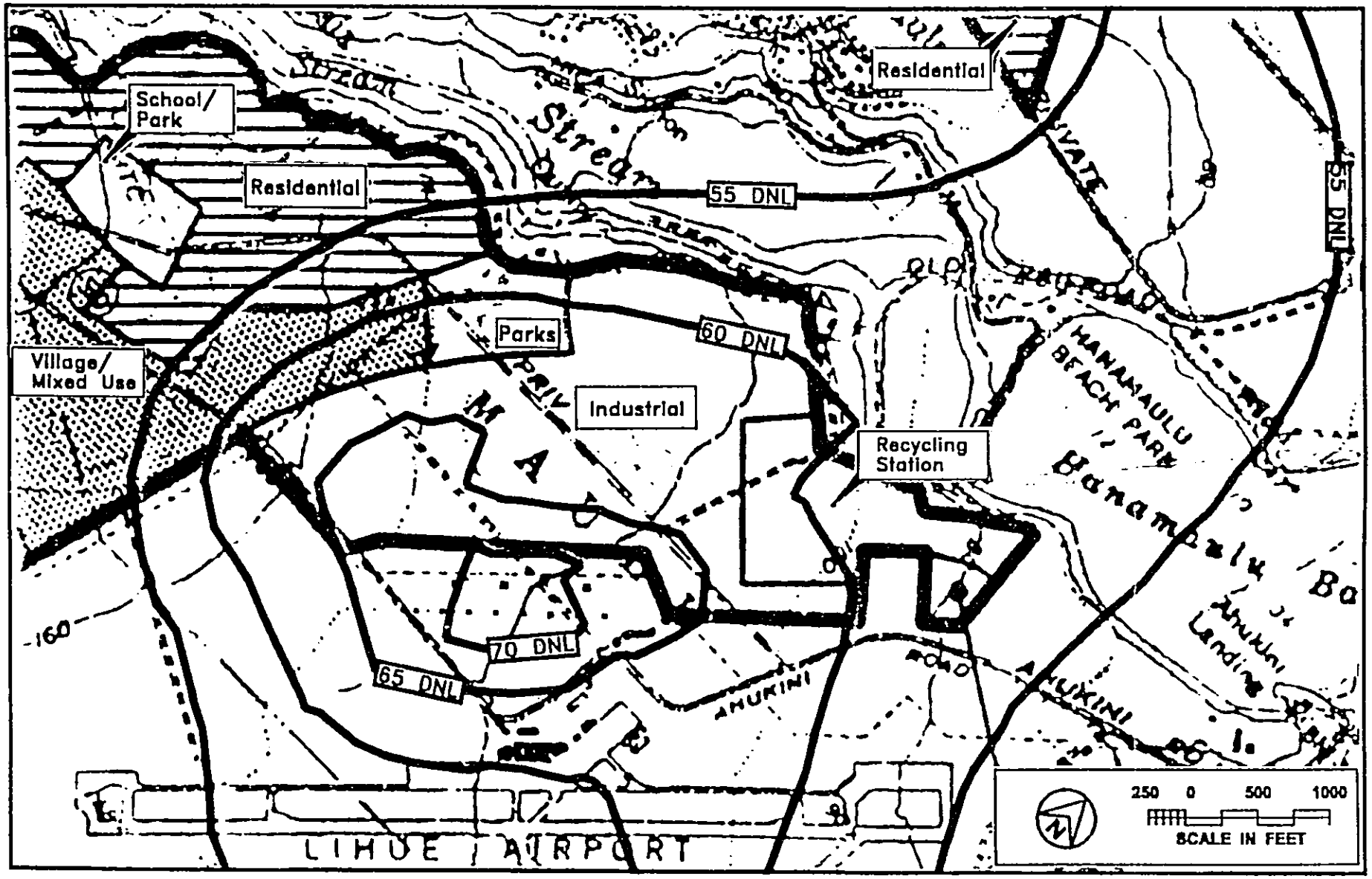
As indicated in FIGURES 14 and 15, residential or other noise sensitive areas are not expected to be exposed to helicopter noise above 60 DNL, and as such, the proposed helicopter facility should not alter the existing land use compatibility conditions in the airport environs. Proposed Village/Mixed Use lands west of Kapule Highway are located within the 60 DNL heliport noise contours, but these lands are currently vacant and are also exposed to relatively high levels of motor vehicle traffic noise. The 55 DNL helicopter noise contours will enclose existing residential and other noise sensitive areas in Hanamaulu, Hanamaulu Beach Park, Nawiliwili, and Nuimalu.

Because the DNL noise descriptor represents a highly averaged measure of time-varying sound levels, the maximum A-weighted sound level (Lmax) during an aircraft flyby event will generally be greater than the DNL contour values shown. Because the existing helicopter egress and ingress routes are not expected to be changed following completion of the improved facility, helicopter flyby sound levels are expected to remain the same as existing levels and range from 65 to 85 dB (Lmax), with sound levels being essentially the same as shown in TABLES 6 through 8 and FIGURES 6 through 12.



FUTURE (2025) HELICOPTER NOISE CONTOURS
WITHOUT FACILITY IMPROVEMENTS (LIHUE AIRPORT)

FIGURE
14



FUTURE (2025) HELICOPTER NOISE CONTOURS
WITH FACILITY IMPROVEMENTS (LIHUE AIRPORT)

FIGURE
15

CHAPTER VI. POSSIBLE NOISE IMPACTS AND COMPLAINT RISKS ASSOCIATED WITH THE IMPROVED TOUR HELICOPTER FACILITY

Forecasted increases in noise levels associated with the proposed Lihue Heliport improvements should not exceed the FAA criteria value of 1.5 DNL for a significant increase at any existing noise sensitive area. Stated in another way, the proposed relocation of the middle and south landing areas and the addition of the four parking positions at the existing heliport facility should not cause a significant increase in aircraft (fixed and rotary wing) noise levels in the noise sensitive areas which are located within the 60 DNL contour of Lihue Airport. Although some existing residences in the Hanamaulu Bay area will continue to experience aircraft noise exposure levels between 60 to 65 DNL, this condition is primarily attributable to fixed wing aircraft noise sources and not the tour helicopters operating at Lihue Airport.

Based on the forecast tour helicopter noise contours which were developed for the Build and No Build Alternatives, it was concluded that increases in helicopter noise levels attributable to the proposed improvements will be localized to areas south and southwest of the Lihue Heliport. No existing noise sensitive land uses are located within the forecast 55 DNL helicopter noise contour south and southwest of the Lihue Heliport. For this reason, adverse noise impacts associated with the proposed improvements are not expected to occur.

Significant changes in the land use compatibility situation at Lihue Airport are not expected to occur as a result of the proposed improvements to the Lihue Heliport facility. The primary reason for this is that adequate buffer distances between the noise sensitive receptors in Lihue and Hanamaulu and the tour helicopter facility are still available. In addition, the reduction in fixed wing aircraft noise levels as the noisier interisland jet aircraft are replaced with quieter jet aircraft will tend to mitigate the forecast increases in tour helicopter operations and resulting noise levels.

The past history of community complaints and annoyance responses regarding helicopter noise suggest that the "no reaction" response threshold for helicopter noise can be less than 55 DNL. Based on information reported in Reference 4, the average "no reaction" response threshold to aircraft noise is approximately 5 DNL units less than the DNL associated with other background ambient noise, as long as the exposed population do not have attitudinal biases regarding the source of the noise. Variations in this "no reaction" response threshold are possible due to attitudinal biases (favorable and unfavorable) of the exposed population. For background ambient noise levels of 50 to 55 DNL, which are believed to be characteristic of the project environs, the "no reaction" response threshold is estimated to be between 45 and 50 DNL. Stated in a different way--If the annually averaged DNL from the noise of helicopters operating at the proposed facility exceeds 45 to 50 DNL when the non-helicopter ambient noise components are in the range of 50 to 55 DNL, the noise from the helicopter operations may cause annoyance reactions from the exposed community. These observations are

particularly applicable to the expansion of the Molokoa Subdivision and the proposed expansion of the Kauai Marriott Resort. If helicopter operations at Lihue Airport increase to the levels forecasted for CY 2025, an 84 percent increase in tour helicopter flights can be expected from Base Year conditions, unless additional helicopter facilities are constructed at other locations on Kauai. An 84 percent increase in helicopter operations at Lihue Airport will produce a 2.7 DNL increase in noise average levels along the helicopter tour routes, assuming other operational conditions and helicopter sound levels remain the same. It is not known if the construction of the proposed helicopter facility improvements will stimulate further growth in tour helicopter operations on Kauai, and possibly cause additional secondary noise impacts in areas removed from Lihue Airport. It is also unlikely that future growth in helicopter tour operations on Kauai can be influenced by placing selective limits on facility improvements at Lihue Airport. At the present time, there are no administrative or regulatory methods for limiting growth of tour helicopter operations at public use facilities, but as helicopter operations increase, noise mitigation measures to minimize risks of annoyance responses from residents on Kauai will continue to be required.

CHAPTER VII. RECOMMENDED NOISE MITIGATION MEASURES

The noise mitigation measures recommended for implementation following completion of the proposed helicopter facility improvements are those operational procedures which minimize complaint risks from surrounding noise sensitive properties and which are possible within the operating constraints at Lihue Airport. One of the primary mitigation measures for reducing risks of complaints from noise sensitive properties is to avoid overflights of these properties, particularly at low altitudes. This mitigation measure is currently being implemented at Lihue Airport since two helicopter ingress and egress routes are available and are relatively clear of noise sensitive properties. These routes will probably be maintained as the primary helicopter ingress and egress routes into the indefinite future, since there are no other acceptable operational or noise abatement alternatives (see Reference 12). For these reasons, proper land use controls and/or disclosures of the presence and necessity of these helicopter ingress and egress routes should be exercised in order to maintain the current noise compatibility of land uses along these routes.

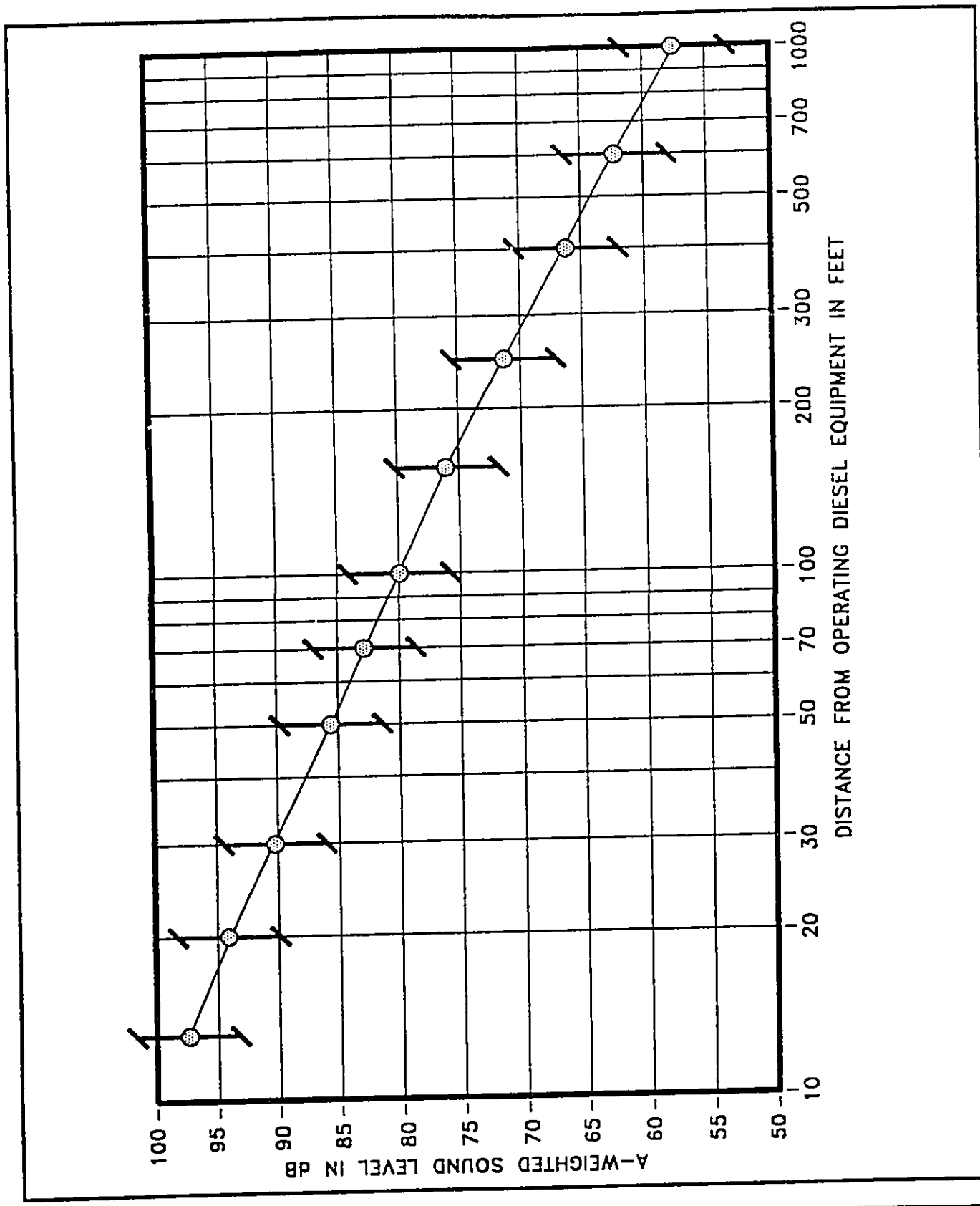
Because the 60 DNL contours associated with helicopter operations are not expected to encompass existing noise sensitive properties, or are equal to or less than existing background (non-helicopter) ambient noise levels, additional noise mitigation measures are not considered necessary prior to completion of the proposed helicopter facility improvements.

The relocation of the middle and south landing areas by 100 to 150 feet toward the south should be possible without resulting in overflights of the Budget Rent-A-Car facility north of Location "BR" (see FIGURE 13). Approximately 1,000 feet of buffer distance should be available between the Budget Rent-A-Car lot and the relocated south landing area. Both landings and departures from the improved Lihue Heliport facility should also be conducted without overflying the normally occupied tenant and passenger terminal facilities.

CHAPTER VIII. CONSTRUCTION NOISE IMPACTS

Audible construction noise will probably be unavoidable during the entire heliport construction period. Typical levels of noise from construction activity (excluding pile driving activity) are shown in FIGURE 16. The properties which are predicted to experience the highest noise levels during construction activities on the heliport site are the existing tenants of the tour helicopter facility closest to the south end of heliport. Adverse impacts from construction noise are not expected at residential areas due to the very large buffer distances between the construction area and the closest residences.

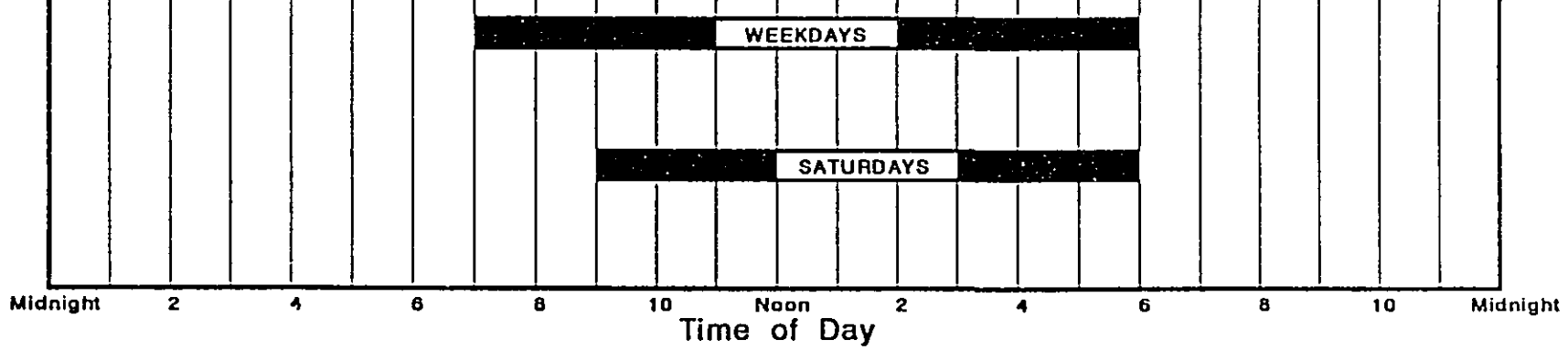
Mitigation of construction noise to inaudible levels may not be practical in all cases due to the intensity of construction noise sources (80 to 90+ dB at 50 FT distance), and due to the exterior nature of the work (grading and earth moving, trenching, concrete pouring, hammering, etc.). The use of properly muffled construction equipment should be required on the job sites. The incorporation of State Department of Health (DOH) construction noise limits and curfew times, which are applicable on the island of Hawaii (Reference 6), is another noise mitigation measure which is applied in residential areas. FIGURE 17 depicts the allowed hours of construction which exceed the noise DOH limits of Reference 6. Noisy construction activities are not allowed on Sundays or holidays under the DOH permit procedures. However, because of the very large buffer distances between the construction site and residential areas, variances from the DOH curfew periods may be possible for application on this project.



ANTICIPATED RANGE OF CONSTRUCTION NOISE LEVELS VS. DISTANCE

FIGURE 16

	WKDAYS	HOLIDAYS	SATURDAY	SUNDAY	WEEKLY
NORMAL PERMIT	55	0	9	0	64 Hours



AVAILABLE WORK HOURS UNDER DOH PERMIT PROCEDURES FOR CONSTRUCTION NOISE

FIGURE 17

APPENDIX A. REFERENCES

(1) "Guidelines for Considering Noise in Land Use Planning and Control;" Federal Interagency Committee on Urban Noise; June 1980.

(2) American National Standard, "Sound Level Descriptors for Determination of Compatible Land Use," ANSI S12.9-1998/ Part 5; Acoustical Society of America.

(3) "Environmental Criteria and Standards, Noise Abatement and Control, 24 CFR, Part 51, Subpart B;" U.S. Department of Housing and Urban Development; July 12, 1979.

(4) "Information on Levels of Environmental Noise Requisite to Protect the Public Health and Welfare with an Adequate Margin of Safety;" U.S. Environmental Protection Agency; EPA 550/9-74- 004; March 1974.

(5) "Mandatory Seller Disclosures in Real Estate Transactions;" Chapter 508D, Hawaii Revised Statutes; July 1, 1996.

(6) "Title 11, Administrative Rules, Chapter 46, Community Noise Control;" Hawaii State Department of Health; September 23, 1996.

(7) "FAA Order No. 1050.1D - Policies and Procedures for Considering Environmental Impacts;" Federal Aviation Administration; June 14, 1999 (Change 4).

(8) "Noise Assessment Guidelines for New Heliports;" FAA AC 150/5020-2; Federal Aviation Administration; December 9, 1983.

(9) "Hawaii State Helicopter System Plan--Final Technical Report;" Department of Transportation, Airports Division; March 1989.

(10) "Lihue Airport Noise Compatibility Program; Phase I, Noise Exposure Map Report;" Hawaii State Department of Transportation, Airports Division; January 1989.

(11) Working Papers for "Lihue Airport Master Plan Update and Environmental Impact Statement Study;" Hawaii State Department of Transportation, Airports Division; 1998 through 2001.

(12) "Acoustic Study of Potential Noise Impacts Associated with the Interim Helicopter Facility At Lihue Airport;" Y. Ebisu & Associates; May 1988.

APPENDIX B

EXCERPTS FROM EPA'S ACOUSTIC TERMINOLOGY GUIDE

Descriptor Symbol Usage

The recommended symbols for the commonly used acoustic descriptors based on A-weighting are contained in Table I. As most acoustic criteria and standards used by EPA are derived from the A-weighted sound level, almost all descriptor symbol usage guidance is contained in Table I.

Since acoustic nomenclature includes weighting networks other than "A" and measurements other than pressure, an expansion of Table I was developed (Table II). The group adopted the ANSI descriptor-symbol scheme which is structured into three stages. The first stage indicates that the descriptor is a level (i.e., based upon the logarithm of a ratio), the second stage indicates the type of quantity (power, pressure, or sound exposure), and the third stage indicates the weighting network (A, B, C, D, E.....). If no weighting network is specified, "A" weighting is understood. Exceptions are the A-weighted sound level and the A-weighted peak sound level which require that the "A" be specified. For convenience in those situations in which an A-weighted descriptor is being compared to that of another weighting, the alternative column in Table II permits the inclusion of the "A". For example, a report on blast noise might wish to contrast the LCdn with the LAdn.

Although not included in the tables, it is also recommended that "Lpn" and "LepN" be used as symbols for perceived noise levels and effective perceived noise levels, respectively.

It is recommended that in their initial use within a report, such terms be written in full, rather than abbreviated. An example of preferred usage is as follows:

The A-weighted sound level (LA) was measured before and after the installation of acoustical treatment. The measured LA values were 85 and 75 dB respectively.

Descriptor Nomenclature

With regard to energy averaging over time, the term "average" should be discouraged in favor of the term "equivalent". Hence, Leq, is designated the "equivalent sound level". For Ld, Ln, and Ldn, "equivalent" need not be stated since the concept of day, night, or day-night averaging is by definition understood. Therefore, the designations are "day sound level", "night sound level", and "day-night sound level", respectively.

The peak sound level is the logarithmic ratio of peak sound pressure to a reference pressure and not the maximum root mean square pressure. While the latter is the maximum sound pressure level, it is often incorrectly labelled peak. In that sound level meters have "peak" settings, this distinction is most important.

"Background ambient" should be used in lieu of "background", "ambient", "residual", or "indigenous" to describe the level characteristics of the general background noise due to the contribution of many unidentifiable noise sources near and far.

With regard to units, it is recommended that the unit decibel (abbreviated dB) be used without modification. Hence, DBA, PNdB, and EPNdB are not to be used. Examples of this preferred usage are: the Perceived Noise Level (Lpn was found to be 75 dB. Lpn = 75 dB). This decision was based upon the recommendation of the National Bureau of Standards, and the policies of ANSI and the Acoustical Society of America, all of which disallow any modification of bel except for prefixes indicating its multiples or submultiples (e.g., deci).

Noise Impact

In discussing noise impact, it is recommended that "Level Weighted Population" (LWP) replace "Equivalent Noise Impact" (ENI). The term "Relative Change of Impact" (RCI) shall be used for comparing the relative differences in LWP between two alternatives.

Further, when appropriate, "Noise Impact Index" (NII) and "Population Weighed Loss of Hearing" (PHL) shall be used consistent with CHABA Working Group 69 Report Guidelines for Preparing Environmental Impact Statements (1977).

APPENDIX B (CONTINUED)

TABLE I

A-WEIGHTED RECOMMENDED DESCRIPTOR LIST

	TERM	SYMBOL
1.	A-Weighted Sound Level	L_A
2.	A-Weighted Sound Power Level	L_{WA}
3.	Maximum A-Weighted Sound Level	L_{max}
4.	Peak A-Weighted Sound Level	L_{Apk}
5.	Level Exceeded x% of the Time	L_x
6.	Equivalent Sound Level	L_{eq}
7.	Equivalent Sound Level over Time (T) (1)	$L_{eq(T)}$
8.	Day Sound Level	L_d
9.	Night Sound Level	L_n
10.	Day-Night Sound Level	L_{dn}
11.	Yearly Day-Night Sound Level	$L_{dn(Y)}$
12.	Sound Exposure Level	L_{SE}

(1) Unless otherwise specified, time is in hours (e.g. the hourly equivalent level is $L_{eq(1)}$). Time may be specified in non-quantitative terms (e.g., could be specified a $L_{eq(WASH)}$ to mean the washing cycle noise for a washing machine).

SOURCE: EPA ACOUSTIC TERMINOLOGY GUIDE, BNA 8-14-78,

APPENDIX B (CONTINUED)

TABLE II

RECOMMENDED DESCRIPTOR LIST

TERM	A-WEIGHTING	ALTERNATIVE[1] A-WEIGHTING	OTHER[2] WEIGHTING	UNWEIGHTED
1. Sound (Pressure)[3] Level	L_A	L_{pA}	L_B, L_{pB}	L_p
2. Sound Power Level	L_{WA}		L_{WB}	L_W
3. Max. Sound Level	L_{max}	L_{Amax}	L_{Bmax}	L_{pmax}
4. Peak Sound (Pressure) Level	L_{Apk}		L_{Bpk}	L_{pk}
5. Level Exceeded x% of the Time	L_x	L_{Ax}	L_{Bx}	L_{px}
6. Equivalent Sound Level	L_{eq}	L_{Aeq}	L_{Beq}	L_{peq}
7. Equivalent Sound Level Over Time(T) [4]	$L_{eq(T)}$	$L_{Aeq(T)}$	$L_{Beq(T)}$	$L_{peq(T)}$
8. Day Sound Level	L_d	L_{Ad}	L_{Bd}	L_{pd}
9. Night Sound Level	L_n	L_{An}	L_{Bn}	L_{pn}
10. Day-Night Sound Level	L_{dn}	L_{Adn}	L_{Bdn}	L_{pdn}
11. Yearly Day-Night Sound Level	$L_{dn(Y)}$	$L_{Adn(Y)}$	$L_{Bdn(Y)}$	$L_{pdn(Y)}$
12. Sound Exposure Level	L_S	L_{SA}	L_{SB}	L_{Sp}
13. Energy Average Value Over (Non-Time Domain) Set of Observations	$L_{eq(e)}$	$L_{Aeq(e)}$	$L_{Beq(e)}$	$L_{peq(e)}$
14. Level Exceeded x% of the Total Set of (Non-Time Domain) Observations	$L_{x(e)}$	$L_{Ax(e)}$	$L_{Bx(e)}$	$L_{px(e)}$
15. Average L_x Value	L_x	L_{Ax}	L_{Bx}	L_{px}

(1) "Alternative" symbols may be used to assure clarity or consistency.

(2) Only B-weighting shown. Applies also to C,D,E,.....weighting.

(3) The term "pressure" is used only for the unweighted level.

(4) Unless otherwise specified, time is in hours (e.g., the hourly equivalent level is Leq(1). Time may be specified in non-quantitative terms (e.g., could be specified as Leq(WASH) to mean the washing cycle noise for a washing machine.

APPENDIX E

DRAFT ENVIRONMENTAL ASSESSMENT COMMENT AND RESPONSE LETTERS

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

0978

STATE OF HAWAII
OFFICE OF ENVIRONMENT QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

June 7, 2002

Mr. Brian Minaai, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawai'i 96813

Dear Mr. Minaai:

Subject: Draft Environmental Assessment for the Lihue Airport Heliport Improvements

Thank you for the opportunity to review and comment on the subject project. We have the following comments.

1. Please describe the overall heliport development plan for Kauai (including the proposed Port Allen Heliport).

2. Please consult with adjacent businesses and residents who may be affected by the project.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Geneviève Salmonson
Director

c: KFC Airports

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

IN REPLY REFER TO

AIR-P
02.0339

October 2, 2002

TO: GENEVIEVE K.Y. SALMONSON, DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

FROM: BRIAN K. MINAAI
DIRECTOR OF TRANSPORTATION

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
LIHUE AIRPORT HELIPORT IMPROVEMENTS
STATE PROJECT NO. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

1. The State of Hawaii currently operates two public airports on the island of Kauai: Lihue and Port Allen Airports. The State has decided not to pursue the development of helicopter facilities at Port Allen Airport at this time and there is no plan to develop another facility on Kauai for helicopter operations. It is not within the scope of the Lihue Airport Heliport Improvements EA to address the overall heliport development plan for the island of Kauai, including the proposed Port Allen heliport. The heliport improvement project's intent is to provide facility sites for those helicopter operators presently operating out of the Lihue heliport and allow for the completion of the existing heliport. The purpose of this EA is to address the environmental impact of the improvements necessary to accommodate the needs of the existing helicopter operators at the Lihue heliport. The improvement project would not increase or decrease the heliport's capacity to accommodate aircraft operations. Any increase of aircraft operations would be due to other factors (e.g. market demand, state of the economy), which would occur with or without the proposed project.

2. Government agencies, businesses, and groups and organizations that may be affected by the project were consulted and are listed as an appendix of the draft EA. Individual residents who have provided comments to the draft will be added to the appendix in the Final EA.

Please contact the Airports Division, Mr. Gene Matsushige, Project Manager, at 838-8826 or Ms. Lynette Kawaoka, Planner, at 838-8812, to clarify any additional questions you may have.

UNIVERSITY OF HAWAI'I
ENVIRONMENTAL CENTER

A UNIT OF THE WATER RESOURCES RESEARCH CENTER

May 23,2002

Mr. Roy Sakata
Department of Transportation
Airports Division
400 Rodgers Boulevard, Suite 70
Honolulu, Hawaii 96819

Lihu'e Airport Heliport Improvements
Draft Environmental Assessment

The State Department of Transportation, Airports Division proposes improvements to the Lihu'e Airport Heliport, located at the Lihu'e Airport on the island of Kauai. The purpose of the proposed project is to provide for safer and more efficient helicopter operations at the Lihu'e Heliport. Major components of the proposed project are: construction and preparation of ten lease lots for helicopter operator use, with accompanying employee and public parking, two relocated take-off/landing areas, and four new helicopter aprons.

This review was conducted with the assistance of Dave Sims, Environmental Center.

General Comments

Although this project will improve helicopter facilities at Lihu'e Airport, and the referenced draft EA addresses most associated environmental concerns, there is no consideration in the document of cumulative effects of expanded helicopter operations at Lihu'e Airport. We note that in December of 2001, the State of Hawai'i Department of Transportation Airports Division released their Final Environmental Assessment and FONSI for nearby Port Allen Airport Improvements **(STATE PROJECT NO. AK2010-01)**. This document addressed improvements to helicopter facilities at Port Allen to accommodate operations for 3 fulltime helicopter companies plus additional part-time operators. In view of the nearly coincident planning efforts, why was there no discussion in either document of these related activities? Surely, those responsible for project management for these separate efforts must have been aware of the complementary plans, particularly in view of the high likelihood of additive or cumulative effects of expanded helicopter operations at the two facilities. At the very least, our reviewers suggest that combined noise effects and increased helicopter traffic from all operators in the general area should have been discussed in some detail, since these impacts have been an area of public concern in the past on Kauai.

KRAUSS ANNEX 19 • 2500 DOLE STREET • HONOLULU, HAWAI'I 96822 • (808) 956-7361 • FAX (808) 956-3980

Thank you for the opportunity to comment on this draft EA.

Sincerely,

John T. Harrison, Ph.D.
Environmental Coordinator

cc: OEQC
Dexter Kubota, KFC Airport, Inc.
James Moncur
Dave Sims

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

IN REPLY REFER TO

AIR-P
02.0340

October 2, 2002

John T. Harrison, Ph.D.
Environmental Coordinator
University Of Hawaii Environmental Center
Krauss Annex 19
2500 Dole Street
Honolulu, Hawaii 96822

Dear Dr. Harrison:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

The existing heliport facilities at Lihue Airport were constructed as an interim helicopter facility and much needed support facilities (e.g. office space, hangar/maintenance space) were never constructed. The intent of the heliport improvement project is to provide facility sites for those helicopter operators presently operating at the Lihue heliport and allow for the completion of support facilities at the existing heliport. Although the Port Allen Airport improvements were proposed to accommodate existing and forecast aviation demand, we have decided not to pursue the development of helicopter facilities at Port Allen Airport at this time.

As the Lihue Airport is a public facility, all general aviation aircraft, including helicopters, have a right to use the airport as long as they do so in a safe manner. Helicopter tour operators are currently using the Lihue heliport without the proposed improvements, and will continue to do so as long as there is a demand for their services at the Airport and it is in their business interest to provide the services.

In order to assess the health and safety aspects of helicopter operations, the Department of Transportation, Airports Division (DOTA) undertook noise studies of the impacts of the improvement project at both Port Allen and Lihue Airport. It was determined there would be no incompatible land use due to helicopter noise, nor adverse noise impacts associated with the proposed improvements at the airports.

The number of helicopter operations at the Lihue Airport is dependent on aviation demand for air tours because the growth of helicopter operations is not limited by the current facilities; growth would be a function of the economics or popularity of air tour operations. Airports and airport improvements do not create a demand for economic development, but instead accommodate economic developments. Thus, the planned improvements at the Lihue Airport will not be the cause of increased helicopter activity.

Please contact the Airports Division, Mr. Gene Matsushige, Project Manager, at 838-8826 or Ms. Lynette Kawaoka, Planner, at 838-8812, to clarify any additional questions you may have.

Very truly yours,

BRIAN K. MINAAI
Director of Transportation

SIERRA CLUB

Kaua'i Group of the Hawai'i Chapter
Post Office Box 3412
Lihu'e, Kaua'i, Hawai'i 96766

Dennis Higa
Department of Transportation
Airports Division
400 Rodgers Blvd. Suite 700
Honolulu, Hi. 96819

June 6, 2002

Dear Mr. Higa,

I am writing this testimony as the Conservation Chairperson on the Executive of the Kauai Group of the of the Hawaii Chapter of the Sierra Club.

Our main concern is the inclusion of four additional helicopter pads in the DOT proposal for heliport improvements at the Lihue Airport. It would allow more helicopters to land and take off from the Lihue Airport and consequently more overflights on the island of Kauai.

Kauai simply does not have the carrying capacity for additional overflights. This is a small island. Our skies are already proliferated with tour helicopters, especially in popular scenic areas like the Na Pali Coast and Kokee State Park and surroundings. The noise is disruptive to hikers and those who seek solitude in nature. There are also undesirable flights over residential areas that lead to loss of quiet enjoyment of our homes.

One suggestion is to allocate a certain number of pads to each company. If the allocated pads are redistributed so that everyone can have a site for their office and hangers, then everyone would be accommodated. The number of helicopters would be limited by a lottery or other means.

Please take this testimony to heart and realize that the people rather than the helicopter companies will be served if there is a moratorium on the number of helicopter pads and helicopter flights on Kauai.

To permit more helicopter pads would mean an increase of approximately 24-36 overflights a day causing an intolerable and unacceptable increase of noise disturbance. The Department of Transportation must acknowledge and respect the rights of people over the quest for greater profits on the part of a few helicopter companies.

Sincerely,

Gabriela Taylor
Conservation Chairperson
Kauai Group, Hawaii Chapter
Sierra Club

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
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400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO:

AIR-P
02.0341

October 2, 2002

Ms. Gabriela Taylor
Conservation Chairperson
Kauai Group of the Hawaii Chapter
Sierra Club
P.O. Box 3412
Lihue, Hawaii 96766

Dear Ms. Taylor:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

The existing heliport facilities at Lihue Airport were constructed as an interim helicopter facility and much needed support facilities (e.g. office space, hangar/maintenance space) were never constructed. The intent of the improvements discussed in the Draft EA is to provide facility sites for those helicopter operators presently operating out of the Lihue heliport and allow for the completion of the existing heliport. These improvements include the construction of four additional helicopter aprons, however, the total number of take-off/landing areas remain unchanged. Helicopter aprons are used for loading and unloading of passengers as well as parking of helicopters when not in use. All of the helicopters, which use the Lihue heliport, still need to conduct their take-off/landing operations from one of the three existing take-off/landing areas at the heliport.

The proposed improvements would not increase or decrease the heliport's capacity to accommodate helicopter operations. Any increase of aircraft operations would be due to other factors (e.g. market demand, state of the economy), which would occur with or without the proposed project.

In order to assess the health and safety aspects of helicopter operations of this project, the Department of Transportation, Airports Division (DOTA) undertook a noise study of the impacts of the improvement project at Lihue Airport. The study found that adverse noise impacts associated with the proposed improvements are not expected to occur.

Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

Dennis and fellow Airports Division people:

PLEASE don't add any more helicopter noise to our ~~beautiful~~ tranquil island! Even the visitors complain about noise pollution from the existing helicopters.

PLEASE stop this proposal!

Thank you-M. & J. Pashal

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

IN REPLY REFER TO:

AIR-P
02.0348

October 2, 2002

Mr. and Mrs. Joe Paskal
P.O. Box 1487
Hanalei, Hawaii 96714-1487

Dear Mr. and Mrs. Paskal:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

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The purpose of an EA is to allow government to give systemic consideration to the environmental, social, and economic consequences of the proposed improvement projects before granting permits that allow construction to begin. This process also ensures the public the right to participate in the planning process that may affect the community. I appreciate the time you took to express your concerns over the proposed improvements at Lihue Airport heliport. Your input is valuable and results in the proper balancing of needed improvements with resident concerns.

Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

msn Hotmail® happydreamr@hotmail.com   Inbox | Previous Page

From : "Les and Elaine" <happydreamr@hotmail.com>
To : dennis_higa@exec.state.hi.usa
Subject : helo-pads
Date : Fri, 07 Jun 2002 12:03:22 -1000

Aloha, I would like to request that there be No more helio-pads installed/constructed!! With the tour, commercial, private, green harvest,military helicopters on island there is enough noise pollution. I lived in Orange County, Ca. for 30 yrs. And I remember how quiet it was untill more people moved in. With it came more commercial and private and greem harvest helicopters. With the Marine Corps Air Base, Hughes, Macdonald-Doughles, Martin-Merietta, there was a large increase in helicopters in O. C. But the really big increase in helios came as the towns/citys grew and virtually every town had at least 2, some3-4 helicopters. And thier flight patterns all over lapped. So, one was not only getting the noise from the helios where you lived but also 3-4 other helicopters from the surrounding towns. And the noise from all of these craft was not only annoying but deafening. Far worse than living next door to 20-40 fighting cocks. And all of this started gradual, like a few at a time. If this is for more tourest, I think they wouldn't mind waiting a little longer to get thier rides, and not see so many other helicopters in the sky around them. And if it's for Mr. Bushs Home Defence, I don't think you'd want to hear what I have to say about that. Mahalo, and aloha. Les Gale

I tryed sending this email with the address given me, it didn't go thru.

Mahalo.
Les Gale

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO:

AIR-P
02.0342

October 2, 2002

Mr. Les Gale
P. O. Box 1123
Lawai, Hawaii 96765

Dear Mr. Gale:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

The existing heliport facilities at Lihue Airport were constructed as an interim helicopter facility and much needed support facilities (e.g. office space, hangar/maintenance space) were never constructed. The intent of the improvements discussed in the Draft EA is to provide facility sites for those helicopter operators presently operating out of the Lihue heliport and allow for the completion of the existing heliport. The proposed improvements would not increase or decrease the heliport's capacity to accommodate helicopter operations. Any increase of aircraft operations would be due to other factors (e.g. market demand, state of the economy), which would occur with or without the proposed project.

In order to assess the health and safety aspects of helicopter operations of this project, the Department of Transportation, Airports Division (DOTA) undertook a noise study of the impacts of the improvement project at Lihue Airport. The study found that adverse noise impacts associated with the proposed improvements are not expected to occur.

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Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

Department of Transporation Airports Division
Attention: Dennia Higa
400 Rodgers Boulevard, Suite 700
Honolulu, HI 96819

Dear Mr. Higa,

I understand the DOT is considering increasing the number of hilicopter pads at the Lihue Airport on Kauai. If this means allowing more helicopters, I am shrongly against it. There is already too much helicopter noise on Kauai and we certainly don't need more. When people who live here or visitors are sitting quietly on the beach or hiking in the mountains there is already too much helicopter noise. Please don't allow any more helicopters or their noise on our island.

Sincerely,

Marge Freeman

Marge Freeman
6448 Kaahele St.
Kapaa, HI 96746
(808) 822-4605

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO:

AIR-P
02.0344

October 2, 2002

Ms. Marge Freeman
6448 Kaahele Street
Kapaa, Hawaii 96746

Dear Ms. Freeman:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

The existing heliport facilities at Lihue Airport were constructed as an interim helicopter facility and much needed support facilities (e.g. office space, hangar/maintenance space) were never constructed. The intent of the improvements discussed in the Draft EA is to provide facility sites for those helicopter operators presently operating out of the Lihue heliport and allow for the completion of the existing heliport. These improvements include the construction of four additional helicopter aprons, however, the total number of take-off/landing areas remain unchanged. Helicopter aprons are used for loading and unloading of passengers as well as parking of helicopters when not in use. All of the helicopters, which use the Lihue heliport still need to conduct their take-off/landing operations from one of the three existing take-off/landing areas at the heliport.

The proposed improvements would not increase or decrease the heliport's capacity to accommodate helicopter operations. Any increase of aircraft operations would be due to other factors (e.g. market demand, state of the economy), which would occur with or without the proposed project.

In order to assess the health and safety aspects of helicopter operations of this project, the Department of Transportation, Airports Division (DOTA) undertook a noise study of the impacts of the improvement project at Lihue Airport. The study found that adverse noise impacts associated with the proposed improvements are not expected to occur.

The purpose of an EA is to allow government to give systemic consideration to the environmental, social, and economic consequences of the proposed improvement projects before granting permits that allow construction to begin. This process also ensures the public the right to participate in the planning process that may affect the community. I appreciate the time you took to express your concerns over the proposed improvements at Lihue Airport heliport. Your input is valuable and results in the proper balancing of needed improvements with resident concerns.

Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

Ahonui Gardens

June 7, 2002

Department of Transportation Airports Division
Attention: Dennis Higa
400 Rodgers Boulevard, Suite 700
Honolulu, HI 96819

I have recently learned that the Department of Transportation is considering funding additional helicopter pads at Lihue Airport. I consider this action to be unnecessary and a waste of public funds.

Helicopter activity on Kauai is already excessive and detracts from the environmental qualities that make Kauai a differentiated destination and an exceptional place to live. At a minimum, the community should review a decision of this nature. Any decision process that negatively impacts the quality of life and does not take public sentiment into account will be aggressively challenged.

Sincerely,

Charlie Bass

cc: Gary Hooser

3788 Ahonui Place
Princeville, Hawaii 96722

808 826 1942 Tel
808 826 4774 FAX

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO:

AIR-P
02.0345

October 1, 2002

Mr. Charlie Bass
3788 Ahonui Place
Princeville, Hawaii 96722

Dear Mr. Bass:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

The existing heliport facilities at Lihue Airport were constructed as an interim helicopter facility and much needed support facilities (e.g. office space, hangar/maintenance space) were never constructed. The intent of the improvements discussed in the Draft EA is to provide facility sites for those helicopter operators presently operating out of the Lihue heliport and allow for the completion of the existing heliport. The improvements do include the construction of additional helicopter aprons, however, these improvements and airport improvements in general do not use tax dollars but are paid for with user fees collected from the airport tenants themselves.

The proposed improvements would not increase or decrease the heliport's capacity to accommodate helicopter operations. Any increase of aircraft operations would be due to other factors (e.g. market demand, state of the economy), which would occur with or without the proposed project.

The purpose of an EA is to allow government to give systemic consideration to the environmental, social, and economic consequences of the proposed improvement projects before granting permits that allow construction to begin. This process also ensures the public the right to participate in the planning process that may affect the community. I appreciate the time you took to express your concerns over the proposed improvements at Lihue Airport heliport. Your input is valuable and results in the proper balancing of needed improvements with residents concerns.

Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

6/6/02

Aloha Dennis,

I tried to email you but it was returned. So now I am faxing this letter.

I have been informed that there is a proposal to allow 4 more helicopter pads at the Lihue airport.

As a full time resident (ten years so far) of Kauai, I would like to input my objections to this proposal.

I fully recognize that helicopters provide a wonderful service for our visitors. However, in that there is already an abundance of helicopter noise that we are having to deal with, I think adding four more pads and quadrupling the amount of daily fly overs is just too much for our little island to handle.

Camping in Kalalau is already like being in a war zone with helicopters buzzing overhead constantly. I have to use earplugs when I am there to minimize the disturbance these helicopters create. Here we all are in this pristine far off the beaten track place and the noise pollution coming from these helicopters are buzzing over us, way closer then they are supposed to be because nobody really regulates them as it is.

I strongly urge you to not allow this proposal to pass. We have plenty of helicopters to go around, already. Even if the market can bear this proposed increase, the peace and tranquility, which is a major selling point for tourism as well as residents here on Kauai, can not withstand the increase.

I thank you in advance for your very careful consideration of this important matter.

Joan Levy
POB 160
Kapaa, HI 96746

Joan Levy

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO:

AIR-P
02.0346

October 2, 2002

Ms. Joan Levy
P. O. Box 160
Kapaa, Hawaii 96746

Dear Ms. Levy:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

The existing heliport facilities at Lihue Airport were constructed as an interim helicopter facility and much needed support facilities (e.g. office space, hangar/maintenance space) were never constructed. The intent of the improvements discussed in the Draft EA is to provide facility sites for those helicopter operators presently operating out of the Lihue heliport and allow for the completion of the existing heliport. These improvements include the construction of four additional helicopter aprons, however, the total number of take-off/landing areas remain unchanged. Helicopter aprons are used for loading and unloading of passengers as well as parking of helicopters when not in use. All of the helicopters, which use the Lihue heliport, still need to conduct their take-off/landing operations from one of the three existing take-off/landing areas at the heliport.

The proposed improvements would not increase or decrease the heliport's capacity to accommodate helicopter operations. Any increase of aircraft operations would be due to other factors (e.g. market demand, state of the economy), which would occur with or without the proposed project.

In order to assess the health and safety aspects of helicopter operations of this project, the Department of Transportation, Airports Division (DOTA) undertook a noise study of the impacts of the improvement project at Lihue Airport. The study found that adverse noise impacts associated with the proposed improvements are not expected to occur.

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Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

June 6, 2002

Department of Transporation Airports Division
Attention: Dennis Higa

Dear Mr. Higa:

I have been informed that there are plans to construct four (4) additional helicopter takeoff / landing pads at the Lihue airport..

This action should be reconsidered and halted. The helicopter population over Kauai's Wilderness areas is currently overcrowded. The present condition is destroying the peace and solitude of our rare and precious areas. I often hike to outback areas and now find that there are few minutes of any day that are not shattered with the roar of low flying helicopters.

I have nearly given up back packing into Kokee's beautiful back country as the rudeness and frequency of present day helicopters has destroyed the enjoyment of peace and quiet of these remote locations. I have personally observed as many as 5 helicopters at one time within the confines of Honopu Valley. This is not only rude to the environment and hikers but I would think dangerous and will certainly lead to catastrophe with resultant death of innocent tourists. It is an accident waiting to happen. I suspect that it has altered the breeding and consequently, the population of our endangered bird species.

Helicopter flights to these areas is of benefit to few. It does little for the local economy when compared to the massive loss of tranquility which our citizens and visitors seek when venturing into the interior of this beautiful Garden Isle.

Rather than increase the number of helicopters, we should be thinking about limiting the number of helicopters, the frequency of their flights as well as limit the areas they fly over. *We should include some quiet times with no fly days to give the hiker, wildlife and environment a little of the natural solitude it was created with.*

As an employee empowered to protect our flying space I urge you to ban any increase in helicopter activity on the Island of Kauai.

Sincerely,

Ken DaVico
315 Aina Mahi Pl.
Kapaa, Hi 96746
Tel: (808) 823-6424
E-mail: im.ken@verizon.net

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO:

AIR-P
02.0343

October 2, 2002

Mr. Ken DaVico
315 Aina Mahi Place
Kapaa, Hawaii 96746

Dear Mr. DaVico:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

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Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

FAX TO: Lynette Kawoka
Department of Transportation
808-838-8751

FROM: Marti and Joe Paskal
Restaurant and homeowners, Kauai
Fax 808-826-5550
Paskal@aloha.net

Aloha Ms. Kawoka –

We have just become aware of the potential for more helicopters blasting serene little Kauai with their endless droning. Even our visitors comment that there are too many helicopters overhead! PLEASE do whatever you can to prevent even more of these noise pollution menaces from taking over the air space above our beautiful island.

PLEASE, PLEASE – no more helicopters!

Thank you sincerely,

Marti Paskal

Marti and Joe Paskal
June 6, 2002

FAX TO: Lynette Kawoka
Department of Transportation
808-838-8751

FROM: Marti and Joe Paskal
Restaurant and homeowners, Kauai
Fax 808-826-5550
Paskal@aloha.net

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Thank you sincerely,

Marti and Joe Paskal
June 6. 2002

BENJAMIN J. CAYETANO
GOVERNOR

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

IN REPLY REFER TO:

AIR-P
02.0347

October 2, 2002

Ms. Marti Paskal
P.O. Box 1487
Hanalei, Hawaii 96714-1487

Dear Mrs. Paskal:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your letter commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

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Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator

Judy Dalton
<dalton@aloha.net>

06/08/02 12:32 AM

To: dennis_higa@exec.state.hi.us
cc:
Subject: Comments on Lihue Airport Heliport Improvements

Dear Mr. Higa,

People here on Kaua`i are adversely affected by the continual overflights of helicopters. The assault on our senses is highly disturbing, irritating and stress producing. We have no peace, except for the few minutes in between flights. Just as we're recovering from the intense noise of one helicopter another one comes along. We cannot hear each other speak over the intrusive interruption into our conversations. The helicopters keep coming and coming throughout the day.

We have no reprieve from the shattering penetration of noise into our homes. We cannot enjoy our island's natural beauty. We're denied the quietude that nature could provide. Instead of tranquility we are attacked with a never ending onslaughter of invasive helicopters. We try to sell our homes that are in the flightways but no one will buy them, resulting in the loss of full use and economic value.

Now there is a proposal to increase the number of helicopter aprons to 4 new, additional ones at the Lihue Airport. This would potentially allow up to approximately 50-65 additional overflights a day in the future. This would increase present noise pollution to an intolerable level.

Is the quality of our lives of such little consequence that is is not a signicant part of the equation? Is our island home merely a commodity up for the highest bidder? We ask that the Department of Transporation consider the human aspect of its proposed actions.

Will you be able to shift into a different mode of decision-making whereby people's lives are of more importance than helicopter companies' demand for higher profits? Will the people be made to pay for those profits by destroying the few peaceful moments we still have left in our lives?

Thank you,

Judy Dalton
Click on these websites-They're free!

to feed a child - http://www.hungersite.org
to save a tree - http://rainforest.care2.com

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

IN REPLY REFER TO:

AIR-P
02.0349

October 2, 2002

Ms. Judy Dalton
4330 Kauai Beach Drive, #F12
Lihue, Hawaii 96766

Dear Ms. Dalton:

Subject: Draft Environmental Assessment
Lihue Airport Heliport Improvements
State Project No. AK1046-23

Thank you for your e-mail commenting on the Lihue Airport Heliport Improvements Draft Environmental Assessment (EA). Our responses to your comments are listed below:

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The purpose of an EA is to allow government to give systemic consideration to the environmental, social, and economic consequences of the proposed improvement projects before granting permits that allow construction to begin. This process also ensures the public the right to participate in the planning process that may affect the community. I appreciate the time you took to express your concerns over the proposed improvements at Lihue Airport heliport. Your input is valuable and results in the proper balancing of needed improvements with resident concerns.

Please contact Mr. Gene Matsushige, Project Engineer, at (808) 838-8826 or Ms. Lynette Kawaoka, Planner, at (808) 838-8812, to clarify any additional questions you may have.

Sincerely,

ROY K. SAKATA
Acting Airports Administrator