APPENDIXES

ENVIRONMENTAL IMPACT STATEMENT
PURSUANT TO CHAPTER 343 HAWAII REVISED STATUTES

LIHUE AIRPORT MASTER PLAN STUDY

prepared for

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

JULY 1976
(Revised November 1976)

Peat, Marwick, Mitchell & Co.
in association with
ENVIRONMENTAL COMMUNICATIONS, INC.
HONOLULU, HAWAII
ENVIRONMENTAL IMPACT STATEMENT
PURSUANT TO CHAPTER 343, HAWAII REVISED STATUTES
LIHUE AIRPORT MASTER PLAN STUDY

APPENDIXES

Prepared for
STATE OF HAWAII
Department of Transportation

The preparation of this document was financed in part through an Airport Master Planning Grant from the Federal Aviation Administration under the provisions of Section 13 of the Airport and Airway Development Act of 1970 and from the State of Hawaii.

Prepared by
Peat, Marwick, Mitchell & Co.
San Francisco, California

In Association with
Environmental Communications, Inc.
Honolulu, Hawaii

July 1976
(Revised November 1976)
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22. Thrum, T. G. "Tales from the Temples," Hawaiian Annual for 1907, pages 49-69. Available at University of Hawaii, Sinclair Library.


Appendix B

LETTERS AND DOCUMENTS
Appendix B

LETTERS AND DOCUMENTS

1. Letter from Yoshio Kojima, Principal, Kauai High School; to R. J. Sanders; dated October 21, 1975; on Impact and Concerns Over Present Aircraft Landing Patterns Over Kauai High School.

2. Letter from E. Alvey Wright, Director of Transportation; to State of Hawaii Environmental Quality Commission; dated October 15, 1975; on Environmental Impact Statement Preparation Notice.

3. Letter from Brian Nishimoto, Kauai County Planning Director; to Owen Miyamoto; dated October 14, 1975; on comments on Coordination Draft Environmental Assessment Report Airport Master Plan Study Lihue Airport (Project No. G-6).

4. Letter from Jane L. Silverman, Historic Preservation Officer, State of Hawaii; to Owen Miyamoto; dated October 8, 1975; on Lihue Airport Master Planning Study.

5. Letter announcement from Owen Miyamoto specifying date, time, and place of second public information session; dated August 4, 1975; sent to 19 organizations and individuals.


7. Letter from Christopher Cobb, Chairman, State of Hawaii Board of Land and Natural Resources; to E. Alvey Wright; dated May 21, 1975; on Lihue Airport Master Planning Study.

8. Memorandum from John Farias, Jr., Chairman, State of Hawaii Board of Agriculture; to E. Alvey Wright; dated May 15, 1975; on Alternative Airport Sites - Island of Kauai.

9. Letter from Owen Miyamoto; to the Honorable Eduardo Malapit, Mayor, County of Kauai; dated May 14, 1975; on date, time, and place of public information meeting, Lihue Airport Master Planning Study. Letter also sent to 19 organizations and individuals.

11. Letter from E. M. Porter, Captain U.S. Navy, Commanding Officer, U.S. Navy Pacific Missile Range Facility; to Owen Miyamoto; dated April 18, 1975; on joint military/civilian usage of Barking Sands airfield.

12. Letter from W. I. Martin, Rear Admiral, U.S. Navy, Assistant Chief of Naval Operations (Air); to the Honorable Spark M. Matsunaga, House of Representatives, dated February 27, 1967; on joint military/civil use of Barking Sands airstrip.

13. Letter from E. Alvey Wright, State of Hawaii Director of Transportation; to the Honorable Christopher Cobb, Chairman, Department of Land and Natural Resources; dated April 17, 1975; on alternative airport sites - Island of Kauai. Letter also sent to the Honorable John Farias, Department of Agriculture, and the Honorable Hideto Kono, Department of Planning and Economic Development.

14. Letter from Owen Miyamoto; to Commander, Pacific Missile Range Facility, Barking Sands, Kauai; dated April 4, 1975; on joint civil/military usage of PMR Facility Barking Sands.

15. Letter from Owen Miyamoto; to Mr. John P. Akana, President, Kilauea Agriculture Association; dated February 21, 1975; on Kilauea site, Lihue Airport Master Plan Study.

16. FAA Form 5100.101 Application For Federal Assistance (Non-construction Programs) from State of Hawaii Department of Transportation; to Federal Aviation Administration; dated July 1, 1974.

17. Memorandum from The Honorable George R. Ariyoshi, Acting Governor; to E. Alvey Wright, Director of Transportation; dated October 19, 1973; on Airport Division--Request For Authorization to Engage the Services of a Consultant.

18. Letter from Owen Miyamoto; to State Clearinghouse; dated August 20, 1973; on Notification of Request for Federal Aid, Project No. G-6, Lihue, County of Kauai.

Mr. John Sanders  
Peat, Marwick & Mitchell  
P.O. Box 4150  
Honolulu, Hawaii 96813

Dear Mr. Sanders:

RE: IMPACT AND CONCERNS OVER PRESENT AIRCRAFT LANDING PATTERNS OVER KAUAI HIGH SCHOOL.

1. Oral Communications Cease

Whenever an airplane flies overhead, all oral instructions and conversations, including telephone conversations, must cease for 15-25 seconds because nothing can be heard!

2. Safety of Students

With such large aircrafts flying overhead with such frequency (15 scheduled flights between 7:30-8:00), the physical safety of the 1300 students is a major concern. Our campus is located directly under the landing patterns of these aircrafts. Should a plane falter on its approach, the lives of the students are in jeopardy.

3. Hearing Loss of Students

No tests have been conducted because of the variables involved, but I do not doubt that these aircraft whines do contribute to a hearing loss in our students and adults.

4. Interscholastic Activity Interference

The KIF football games are played in Lihue Stadium. The approaching aircrafts interfere with the signals being heard and detract from the concentration of the players.

Sincerely yours,

Yoshio Kojima, Principal
October 15, 1975

Environmental Quality Commission
550 Halekauwila Street, #301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement Preparation Notice
Lihue Airport Master Plan Study
Project No. 6-6

The Department of Transportation is required under the provisions of the National Environmental Policy Act of 1969 and Federal Aviation Administration requirements to prepare an Environmental Impact Assessment Report (EIAR) for the long-range (20-year) Lihue Airport Master Plan Study. The EIAR will become our draft EIS after modification subsequent to the public hearing and will fulfill the requirements of Chapter 343, Hawaii Revised Statutes, for the preparation of an Environmental Impact Statement for the Lihue Airport Master Plan Study.

Therefore, in accordance with State of Hawaii Environmental Quality Commission’s Rules and Regulations, notice is hereby given that preparation of the Environmental Impact statement is in progress and is scheduled to be completed in January 1976. The EIAR will be available for public review, in November 1975 prior to a public hearing tentatively set for December 1975.

Comments should be addressed to the Department of Transportation, Airports Division, Honolulu International Airport, Honolulu, Hawaii 96819, Attention Mr. Owen Miyamoto. If there are any questions, you may contact Mr. Miyamoto at 847-9432.

Very truly yours,

E. ALVEY WRIGHT
Director

Enclosure

cc: Mr. John Sanders, PMM
October 14, 1975

Mr. Owen Miyamoto  
Chief, Airports Division  
State of Hawaii  
Department of Transportation  
Honolulu International Airport  
Kualoa, Hawaii 96736

Subject: Comments on Coordination Brief Environmental Assessment Report Airport Master Plan Study  
Lihue Airport (Project No. 6-5)

Relative to the subject report, please be advised that we have no objections nor additional comments on your environmental assessment report.

For your information, the Citizens Advisory Committee for the Lihue Development Plan has generally accepted the layout and runway alignment proposed. Concern has been expressed with regards to access along the coastline from Wailoa Point to the Lihue landing where a large number of local residents fish and recreate.

A representative of the Hanamulu Community Association has expressed concern about the use of the new runway for take-offs over Hanamulu Town and the potential noise hazard this could create. The above concern, as well, should be addressed in the EA.

May we take this opportunity to extend you for the extensive consultation and informational workshops used during the preparation of your report.

[Signature]
BILL MISHIMOTO  
Planning Director
Mr. Owen Miymoto  
Chief, Airports Division 
Department of Transportation  
Honolulu International Airport  
Honolulu, Hawaii 96819 

Dear Mr. Miymoto: 

Subject: Lihue Airport Master Planning Study 

Within the area indicated in your draft map, there are no known archaeological or historical values remaining. Since the area is and has been under cultivation for sugar cane, there is little likelihood that any archaeological values could exist. 

There are no sites on the National or State Registers of Historic Places in the project area nor are any being considered for nomination to either Register. 

Thank you for your concern for historic preservation. 

Sincerely yours, 

Jane L. Silverman 
Historic Preservation Officer 
State of Hawaii
August 4, 1975

Sent to addresses on attached sheet

Gentlemen:

The second public information meeting has been scheduled for August 14, 1975, at 7:30 p.m. in the State Office Building Conference room, Lihue, Kauai to present the preliminary long-range development plans for Lihue Airport.

You are cordially invited.

Very truly yours,

[Signature]

Owen Hayamoto
Chief, Airports Division

bcc: PHM, J. Sanders
AIR-K
Federal Aviation Administration  
Department of Transportation  
P. O. Box 4009  
Honolulu, Hawaii 96813  
Attention Mr. Herman C. Bliss  
Chief  
FAA Control Tower  
Lihue, Hawaii 96766

Mr. Brian Nishimoto  
Director  
Kauai County Planning Department  
Lihue, Hawaii 96766

Sierra Club  
c/o Bishop Museum  
P. O. Box 6037  
Honolulu, Hawaii 96818

Life of the Land  
Room 209  
404 Piikoi Street  
Honolulu, Hawaii 96814

Mr. James Kurita  
Director  
Office of Economic Development  
Kauai County  
Lihue, Hawaii 96766

Mr. Ned Broadbent  
Amfac, Inc.  
700 Bishop Street  
Honolulu, Hawaii 96813

Mr. Frank Der Yuen  
Executive Director  
Honolulu Airlines Committee  
Suite 1323  
1600 Kapiolani Boulevard  
Honolulu, Hawaii 96814

Chamber of Commerce  
Room 214  
4444 Rice Street  
Lihue, Hawaii 96766

Mr. Mike Dyer  
Kilauea Management Company  
Kilauea, Hawaii 96754

Mr. Richard Cameron  
Olokele Sugar Company, Ltd.  
Lihue, Hawaii 96766

Mr. Akira Fujita  
County Engineer  
Department of Public Works  
P. O. Box 111  
Lihue, Hawaii 96766

Mr. James Kirchofer  
Department of Agriculture  
1428 South King Street  
Honolulu, Hawaii 96814

Kauai Task Force  
c/o Mr. Louis Lopez  
Department of Planning and Economic Development  
250 South King Street  
Honolulu, Hawaii 96813

Lihue Plantation  
2970 Kele Street  
Lihue, Hawaii 96766

Mrs. Mary Thomas  
Governor's Representative  
3060 Eiwa Street  
Lihue, Hawaii 96766

Honorable Eduardo Malapit  
Mayor  
County of Kauai  
Lihue, Hawaii 96766

Mr. Burt Tsuchiya  
Chairman  
County Council  
4396 Rice Street  
Lihue, Hawaii 96766

Mr. Edwin Nakano  
Department of Transportation  
P. O. Box 1711  
Lihue, Hawaii 96766
Proposals for the long-range development of facilities at Lihue Airport and their expected environmental impact will be outlined at a public informational meeting at 7:30 p.m. Aug. 14.

The meeting will be held in the State Office Building conference room in Lihue. A meeting was held May 22 to present the various alternatives under study by the Department of Transportation Airports Division and its consultant, Peat, Marwick, Mitchell & Co.

State Transportation Director E. Alvey Wright said that the airport master plans to 1995 provide for development of a new 6,500-foot north-south runway east of the present Runway 3-21. The existing runway also would be extended 500 feet to the southwest, to provide a 6,500-foot strip.

"This would permit a preferential runway use system for over-water landings on the new runway under normal trade wind conditions," Wright said.

"This will improve the present landing pattern that brings planes in over the high school, community college and residential areas. Take-offs from the existing runway would also go out over water."

Wright said that a new passenger terminal is proposed west of the present terminal, with new terminal curbside roadway and parking lot. A separate air taxi passenger terminal, a new site for air cargo and air mail operations and an expanded general aviation area also are proposed.

( more )
Wright said that the preliminary findings on the environmental impact of the proposals will be presented at the meeting for public review. These findings will be the basis of a later environmental impact assessment report which also will be circulated for public review prior to a public hearing.

Recommendations on steps the State and County should take to protect the long-term development potential of the airport and to ensure compatible land uses around the field also will be discussed at the meeting, Wright said.
Honorable E. Alvey Wright
Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii  96813

Dear Mr. Wright:

We find that the runway alignments cross gulches and waterways and will therefore affect drainage conditions at each site. Investigations of storm runoff will therefore be needed so that adequate drainage systems can be built. Measures to minimize erosion and sedimentation should also be investigated.

All alternatives will impact on archaeological sites. Site K/L will have the least impact. In any case, we recommend intensive archaeological survey.

Very truly yours,

[Signature]

CHRISTOPHER COBB
Chairman of the Board
MEMORANDUM

To: Honorable E. Alvey Wright, Director
   Department of Transportation

Attn: Airports Division

Subject: Alternative Airport Sites - Island of Kauai

Pursuant to your April 17 request, the Department of Agriculture has reviewed the alternate potential sites under consideration for the location of a major air carrier site on the island of Kauai.

This agency is, of course, most concerned about the potential urban, commercial and industrial growth resulting from airport construction. Although all three sites under consideration are agriculturally districted, the potential encroachment upon agricultural lands would appear to be less at the existing Lihue Airport site. Growth resulting from airport development at Lihue would be a natural expansion of the existing urban district. Utilization of the other sites could result in the growth of new, spot commercial districts. For this reason, the Department of Agriculture favors the Lihue site.

John Farias, Jr.
Chairman, Board of Agriculture
Honorable Edwardo Malapit  
Mayor  
County of Kauai  
Lihue, Hawaii 96766

Dear Sir:

A public information meeting has been scheduled for May 22, 1975, at 7:30 p.m. in the State Office Building conference room, Lihue, Kauai to present the possibilities under study for the long-range development of facilities at Lihue Airport.

You are cordially invited.

Very truly yours,

[Signature]

Owen Miyamoto  
Chief, Airports Division

cc: Peat, Marwick, Mitchell & Co.  
AIR-K
Reference B-9 (cont.)

Letter No. AIR-EP 1761 dated May 14, 1975 sent to the following:

Federal Aviation Administration
Department of Transportation
P. O. Box 4009
Honolulu, Hawaii 96813

Attention Mr. Herman C. Bliss
Chief
FAA Control Tower
Lihue, Hawaii 96766

Mr. Brian Nishimoto
Director
Kauai County Planning Department
Lihue, Hawaii 96766

Sierra Club
c/o Bishop Museum
P. O. Box 6037
Honolulu, Hawaii 96818

Life of the Land
Room 209
404 Piikoi Street
Honolulu, Hawaii 96814

Mr. James Kurita
Director
Office of Economic Development
Kauai County
Lihue, Hawaii 96766

Mr. Ned Broadbent
Amfac, Inc.
700 Bishop Street
Honolulu, Hawaii 96813

Mr. Frank Der Yuen
Executive Director
Honolulu Airlines Committee
Suite 1323
1600 Kapiolani Boulevard
Honolulu, Hawaii 96814

Chamber of Commerce
Room 214
4444 Rice Street
Lihue, Hawaii 96766

Mr. Mike Dyer
Kilauea Management Company
Kilauea, Hawaii 96754

Mr. Richard Cameron
Olokele Sugar Company, Ltd.
Lihue, Hawaii 96766

Mr. Akira Fujita
County Engineer
Department of Public Works
P. O. Box 111
Lihue, Hawaii 96766

Mr. James Kirchhofer
Department of Agriculture
1428 South King Street
Honolulu, Hawaii 96814

Kauai Task Force
c/o Mr. Louis Lopez
Department of Planning and Economic Development
250 South King Street
Honolulu, Hawaii 96813

Lihue Plantation
2970 Kele Street
Lihue, Hawaii 96766

Mrs. Mary Thronas
Governor's Representative
3060 Eiwa Street
Lihue, Hawaii 96766

Honorable Eduardo Malapit
Mayor
County of Kauai
Lihue, Hawaii 96766

Mr. Burt Tsuchiya
Chairman
County Council
4396 Rice Street
Lihue, Hawaii 96766

Mr. Edwin Nakano
Department of Transportation
P. O. Box 1711
Lihue, Hawaii 96766
Reference B-10

FROM: Office of the Director
Department of Transportation
Honolulu, Hawaii

FOR RELEASE MONDAY, MAY 12, 1975

A public informational meeting has been scheduled for May 22 to present the possibilities under study for the long-range development of facilities at Lihue Airport or at an alternate site.

State Transportation Director E. Alvey Wright announced in Honolulu that the meeting will be held at 7:30 p.m. in the State Office Building conference room in Lihue.

"This is a follow-up of the report on Kauai's long-range air traffic requirements that was made by Peat, Marwick, Livingston & Co. in July, 1969," Wright said.

"The early report studied more than two dozen alternative possibilities in addition to the present airport facility, and settled on the Port Allen and Kilauea-Moloaa Bay areas as the most feasible alternatives to Lihue.

"It found the Lihue Airport inadequate to accommodate foreseeable aircraft operations because terrain obstructions to the southwest preclude the installation of an instrument landing system to the present runway.

"It also found on a preliminary basis that this could be accommodated and other approach conditions improved by the development of a north-south runway on a site adjacent to the airport, but that further weather and wind studies were necessary to determine if such a runway would be operationally acceptable enough to justify the expense."
The weather and wind studies at the three sites have been concluded, as has the updating of the passenger, cargo and air taxi traffic forecasts to 1995, Wright said.

He said that the newest PML studies strongly favor the construction of a new, 6,500-foot north-south runway, aimed between Ninini Light on the south and Hanamanaui Bay's Ahukini Light on the north.

"This would permit over-water landings on the new runway, eliminating the present landing pattern over the high school, community college and residential areas, and take-offs from the present runway, also over water," Wright said.

"We are scheduling this May 22 public informational meeting to show the various runway and terminal possibilities and get some input from the public."

The suggested new 6,500-foot runway would not intersect the present Runway 3-21, although land acquisition would be sought for eventual extension to 8,500 or 10,500 feet if future traffic demands required it, Wright explained.

A major terminal expansion would be required with the additional runway in addition to changes foreseen to accommodate the new generations of aircraft that the inter-island airlines expect to use.
Reference B-11

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
HAWAIIAN AREA
BARKING SANDS
KEKAHA, KAUAI, HAWAII 96752

Chief, Airports Division
Department of Transportation
State of Hawaii
Honolulu International Airport
Honolulu, Hawaii 96819

Dear Mr. Miyamoto:

This is to acknowledge your letter AIR-EP 1484 of April 4, 1975 requesting comments on the joint military/civilian usage of Barking Sands airfield.

Records indicate that interest in the use of Barking Sands as a joint civil/military airfield was particularly high during the late 1960s. During that period, the Chief of Naval Operations forwarded to Representative Matsunaga a letter stating the Navy's position regarding such a consolidation. At that time, the joint use proposal was rejected on the basis of operational conflicts and lack of adequate facilities.

The rationale of that 1967 letter (copy enclosed) has become increasingly appropriate in recent years. Barking Sands has become the focal point for fleet readiness training and Department of Defense test and evaluation in the mid-Pacific area. PMRF's unique capability to simulate underwater, surface and air threats, and track missiles for fleet training has expanded significantly since 1967, particularly with the installation of the tactical underwater tracking range. The expansion of that range from the existing 50 to 450 square miles by 1977 further indicates a viable future and continued growth. The trend over recent years has been to steadily shift military training operations of all the services from the Oahu area to the Barking Sands area.

The primary objections to the intrusion of non-government aircraft into PMRF controlled airspace are:

a. An ever-growing volume of military operations utilizing the range in tactical situations involving live ordnance, which are incompatible with private and commercial aircraft operations in the same area.

b. Air threat simulations involving radio-controlled drones, and research and development high-altitude rocket probes are conducted on a frequent basis. These vehicles lack the positive control ordinarily present in piloted aircraft and require large hazard areas to operate safely. The remoteness of Barking Sands from civilian encroachment is a key factor here.
In view of the impact civilian aircraft operations would have on the aforementioned missions, I must reconfirm the original Navy position against a joint use aviation facility at Barking Sands. Aside from this basic objection, there are several other practical factors mitigating against such a facility.

Runway facilities are only 6,000 feet long and are inadequate for heavy commercial aircraft. Load bearing capacities of the existing runways are only 60% of that required for routine operation of DC-8 or Boeing 707 aircraft. Taxiways, permanent runway lighting, parking ramps and navigational aids are virtually non-existent.

Even with judicious scheduling, the present trend of volume of commercial traffic at Lihue is such that military operations under a joint use arrangement would be drastically curtailed or eliminated. This would seriously jeopardize the future of a $90 million dollar federal installation.

Sincerely,

E. M. FORKER
Captain, U. S. Navy
Commanding Officer

Enclosure (1)
By dear Dr. Hataumaga:

Your letter of February 6, 1967 to the Secretary of Defense enclosing Mr. Veditine's letter concerning joint military/civil use of Barking Sands Airstrip has been referred to this office for reply.

As you may know, the Barking Sands runways are not of sufficient length to accommodate intercontinental jet transports. One runway (1-19) however, could be lengthened sufficiently by extending it to the north. The cost of such expansion was not studied since we have no plans for expansion of strictly aviation capabilities at this facility. Also, the runways are of insufficient strength to support aircraft such as the 707, and DC-6 weighing as much as 250,000 pounds.

Navigation aids, airline type instrument approach facilities, lighting and jet fuel storage are non-existent. Fire fighting equipment does not approach required capacity. Naval electric lines are overloaded in supplying Barking Sands, Atomic Energy Commission, and Pacific Missile Range, resulting in marginal reliability of commercial power.

The operation of passenger aircraft into a high density environment would require coordination and safeguards which could complicate these vital defense operations. The tempo of operations is expected to expand approximately 600% beginning 1 July 1967—many launches take place directly on or immediately adjacent to the runways. Some of the targets are uncontrolled after launch. Even under extreme safety rules governing air-to-surface firing, a Navy aircraft was shot down and the pilot killed by a missile during Exercise Silver Lance in 1965.

Enclosure (1)
Reference B-12 (cont.)

In view of the foregoing facilities limitations and safety hazards, it must be concluded that joint civil/military operations at Barling Sands Facility are not feasible in the near future.

Sincerely yours,

W I LEIGHTY

Rear Admiral, U.S. Navy

Assistant Chief of Naval Operations (Air)

Honorable Spark M. Matsunaga
House of Representatives
Washington, D.C. 20515
April 17, 1975

Letter also sent to: Hon. John Farias, Dept. of Agriculture
Hon. Hideto Kono, DPED

Honorable Christopher Cobb
Chairman
Department of Land and Natural Resources
465 South King Street
Honolulu, Hawaii 96813

Dear Sir:

In 1969, the Department of Transportation evaluated a series of alternative potential sites suitable for the location of a major air carrier airport to serve the Island of Kauai. At that time only two other sites, at Port Allen and Kilauea Bay - Moloaa Bay, besides the existing Lihue Airport site appeared to have potential.

At the present time, the Department of Transportation is preparing a long-range (20-year) master plan for the Lihue Airport. As part of this study, we are analyzing the environmental implications of moving to either of the alternative airport sites at Port Allen and Kilauea Bay - Moloaa Bay, as well as a new runway alignment at the existing Lihue Airport site.

Enclosed are copies of the sites to more clearly identify the specific locales being studied. We would appreciate your Department's comments on the proposed sites so that this information can be included in the preliminary studies currently being prepared.

It would be most helpful if you could return your comments to the Airports Division, Honolulu International Airport, Honolulu, Hawaii 96819 by May 1, 1975.

Thank you very much for your assistance in this matter.

Very truly yours,

E. Alvey Wright
Director

Enclosures
cc: PMM
Commander
Pacific Missile Range Facility
Barking Sands
Kauai

Dear Sir:

In 1969 the State of Hawaii, Department of Transportation
evaluated a series of alternative potential sites suitable
for the location of a major air carrier airport to serve the
Island of Kauai. The Barking Sands area was evaluated and
then omitted from further consideration because of the
airspace conflict created by the PMR Facility Barking Sands.

At the present time, the State of Hawaii, Department of
Transportation is preparing a long-range (20-year) master
plan for the Lihue Airport. As part of this study, we wish
to reconfirm that the reasons for eliminating the Barking
Sands area are still valid. If this is not the case, and
considering the present and anticipated use of PMR Facility
Barking Sands, we request your comments on the possible use
of PMR Facility Barking Sands on a joint usage civil/military
basis or, on an exclusive public use basis.

It would be most helpful if you could return your
comments to us by April 14, 1975.

Thank you very much for your assistance in this matter.

Very truly yours,

Owen Miyamoto
Chief, Airports Division

cc: PMM
Mr. John F. Akana, President  
Kilauea Agriculture Association  
P. O. Box 187  
Kilauea, Kauai, Hawaii 96754  

Dear Mr. Akana:

We have received a letter from the secretary of your association, Mr. John Wehrheim, expressing concern of the Kilauea site for the major airport for Kauai. As you may know, our consultant, Peat, Marwick, Mitchell & Company, has just started the Lihue Airport Master Plan Study and included in this study will be a cursory investigation of the two alternate sites, Kilauea and Port Allen. One reason for including both sites in the study is that all alternatives have to be considered.

During the course of the study, we shall be conducting public information meetings and maintain community interests and assistance. The meetings shall be advertised as they are scheduled. However, please do not hesitate to call us if you need more information and if you wish, you may contact Mr. John Sanders, the consulting manager for Peat, Marwick, Mitchell and Company, located in the Financial Plaza Building in Honolulu.

Very truly yours,

[Signature]

OKEN MIYAMOTO  
Chief, Airports Division  

cc: Mr. John Sanders
# Reference B-16

**Department of Transportation - Federal Aviation Administration**

## Application for Federal Assistance (Nonconstruction Programs)

### Part I

<table>
<thead>
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<th>Not applicable</th>
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<td>4. Applicant Name</td>
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<td>Department of Transportation</td>
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<tr>
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<td>6. Federal Catalog No.</td>
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<td>10. Type of Assistance</td>
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| 11. Population Directly Benefiting from the Project | 31,000 |
| 12. Congressional District      | 01 |
| 13. Length of Project           | 12 months |
| 14. Beginning Date              | August 1974 |
| 15. Date of Application         | July 1, 1974 |

16. The applicant certifies that to the best of his knowledge and belief the data in this application are true and correct, and that he will comply with the attached assurances if he receives the grant.

### Signature of Authorized Representative

**Lawrence F. O Chun**  
Title: Acting Director  
Department of Transportation

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<tr>
<th>Area Code</th>
<th>Number</th>
<th>EST.</th>
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<td>808</td>
<td>548-3205</td>
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FAA Form 5100-101 (6-73)  
SUPERSEDES FAA FORMS 5910-1 AND 5920-1

Page 1
<table>
<thead>
<tr>
<th>Item</th>
<th>Question Description</th>
<th>Yes</th>
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<tr>
<td>Item 1</td>
<td>Does this assistance request require State, local, regional, or other priority rating?</td>
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<td>Name of Governing Body</td>
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| Item 2 | Does this assistance request require State, or local advisory, educational or health clearance? | X  | No |
|        | Name of Agency or Board                                                                |     |    |
|        | State Governor                                                                       |     |    |

| Item 3 | Does this assistance request require clearinghouse review in accordance with OMB Circular A-95? | X  | No |
|        | Documentation attached                                                               |     |    |

| Item 4 | Does this assistance request require State, local, regional or other planning approval? | X  | No |
|        | Name of Approving Agency                                                              |     |    |
|        | Economic Development                                                                  |     |    |
|        | Date                                                                                 | October 29, 1973 |

| Item 5 | Is the proposed project covered by an approved comprehensive plan?                   | X  | No |
|        | Check one: State                                                                     |     |    |
|        | Local                                                                                | X  |    |
|        | Regional                                                                             |     |    |
|        | Location of Plan                                                                     | County Office, Kauai |

| Item 6 | Will the assistance requested serve a Federal installation?                          | X  | No |
|        | Name of Federal Installation                                                        |     |    |
|        | Federal Population benefiting from Project                                           |     |    |

| Item 7 | Will the assistance requested be on Federal land or installation?                    | X  | No |
|        | Name of Federal Installation                                                        |     |    |
|        | Location of Federal Land                                                             |     |    |
|        | Percent of Project                                                                  |     |    |

| Item 8 | Will the assistance requested have an impact or effect on the environment?           | X  | No |
|        | See instructions for additional information to be provided.                          |     |    |

| Item 9 | Will the assistance requested cause the displacement of individuals, families, businesses, or forms? | X  | No |
|        | Number of:                                                                         |     |    |
|        | Individuals                                                                       |     |    |
|        | Families                                                                           |     |    |
|        | Businesses                                                                         |     |    |
|        | Forms                                                                              |     |    |

| Item 10 | Is there other related assistance on this project previous, pending, or anticipated? | X  | No |
|         | See instructions for additional information to be provided.                          |     |    |

FAA Form 5101-101 (12-73) SUPPLEMENTARY F1AA FORM 5101-1 AND 5102-1
MEMORANDUM

TO:       Honorable E. Alvey Wright, Director
           Department of Transportation

FROM:    George R. Ariyoshi
           Acting Governor

SUBJECT: AIRPORT DIVISION - REQUEST FOR AUTHORIZATION TO ENGAGE
           THE SERVICES OF A CONSULTANT

Your request of August 27, 1973, (PRO-4H 5.9559), to
engage the services of a consultant for the Lihue Airport Master
Plan Study and to enter into an agreement with the Federal Avia-
tion Administration for planning funds is hereby approved.
However, the following items should be carefully reviewed and
modified in relation to the consultant's efforts:

1) Phase I - Airport Requirements
   Inventory
   Forecast of Aviation Demand
   Demand/Capacity Analysis

2) Phase IV - Financial Plans
   Development Schedules
   Economic (Financial) Feasibility
   Preliminary Financial Plan

3) Phase V - Others
   Public Hearing
   Project Hearing

Furthermore the following aspects should be explicitly
clarified or acknowledged through the appropriate CIP implementa-
tion procedure:

1. The qualifications of the consultant be closely
   examined to assure minimization of costly unforeseen
   future CIP requirements.
2. The need for the additional cost requirements be closely re-evaluated, particularly since the north-south runway has been considered in the Kauai General Plan and should heretofore have been adequately discussed with all parties involved.

3. The scope of the north-south runway project be coordinated closely with the County of Kauai and be in consonance with the Kauai General Plan.

4. Plans for a runway length greater than that suggested in the General Plan not be considered pending development of additional justification, including the selection of an optimum location for the possible trans-Pacific airport facility.

5. The amount of Federal funds anticipated for the ultimate project.

cc: Honorable Hiram Kamaka
August 20, 1973

State Clearinghouse
C/O Department of Planning
and Economic Development
P.O. Box 2359
Honolulu, Hawaii 96804

Gentlemen:

Subject: Notification of Request for
Federal Aid
Project No. G-6
Lihue, County of Kauai

We hereby notify you of our intent to request for
Federal aid for subject project from the U.S. Department of
Transportation, Federal Aviation Administration. Attached
is the Letter of Intent.

Your assistance in expediting review will be greatly
appreciated.

Very truly yours,

OMEN HIYAMOTO
Chief, Airports Division

Enclosure

cc: Mr. Herman C. Bliss
Mr. Robert R. Way - City Planning Dir., 629 Pohukaina St., Hon.
Mr. Brian Nishimoto - Kauai Planning Dir., 3021 Umi St., Lihue 967
DEP-O
AIR-E
AIR-K
LETTER OF INTENT
TO APPLY FOR FEDERAL GRANT ASSISTANCE

1. NAME AND ADDRESS OF APPLICANT
   State of Hawaii
   Department of Transportation
   Airports Division
   Honolulu International Airport
   Honolulu, Hawaii 96819

2. PROJECT TITLE
   Lihue Airport
   County of Kauai, State of Hawaii

3. FEDERAL PROGRAM
   Airport and Airway Development Act of 1970

4. FEDERAL AGENCY ADMINISTERING PROGRAM
   U. S. Department of Transportation
   Federal Aviation Administration

5. NAME OF PERSON PREPARING APPLICATION
   Robert S. Chun
   Airports Engineer
   Honolulu International Airport
   Honolulu, Hawaii 96819
   Telephone: 847-9443

6. PROJECT OBJECTIVE
   a. The objective of the project is to prepare complete plans and reports for the Master Plan of Lihue Airport.
   b. The existing and future aeronautical demands require a larger jet airport with a new precision instrument runway capable of providing unrestricted aircraft operations. This project will attempt to present the plan of a major jet airport which will best satisfy the air transportation demands of Kauai.
c. It is estimated that the project will commence in October 1973 and will be completed in September 1974.

d. The beneficiaries of the project will be the residents and commerce of Kauai, the air passengers, and the airlines serving this island.

7. THE SERVICES AND/OR FACILITIES TO BE PROVIDED IN ORDER TO ACHIEVE PROJECT OBJECTIVES:

Financial and technical assistance from the Federal Aviation Administration.

8. LOCATION OF PROJECT:

Lihue Airport
Island of Kauai

9. RELEVANT RELATIONSHIPS OF THE PROJECT TO PROGRAMS AND PLANS OF STATE, CITY, OR OTHER AGENCIES AND STEPS TAKEN TO COORDINATE PROJECT PLANNING WITH AGENCIES AFFECTED:

The project affects both the current and future demands for adequate public airport facilities. The County of Kauai and the Federal Aviation Administration are cognizant of the studies and plans for the major airport.

10. IF THE PROJECT IS A COMPONENT OF A "MASTER," "COMPREHENSIVE," OR "FUNCTIONAL" PLAN RELATING TO SOME SPECIFIC AREA, IDENTIFY THE PLAN AND THE RELATIVE PRIORITY OF THIS PROJECT IN THAT PLAN:

This project for the County of Kauai is an element of the Airport Development Plan - Island of Kauai. The development of Lihue Airport as the major jet airport is the result of studies conducted on the 17 possible sites on the island. Mind studies have been completed and analyzed.

A high priority is assigned this project. The selection of adequate acreage for the development is essential now for future land use planning.
11. METHOD OF FINANCING:

(1) State Contribution: $100,000.00
   Source of Funds: Statewide Airport Planning, Act 187

(2) Federal Contribution: $125,000.00
   Source of Funds: Airport and Airway Development Act of 1970

(3) Other Contribution None
   Estimated Total Project Cost $225,000.00

Signature of Authorizing Official: [Signature]

Date: 8-27-73

Chief, Airports Division
Mr. Oman Miyamoto, Chief
Airports Division
Department of Transportation
State of Hawaii
Honolulu, Hawaii

Dear Mr. Miyamoto:

Subject: State Clearinghouse Review of Notification of Request for Federal Aid, Major Jet (Overseas) Airport, Project No. G-6, Lihue, County of Kauai

We have circulated your notification of intent to apply for Federal funds for the above named project. All of the comments received to date indicate either support for the application or no conflict with agency programs. No adverse comments are anticipated.

The County planning departments had no objections nor comments. However, the State Department of Agriculture offered the following statements in support of this proposal.

1. Shipment of products of diversified agriculture, especially the potential for increased fresh fruit exports to the Mainland and/or the Orient will be improved.

2. Commitment to an airport expansion will assure productive tenure on a significant number of adjacent acres in agriculture along the flight path and noise footprint zones.

3. Social benefits will be achieved by expanding the opportunities for diversified agriculture to service a greater level of tourism by opening the airport to larger aircraft.

The Department of Agriculture also stated that progress on this project would be consistent with the goals of the Kauai Task Force.

While the emphasis on all these comments is focused on diversified agriculture, the impact, if any, on the sugar industry should also be considered. In addition to these more readily identifiable effects, we suggest that consideration also be given during the planning stage to the social and physical changes which might result from the logistical impact of an airport having intercontinental transport capability.
Since the Kauai General Plan has been adopted by ordinance, the policy measures stipulated by it should be closely reviewed in the planning of this project.

Since Clearinghouse procedures have been met, your application for Federal funds may now be filed. A copy of this letter should be included with your request.

Sincerely,

[Signature]

cc: Mr. Brian Nishimoto
Appendix C
SUMMARY OF PUBLIC HEARING
Appendix C
SUMMARY OF PUBLIC HEARING

Introduction
The Public Hearing to consider the economic, social, and environmental aspects of the Lihue Airport Master Plan Study was held at the Kauai Public Library, 4344 Hardy Street, Lihue, Kauai, Hawaii, on December 18, 1975.

As required by Federal Aviation Administration Order 5050.2A, paragraph 56.d, the Environmental Impact Assessment Report (EIAR) was placed on public review for a period of 30 days prior to the Public Hearing. The availability of the EIAR for public review was noted in the Legal Notice of Public Hearing (references #C-33 and C-34).

The Hearing was called to order at 7:34 p.m. by Chairperson E. Alvey Wright, Director, State Department of Transportation. The Hearing was adjourned at 12:15 a.m. Short presentations on the Lihue Airport Master Plan Study were given by Chairperson Wright and Owen Miyamoto, Airports Division - State Department of Transportation. R. John Sanders and D. Michael Cullinan of Peat, Marwick, Mitchell & Co., consultants to the State of Hawaii for this Study summarized the findings, conclusions, and recommendations of the Lihue Airport Master Plan Study and associated Environmental Impact Assessment Report. Chairperson Wright then opened the Hearing for formal testimony from the floor.

(6/76)
Approximately 100 persons attended the Hearing and 48 persons gave oral or written testimony. A Summary of the key questions and issues raised at the Hearing and the responses thereto are included as a part of this Appendix. Because of the great number of speakers and because most of the key questions and issues were repeated by more than one speaker, no attempt was made to identify each question or issue with a specific speaker. A list of the attendees, their organizational affiliation (if any), and those who presented oral or written testimony is also included.

A verbatim transcript of the Public Hearing was taken and is available through the State Department of Transportation upon request.

Written testimony presented at the Hearing and letters received as a result of the Hearing are also included in this Appendix. Regarding letters received, questions and issues raised were incorporated in the key questions and issues summary with two exceptions, Mr. Joe Littlemen's "Lihue Airport Development Plan: An Alternative" (reference #C-2) and the letter from the American Lung Association of Hawaii (reference #C-8) for which specific responses were prepared by the State Department of Transportation (references #C-1 and C-9, respectively).
Testimony presented at the Public Hearing was divided, although the majority of speakers were generally in opposition to further Airport development. The principal concerns of these speakers were as follows: (1) expansion of Lihue Airport would by itself induce more tourism, a condition which many considered to be undesirable; (2) the projections of tourism and resulting air passenger forecasts as presented in the Master Plan Report were believed to be too high; (3) the Airport Master Plan was apparently planned to accommodate nonstop flights to the Mainland and Asia, rather than just interisland flights within the State of Hawaii; (4) the proposed acquisition of some 1,530 acres of productive sugarcane land was considered to be far greater than necessary for the recommended Airport improvements, as well as being contrary to the State and Kauai County policy of retaining agricultural productivity; (5) the installation of a microwave instrument landing system (MLS) could eliminate the need for a new north-south runway; and (6) the terminal complex facilities as recommended in the Master Plan were larger than needed to serve the Island of Kauai.

Councilman Louis Gonsalves, Kauai County Council, expressed strong concern that a longer runway would bring in larger aircraft than presently use the Airport. He also felt that increased hotel development would cause land values to increase and thus property taxes, forcing people out of their homes.
Representatives of the Kauai High and Intermediate School (located directly under the principal approach path to the Airport), and the Kauai County Planning Department, were supportive of the Master Plan in that it would (a) relieve adverse noise impacts and improve safety conditions at the High School and nearby residential areas, and (b) was consistent with on-going planning efforts for the Lihue Area. Captain James Williamson, Chief Pilot of Aloha Airlines, also commended the Airport Master Plan in that it improved safety by providing a new runway (17-35) with an instrument landing system (ILS) and eliminated the tight circling approach to Runway 3, a narrow runway with a steep downhill grade.

Based on the concerns expressed at the Public Hearing, the State of Hawaii, Department of Transportation, requested that the proposed plan for improvement to the Lihue Airport be revised. Specifically, the air traffic forecasts of passengers and aircraft operations were reduced and the recommendation for land to be acquired was scaled down to the minimum required for needed airfield and clear zones and terminal area improvements. In addition, some airport improvements have been deferred until later stages of the Airport development program. Chapter II, the Proposed Project, and Chapter III, Project Need, of this environment document have been revised to reflect these changes to the Airport Master Plan as a result of the Public Hearing.

(6/76)
Summary of Key Issues and Questions Raised at the Public Hearing

Response: True for existing conditions. However, construction of the recommended north-south Runway and consequent shifting of aircraft operations to overwater approaches and departures will eliminate this problem. (Chapter V, p. V-15).

2. Comment: Aircraft overflights jeopardize the safety of students at Kauai High and Intermediate School.
Response: Technically, Lihue Airport now meets all applicable FAA safety standards. However, the location of a school under an aircraft flight path close to the threshold of a major runway is an extremely incomparable use both in terms of noise and safety.

3. Comment: The 30-day review period did not give the citizens sufficient time to review the plan documents.
Response: The 30-day review period is in accordance with paragraph 56.d. of FAA Order 5050.2A, Instructions for Processing Airport Development Actions Affecting the Environment, dated February 24, 1975.
4. Comment: The plan documents were not readily available for citizen review.

Response: The plan documents were available at local public libraries and the Lihue Airport Manager's office during the hours those facilities are usually open to the public. Additionally, concerned organizations and individuals could and did obtain copies directly from the State Department of Transportation. (See Legal Notice of Public Hearing, References C-33 and C-34.)

5. Comment: Sources cited in the plan documents were located primarily in Honolulu and thus not accessible to local citizens.

Response: The volume of material contained in the sources cited precluded the assembly of all reference materials in one location. The location of each reference was noted in the Bibliography (Appendix A).
6. Comment: Numerous speakers requested a second public hearing to permit more time to review the plan documents.
Response: A second public hearing was not considered necessary. See Director of Transportation Press Release dated December 24, 1975 (Reference C-14).

7. Comment: The plan is a design for an international airport (e.g., with direct flights to the Mainland and Asia).
Response: The Master Plan is for an interisland airport only, no overseas flights are forecast for Lihue Airport (Chapter I, p. I-2a and Chapter II, pp. II-1a and 1b).

8. Comment: The environmental impact analysis was inadequate and does not meet the requirements of Chapter 34 of the Hawaii Revised Statutes or the National Environmental Policy Act of 1969.
Response: The environmental analysis for the Lihue Airport Master Plan meets all applicable federal and State regulations.

(6/76)
9. Comment: The Airport Master Plan was in conflict with the County General Plan in that the General Plan called for an agricultural economy with high-quality/low-quantity tourism.

Response: The Airport Master Plan does not conflict with the County General Plan in that recommended airport improvements are to be constructed only as the demand warrants and are not designed to induce tourism. The Airport Master Plan is supported by the Kauai County Planning Department (Reference C-24).

10. Comment: Request that there be additional airport options designed to facilitate goals of an agricultural economy.

Response: The volume of enplaned cargo at the Airport is forecast to account for an increasing share of the total volume (enplaned and deplaned) handled, primarily because of increased shipments of agricultural produce from Kauai. Space is provided on the plan to accommodate agricultural air cargo facilities. Direct agricultural shipments to either the Mainland or Asia are not considered to be economically feasible during the 20-year planning period and the Airport has not been planned for overseas passenger or cargo flights (Chapter II, pp. II-1a and 1b).
11. Comment: Forecast of 2.6 million tourists on Kauai in 1995 considered inaccurate.

Response: The air traffic forecasts have been revised and are presented in Chapter III, p. III-18.

12. Comment: The forecasts will be a self-fulfilling prophecy.

Response: Not true, Airport improvements needed to accommodate forecast requirements for air carrier and general aviation facilities should be constructed only as the demand arises. (Chapter I, p. I-9; Chapter II, p. II-4; and Chapter V, pp. V-56a and 57).

13. Comment: The construction of the north-south runway would enable farmers to ship papayas, etc., directly to the Mainland and the Orient.

Response: The recommended north-south runway will not accommodate nonstop flights to either the Mainland or Asia (Chapter II, pp. II-1a and 1b).
14. **Comment:** A microwave landing system (MLS) could be installed on the existing runway, negating the need for a north-south runway.

**Response:** A microwave landing system is not considered acceptable at Lihue Airport because (1) the final approach would still be over noise sensitive areas, and (2) a tightly curved instrument approach procedure will probably be very difficult to develop for acceptance by airline pilots. See letter from Owen Miyamoto to the State Director of Transportation dated January 7, 1976 (Reference C-10).

15. **Comment:** With a Microwave Landing System, a steeper approach would be used and thus, by keeping the aircraft higher, the noise picture would change.

**Response:** Because of the school's proximity to the threshold of Runway 3 (1.25 miles), aircraft overflying Kauai High School on an MLS approach would not be high enough to appreciably change the noise levels even with a steeper glide slope (Reference C-10).
16. Comment: Lihue has a highly accurate nonprecision approach.
Response: Runway 3 is used 90% of the time and does not have a accurate straight-in nonprecision approach procedure (Chapter II, pp. II-1 and 1a).

17. Comment: The diversion of flights to the Mainland from the Neighbor Islands will increase the costs for the interisland passenger.
Response: The Airport is not planned for overseas service to the Mainland (Chapter II, pp. II-1a and 1b).

18. Comment: If flights to Kauai are spaced evenly throughout the day, you could handle twice as many planes without a single change in ground facilities.
Response: Unfortunately, the peaking characteristics at an airport can only be reduced to certain levels and it is not possible to have a continuous and equal flow throughout the day, week, and year because of passenger travel demand requirements.

19. Comment: Lihue needs more general aviation parking, air cargo places, and better radio facilities.
Response: Additional general aviation and air cargo aircraft parking spaces are provided on the Plan (Chapter II, pp. II-7 to II-9). 

(6/76)
20. Comment: The airport expansion program is not needed because the FAA criterion used to signal the need for additional planning is the year in which projected traffic levels reach 50% of annual capacity; Lihue is not expected to reach this level until after 1995.

Response: The new runway is not recommended from the standpoint of needed additional airfield capacity. It is recommended to improve the compatibility of the airport with the surrounding areas and to minimize the impact of aircraft operations on existing schools and residential areas. It is recommended to improve aircraft conditions by locating and orienting a new runway to provide the capability for installation of a precision instrument approach procedure (ILS) with an overwater approach away from the mountainous terrain southwest of the Airport (Chapter II, p. II-1a).
21. Comment: The airport expansion program will supply more construction jobs; however, expansion of jobs will not benefit the local labor force but attract more people from other areas. Response: It is difficult to forecast the number of construction jobs that will be generated by the airport-improvement program or how many of the local labor force will be utilized. However, because the construction projects will be short-term in nature and phased over a 20-year period, the permanent population should not be increased greatly, even if some workers are not from Kauai. Also, the construction payrolls will be spent in Kauai (for the most part) a fact which should help to stimulate the local economy. Airport-related jobs are forecast to increase from 500 to approximately 1,000 over the 20-year period. In general, these jobs can be filled from the Island's labor force (Chapter V, p. V-56).

22. Comment: Industry and government agencies follow a policy that encourages artificial population growth—growth that increases the cost of living, creates unemployment, evicts and displaces local people, and generates housing shortages.

(6/76)
Response: Growth on Kauai is controlled by County government through the regulation of new residential/industrial/agricultural/commercial/resort development (Chapter V, p. V-56a).

23. Comment: The consultants only spoke to people in the tourist industry, hotels, etc., and others who would benefit by getting a lot of people to Kauai.
Response: Not true, see list of persons contacted during the study (Chapter I, pp. I-11 to I-16).

24. Comment: The public information sessions were not well publicized.
Response: Each public information session was publicized in the Kauai and Honolulu papers. Additionally, letters were sent to 19 agencies and organizations stating the date, time, and location of each public meeting. (See press releases and letters of notification of the public information sessions in Appendix B).
25. Comment: The Airport is not a public service but a business and should not be supported with taxpayers money.

Response: Lihue Airport is owned and operated by the State of Hawaii Department of Transportation to provide air transportation to and from the Island of Kauai. With regard to Airport financing, see letter from Owen Miyamoto to the State Director of Transportation dated January 7, 1976 (Reference C-10).

26. Comment: 2.6 million tourists will have a definite socio-economic impact which was not covered in the environmental analysis.

Response: The number of tourists visiting Kauai is and will continue to be a function of the Island's attractiveness and the availability of visitor accommodation facilities and not the Airport. Inasmuch as the staging of improvements is in response to, and not to generate, tourist demand, the socioeconomic impact of tourism cannot be attributed to the Airport (Chapter V, pp. V-56, 56a, and 57).

27. Comment: The construction of hotels and other facilities to accommodate the tourist will mean the taking of more agricultural land.

(6/76)
Response: The amount and type of land lost depends upon where such facilities are located. However, this can be controlled by County government through land use zoning. The location of hotels and other tourist facilities are incorporated in the Kauai General Plan and the individual development plans being prepared for specific areas of Kauai by the County (Chapter V, p. 56a).

28. Comment: The construction of tourist facilities will have a higher priority than needed low-income housing.

Response: It is up to County officials to establish priorities for low-income housing and tourist facilities.

29. Comment: Natural shoreline access is proposed within the airport boundaries. Will this access be maintained?

Response: Existing access to the shorelines north and east of the airport will be maintained (Chapter V, p. V-69).
30. Comment: Rather than spend money to expand the Airport, move the High School.

Response: Conversations with the Kauai High School Principal indicate that KHS will expand at the same location when the High School takes over the Kauai Community College site after KCC moves to Phui in 1977. There are no plans for relocating the High School.

31. Comment: More tourism will drive up land values and thus property taxes, forcing people out of their homes.

Response: The construction of new tourist facilities is upon authorization of County officials through the granting of proper zoning and issuance of building permits. County officials have to weigh carefully the impact of new facilities on land values and property taxes (Chapter V, p. V-56a).

32. Comment: The residential area north of Wilcox School is adversely impacted by the sideline noise of engine runups prior to takeoffs.
Response: Noise Exposure Forecast contours for both 1974 and 1995 conditions (Exhibit I and J), indicates that the residential areas north of Wilcox School will not be adversely impacted. This is not to say, however, that sideline noise of engine runups cannot be heard in these areas which some residents find annoying (Chapter V, pp. V-12 and V-16).

33. Comment: Construct the north-south runway but abandon all other Phase I projects except the sewer system; and in the case of the sewage, dig more cesspools.

Response: This is essentially what the Department of Transportation intends to do based on revised Staging with the exception of sewage. A new sewage system is proposed to be connected to the County Sewage Treatment Plant or, if this is not feasible, a sewage treatment plant will be built on the Airport (Chapter V, pp. V-47 and 48).

34. Comment: Improvements to the Airport should be made only if and when necessary.
Response: This is the basis for the staging of development recommended in the Airport Master Plan (Chapter I, p. I-9; Chapter II, p. II-4; and Chapter V, pp. V-56 and 57).

35. Comment: If the State DOT has no intention of allowing overseas flights, then why have a runway in the plan which makes such flights possible?  
Response: The proposed runway is planned for interisland flights only (Chapter II, pp. II-1a and 1b).

36. Comment: Many speakers assumed that County tax money would be used to finance improvements.  
Response: County tax money will not be used to finance improvements. See Owen Miyamoto letter to the Director, State Department of Transportation (Reference C-10).

37. Comment: The new passenger terminal would be seven times as large as the existing terminal.  
Response: The passenger terminal complex plan has been revised. It cannot be compared with the size of the existing terminal which is inadequate even for the present level of passengers. The actual "size" of the new terminal will depend on the architectural...
concept selected for the terminal and
the resultant mix of open and enclosed space.

38. Comment: Why spend $6 million to buy cane land in fee when zoning would offer adequate protection?

Response: The actual acreage to be acquired and the
associated cost has been reduced to 620 acres,
the minimum needed for the north-south runway
(and related clear zones), Runway 3-21 im-
provements and terminal area improvements.
It is recommended that County officials ap-
prove the proper zoning for needed buffer
areas around the Airport to provide adequate
protection in those areas not to be acquired
in fee title (Chapter V, p. V-54).

39. Comment: Opposition was expressed to possible use of
the north-south runway exclusively for take-
offs and landings under all weather conditions
which would cause adverse noise impacts on
Hanamaulu.

Response: A preferential runway-use system has been
recommended so that under tradewind conditions
(90% of the time), aircraft would take off on
existing Runway 3 to the northeast over the
ocean and not to the north toward Hanamaulu

(6/76)
from new Runway 35. Under Kona conditions, aircraft would land on existing Runway 21 and take off on Runway 17 to the south over water and not over the Kauai High School and nearby residential areas. There may be occasions (for example, when Runway 3-21 is under repair), that the new north-south runway would be used exclusively. In these instances there will be an adverse noise impact on parts of Hanamaulu. However, this would only be a temporary situation (Chapter VI, pp. VI-2 and 3).

40. Comment: Aircraft noise could be heard as far north as Kapaa because the noise was reflected off the hills and clouds.

Response: Under certain weather conditions, this is probably true. However, there is no adequate means of forecasting possible noise exposure under all weather conditions. (See NEF methodology, Chapter V, pp. V-1 to V-11.)

41. Comment: The new runway was being justified on the basis of direct Mainland agricultural shipments and yet no freight terminal was being built.

(6/76)
Response: A new freight terminal is proposed on the Master Plan (Chapter II, p. II-9).

42. Comment: Many speakers assumed tourism was the major justification for Airport improvements.
Response: The Airport will only be improved to accommodate demand from tourists or local residents as such demand materializes. The number of tourists visiting Kauai will primarily be determined by what happens off the Airport (Chapter V, pp. V-56a and 57).

43. Comment: Not improving the Airport will throttle the tourist flow.
Response: Not true--see pages VIII-15 and VIII-16.

44. Comment: Jet aircraft should be replaced by propeller aircraft that do not have to overfly the school.
Response: To reduce maintenance costs, the carriers (Aloha and Hawaiian) have standardized their fleets to a single type of aircraft, and it is doubtful that they would select a special aircraft to fit the particular requirements of Lihue Airport. See Owen Miyamoto letter to the Director, State Department of Transportation, January 7, 1976 (Reference C-10).
45. Comment: Control over landing fees at the Airport should be transferred from Honolulu to Kauai.

Response: Improvements at Lihue Airport are financed by fees paid by overseas air carriers and other revenue sources at Honolulu International Airport. Interisland carriers pay only 9% of the overseas air carriers landing fees at all airports. Because of the nature of the State Airport System, Lihue Airport cannot be considered as an independent financial entity (Reference C-10).

46. Comment: No procedural rules and regulations for the meeting had been distributed.

Response: Procedures were explained by the Chairperson at the beginning of the meeting.

47. Comment: What is the source for the estimated daily vehicle miles traveled table?

Response: The estimated daily vehicle miles traveled table was based on traffic surveys of the number and type of vehicles and projections of vehicle miles (for the three sites.)
48. Comment: Why were there no official State forecasts and why were the consultants left to pull them out of the air?

Response: There are still no official State visitor forecasts available. Official State visitor forecasts will be prepared within the next year or so. The forecasts have been revised based on unofficial State Department of Planning and Economic Development forecasts prepared in January 1976 (Chapter III, pp. III-3-8).

49. Comment: Seaflite and an interisland ferry could provide transportation to the Island without noise.

Response: Seaflite would require over 20 round trips/day to accommodate 1974 airport passengers compared to the present one round trip/day. It would require over 40 round trips per day to accommodate 1995 demand. At two round trips per boat per day (maximum), over 20 hydrofoils would be required just for Oahu-Kauai trips (not counting service to other Neighbor Islands). The Nawiliwili Harbor terminal would also have to be enlarged (Chapter VIII, pp. VIII-1 and VIII-2.)
50. Comment: Total Airport costs should include the cost of expanding the sewage treatment plant and improving the drainage system.
Response: Costs include improving the drainage system and connecting the sewer system to the County system. The cost of expanding the County STP to either 1.5 mgd. or 4.5 mgd. was not included as the State would most likely pay connection charges and user fees for connecting to the County system.

51. Comment: Speaker did not believe it was a valid assumption that there would be quieter aircraft.
Response: Federal Aviation Regulation FAR, Part 36, establishes maximum acceptable noise levels for aircraft. Widebody aircraft (B-747, DC-10, L-1011) already meet FAR Part 36 as do the newer narrow-body aircraft such as the DC-9-50 presently serving Lihue.

52. Comment: Direct Mainland/Asia flights would not help the farmers because all-cargo flights were not justified economically.
Response: Direct Mainland/Asia flights are not provided for in the plan.
53. Comment: Alternatives should be explored including using the money to subsidize Young Brothers or Seaflite or helping the farmers buy their own air freighter.

Response: The State is studying the feasibility of a Seaflite/Young Brothers system. There is more than adequate cargo space available on flights out of Lihue (7:1 for deplaned:enplaned cargo) precluding the need for a separate air freighter. (See air cargo forecasts, Chapter III, pp. III-21 and 22.)

54. Comment: The Airport should be beautified to reflect the assets of the Island.

Response: The architectural and engineering design and landscaping of the new Airport facilities will reflect the natural beauty of Kauai.

55. Comment: The Naval Air facilities at Barking Sands should be utilized.

Response: See letter from Commanding Officer, Navy Pacific Missile Facility, Barking Sands, to Owen Miyamoto dated April 18, 1975 (Appendix B).
56. Comment: Is there any viable way of utilizing the present facilities and expanding existing facilities?
Response: Present airfield facilities are retained in the plan. The terminal area facilities can continue to be used for many years (e.g., Fixed Base Operators could use vacated buildings thereby allow existing T-hangars to be used entirely for the storage of aircraft).

57. Comment: If turboprop aircraft are reintroduced, fuel consumption could be cut by 20%.
Response: To accommodate 1974 passengers on turboprop aircraft would result in more than twice as many flights as are required using the present jet aircraft. A proportionately higher ratio of turboprop to turbofan jet aircraft would similarly be required to accommodate forecast passengers over the 20-year planning period.

58. The questions raised by AMFAC (Lihue Plantation Company) with regard to damages and other losses due to the acquisition of land by the State, will be the subject of future discussions between the State and AMFAC (Lihue Plantation Co.) at the time land acquisition negotiations are carried out.

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WRITTEN TESTIMONY, LETTERS, NEWS RELEASES, AND LEGAL NOTICES
RECEIVED AS A PART OF THE LIHUE AIRPORT MASTER PLAN STUDY
PUBLIC HEARING PROCESS

1. Letter from Owen Miyamoto to Mr. Joe Littleman, dated June 2, 1976.

2. Lihue Airport Development Plan: An Alternative, prepared by Mr. Joe Littleman, undated.


5. Letter from Mr. Bob Buell to Mr. E. Alvey Wright, dated January 26, 1976.


7. Letter from Mr. Turk Tokita to Mr. E. Alvey Wright, dated January 21, 1976.


10. Letter from Mr. Owen Miyamoto to Mr. E. Alvey Wright, dated January 7, 1976.

11. Letter from Ms. Suzanne L. Thompson to E. Alvey Wright, received by the Department of Transportation on January 2, 1976.


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15. Letter from Mr. Yoshiho Kojima, Principal, Kauai High and Intermediate School, to Mr. E. Alvey Wright, dated December 19, 1975.


17. Letter from Walter J. Smith, Jr., President, Kauai Visitor Industry Organization, to Mr. E. Alvey Wright, dated December 18, 1975.


20. Written testimony of Mr. Eddie Sarita, presented at the Public Hearing, December 18, 1975.


24. Written testimony of Mr. Tom Shigemoto, Kauai County Planning Department, presented at the Public Hearing, December 18, 1975.

25. Written testimony of Mr. Joe Littleman, presented at the Public Hearing, December 18, 1975.


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28. Letter from Mr. Owen Miyamoto to Mr. Andrew Bushnell, President, Kauai Community Research Group, dated December 16, 1975.

29. Letter from Mr. Andrew Bushnell, Kauai Community Research Group, to Mr. Owen Miyamoto, dated December 13, 1975.


31. Letter from Mr. Owen Miyamoto to Mr. James Morrow dated December 3, 1975.


June 2, 1976

Mr. Joe Littleman
P. O. Box 901
Lihue, Hawaii 96766

Dear Mr. Littleman:

Subject: Lihue Airport Master Plan Study
Project No. G-6

We commend you for spending so much time and effort in presenting your Lihue Airport Development Plan: An Alternative. As far as possible, we have tried to respond on a "point by point" basis and the following comments correspond to each "reason" as presented in your plan.

Reason 1

Comments noted.

Reason 2

Generally agree. However, the activities you list as not appurtenant to inter-island air traffic are in reality most appurtenant. Unless facilities are available to handle the passengers and well-wishers, there will be no continuity in servicing these people who had elected to use this mode of transportation. In addition, there is no regulation in banning air taxis and helicopters from public airports in as much as we all have the right to use the public highways provided the required fees are paid. In fact, where federal funds are used to improve the airport, the requirement is that the owner/operator of the airport may not discriminate against the types of aircraft using the facility, notwithstanding the safety of operations.
Another point is that concession revenues rather than the airport use charges contribute to over 50 percent of the statewide airport revenues, resulting in lower air fares, convenience and benefits to the public air travelers.

Since the major portion of the revenues is generated at Honolulu International Airport and supports the whole statewide airport system, it would be better and more economical to have a State-owned and operated system of airports rather than a County-owned and operated system. It would most certainly cost the people of Kauai more if they owned and operated Lihue Airport with Aloha and Hawaiian Airlines paying almost 100% of the airline fees.

Reason 3

As a result of the comments received at the December 18, 1975 public hearing, we are revising the proposed plans to reflect the expressed public desires to limit growth on Kauai. As has been pointed out at the public information sessions and other meetings held as part of this study, the number of visitors to Kauai will be determined by what happens off the Airport and not by the Airport itself. That is, any constraints on the number of visitors to Kauai will result from actions taken elsewhere on the Island, e.g., any limitations that may be imposed on the number of visitor accommodation units.

Reason 4

Both the plan as originally proposed and the revised Master Plan make a point of maintaining public access to the shoreline. This was a particular concern of the Kauai County Planning Department with which the State concurs.

The Master Plan has also been revised to reduce the amount of land the State should acquire in fee title. In other areas adjacent to the Airport, not to be acquired in fee title, it is recommended the land be retained in use compatible with aircraft operations, primarily agricultural, by acquiring avigation easements and establishing zoning controls.
Unfortunately, Littleman's alternative plan might cutoff access to the shoreline because developing an inter-island 6,500-foot runway in the location suggested would require an embankment extending towards the ocean to the northeast for the extended runway safety area beyond the end of the runway. It would require construction within 300 feet of the shoreline. By orienting the runway in a north-south direction, the recommended plan will preserve access to the shoreline and avoid construction that might impact on the shoreline.

The suggested alternative airport boundary does not meet recommended standards for an inter-island air carrier airport and would require additional agricultural land acquisition on both sides of the proposed new runway. It would also require the acquisition of more expensive non-agricultural land to the south.

Reasons 6

The existing terminal facilities are not planned for premature demolition. In fact they could serve many uses for many years to come, i.e., air taxi terminal, cargo building, maintenance building, general aviation. Only when the required expansion of the airport encroaches into this area, or if more stringent safety criteria are imposed for aircraft operations, or when they outlive their utility will these facilities be demolished.

The Alternative proposed will require relocation, replacement, or abandonment of several facilities including the VORTAC, Runway 3-21 and taxiways, FAA Control Tower, general aviation facilities and the Kauai Surf golf course. It would also not be possible to install an Approach Light System south of the runway without extending into the entrance to the Nawiliwili Harbor.

Runway 3-21 is required as a crosswind runway. Also because of Kauai's dependence on air transportation, it is important that a second runway be available for the period of time while improvements or maintenance are carried out to the other runway; otherwise, the Island of Kauai would be without air service.
Reason 6

In Exhibit j, the noise expected at the facilities you mention is within the 25 NEF and not 30 NEF.

The noise impacts referred to in the Alternative over Wilcox School and Rice Street are not due to the assumption of heavier and larger aircraft traffic but relate to operations of the smaller general aviation and air taxi aircraft which, because of crosswinds, will continue to land on Runway 3 rather than on the new runway.

Under the proposed Alternative, if Runway 3-21 was abandoned, these aircraft would, under the same assumptions as used in the EIAR, overfly the Kauai High School as well as residential areas of Hawaiian and Kupolo--the very same areas as are under the existing approach to Runway 3.

Reason 7

Similar to our response to Reason 3, the type of facility constructed does not determine the size and capacity of aircraft the airlines will use but actually vice versa. In many cases, construction is in reaction to the actual condition. For example, until the existing Lihue runway was recently resurfaced with a heavy overlay, the theoretical strength of the pavement should not have tolerated the DC-9's and B-737's. However, this substandard runway did not keep out these larger and heavier jets. The small terminal will not necessarily keep out the travelers but surely the travelers will sacrifice the comfort and convenience. In other words planning for what is forecast does not increase the forecast figures and much of the planning is in response to what the airlines envision in the future.

We agree that it is highly desirable to reduce the "batching" or "peaking" of activity at an airport. Unfortunately, the peaking characteristics at an airport can only be minimized to certain levels as it would be impossible to have a continuous and equal flow of passengers, cargo, aircraft and other movements throughout the day, the week and the year. The Alternative plan assumes the peak period demand, as a percentage of the daily activity at the Airport, will gradually decrease over the 20-year planning period and there will therefore result in a more even and continuous usage of the airport facilities through the day.
General Comment

We are satisfied with your report in that we all see the need for a realigned runway and that we are in general agreement that the runway should be 150' x 6500'. This is a big "plus" for us. The big question then is what will be the best alignment for the runway.

As described at the public information sessions and as included in the Master Plan report, alternative runway alignments in the direction of the one proposed as an alternative were evaluated. It was determined that, because of the mountainous terrain to the south, the new runway could only be oriented between 0° and 4° true alignment and not as far as 8° to 12° to the southwest as presented on the Alternative.

The Alternative Airport II plan does not provide sufficient land for airport approach and protection areas. The clear zones under the approaches to the runway should lie within the Airport Boundary and these clear zones extend 2,700 feet beyond the ends of the runway. These would extend beyond the shoreline to the south and northeast. The airport property line should also be at least 750 to 850 feet from the runway centerline. This proposed Alternative would therefore require the acquisition of more expensive non-agricultural land to the south as well as considerably more agricultural land on both sides of the runway. The costs presented in the Alternative are therefore incomplete. The costs presented are also 1975 base year costs and are therefore not comparable with the $34.7 million cited from the Master Plan report which includes cost escalations between 1975 and the anticipated year of construction.

It should be noted that the NEF contours in Exhibit J of the EIR include operations in both Trade Wind and Kona conditions. They cannot be applied to Kona conditions as has been done in the analysis of the alternative alignments.

As mentioned in our previous letter, the revised master plan will be made available and I'm sure you will want to further discuss some of your points presented. We'll be happy to do so.
If further information is needed, please call.

Very truly yours,

[Signature]

Owen Miyamoto
Chief, Airports Division

cc: Peat, Marwick, Mitchell & Co.
Lihue Airport Development Plan: an alternative
An alternative to the "Lihue Airport Development Plan" (as promulgated by the Department of Transportation)?

Why?

Because the United States of America is a democracy!

In a democracy the government must not only hear the voice of the people — it must be guided by that voice.

In a democracy the people are not subordinate to the government — the government is subordinate to the people.

In a democracy the people are not to be used by the government — the government is a means to ends named by the people.

In a democracy the government is to serve the people — it is not to serve exploiters in their exploitation of the people.

In a democracy the public monies are to be handled as sacred trust;

simple neglect of such husbandry by a servant of the people is

misfeasance;

culpable neglect of such husbandry by a servant of the people is

misfeasance;

felonious neglect is... misfeasance;

Acceptance of the Phil Marovich, Mitchell and Company Study Report

may be prima-facie evidence of neglect of such husbandry.
Reason two:

The Lihue Airport is the primary port of entry to the island of Kauai.

The airport must serve the residents of this island as they wish to be served. It follows that control of facilities appurtenant to the island of Kauai and affecting the lives of its residents should be controlled by that unit of government most responsive to their wishes, that is, the County of Kauai.

The airport must also serve the residents of the State at large and all others who wish to traffic through that port. It follows that control of interisland air traffic and facilities appurtenant to such interisland air traffic is a proper function of the State government (with appropriate attention to the Federal government and the people of Kauai and their County government).

Facilities for tour buses; public parking; air taxis; helicopter, food, beverage and other purveyance (except flight ticket, insurance, etc.) and miscellaneous other activities are not appurtenant to interisland air traffic.

Good governance—consonant with Federal and State Constitutions—requires that each American citizen shall enjoy the maximum control of his own civic structure.
Keeping the control of the local airport facilities in the hands of the citizens of Kauai to the extent that this is compatible with State and Federal interest in the airport. This is not possible in the plan promulgated by the Department of Transportation, the Pan, Marwick, Mitchell and Company proposal (either the proposal in toto, or any phase, or phases of it).

Maximum control by the citizens of Kauai of their own airport, through their county government civic structure, is incorporated in this proposed alternative.

Reason three:

The gross giganticism of the airport of Pan, Marwick, Mitchell and Company and the Department of Transportation abases the people of Kauai and all worthy travelers who pass through the airport.

The inadequacies of the present airport are not of size; the present airport is more than adequately large to serve the present and future needs and wants of the people of Kauai and the travelers to and from our island. The tourism industry would not be in any way inconvenienced by not expanding the airport facilities.

The tourism expansion industry would be inconvenienced.

The people of Kauai have need and...
the tourism expansion industry. The tourism, in its self, has interests totally antithetical to the tourism industry. (This is not to say, however, that no corporation or business is involved in both the tourism and tourism expansion industries.) Empty rooms in existing hotels are not filled by building more hotels. The charms of the island that might be expected to attract tourists to those empty rooms will not be enhanced by parceling the island.

No community should be overly dependent on any single industry, and tourism is a particularly insubstantial single industry upon which to become overly dependent. Tourism at the present time is a very large, perhaps too large, segment of Kauai's economy.

Opportunism profit by the flux fostered by expansionism; but general prosperity thrives in stability. The prosperity of the people of Kauai depends upon ending the rape of our island, not by tourism, but rather, by the evils concurrent with the expanding of tourism. We can accommodate, even cherish, our present level of tourism; we can ill afford any more expansion of tourism.

Let the island remain worth living on and worth coming to. Even the tourists don't want more development; only the speculators.
Reason Four:

The overreach of the Department of Transportation (per Park, Marwick, Mitchell and Company's proposal) is an outrage. Not only do they propose removing an inordinate amount of land from private ownership, they would also remove miles of seashore from public access. Neither action is in any way necessary.

The land is good agricultural land. The Department of Transportation says it would lease unnecessary portions of this land back to agricultural use. Would they? Perhaps. But there is no overriding reason why the Department of Transportation must indulge in landlordism to the agricultural interests of Kauai.

The seashore is that stretch of seashore most readily accessible to the residents of Lihue and environs, and one of the most interesting stretches of seashore on the island of Kauai. I can't speak as a fisherman, but judging from the numbers of fishermen I see, shorefishing along that coastline the fishing must be rewarding.

The proposed circulation plan of the Lihue Development Plan shows "proposed natural area access" for that shoreline. It says, "Natural area access ways are needed along the shoreline." By what right emanating from the people does the Department of Transportation countermand that?
The alternative plan, however, proposes acquiring just the amount of land for the airport that is in fact needed. And it does not cut off access to the shore. It further proposes that land no longer needed by the Department of Transportation for the airport sue be returned to the control of the people of Kauai (to the County, to sell it, lease it or hold it — as best serve the people). The increase in landholding would be (and should be) trivial.

Reason five:

The demolition, requiring replacement, of fully serviceable, useful, completely adequate structures as is required by the Department of Transportation's proposed course of action is totally profligate. It is inconceivable to this taxpayer that such action should merit any lesser charge against the public official responsible than manslaughter.

Such waste of public property is totally unnecessary and the alternative plan presented here utilizes all existing structure. They may be replaced in due course whenever they outlive their utility, but they need not be destroyed prematurely to accommodate an ill-conceived "Rube Goldberg".

Reason six:
The Pearl Harbor, Mitchell and Company design fails to cure the two major ills of the present airport. With this design airplanes would continue to overly Libue with attendant hazard and noise. Refer to their "Exhibit J, 1995 Noise Exposure Forecast Contours - Libue Airport." There you will see that Wilcox School, Libue Stadium, the Civic Center residential and downtown Libue and several blocks of Ria Street are expected to be exposed to (impacted by) noise levels ranging to some level above 30 NEF. The noise expected at the stadium is far from the airport; all the other areas mentioned would be overflown.

The alternative plan cures both these ills. No land areas except the approach areas at the Ninini Point and Adakiri Camp/Aukini Landing ends of the airstrip are overflown and no currently populated place (see note*), including the airport terminal itself, is subjected to undue elevated noise levels (levels as high as 30 NEF). However, the terminal might experience noise levels above 25 NEF and in the normal prevailing trade winds conditions Hanamakiki Beach Park (and perhaps one residence) might also experience noise levels above 25 NEF. Under the much less common Kona win.

Note*: A single residence (that of Marie Bertrand at Aukini Landing) must be left out of consideration. Because of its proximity to the present airstrip, or any possible airstrip in this area, it is more and will continue to be noise impacted.
conditions the Kauai Surf Cottages might be subjected to noise levels above 25 N.E.P. This condition could be avoided by a slight (but not otherwise desirable) realignment of the airstrip.

The noise level study for this alternative was based upon the noise exposure forecast contours shown on Exhibit J of the Peabody, Warwick, Mitchell and Company's proposal. These contours were based on an assumption of heavier air traffic and larger aircraft than we want our airport to accommodate. Hence this alternative proposal cannot accurately forecast the expected noise exposure but only a maximum condition than which it will not be worse and might be expected to be considerably better. Of course, this condition deserves appropriate study before reaching conclusions.

Reason seven:

As stated immediately above, the Peabody, Warwick, Mitchell and Company proposal assumes our airport should be redesigned to accommodate much heavier traffic and much larger planes with much greater passenger carrying capacity. This is preposterous to the point of absurdity.

First: It is counterproductive. It is very nearly a first rule of engineering and logistics that continuous processes are inherently much more efficient than batch processes. By their nature airports must operate on the batch principle.
But the batching may be minimized or maximized.
Maximizing the batching maximizes the strain on all the facilities affected. Buses, for example, must be larger or more numerous. Highways must be widened, straightened and strengthened in one case—or traffic is more onerous in the other.

Not only buses or bus service and highways or traffic control facilities, but all facilities: restrooms, ticket counters, restaurants, bars, luggage inspection or handling facilities, loading areas, waiting rooms, etc. must be sized and staffed for these peak periods. And between these peak periods a great deal of capacity is idle, the staff idle into ennui and profit lapses into losses.

The larger the passenger load per plane, the more pronounced the batching effect and the less efficient the terminal facilities.

Second: Not even with the magnitude of arrivals and departures envisaged for 1975 by Pan American, Mitchell and Company would three larger planes be needed to carry the traffic.

Third: Pan American, Mitchell and Company apparently believe we are on the verge of inventing a substitute for aviation fuel and that the substitute will be moderately priced. Two firms in California apparently believe otherwise; their research lines are building.
freighter. Perhaps their crystal ball is less cloudy than that of "P.M.I." Numerous recent studies would indicate that such may well be the case. Will we be flying it all in 1995, and if so, what kind of planes carrying what kinds of cargos?

Fourth: The larger the load per plane, the fewer planes per day and hence the less frequent the service; the less frequent the service, the less the schedule serves the wants and needs of the residents of Kauai or any other users of these flights. Who ever heard of anyone choosing to pay out more money for less service?

Fifth: Larger planes require heavier, more expensive runway, taxiways and aprons, which expense, being solely to accomplish counterproductive ends, is totally unnecessary.

The alternative airport, proposed here, would not accommodate these jumbos.

Further reasons:

If dollars be reasons, that is, if each saving of a taxpayer's dollar is a separate reason, then there are several million more reasons. You may compare the presently estimated project costs for phase I (see Perl, Merwick, Mitchell, and Company's Table 18) with the alternate projects estimated
costs (total) included herein. In estimating these costs I have reconstructed, to the best of my ability, the unit costs used by Peck, Marwick, Mitchell and Company (without in any way validating or justifying them) and used these figures in arriving at the costs of this alternative. (The shortening on which this alternative proposal was produced allowed no funds for research.) Obviously, if this alternative plan is to be given serious consideration, a thorough, competent study based upon it should be made, and justifiable estimates of the costs arrived at by independent means. Equally obviously (the reasons should be readily apparent), no one having any connection with the Department of Transportation or Peck, Marwick, Mitchell and Company or with any persons having any connection with them should have any part in such study.

For these reasons, and because the fabric of trust that the people have for their elected and appointed servants in the State Government is wearing extremely thin, an alternative to the Department of Transportation's proposal for the Lihue Airport should be considered.

One alternative (or rather, two variations of one alternative) is presented herewith.

Joe Littleman
Design Parameters for the Lihue Airport
The airstrip at Lihue must be located in some other position. Two conditions, and only two, make this imperative. One: flight paths to and from the southwest end of the present airstrip necessitate the overflight of populated areas. Two: noise generated both at the airport and in flight, by aircraft using the airport, exceeds levels that are tolerable for the areas concerned.

Other conditions that might be considered reasons for relocating the airstrip are imperative because: (1) they are redundant, insofar as the relocation is imperative with or without them, and/or (2) they arise from the airlines' choosing to operate planes that are inappropriate for the Lihue Airport conditions. These conditions include the width and the slope of the airstrip, and also a mountain range at no great distance to the south and southwest of the airstrip.

Granted that the airstrip must be relocated, there are certain minimum parameters that dictate the design of any acceptable airstrip. These parameters are:

First: The design shall not require the overflight of populated areas (but the approach areas may be used for recreation or other suitable purposes).
As stated in reason six above, the Department of Transportation's design is not within this parameter; it would allow three planes to overfly several populated areas. And as stated in reason four, the approach areas (and several miles of seashore) would not be available for recreational use. This alternative design fails this test only insofar as the one residence of Marie Bertrand is, or very nearly is, overflown. The residence could be bought and vacated, but it may have significant sentimental value to Mrs. Bertrand. The late Captain Bertrand was the harbor master of Hanamaulu Bay and Kukui Landing when it was a busy port. It might be preferable to soundproof the structure and accept the hazard which, though real, is small.

Second: The impact of airport generated noise on populated areas shall be minimal; no residence shall be subjected to a Noise Exposure Forecast Level of 25 NEF or greater, and no facilities other than residences shall be subjected to levels in excess of 30 NEF.

The impact of noise on populated areas is not minimal with the Department of Transportation design. The noise experienced anywhere in Lihue would be less with the alternative plan both because the source of the noise is moved further from town and because
the noise generating sources, being smaller, less
noisy planes, would generate less noise. Furthermore,
as stated in reason six, the critical noise impact
areas for the alternative plan are few, marginal
and may, indeed, be found by proper study to
fall completely within this design parameter
(excepting the Bertrand residence). Not so for the
Department of Transportation design. In that design,
in addition to the areas commented upon in
reason six, the airport terminal itself is a noise
impacted area, and the Department of Transportation
airstrip may generate more noise for the Kawai
Surf cottages than the alternative plan airstrip
under the Kona wind conditions that reverse the
normal airfield use patterns.

Third: The airport shall remove a minimum of
land from agriculture.

The Department of Transportation design looks
not so much like an airport design as the
perversion of an airport design for the express
purpose of grabbing land—particularly agricultural
land. It falls far short of satisfying the restrictions
of this parameter. The alternative plan is totally
satisfactory in this respect.

Fourth: This airstrip shall be level enough, long enough,
and wide enough for the planes it is to handle.

Both designs are fully within this parameter and are essentially identical to one another: level, 150 feet wide and 6500 feet long with similar clear zone approach surfaces at each end. However, reconsideration may conclude that some length shorter than 6500 feet is long enough. If so, the length of the airstrip should not exceed that lesser figure. We don’t want an unnecessarily overlong airstrip.

Fifth: Straight line approaches shall be unimpeded at both ends of the airstrip.

Both designs satisfy this parameter fully. The approaches to both are over unrestricted open water.

Sixth: The airport shall not cut off any present access to the shoreline, shall not alter and shall not preempt any portion of the shoreline, and it shall remain possible, as it is at present, to circuit by automobile completely around the perimeter of the airfield.

The Department of Transportation design totally ignores the people’s interests in this regard, and dispossess them utterly from their shoreline.
The alternative design requires no land closer than one hundred yards from the shoreline and provides for whatever roads are necessary around the ends and on the makai side of the airstrip to provide public access from north or south to all roads severed by the airstrip. A bike-path within the hundred-yard wide strip bordered by the shoreline, which could be of functional value to the airport (re. drainage), is suggested but is not an integral part of the design.

Seventh: Extravagance shall be avoided; capacity in excess of that requisite for current or expectable needs shall merit no expenditure of resources or monies.

If the alternative design is completely adequate for current and expectable needs, the Department of Transportation design must be grotesquely extravagant.

Other design considerations are not unimportant but (unless not listed because of oversight) for one reason or another may not be considered design parameters.
Drawings

Alternative I
&
Alternative II
Basically this alternative design simply relocates the airdrome, and this is all that is required, desired or justifiable. When a representative of Rand, Marwick, Mitchell and Company "sought public input," the germinal concept of this alternative design was suggested by me. The suggestion was brushed-off; so it goes with "public input."

See Dwg. No. 1, Alternative Airport Site: Location & Flight Path. (This is the germinal concept pictorialized.)
Upon completion of this new airstrip, the existing airstrip would be totally retired as an airstrip. Approximately 2,400 feet of its length would be retained for terminal facilities. The parts remaining should be transferred to the County for disposal in the people's interest. The approximately seventy-five acres suitable for agriculture should be returned to that use by sale or lease.

All terminal facilities can be retained in situ in their present capacities (except the CFR unit). No expansion of these facilities is contemplated. However, some facilities might be inadequate for their function unless relocated. The CFR (crash/fire/purewater) unit, for example, should be relocated and its relocation is part of this proposal. Time does not permit proper study of whether other relocations are required for functional efficiency, and no other relocations are part of this proposal.

While no terminal expansion is part of this proposal, space has been allowed adequate for any conceivable, desirable future expansion. Space is also allowed for a fuel farm on State land. County or private land provides adequate space for all other activities.

The airstrip of the alternative design is essentially similar to the proposed Department of Transportation north/south airstrip in all but alignment (and thickness). The alignment of the alternative airstrip is determined by the proximity of the shoreline at its northern end (about two hundred yards from the centerline of the runway to the shoreline), and by the proximity of the "Vortac" radio facility at the southern end (about one hundred yards from the centerline of the runway to the edge of the "Vortac").

Alternative I of this proposal is based on an alignment made of the "Vortac". Alternative II is based on an alignment made of the "Vortac". Alternative II would probably be slightly more expensive than alternative I. Cost estimates included here will be for the apparently higher priced alternative II. The feasibility of alternative I is contingent upon a noise exposure forecast study for Kona wind conditions for the traffic expected on this airstrip. I cannot at this time make such a study. Alternative I, as drawn (Dwg. No. 1) has a 6000-foot runway, but this is optional—it could be 6500 feet long. Alternative II assumes a 6500-foot runway, but it could (and should) be shorter if shorter is just as good.

See Dwg. No. 3, Sheets 1, 2 & 3, Alternative Airport II: Comprehensive Plan and also for comparison. Dwgs. Dwg. Literature.
COLOR CODE: STATE LAND PARCELS
- TO BE ACQUIRED
- TO BE RETAINED

COLOR CODE: COUNTY LAND PARCELS
- TRANSFERRED FROM STATE & OTHERS
- FOR AGRICULTURAL USE
- FOR GENERAL AVIATION USE
- FOR NON-AVIATION COMMERCIAL USE
- FOR PUBLIC USE — PARKING, ETC.

ALTERNATIVE AIRPORT II
COMPREHENSIVE PLAN
The alignment of either alternative may be altered slightly (to a more nearly north/south orientation) by locating the northerly end of the runway somewhat farther from the shoreline closer to the terminal. However, this would have the effect of somewhat increasing the noise levels at the terminal, in Hanamaulu and at Hanamaulu Beach Park. The alignment of alternative II (only) can be altered, alternatively, or to a greater degree, by locating the southerly end of its runway somewhat farther makai from the “Vortac.” This would slightly increase noise levels in Hanamaulu but significantly reduce them (under Kona wind conditions) in the Kauai Surf area. Other alignments would be made possible by relocating the “Vortac,” but this does not appear to be worth doing because the alignment of the airstrip of alternative II offers to be very nearly ideal as shown.

A level airstrip at an elevation of about ninety or one hundred feet above sea-level is practical at any of these alignments and each of them conforms more nearly with existing contours than does the Department of Transportation's north/south runway. The airport apron, about twenty-five feet higher and two thousand feet away from the northern end of the airstrip, is joined to it by a taxiway (or as an option, two parallel taxiways). An optional second taxiway is shown on the alternative II
drawing and (though optional as a taxiway) its prime function is to serve a future general aviation area. The CFR unit should be located in the vicinity of the intersection of this runway and the new airstrip.

A study of acceptable noise levels will have to be made before a choice can realistically be made from among the possible choices of alignment offered by these alternatives. Alternative I would only be acceptable if the 25 NEF contour (under Kona wind conditions) were somewhat less than three-quarters the magnitude of the 25 NEF contour of the Peak, Marvin, Mitchell and Company's proposal. This is conceivable in that the magnitude of the traffic and of the planes using the airport is much greater with that proposal. The NEF contours shown on alternatives I drawings are drawn at 75% of the NEF contours of the Peak, Marvin, Mitchell and Company's Exhibit J.

Sec. Dwg. Nos. 4 and 5, Alternative Airport 1995 Noise Exposure Forecast Contours: Trade and Kona Wind Conditions. See also PMMs Exhibit J, following.

The NEF contours shown for alternative II (refer back to Dwg. No. 3) are drawn at 100% of the contours of PMMs Exhibit J, and are accordingly almost certainly too great.
Alternative II is probably fully acceptable as to noise characteristics. The NEF of alternative II are shown relative to a curved, five mile radius flight path for interisland aircraft, and a straighter, off-shore flight path for tour planes or other north, west or south bound planes. Over-water flights should be the standard mode of operation for all planes locally to the fullest extent that such is feasible. It should be entirely feasible for most local flying.

The curved flight path merely reflects reasonable expectations. If the NEF contours were drawn relative to straight flight paths the differences would be insignificant. To the north, somewhat more shoreline and adjacent land would fall within the curves. Some portion of the Wailua Golf Course and an industrial operation might fall within the 25 NEF contour, but no additional residences would. To the south, a larger portion of seldom-frequented, almost inaccessible, mountainous, seacoast terrain would fall within the 25 NEF contour — and that only during Kona wind conditions.
Until the new airstrip is completed, no changes would be made of the existing airport other than connecting the runway (or runways) between the new and existing runways. Upon completion of the new airstrip, the airport (alternative illustrated) would have the configuration shown in Dwg. No. 6. Both airstrips would be operable.

See Dwg. No. 6, Alternative Airport - Plot Plan - Transition Phase.
When the new airstrip is fully functional, use of the existing runway, as a runway, should be discontinued. No structural change is needed but the State should divest itself of portions of the existing airport land no longer needed for the State's interest in the airport.


This divestiture should consist of transferring this land to the County. The County, anticipating the probable future expansion of activity and/or growth at the terminal should acquire a few other parcels of land adjacent to the airport terminal to complement these transferred parcels. These parcels and their disposition are shown on Dwg. No. 8:

Drawings numbers 7 and 8 show a suggested location of a possible future bike path. Though not part of this proposal, this bike path is germane to the airport. Bicycles are becoming a more important part of our transportation scene, and are particularly appropriate for our small island, scarcely a hundred miles in circumference. Lihue is very accessible from the airport by bicycle, but because of intervening hills, neither Nawiliwili nor Wailua, though close, are as accessible as they should be. The path shown loses about one hundred feet of elevation in about twenty-thousand feet at a fairly constant slope in going from the airport to Nawiliwili. It is probably a bit steeper than that going in the other direction, from the airport northerly, following an abandoned railroad grade. The railroad grade is still there and in good condition. A railroad bridge which crosses Hanamaulu Stream and the road to Hanamaulu Beach Park appears to be in usable condition. This bike path, quite apart from being a considerable asset in its own right, would expedite access to both Nawiliwili and Wailua, both tourist destination areas, from the airport and Lihue to non-motorists.

However, its pertinence to this airport is its possible value in controlling drainage. If the bike path
is designed to serve also as a levee to impound
runoff waters the drainage problem for the
airport could be considerably simplified and
the quality of the ocean waters completely
protected. From a more than casual knowledge
of the area, I would say that waters impounded
by the embankment would not stand long
enough to kill the vegetation temporarily
submerged.
## Financial Estimate

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For comparison with the net State cost for Phase I of $29,687,571, the combined cost (net) of $25,383,050 to State, and County is $324,000.
### COORDINATION DRAFT

**FINANCIAL EXHIBIT 2**

**ANALYSIS OF PHASE I PROJECT COSTS**

**Lilburn Airport**

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Note:
- **a.** Table 18.
- **b.** Gross Project Cost reflects the escalation of construction costs at 10% per year between 1975 and the anticipated year of construction.
- **c.** ADAP assumes 80% federal funding for high intensity lighting and 100% for ILS, 50% for all other eligible projects.
February 3, 1976
Our 30th Year

Rear Admiral E. Alvey Wright, USN (Ret.)
Director
State of Hawaii
Department of Transportation
Airports Division
Honolulu International Airport
Honolulu, Hawaii 96819

LIHUE AIRPORT DEVELOPMENT

Aloha Airlines, Inc. fully supports your planned improvements to the Lihue Airport.

Management personnel from Aloha Airlines attended a public hearing held at the Lihue Public Library on December 18, 1975. At this meeting there was opposition by other parties to the need for the construction of a new north/south runway.

It is the opinion of Aloha Airlines that priority be placed on the construction of a new north/south runway at the Lihue Airport. A study of the existing airfield requirements reveals certain limitations that adversely affect our present operation. These limitations are summarized as follows:

- Due to the normal tradewind condition in the Hawaiian Islands, the primary runway direction for both takeoff and landing at the Lihue Airport is Runway 03. Because of this, considerable objectionable noise is experienced at Kauai High School and the adjacent residential areas. In order to help alleviate this noise problem, both Aloha and Hawaiian Air agreed to avoid the school as much as possible by changing their flight profile on the approach, which required a change in our standard operating procedure.
Turbojet aircraft must be stabilized both in air speed and rate of descent as early as possible on any approach. The stabilized approach is particularly essential when landing on Runway 03 at Lihue due to the physical limitations of the runway and the circling nature of the approach. The limitations include runway length of 6,000 feet, the width of 100 feet, and a downhill slope of 1.15% which require that pilots must be stabilized in an approach configuration at the earliest time in order to land with the greatest degree of safety.

The approach and landing on Runway 03 becomes more critical under IFR conditions. Due to the mountain range four miles southwest of the airport, it has not been possible to install a precision type approach (ILS); and in consequence, a non-precision type approach must be made followed by a circling maneuver to the runway. By reason of this type of non-precision approach, the minimum weather conditions for air carrier aircraft operating into the Lihue Airport are more restrictive than other airports and, at times, limits our frequency of service to the disadvantage of the public.

The 100-foot runway width is below the normal standard of 150 feet.

The parallel taxiway to the single runway is 200 feet from the runway; which is considered too near the runway, particularly if landing under adverse crosswind conditions.

Due to the length of only 6,000 feet of the existing runway, it is necessary to restrict payloads out of the Lihue Airport under certain weather conditions.

The straight-in overwater approach that could be achieved with the new north/south runway alignment would not only alleviate the major noise problem at Lihue but would also make a precision-type approach available which would improve the frequency of traffic under any adverse weather conditions.

Your new proposed north/south runway at Lihue Airport would remedy the limitations associated with the present runway and would assist Aloha by removing restrictions in payload and assuring a satisfactory level of service to the public in compliance to our Certificate of Public Convenience of Necessity.
It is, therefore, recommended that construction of the new north/south runway at the Lihue Airport be commenced at the earliest time.

P. N. ECONOMOU

cc: K. Char
    F. Der Yuen
    O. Miyamoto
    J. Williamson
Mrs. Bruce Adams
R. R. No
DIRECTOR'S OFFICE
Koloa, Kauai, Hawaii 96756

Mr. & Mrs. Wright  JAN 30 12 5:48 PM-784, 1974
Dpt. of Transportation
HONOLULU, HAWAII

DEPT. OF TRANSPORTATION

Dear Mr. Wright,

Although the safety record for both Hawaiian Airlines and Aloha Air Lines has been excellent for so many years, I realize that their approach pattern to the Kauai airport is a dangerous one and that there could be an airplane accident.

I am glad that you and the department of transportation agreed to your thinking and that a new 5,000 foot north-south runway at the Kauai airport will be for interisland traffic only and not for commercial mainland planes.

I do not think more taxpayer money should be spent to enlarge the terminal at Kauai. Why was so much of the taxpayers' money spent not too long ago for enlarging Lihue's terminal?

The residents of Kauai need more parking space for their cars - not only for time-limited parking when picking up/seeing off friends, but when it is necessary to leave our cars in the parking area when we take a plane. All immediate access by the terminal is given over to rental car agencies, buses and stretch-out cars.

I believe the needs of the Kauai
People should come first as we pay the high plane fares compared to the cheap dates that tinured get.

Aloha,
Bee Adams
(Mrs. Burre)

Robert E. Adams
January 26, 1976
2905 Mokoli Street
Lihue, Hawaii  96766

Mr. E. Alvey Wright, Director
DEPARTMENT OF TRANSPORTATION
State of Hawaii
869 Punchbowl
Honolulu, Hawaii  96813

Dear Mr. Wright:

Thank you for coming to Lihue on December 18, 1975 and for giving the citizens of Kauai an opportunity to express themselves regarding the proposed Lihue Airport Development.

When I saw the list of some 45 items on one Environmental Impact Statement catalog, I was dumbfounded. At the hearing I was extremely concerned and tried to express myself, somewhat extemporaneously, in support of a more moderate approach to development out there. I was concerned that the north-south runway, which we in Lihue have dreamed of for so long as a possible solution to the problems of noise and safety, might get stricken from the list of reasonable and, in my view at least, necessary solutions. That it might become classified along with the remaining list of 40-odd items of construction as "nice to have, but not on Kauai", or "not really valid and too expensive at any price", or etc. I'm glad it wasn't.

By reading in the newspapers and by hearing what the current legislature is proposing, that the K-5 runway with its preferential-use concept of operation is going to be built, and that other items may be considered as the need arises, restores my faith in the planning process.
Thank you again for allowing me to express myself on the 18th and for keeping the possibility of our having a N-S runway at Lihue Airport alive.

Sincerely yours,

Bob Buell
Kupolo
January 22, 1976

Mr. E. Alvey Wright
State of Hawaii
Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Wright:

Hawaiian Airlines wishes to document its position regarding the planned improvements for Lihue Airport.

We strongly feel that in the sequence of events to take place in the upgrading of the Lihue Airport the construction of the North/South runway for this destination should be regarded as first priority. This runway is needed to satisfy the increase of airline traffic into and out of Kauai and we feel that the dependence on one runway at this location has outlived itself. As you are aware, the airport has been occasionally closed for emergency repairs, thus affecting community service to and from the island of Kauai.

Other factors involved are the safety and ecological aspects of the present runway, especially on arrivals of airline aircraft. The new runway will provide air traffic with a straight in overwater approach and with the availability of all necessary approach aids not now possible due to the terrain adjacent to the present runway.

Very truly yours,

L. D. Machado
Vice President
Operations

cc: John H. Magoon, Jr.
    Owen Miyamoto
January 21, 1976

Mr. Alvey Wright, Director
Department of Transportation
State of Hawaii
869 Punchbowl St.
Honolulu, Hawaii 96813

Dear Sir:

RE: Lihue Airport North-South Runway & New Airport Terminal and Facilities.

I hereby concur with the plans for development of the North South runway, for reasons of safety and abatement of noise pollution to the residents and business of Lihue.

Safety standards cannot be compromised. Especially when winds shift to a south or south westerly direction. Take offs directly headed towards the mountains (Haupu Range) is not only hazardous to the passengers but down right dangerous under adverse weather conditions. Especially with the larger planes that are being used by Hawaiian Airlines.

The steep-turn approach of the present runway is indeed a hazardous manoeuvres. Noise pollution to the residents and businesses within the present flight path is annoying but of more importance, it might be injurious to the health and Welfare of the people affected.

Kauai High School and Kauai Community College with a total of approximately 1,300 students are affected by the noise of the planes in the landing pattern and their classes are disrupted at least 13 times a day.

A new airport terminal is and was a necessity as of yesterday. The waiting or holding "pens" are a disgrace. The baggage claiming area is horrible. The terminal is crowded and cramped.
The plans as proposed for the new runway should be approved as planned with acquisition of lands and designation as air corridor the unimproved south end of the proposed runway.

I suggest that the plans and land acquisition include adequate acreage for future expansion. The present Honolulu International Airport as well as all airports within the State, with the exception of Keahou Airport, were obsolete even before construction were finished. Please do not let this happen to us again.

Think big, think for the future. Think for the generations to come, at least for the next 20 years.

Respectfully yours,

[Signature]

TURK TOKITA
P.O. Box 1047
Lihue, Kauai, Hawaii 96766
January 19, 1976

Mr. Owen Miyamoto, Chief
Airports Division
Honolulu International Airport
Honolulu, Hawaii 96819

Dear Mr. Miyamoto:

We have reviewed the following documents:

Environmental Impact Assessment Report (EIAR)
Lihue Airport Master Plan Study
(Feat, Warwick, Mitchell & Co.)

Inventory and Initial Analysis of Environmental
Conditions and Concerns -- Lihue Airport Master Plan
(Environmental Communications Inc.)

Our comments are enclosed and, as is our normal custom, we reviewed only those portions pertaining to air quality impact. Comments are keyed to specific pages, tables, figures, etc. of the EIAR. Since the second listed report was the principal source of information presented in the EIAR, our comments are equally applicable to it.

In the simplest possible terms, we can only say that the assessment of air quality impact leaves much to be desired. There are so many errors both in methodology and mathematics that the air quality impact of the proposed development of Lihue Airport quite truly remains an unknown quantity.

Thank you for the opportunity of reviewing these documents. If we may be of any further assistance in assessing the air quality impact, please feel free to call on us.

Sincerely yours,

[Signature]

James W. Morrow, Director
Environmental Health

cc: Dr. Richard E. Marland, OEQC

Christmas Seals Fight TB, Asthma, Emphysema, Air Pollution
AMERICAN LUNG ASSOCIATION of Hawaii

ENVIRONMENTAL IMPACT ASSESSMENT REPORT (Eiar) REVIEW

Eiar: Lihue Airport Master Plan Study

1. Methodology: Although the EPA publication APTD-1470 is cited as the source of the methodology (p. V-22), the following important aspects covered in APTD-1470 were not addressed in the Eiar:
   a. Emissions from airport service vehicles.
   b. Emissions from fuel storage and handling.
   c. Gate times and emissions from auxiliary power units (APU).
   d. Emissions from new, outside sources that were induced by airport development.
   e. Diurnal variation in emissions.
   f. Meteorological and air pollution potential analysis.

2. Table V-6:

   a. DC-10 - The Approach emission factor (EF) for CO is wrong and thus the Total EF is also wrong. Approach EF should be 6.32 and the Total EF 140.7.

   b. 2-Engine Turboprop -

   (1) The Approach EF for CO is wrong. The decimal point should be one place to the left (.387).

   (2) More importantly, the wrong engine was used. The calculations indicate that the modal EF's for an Aircraft TPE-331 (general aviation turboprop) as shown in Table 3.2.1-4 of EPA publication AP-42 were used although the example aircraft (FA-27) shown in Table V-4 of the Eiar is powered by a Rolls Royce Dart MK 532-7R engine. This resulted in an underestimation of emissions.

*It is assumed that this is one of Fairchild's F-27 series since Jane's All the World's Aircraft lists no 2-engine turboprop called FA-27.

Christmas Seals Fight TB, Asthma, Emphysema, Air Pollution
c. 4-Engine Piston - The wrong engine was used. The calculations indicate that modal EF's for a Teledyne-Continental O-200 (general aviation piston) as shown in Table 3.2.1-4 of AP-42 were used. The example aircraft (Heron and C-54) from Table V-4 of the EIA R are powered by Lycoming 10-540-6IA5L and Pratt & Whitney R-2000C engines, respectively. This resulted in an underestimation of emissions.

d. 2-Engine Piston - The wrong engine was used. The calculations indicate that modal EF's for a Lycoming 0-320 (general aviation piston) as shown in Table 3.2.1-4 of AP-42 were used. The example aircraft (Dove, Twin Beech, and Cessna 310) from Table V-4 of the EIA R are powered by British Siddeley Gypsy Queen 70, Lycoming 16-50-540, and Continental TS-10-200B engines, respectively. This resulted in an underestimation of emissions.

e. Helicopters - The Total EF's all seem slightly low. Since AP-42 is the cited source and it gives no modal emission factors for helicopters we wonder from what source the modal EF's were derived.

3. Table V-7:

a. The emissions values for DC-10, 2-engine turboprop, 4-engine piston, 2-engine piston aircraft and helicopters are wrong because of the errors in Table V-6 noted above.

b. All the emissions values in the Table are in error by a factor of 2 because they were calculated on the basis of operations instead of LTO's (1 LTO = 2 ops).

4. Page V-30:

a. To our knowledge, the abbreviation "mg-ug" does not exist. Millimicrograms are more commonly called nanograms (10^{-9}g) and the abbreviation is ng. The equation used to calculate hourly values in terms of "mg-ug/m^3" is based on the unrealistic and invalid assumption that 80% of the LTO emissions are instantaneously and uniformly dispersed throughout the 1.89 x 10^{-10}m^3. If one examines the modal emission factors in AP-42, it is clear that most of the CO and HC emissions (as much as 98% for some engines) occur when the aircraft is on the ground. NOx emissions, on the other hand occur predominantly in the air; thus, at least two separate analyses would be required to correctly assess the impact on ambient air quality.

b. Emissions are not normally expressed in terms of weight per unit volume per hour, e.g., mg-ug/m^3 per hour. Expressions of weight per unit volume, e.g., mg/m^3, are used with ambient concentrations. Emissions are normally expressed as weight per unit time, e.g., lbs/hr or tons/yr.
c. The calculated hourly values do not "describe a situation of worst possible conditions" principally because of the unrealistic assumption that instantaneous, uniform dispersion occurs throughout the $1.89 \times 10^{10} \text{m}^3$. If that assumption were valid, the situation would be one of most favorable meteorology.

5. Table V-5:

a. All the values are wrong because of the errors in Tables V-6 and V-7 and on page V-30, as noted above.

b. There are additional errors in all the values listed under the columns titled "Gross/hr (mg-ug/m$^3$)." For example:

CO (1974):  \[ \frac{3523 \text{ lb/da} \times .8 \times 454 \times 10^9 \text{ milligrams (ng) / lb}}{16 \text{ hr/da} \times 1.89 \times 10^{10} \text{m}^3} \]

\[ = \frac{12.79 \times 10^{14}}{30.24 \times 10^{10}} = 4,230 \text{ milligrams (ng) / m}^3 \]

or \[ = .00423 \text{ mg/m}^3 \]

(compared to the listed value of 0.21 ng/m$^3$ in Table V-5)

HC (1980):  \[ \frac{521 \text{ lb/da} \times .8 \times 454 \times 10^9 \text{ ng/lb}}{16 \text{ hr/da} \times 1.89 \times 10^{10} \text{ m}^3} \]

\[ = \frac{18.92 \times 10^{13}}{30.24 \times 10^{10}} = 626 \text{ ng/m}^3 \]

(compared to the listed value of 3.04 in Table V-5)

NOx (1995):  \[ \frac{9,025 \text{ lb/da} \times .8 \times 454 \times 10^9 \text{ ng/lb}}{16 \text{ hr/da} \times 1.89 \times 10^{10} \text{ m}^3} \]

\[ = \frac{32.78 \times 10^{14}}{30.24 \times 10^{10}} = 10,839 \text{ ng/m}^3 \]

(compared to the listed value of 52.64 in Table V-5)

The CO values are consistently overestimated by a factor of 49.6, and the HC and NOx values are underestimated by a factor of 206.

6. Table V-11:

a. It is evident that the average EF's presented in Table V-11 were not calculated by the methods described in the reference (AP-42). The following method appears to have been employed:
Pre-1974

\[ \overline{\text{EF}}_{1974}^{30} = 0.675 \frac{\sum \text{EF}_{1974}^p}{n} \]

Where:
- \( \overline{\text{EF}}_{1974}^{30} \) - The average EF for pollutant \( p \) for highway vehicles at 30 mph during and before 1974.
- 0.675 - A constant speed correction factor (30 mph) for CO taken from Fig. 3.1.1-1 in AP-42 (2d Ed.) with Supplements 1 & 2.
- \( n \) - The number of \( \text{EF}_{1974}^p \) summed in the equation.
- \( \text{EF}_{1974}^p \) - The pollutant, e.g., CO, HC, or NOx.

For example:
\[ \overline{\text{EF}}_{1974}^{30} = \frac{0.675 (4.8 + 5.3 + 5.4 + 5.4 + 5.4 + 5.2)}{6} \]

\[ = 0.675 (5.25) = 3.54 \] (same as Table V-11)

A similar method was employed in calculating post-1974 EF's, and a check of the values in Table V-11 reveals that they were all computed in this manner. The problem in using this method is that the average EF's for each year presented in Table 3.1.1-1 of AP-42 already take into account the mix of old and new vehicles on the road in a given year. By averaging the Table 3.1.1-1 values a significant error is introduced. And not only is the overall method incorrect, but there are additional errors within it. For example, only the speed correction factor for CO was applied even though there are different speed correction factors for HC and NOx. Furthermore, no account was taken of HC emissions from the crankcase and evaporation. (Copies of Table 3.1.1-1 and Fig. 3.1.1-1 from AP-42 are attached.)

b. The reference cited (AP-42 with Supplements 1 & 2) has been succeeded by Supplement 5 which presents a major revision to the method of calculating EF's and incorporates the March, 1975 changes in vehicle emission standards.

7. Table V-10: The values in V-10 are incorrect not only due to the errors carried over from Table V-11 but also due to another error which apparently occurred in the conversion of grams to pounds. As a result, the values listed are underestimated by an additional factor of 4.86.

8. Table V-12: All the values are wrong because of the errors previously noted in Tables V-5, V-6, V-7, V-10, and V-11.
9. Exhibits M, N, and O: These exhibits are all wrong because they are based on the erroneous data in Tables V-5, V-10, and V-12.

10. Page V-41: In contradiction to the statement that "hourly aircraft emission can be directly compared to the air quality standards," it must be pointed out that both Federal and State standards are ambient air quality standards measured in mg/m³ or ug/m³ over given averaging periods as shown in Tables V-13 and V-14 of the EIA R. They are not emission standards. As discussed earlier (Comment 4), the expression of emissions as mg-ug/m³ per hour as done in the EIA R is incorrect; thus, any conclusions drawn from such data are invalid.

11. Page V-44: Due to the large number of errors in both methodology and mathematics already noted, no valid conclusions regarding air quality impact can be drawn. The impact of the proposed expansion of Lihue Airport remains unidentified and unquantified.

REFERENCES


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*Based on sections 3.1.2, 3.1.4, and 3.1.5 and on References 2 through 4.

**NOTE:** This table reflects interim standards promulgated by the EPA Administrator on April 11, 1973, and in July 1973.
NOTE: CURVES DEVELOPED FROM TESTS OF PRE-1968 (UNCONTROLLED) VEHICLES. RECENT TESTS INDICATE THEIR APPROXIMATE APPLICABILITY TO CONTROLLED VEHICLES INCLUDING THOSE EQUIPPED WITH CATALYTIC DEVICES. UPDATED CURVES ARE PLANNED IN FUTURE ADDITIONS TO THIS DOCUMENT.

Figure 3.1.1-1. Average speed correction factors for all model years. 5-7
American Lung Association
of Hawaii
245 North Kuolani Street
Honolulu, Hawaii 96817

Gentlemen:

Subject: Lihue Airport Master Plan Study
Project No. 6-6

Thank you for your letter responding to the Environmental Impact Assessment Report (EIAK) for Lihue Airport Master Plan Study. We appreciate your concern and interest in the matter relating to the air quality portion of the report. Your comments were referred to our consultants, Peat, Marwick, Mitchell & Co. and Environmental Communications, Inc., and they have provided us with their response.

Several salient points were raised in the Association's review, some of which were corrected in the text. However, one basic issue is the methodology. It must be emphasized that although publications such as EPA APTD-1470 "An Air Pollution Impact Methodology for Airports - Phase I" are available, there is no universal acceptance of methods in preparing Environmental Impact Assessment Reports (EIAR). This creates problems within the scientific community and confuses the general public because "experts" are constantly contradicting each other. Unfortunately, quantitative tools to perform the necessary analyses in evaluating the effects on the environment are not available at this time. However, if the original intention of an Environmental Impact Statement as dictated by NEPA 1969 is followed, much of this confusion could be eliminated. The complexities of the problem are such that necessary resolutions are intractable. An EIAR should be used as a guide for planning developments which would aid in minimizing undesirable environmental effects and should not be used as absolute solutions.
Specific dispositions to the Association's comments are as follows:

1. Methodology

(See comments in previous section). The Association is technically correct in not addressing (a) through (f) as components to the total summation in the EIAR. The publication EPA APTD-1470 stresses that the methodology is for "major commercial airports" and Lihue Airport is far from that consideration. For example, auxiliary power units (c) are seldom used, if at all, and emissions from fuel storage and handling (b) are minimal since most fueling is done at the main facility at Honolulu. Except for baggage services, most of the other ground services (a) are done at the main facility in Honolulu. Baggage service itself is generally either motionless or idle and thereby emission contribution is minimal.

Emissions from new outside sources (d) were not taken into account due to the lack of relevant data. However, diurnal variation in emissions (e) was somewhat accounted in the aircraft emissions methodology by taking only 16 hours as the actual use of the airport instead of 24 hours.

Meteorological and air pollution potential analysis (f) was also ignored since climatological diffusion parameters are not available. These parameters can only be achieved by an on-site data program since the meteorology for each site is different. The reason being that the complex interaction of the synoptic winds (trade winds) and the local winds (slope and land-sea), in addition to the localized terrain features, varies at each site.

Although these contributors are desirable for a more realistic estimate, the nature of the airport and the scope of the work should be considered. The report covered the two highest contributors, aircraft and access traffic. Although all airports are different, two examples given in APTC-1470, O'Hare and St. Louis Airport, indicated that the combined aircraft and access traffic contribution for CO was 77% to 94%, respectively. Thus, for Lihue Airport, which is a limited use airport, the secondary emission contributors are even more minimal. Since the "worse conditions" are assessed and the above contributors are minimal, the analysis is sufficient.
2. **Table V-6**

   a. **DC-10** - Corrected in text.

   b. **2-Engine Turboprop** -

      (1) This error appears to be typographical since it is not reflected in the total.

      (2) Emission factors for general aviation turboprop were used since there are no emission data for Rolls Royce Dart HK 532-7R engine.

   c. **4-Engine Piston** - There are no emission values for engines in the review from AP-42. Since the emission factors are average estimates, the general aviation data from the central reference of AP-42 were used.

   d. **2-Engine Piston** - Same as c.

   e. **Helicopters** - Nodal emission factors for helicopters are not available from AP-42. However, Table 3.2.1-3, Emission Factors Per Aircraft Landing Takeoff Cycle, indicates that the emissions from Helicopters are very similar to general aviation turboprop. Thereby, emission factors for general aviation turboprop were substituted for helicopters.

3. **Table V-7**

   a. Values corrected in text.

   b. The reviewer is confused with the terminologies of operations and Landing Takeoff Cycle. Table V-6 shows the modes of taxi-idle, takeoff, climbout and approach. For simplicity of calculations, the taxi-idle mode for ground operation was combined with taxi-idle of the flight operation. This is obvious in the table where, for example, 94% of the CO emission for DC-10 is in the taxi-idle mode. Also the approach mode is part of the flight operation.
American Lung Association of Hawaii
Page 4
June 4, 1976

4. Page V-30

a. Use of term milli-microgram.

"Mg-ug" is not intended as an abbreviation for
milli-microgram but for milligram and microgram
since they are the units used to describe ambient
air quality standards. The units for all standards
are in micrograms per cubic meter except for CO
which is in milli-grams per cubic meter.

The values in Table V-5 were re-evaluated to
eliminate the 80% of LTO emissions.

b. Units of Emissions - Emission values were expressed
in both lbs./day and ug/m^3 as shown in Table
V-5. The latter units are converted in order to
have a basis of comparing emission values directly
with ambient air quality standards.

c. "Describe a situation of worst possible conditions" -
We agree with the Association that the assumption
of instantaneous and uniform dispersion occurring
within the confinement of the box is unrealistic.
In air pollution control, the extreme values are
of significant interest since they define the
limits of the problem. Thereby, if the computed
results are within the ambient air quality standards
using this unrealistic assumption, it can be
assumed with a high degree of confidence that with
the given conditions the emissions will not exceed
the standards.

5. Table V-5

a. Values were recalculated and corrected in text.

b. Same as (a). Also, the overestimated factor for
CO and underestimated factor for HC and NOx are
exaggerated since the weight conversion is to
micrograms and not nanograms.

6. Table V-11

a. Values are corrected in text.

b. Supplement 5 is dated December 5, 1975, and was
issued in February 1976. The report was prepared
in March 1975, and thereby Supplement 5 was not
available at the time of the writing.
American Lung Association of Hawaii  
June 4, 1976

7. **Table V-10**  
   Table corrected.

8. **Table V-12**  
   Table corrected.

9. **Exhibit H, N, and O**  
   Exhibits corrected.

10. **Page V-41**  
    Since ambient air quality standards are established, comparison of emission values can only be made if the emission values are converted to the units used for the standards. See note 4(a).

11. **Page V-44**  
    The methodology has been defended and the mathematical errors have been corrected.

    Again, thank you for assisting us in this program.

    Very truly yours,

    [Signature]

    OWEN MIYAKOTO
    Chief, Airports Division

cc: Peat, Marwick, Mitchell & Co. (J. Sanders)
January 7, 1976

Admiral E. Alvey Wright
Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Admiral Wright:

Subject: Lihue Airport Environmental Impact Statement and Master Plan

The following is a summary of comments that I made at the December 18, 1975 public hearing for the Lihue Airport environmental impact statement and master plan:

**Financing of Airport Improvements**

Capital improvements at airports operated by the State of Hawaii are financed through the Airport Special Fund. Revenues for this Fund are obtained from airport users through landing fees, rentals, concession profits and other fees and charges established by the Department of Transportation. Federal-aid for eligible improvements is anticipated for the Lihue project from the proposed extension of the Airport and Airways Development Act which obtains its funds from taxes on airline tickets, cargo waybills, general aviation and other civil aviation activities.

To finance the State's share for a major undertaking, such as Lihue Airport, airport revenue bonds are planned to be sold with debt service to be repaid from the Airport Special Fund. It is expected that landing fees will increase to meet this additional financial burden.
However, the increased fees are not expected to have a significant impact on airline operating costs. In a December issue of Airport Highlights by the Airport Operators Council International, it was reported that landing fees represent only two to three percent of the airlines operating costs. The largest cost items to the airlines are fuel and labor.

**Microwave Landing System (MLS)**

The Department of Transportation has been following closely the development of a standard MLS that the FAA expects to adopt as a system standard. We agree that the MLS has excellent potential for an improved ILS without the problems of existing equipment. The proposed use of curved and steep approaches could give major noise relief to communities under landing flight paths such as the Ewa Beach area which is in the approach to Runway 8 at Honolulu International Airport.

We are also aware that the FAA has adopted an interim MLS for civil aviation and units are in operation at some airports. It is our understanding that the MLS was adopted for these airports because terrain restrictions made the standard ILS infeasible. MLS are also used by the U. S. Navy on aircraft carriers to meet the special requirements of that type of operation.

MLS for the existing runway is not considered an acceptable solution to the noise problems of Runway 3 at Lihue Airport. If a curved path for approach could be approved, the final glide path before touchdown would still be over the high school and other noise sensitive areas. It is doubtful that sufficient terrain clearance could be achieved for IFR operations even with a curved, steep approach.

Acceptance of a curved IFR landing procedure will probably be very difficult to develop for acceptance by airline pilots. The proposed two segment approach which would have resulted in substantial noise relief was firmly rejected by the Air Lines Pilots Association. Based on this experience, the FAA will probably have a difficult task to convince the pilots to accept a curved, steep approach that is possible with MLS.
Quieter Aircraft

The Department is also aware of the theoretical advantages of turboprop aircraft in terms of fuel efficiency and lower noise levels. This has been offset by higher maintenance costs of propellers and gearbox and passenger preference for the faster and lower vibration turbofan aircraft which both inter-island airlines use.

To reduce maintenance costs, the carriers have standardized their fleets to a single type aircraft, and it is doubtful that they would select a special aircraft to fit the particular requirements of Lihue Airport.

Passengers have also resisted use of aircraft in the under 12,500 pound category as a replacement for larger aircraft. For the large-volume group tours aircraft with higher seating capacities are needed for the Lihue market.

Very truly yours,

Owen Miyamoto
Chief, Airports Division
Sirs:

I am writing in reference to the airport proposal. Due to the number of testimonies given at the public hearing, I am submitting mine in writing.

Reactions to the proposal are based on my belief that such a facility would stimulate, rather than meet, development demand. Being a retail manager at Coconut Plantation Market Place, I deal with a great number of tourists. Many of these visitors have expressed their concern for the future development of Maui and their hopes that the Garden Island will not be exploited as Oahu and Maui have. Their reason for coming here is that Maui is not over-developed. We still have beautiful, uncrowded beaches, valleys, coastlines and mountains.

Because of the recent airline strikes, I have observed a great decrease in business. I feel that this is a good example of the drawbacks involved in our growing dependency on the tourist industry. We should develop more
Self-sufficient Alternatives

The present needs of our own population should be met first. Before building more hotels and a larger airport, we could expend energy toward reasonable housing, education and basic living requirements.

I feel if this proposal is passed the people of Hawaii will have to meet the additional problems of over-population. This is an island with limited space — a space that should belong to the people who live here.

The problems with our present airport could be solved in a more economical and ecological manner.

[Signature]

P.O. # 736
Kapaa, Kauai.
NOTICE CONCERNING PUBLIC STATEMENTS ON
PROPOSED AIRPORT DEVELOPMENT

at
Lihue Airport
Lihue, Kauai, Hawaii

PUBLIC HEARING - An open public hearing on the
proposed airport development was held on December 18,
1975, at the Kauai Public Library, Lihue, Kauai, Hawaii.
Persons present and desiring to do so were afforded the
opportunity to present written or oral views (whether in
favor of, in opposition to, or by way of proposed revision
of the proposed airport development).

SIGNED STATEMENTS - The legal notice for the
public hearing, published in the Garden Island and
Honolulu Advertiser on November 12 and 17, 1975, re-
quested parties unable or desiring not to appear at the
public hearing to file signed statements presenting their
views on the project by January 2, 1976. The deadline for
submitting signed statements has now been extended to
February 4, 1976. Such statements should be addressed
to: Director; Department of Transportation; 869
Punchbowl Street; Honolulu, Hawaii, 96813.

E. ALVEY WRIGHT
Director
Department of Transportation
State of Hawaii

(December 31, 1975)

Published in "Garden Island"
December 31, 1975
LEGAL NOTICE

NOTICE CONCERNING PUBLIC STATEMENTS ON PROPOSED AIRPORT DEVELOPMENT

Lihue Airport
Lihue, Kauai, Hawaii

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SIGNED STATEMENTS — The legal notice for the public hearing, published in the Garden Island and Honolulu Advertiser on November 12 and 17, 1976, requested parties unable or desiring not to appear at the public hearing to file signed statements presenting their views on the project by January 2, 1976. The deadline for submitting signed statements has now been extended to February 4, 1976. Such statements should be addressed to: Director; Department of Transportation; 869 Punchbowl Street; Honolulu, Hawaii 96813.

E. ALVEY WRIGHT
Director
Department of Transportation
State of Hawaii
State Transportation Director E. Alvey Wright said his department will revise its proposed plans for Lihue Airport expansion as a result of testimony obtained at the public hearing in Lihue Dec. 18.

"As a result of the comments received at that hearing," Wright said, "we will review the predicted traffic forecasts to reflect the expressed desires to limit growth on Kauai.

"We do not believe a substantial change in the first phase development will be anticipated as a result of changes in traffic estimates. Land requirements will be reviewed for possible lesser title interests in lieu of fee simple acquisition. Avigation easements or purchase of development rights or zoning are alternative actions to be considered."

Wright said that airfield requirements on the master plan for the airport will provide only a 6,500-foot north-south runway for inter-island traffic. Construction of a longer runway is uncertain at this time and will not be included in the master plan to prevent any confusion as to planned development.

Cost figures also will be revised to eliminate any mention of future construction except that which is anticipated in the first phase development, he added.

"Sufficient testimony was introduced to obtain the guidance of the public and action is already being taken thereon as indicated in the above changes in the Lihue Airport planning," Wright said.

"Therefore, another hearing is not required but the deadline for written comments will be extended from the original deadline of Jan. 7, 1976, to Feb. 4, 1976, and additional written testimony will be
Mr. E. Alvey Wright, Director  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813  

Dear Sirs:

Every day, fifteen times a day, a jet airplane flies over Kauai High School between the hours of 7:00 a.m. and 3:00 p.m.

ORAL COMMUNICATION CEASE

When these powerful jets fly overhead, all oral instructions and conversations cease because nothing can be heard! Time is lost; continuity suffers.

HEARING LOSS BY STUDENTS

With each jet, each student is subjected to 15 to 25 seconds of thunderous roar. Surely the students and adults must be suffering from a gradual hearing loss from this pollution, being subjected to it 180 days a year, over a four to six years period.

SAFETY OF STUDENTS

Our greatest concern, however, is the daily threat to the physical safety of the 1,400 students and adults congregated on the campus. The Kauai High School campus is directly below the landing patterns of the jet aircrafts. A human or mechanical error overhead would immediately jeopardize the lives of hundreds of students and adults.

Thus, Kauai High School strongly supports the construction of a North-South runway at Lihue Airport.

Sincerely,

[Signature]

Mr. Kosho Kojima  
Principal

YK:cc
UNIVERSITY OF HAWAII · KAUA'I COMMUNITY COLLEGE

December 18, 1975

Department of Transportation's Public Hearing
on Proposed Changes at Lihue Airport

The present flight pattern of the airplanes utilizing the existing runway at Lihue Airport causes planes to fly directly over the college creating excessive noise which interrupts the instructional program at the college.

The college has not made any extensive study on the amount of instructional time lost but the amount is considerable.

The competitive airline schedule at times sends two planes, one following the other, into Lihue Airport which causes a double interruption in the instructional period.

Whatever can be done to alleviate the noise level will be beneficial not only to the students and instructors of the college but to those who occupy these facilities when the college is moved to Puhi.

Sincerely,

Edward T. White
Provost

js
December 18, 1975

Mr. E. Alvey Wright, Director  
State Department of Transportation  
Hawaii State Capitol  
Honolulu, Hawaii

SUBJECT: LIHUE AIRPORT RUNWAY EXPANSION AND IMPROVEMENTS

Dear Mr. Wright:

The Kauai Visitor Industry Organization wishes to go on record in full support of the proposed airport expansion and improvements.

This program will benefit the entire island of Kauai, particularly in the area of agriculture as well as tourism — two important segments of the island’s economy.

In addition, and perhaps of greatest importance to those of us who must travel as part of our own business, the improved safety factor by having a longer runway will be the most adequate justification for this expansion program.

Please enter the support of the Kauai Visitor Industry Organization into the record of the Public Hearing on December 18, 1975.

Sincerely yours,

[Signature]

Walter J. Smith, Jr.  
President, KVIO

WJS:lyn
Reference C-18

Director of Transportation
McGraw Hill Street
Lihue, Kauai 96766

Subject: Coordination Draft, Airport Master Plan Study,
Lihue Airport.

December 14, 1975

Sir:

The Environmental Impact Assessment Report on the proposed development at Lihue Airport is inadequate and incomplete. There are too many problems left unattended and too many questions unanswered. The public has not been given enough information to take a sound stand on the proposal.

The report says there is flooding at the airport during peak rainfall because of poor drainage facilities. Additional paving and a new terminal complex will increase the area of impermeable surface and thereby increase storm water runoff. It is imperative that an overall drainage study be conducted involving State, County and private interests to solve the over-all drainage problem. It is admitted that siting of the ocean would be extremely difficult in control during concentration in high rainfall periods, but no real solution is offered.

Sewage disposal remains an unsolved problem. The present disposal system is inadequate and it violates the Federal and State water standards. The first phase treatment plant for Lihue, now being planned by the County, will boost capacity to 3.5 million gallons per day and will not have the capacity for treating waste from the airport complex. The second phase of the County plant would boost capacity to 4.7 million and it could handle the sewage from the airport through 1975 but no timetable has been set for the second phase.

An alternative to the County plant is construction of a separate sewage plant for the airport that would cost about $2.5 million, plus maintenance and operation costs of $100 to $150 thousand a year, so it is not recommended. What is recommended in the State and County officials discuss this problem. We don't know if or how it will be solved. Here the County's second phase sewage treatment plant may not handle the sewage treatment problem or the airport or where they planned to handle sewage due to population increase in Lihue and environs. Will the State and/or County have to pay for the airport sewage treatment?

The first phase of the airport sounds reasonable, except for the problems mentioned. However, as the plan for Phase II and III unfold, plans begin to give way to fantasy. Do we need an airport with two passenger terminals that will cost over $44 million dollars—nearly half the total cost of the whole complex? Do we need parking space for 17 air carrier aircraft; 50 for general aviation and two for air taxis? Do we need 1,000 public automobile parking spaces? Do we need an air taxi building with its own automobile parking area?
The study's projections on tourism on Maui, Table 11I-4, show 2,000,000 in 1975—nearly as many as the whole state had in 1975. Of these, it was estimated 25% or 650,000 would be Japanese tourists on 3-day sightseeing tours. The prediction of passenger volume at Lihue in 1975 is 6,250,000; 3,200,000 of whom would be tourists coming and going. That leaves 1,500,000 people traveling inter-island. Many of these would be tourists in the main that they would occupy tourist accommodations.

The population projections for the county of Kauai and Maui show an increase of 4,215 for each five-year period between 1970 and 1985. Extrapolating from the Planning Dept. figures, if this trend remains the same, the 1975 population should be 51,337. Census estimates they will carry 87,400 passengers annually to Kauai by 1970. What happens to a community of 51,337 when it is inundated with more than 2,000,000 tourists a year?

The study's forecasts on tourism were not based on official State estimates, but on discussions with sources in the State and County agencies, tourism organizations, and the airlines. Their assumptions are based on the following hopes for events: 1. Tourist growth rates will rise due to improvement of the economic situation in the U. S. during the second half of 1975. 2. Japan's inflationary economy will stabilize in 1975. 3. There will be no fuel price increases such as that in 1974; 4. A visitor tax will have little or no adverse effect on tourism.

The study hedged by saying air traffic forecasts for Lihue are based on projections of visitor projections which appear to be reasonable but should nevertheless be viewed with considerable caution because these forecasts are based on "intention to visit", not on actual figures. The air traffic forecasts are based on the assumption that high level visitor satisfaction with the State compared to other world destinations will be maintained; Kauai will continue to attract about 30% of the total tourists to the State; ratio of air passenger volume to visitor arrivals will level off to that experienced during the past few years in response to increased number of visit local visitors to the island (this means it is hoped more Japanese tourists will stop over instead of spending one day at a time). Sufficient visitor accommodations will be available in Kauai and on Kauai and the current economic environment in the U. S. and elsewhere will improve in the near future.

The County projections for tourist units by 1980 is 12,400 units but the Economic Dept. says probably only 75 to 80% will be built by 1975. In the study of the draft, Arndt, and Mitchell & Co. maps: "As evidenced by the visitor accommodations inventory, the most significant development of the visitor market is occurring on the eastern and northern coasts of Kauai—there is no evidence to suggest that this pattern will change significantly in the near future." I would like to suggest that 2,500,000 guest nights is a more realistic number and 100 rooms being occupied with the number of tourists who occupy them.
The study says the airport master plan is to accommodate forecast demand rather than to induce growth in order to grow the airport, which we believe is all this "pie in the sky" forecasting by the tourist industry and airlines. We will not encourage development or even make it seem necessary to develop.

The Inter-island airlines anticipate that by the 1990s the aircraft they will use will include L-717s and possibly new airliner-type aircraft, DC-10s, 1-101s and A-300s. This is to accommodate up to 500 passengers. This study says the runway should be adequate to accommodate forecast demand through 1995 and a runway of 6,500 ft. should accommodate B-727s and the Airbus aircraft.

The annual capacity of the present runway at Hilo is estimated to be 170,000 aircraft operations annually and the new north-south runway would increase the capacity to 210,000 operations. The rate of growth of annual aircraft operations is forecast to increase to only 92,000—about 50% of the annual capacity of either the existing runway or the proposed new runway.

The FAA criteria for the planning additional airfield facilities is when projected traffic levels reach 50% of annual airfield capacity, and Lihue is not forecast to reach this level until after 1995. What has happened here? Why aren't we talking about the airport size? The public hearing notice says we need 92,000 additional runways. The study reiterates the need for the new runway to extend the existing north-south runway to 10,500 ft. and the present runway to 6,500 ft. to accommodate non-stop flights from the mainland.

We already know the arguments the Dept. of Transporation will present—that they have no intention of bringing in non-stop overseas flights unless the demand is great enough to warrant them, but we are still talking about an airport plan, that if approved, will cause pollution for such flights. We are also talking about 400 million of Federal and State money and an untold amount of county money for the airport complex. We are talking about 22 years of construction with all the attendant noise, dust, water pollution and inconvenience. We are talking about future increased noise and air pollution, increased traffic and encouragement of more and more development for tourism. All of these would be based on predictions that otherwise could be completely wrong.

An environmental impact statement for an airport of this magnitude on Island should not be approved. The Dept. of Transportation and its consultants should rewrite the statement, working around the planned Phase I, and setting down the area of land acquisition. They should concentrate their efforts on solving the problems of access, drainage and flooding. Finally, I would like to say that I have in a glaring omission in the Environmental Impact Assessment. It is now required by the Federal and State governments that the Socio-Environmental effects of such a project be thoroughly discussed. The present statement does not even mention the subject.

Yours truly,

[Signature]

P.O. Box 206
Hilo, Hawaii 96724

For Life of the Land &
Garden Club, Hilo Branch
Reference C-19

December 16, 1975

Director of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Subject: Coordination Draft, Airport Master Plan Study,
Lihue Airport.

Sir,

In reading the Lihue Airport Master Plan Study it
appears that the Island of Kauai is in need of a major
financial, physical, and social impact. An improved airport is no doubt
a reasonable and hoped for event in the minds of most
Kauians. It does, however, stagger the mind when you try
to picture at Kauai airport the new passenger terminal seven
times the size of the present building, with a second level
concourse and loading bridges to aircraft parking aprons,
and the rest of the airport complex expanded in like
proportions. We must seriously consider the financing of such an
ambitious project.

The initial Phase I cost is estimated at 66 million
dollars. This cost could be substantially reduced if the
project were reworked to limit improvements to only the ex-
tent necessary for an adequate inter-island airport as befits
Kauai. Why spend 6 million dollars to purchase cane field
land in fee when continued agricultural zoning is compatible
with airport operations? Airport overflight does not bother
the cane.

Projected Phase II and Phase III expansions for anticipated
air traffic to Kauai by 1995 would bring the total
costs to 86 million dollars. If all this is implemented
where will the money come from and what is the benefit to
residents of Kauai?

Funds for financing airport capital improvements in
Hawaii are derived from Airport System Revenue Bonds, General
Obligation Bonds, cash surplus from airport revenues, and
federal grants-in-aid. It was optimistically noted in the
Lihue airport study that the federal government might provide
half or more of the cost, leaving State and local government
to come up with 20 to 30 million dollars for Phase I, and
ultimately 40 to 50 million for the total project. It is
the taxpayers of Hawaii who must pay these costs of some
20 to 50 million dollars. The federal aid we partly pay
through our federal taxes. The airport revenue share of
the cost will be derived mainly from the air carriers
(landing fees) whose income is from passengers and cargo
revenues.

The proposed funding, in amount and method, is necessar-
ily conditional, and it's pointless to try to be exact.
Federal aid is not assured, airport revenues are problematical
and the bond market is out of hand. A study by the
Municipal Finance Officers' Association concluded that no
nation of the nation has been able to escape the ominous
interest rates that banks are charging states and cities.
As for example, Detroit had to pay 9.8% on building authority
bonds sold last June.
In Hawaii bonds issued by the State for the airport system aggregated $70 million dollars with an additional $1 million authorized by the Legislature but not issued. This is quite a debt load already. Whatever the interest rate, the debt service costs strain the limits of fiscal stability. The costs are supposed to be eventually liquidated by surplus revenues from the State airport system. It's hard to imagine that there will be enough surplus revenues after paying the cost of the airport operations and maintenance to ever pay off the interest and principal on these bonds.

There are some financial facts of life that should be made clear to the people of Kauai. First - the taxpayers of this county are going to pay their share of debt service costs on bonds held by major U.S. banks, which have no compunctions about charging unreasonably high interest rates. Second - the airport revenues which are expected to pay the costs of airport operations, as well as interest on the bonds (which have first claim on all revenues of the airport), will have to be paid by users of the airport. The users are the airlines and anyone who travels by air, or ships cargo by air.

We can only conclude, and I believe the majority of Kauai people feel this way, that the cost of a new major airport on this island goes far beyond the worth of any benefits. We can conclude further that the predictions for such a tremendous increase in tourism and air traffic as visualized in the study, would become self-fulfilling prophecies if the airport facilities were to expand to facilitate such growth. The projected airport expansion could not help but add impetus to the desecration of a beautiful island and the people who live here.

Isn't this the central issue, aside from the unbearable financial load?

Robert Hopkins
P.O. Box 206
Hilo, Hawaii 96724

R.N. Hopkins
Mr. Chairman:

I am Edith Savina. I am a resident of Hadanaclly, I have participated in the two informational meetings held by airport division personnel and their consultants earlier this year. Although I am active in community affairs and am currently president of the Hadanaclly Community Association, my comments today are my personal views and not those of the association. I also know from conversations with community members that many share the views I hold.

I have worked as a flight instructor since school. I recognize that Bihue Airport is one of the busiest in the nation. I recognize that from a safety standpoint that a runway which is safer and which will permit landings during inclement weather is needed.

During the informational meetings, I stressed that what I fear the most is unsafe, as the proposed runway is concerned, i.e., that it may one day be utilized not only for landings but for take-offs as well. I know that plans call for landings on the new runway and take-offs on the existing one. However, I would like to record my presentations and take-off patterns by having both operations utilizing the proposed new runway, if I have no control...
The planned taking of land for the proposed new terminal and runway is in my opinion aimed at an eventual overseas flight operation for direct mainland and foreign flights. I do not feel that need for such an operation exists for Kauai nor is desired. Therefore, I maintain keep the airport in line, make it safe for landings, build a terminal needed to handle the current traffic but keep the operation from ballooning into an overseas minded one. I pay careful attention that noise levels are not transferred from one area to another.

Thank You!
Reference C-21

Responses to questions raised by Mr. John Loomis, AMFAC, Inc., contained in the following written testimony will be the subject of discussions between the Hawaii Department of Transportation and the Lihue Plantation Company to be under way in the near future.
PUBLIC HEARING STATEMENT
RE PROPOSED LIHUE AIRPORT

Amfac, Inc. believes that:

Provision of an all-weather runway at Lihue Airport should provide maximum public benefits to Kauai. We believe these public benefits to accrue in three aspects:

**Economic Aspects**

Kauai County’s General Plan and its evolving Lihue Development Plan intend to further Lihue as the Island’s urban and transportation facility center. Kauai’s geography and economy have produced a scattered belt of economic activities along its coast; Lihue is very close to the present center of this belt.

Future population projections by the Kauai Planning Department indicate an increasing concentration of population in the Lihue-Kawaihau Districts; Lihue Airport is within Lihue and next door to Kawaihau. Kawaihau is estimated in 1973 to have had by far the greatest population increase, 24.2%, since 1960. Lihue’s is estimated at 15.9%, and Kauai’s over-all, at 14.0%.

The General Plan and evolving Development Plan consider the visitor industry to be an increasingly important part of the Island’s economy, and a major user of the Lihue Airport. The present hotel concentrations flank Lihue Airport in both directions, and known future projections continue that placement.
Diversified agriculture may develop into a user of air shipments. While the major potential areas for such agriculture are to the north of Lihue, the distances are not great, and the highway connections are reasonably adequate.

**Safety Aspects**

The existing predominant landing pattern is less than optimum. Aircraft must bank steeply over Nawiliwili and Kupolo and have a minimum final approach run.

The Hoary Head range forms an obstruction that does not create peace of mind in cloudy weather. The proposed new runway allows obstruction-free approaches with instrument control, and eliminates the curved approach over populated areas, although it will require cross-wind landings most of the time, and although instrument landing conditions prevail less than 1% of the time at Lihue.

**Environmental Aspects**

Kauai's "Garden Island" image should be best preserved by concentration of commercial airport activities at Lihue. The agricultural west side, the homestead regions that are being transformed into low density residential areas, and the entire North Shore should be affected minimally if Lihue Airport continues as Kauai's major commercial airport. Travel time, fuel consumption and the resultant pollution, should be minimized. Lihue is the closest of Kauai's Districts to Oahu. Fuel consumption and the resultant noise pollution along the shoreline should be minimized.
Amfac Communities-Hawaii concurs in the above-described public benefits from an expanded airport at Lihue. As to the effects on its own operations, Amfac Communities-Hawaii is actively participating in the County-sponsored Lihue Development Plan; this Plan is strongly influenced by the airport's expansion. The Plan Draft dated October 1973 proposes a land use pattern (page 22 of the Draft) that is a reduction from Amfac Communities-Hawaii's own proposals in the affected areas (page 20 of the Draft). If, however, the draft land use proposal remains intact in the finally adopted Development Plan where affected by the proposed airport expansion, Amfac Communities-Hawaii would not object to such expansion.

Island Holidays concurs in the same public benefits as referred to by Amfac Communities-Hawaii, and would note that maintaining Lihue Airport as Kauai's visitor entry and departure point and directing most takeoffs out of the existing runway results in no change to Island Holidays' present operations. For these reasons Island Holidays has no objections to the proposed expansion.

Lihue Plantation Company, Limited supports the benefits, primarily safety, that would arise from the construction of the proposed new north-south runway of the airport and related facilities presently proposed. Nevertheless, the Company's agricultural operations would suffer substantially. This negative effect also would impinge upon the working community and population of Kauai. I will explain this in more detail shortly. There will be large costs for land acquisition and even greater costs of seve...
and allied damages to Lihue's operations.

The map which I have put on the board shows the airport area on a base map of an aerial photograph of the area. The lands colored in yellow are those that would be taken under what has been called the proposed "operational land acquisition" in the reports of the State's consultants, and the lands colored in orange show the additional lands that would be taken for the proposed "protective land acquisition". Noted on the map are the field numbers and shown thereon are field roads, ditches and related facilities.

Land

(a) If the operational land acquisition were chosen, 504 acres of existing highly productive cane lands (and I would note that the acreages I am giving you are not exact but determined by planimetry from the aerial photograph) would be required. In addition, 73 acres of shoreline land, consisting of planted windbreak and settling ponds for water quality control purposes, would be taken. In addition, one acre of existing residential and industrial land at Ahukini would be taken.

(b) If the protective land acquisition is chosen, an additional 782 acres of highly productive cane land would either be lost to cane production or seriously affected as to its feasibility for continued cane culture. In addition, 137 acres of shoreline land consisting of planted windbreak, settling ponds, etc., would be taken. In addition, seven acres of the Ahukini existing residential and industrial land would be taken.

(c) In addition, approximately 50 additional acres
of highly productive cane land not taken would be lost or seriously affected for any future continued sugar cane cultivation. The foregoing totals approximately 1,550 acres of land that would be taken or seriously affected as to feasibility for continued sugar cane cultivation if the total protective taking were to be implemented.

On-Site Improvements

In addition, Lihue would lose almost 16 miles of roads, 62 miles of ditches, 10 miles of flumes, together with other facilities (irrigation structures, a dwelling, and several industrial buildings) within the land subject to the protective land acquisition.

Off-Site Improvements

Further, the so-called mill ditch which is shown on the map consisting of approximately 8,900 feet of tunnel and trestled flume (not counting the section thereof within the taking) would be lost and the value and usage of the 25 million gallon Ahukini reservoir (shown as reservoir number 6 on the map) would be substantially decreased.

Damages from the Taking

Prior to the adoption by the Federal Government of its stringent water quality standards, the excess water from Lihue's operations flowed by gravity into the mill ditch and was utilized for irrigation of Lihue's fields, including those subject to the proposed for taking, and any excess flowed out to the sea just beyond the end of the blue line shown for that ditch on the attached map. Since the adoption of those stricter standards, the outlet to the sea has been closed and all of the excess waters from either mill operations or
storm runoff during rainy periods are now spread over the lands in sugar cane within the area shown on the map, including the approximately 1,500 acres which would be taken away by the proposed airport acquisition. Those lands now are reduced in sugar yield by reason of such over-irrigation, and if either the operational or protective land acquisition for the airport were to be used, it would be impossible to continue cultivation of the fields involved that were not actually within the airport runway areas without substantial change in the Lihue factory equipment and methods for disposition of excess water.

It has been estimated by Lihue that either the operational or the larger protective acquisition for the airport expansion will require that all of the factory waste water (approximately 20,000,000 gallons per day), which now flows by gravity to the cane land, will have to be pumped to higher elevation cane land or be otherwise disposed of without violation of the existing environmental regulations. The loss of the mill ditch, which presently serves as an emergency overflow for Lihue's present factory waste water is an extremely serious consequence of the taking proposed for the new airport. Since Lihue is prevented by environmental considerations from discharging water into Naviliwili Stream and prior to the proposed taking relies on the mill ditch to carry away overflows during emergencies such as storms, pump failures and power failures, with the taking of the mill ditch the construction of an emergency storage reservoir near the factory will be required to replace the mill ditch in case of power failures or other such accidents.
This reservoir will require a storage capacity sufficient to contain all of the waters in the flumes leading to the factory, as well as all of the water running through the factory itself until such time as it can be shut off. In the past, the Lihue factory has suffered frequent power system failures triggered by failures of the Kauai Electric Company, with which the factory's electric production is interconnected, as well as independent failures from mechanical equipment problems. Without the mill ditch and the ability to spread waters received during failure periods onto lands now proposed to be taken through the mill ditch, not only will a holding reservoir be required to accept this water but the factory will not be able to re-start operations until it has emptied all of the water in the holding reservoirs, which could require several hours of what otherwise would be productive grinding time. At Oahu Sugar Company, where urbanization of lands near the mill has required such a pumping program, factory operations have been seriously affected since any failure of any electrical or pumping equipment, instead of causing only an overflow of water capable of being taken away by gravity for disposition through the irrigation process, would require that the entire factory be shut down until repairs can be made and the emergency reservoirs drained by pumping the water in them to higher elevation fields. The shutdown of a factory can occur as a result of malfunctioning equipment anywhere in the entire factory process. This stoppage can occur even in the most efficient of factory operations. The cost in terms of lost revenue from the conversion of the
disposal of waste water from a gravity system to a pumping system would be very substantial without even giving consideration to the cost of capital improvements necessary to handle the approximately 20,000,000 gallons per day of water that would require disposition by pumping (or other facility) in replacement of the use of the gravity flow mill ditch. Those capital costs have not been calculated at present but would be many millions of dollars.

The factory estimates very roughly that the additional electric power necessary to accomplish the pumping of the water required would be so substantial as to almost completely eliminate any excess electrical power derived from the burning of bagasse and now supplied by Lihue at very low rates to Kauai Electric Company, since that power would be needed for the pumping operation. This would, of course, mean that Kauai Electric Company would have to generate electric power from ever-more expensive oil sources with undoubtedly an increase in electric rates to users of power on Kauai. We would also mention that, in accordance with the Company's attrition policy, jobs now providing revenue to the Kauai community would be lost eventually as a result of the elimination of this excellent quality cane land.

Further Damages

Further, as a result of the substantial reduction in cane field acreage available to Lihue from either taking, and since a preliminary search for possible replacement acreage indicates there are no private or public lands currently available having sufficient prerequisites as to
amount, proximity and physical features to replace the acreage taken (and particularly not of equivalent quality even as to those few acres that might become available), a serious loss in gross revenue soppable in the community would undoubtedly ensue.

Lihue Plantation Company, as is the case with all Hawaii sugar plantations, is characterized by very high fixed cost burdens, both as to its capital equipment (even without consideration of the new equipment now to be required) and a somewhat inflexible labor force. Therefore, a relatively small loss in amount of cane land in production could well equal or exceed in revenue loss the plantation's total profit in any given year. In fact, unless feasible replacement cane acreage can be found, Lihue Plantation Company will suffer an annual direct loss in gross crop value of approximately $2,200,000, even based upon the current sugar and molasses prices (only a fraction of those prevalent last year). The loss would equal 8.6% of 1975 production and 9.5% of the projected 1976 crop, which is less than the 1975 crop because of the bad drought suffered in 1975. (In this connection, we would note that the lands here in question are those which suffer least in drought conditions because of the normal weather over-irrigation condition that exists.) If the proposed airport takings go forward, Lihue will be on an acreage basis much more particularly affected by drought conditions in the future.

It should also be noted that, unless suitable cane acreage can be found, Lihue Plantation Company will suffer a substantial loss in the utility of its total plant, including all fixed as well as intangible assets.
Conclusion

Amfac and its subsidiaries believe that there are safety and other benefits to be realized from the construction proposed in the new airport plan. They would call to the attention of those authorities having power to make the final decisions that very substantial capital and operating costs will be incurred by both the public and Lihue Plantation Company.
STATE OF HAWAII
DEPARTMENT OF EDUCATION
OFFICE OF THE DISTRICT SUPERINTENDENT
KAUAI SCHOOLS
P. O. BOX 1307
LIHUE, HAWAII 96766

December 18, 1975

TO: The Honorable E. Alvey Wright
Director of Transportation, State of Hawaii

FROM: Barton H. Nagata
District Superintendent, Kauai Schools

SUBJECT: Testimony at Public Hearing Concerning the North-South Runway, Lihue Airport, December 18, 1975

I am in support of the plan to construct a North-South Runway for Lihue Airport and strongly urge that the project be carried forward to completion. My particular concern is that one of our schools, Kauai High & Intermediate School, is directly affected if the present runway continues to be used and a North-South Runway is not constructed.

Kauai High & Intermediate School has a student body enrollment of 1,307 and a total staff of 88. These people are constantly exposed to the danger of planes passing right over their heads and the noise is so great that the teaching-learning process stops, because it is difficult for anyone to be heard. Tests made show that the average decibel reading is about 90 when the planes pass over the school while the lowest normal reading is 50. In other words, the increase is 40 decibels or an increase of 80% in noise when a plane passes over the school.

BHN: fc
Testimony of Mr. Robert Ludwick

I

In all three stages of the proposed airport expansion, the predominant interest in passenger capacity is overwhelming.

I At the end of the first stage, to be complete by 1980, there will be two passenger terminals for passengers, parking for at least 14 passenger planes, more tour bus parking, and parking for over 1000 cars. One cargo building is to be built.

II At the end of the second stage, to be finished by 1985, the new terminal will be expanded; 1200 cars can park, 20 small planes can park, 16 or more passenger planes can park, and more auto lease areas will be built. The recently finished terminal will wastefully be destroyed, and 1 air cargo plane will be able to park.

III
III  By the end of the third stage, supposedly by 1995, a new terminal will be built to replace the one they tore down to give us two terminals, parking for at least 21 passenger planes, 1700 cars, 50 small planes, more auto lease space, an air taxi terminal, a helicopter pad and room for a grand total of 2 cargo planes.

Upon completion, we're talking about 2 passenger terminals, stands for 21 passenger planes, 1700 cars, air taxis, and room for 2 whole cargo planes.

15 passenger gates — more than Honolulu now has.

Larry Ryan of Royal Hawaiian Management Corp. was certainly right when he said "Airports build cities."

It is pretty obvious this plan is to pave the way for large numbers of tourists to come thru Kauai. This can only lead to more hotels, higher land values, more pressure
BY LARGE LAND OWNERS FOR THE
QUICK BUCK AND MORE LAND
ZONE OUT OF AGRICULTURE
STARTING WITH 15,800 ACRES OF
CULTIVATED LAND

ALL THIS WHEN THE ISLANDS
FUTURE SHOULD MORE REALISTICALLY
AND SANEY BE KEPT IN AGRICULTURE

THE FLOWER AND PAPAYA GROWERS
OF THE BIG ISLAND CAN CERTAINLY
ATTEST TO THE FACT THAT A JET
AIRPORT ISN'T ALL ROSES FOR
SHIPPING. UNITED AIRLINES RATES
WERE SO HIGH RECENTLY, THAT THE
GROWERS BOYCOTTED THEM AND NOW
SHIP BY CONTINENTAL, AND CONTINENTAL'S
CLIFFORD LUM NOW SAYS THEY HAVE
NO CHOICE BUT TO RAISE RATES AS
WELL AS STOP OVER ON OAHU
WHICH IS INCREASING SPOILAGE.
AFTER SPENDING MILLIONS ON AN
UNFINISHED AIRPORT, BIG ISLAND
FARMERS ARE STILL STUCK.
It was recently suggested by one Molokai farmer that the building of a larger airport is an idea, but with proper laws and P.U.C. regulations, the existing daily cargo planes to Kauai, which go back to Oahu empty, could ship goods to Oahu on a "common fare" rate, much the same as is used on the mainland and for passengers who hold round trip tickets from the mainland to Hawaii.

Because time is of the utmost importance to Kauai's farmers, this is an issue which could help, while the airport proposed for Lihue won't help until after 1985, and controls over airline rates will still be needed. $6 million dollars of taxpayers' money and we're still at the mercy of the airlines.

Sea Flight was to carry cargo daily from Kauai to Oahu,
But the tourist carriers, once completed, were not followed by the cargo ship—an appropriation cut back. Do the D.O.T. personnel care about the local farmer who have their necks on the line, or will tourism fast over—whose agriculture in this important area too? In light of the D.O.T.'s past record, I fear for the farmers.
TESTIMONY BY TOM SHIGEMOTO
PROPOSED AIRPORT DEVELOPMENT
DECEMBER 18, 1975

GENTLEMEN:

MY NAME IS TOM SHIGEMOTO AND I AM SPEAKING ON BEHALF OF THE KAUAʻI COUNTY PLANNING DEPARTMENT.

I WOULD LIKE TO FIRST COMMEND THE STATE DEPARTMENT OF TRANSPORTATION AND YOUR CONSULTANTS FOR THE EFFORT PUT FORTH IN KEEPING THE PUBLIC INFORMED IN THE FORMULATION OF THE AIRPORT MASTER PLAN. THIS PROJECT WAS WELL PUBLICIZED AND THE INFORMATION PROVIDED DURING THE PUBLIC INFORMATIONAL MEETINGS WERE EXCELLENT. YOUR CONSULTANTS ALSO WORKED CLOSELY WITH THE COUNTY'S PLANNING CONSULTANTS FOR THE LIHUE DEVELOPMENT PLAN. AS A RESULT, WE BELIEVE WE HAVE FORMULATED A DEVELOPMENT PLAN WHICH INCLUDES A COMPREHENSIVE EVALUATION OF THE AIRPORT AND ITS RELATION TO LIHUE AND KAUAʻI NOW AND IN THE FUTURE.

INDUSTRIAL PARK AND STADIUM AREAS. THE PRESENT LANDING FLIGHT PATTERN IS SUCH THAT SHOULD ANY MAJOR MECHANICAL FAILURE OCCUR SUDDENLY, ALL OF LIHUE MAY BE VULNERABLE. THESE POINTS WERE RECOGNIZED IN THE FORMULATION OF OUR COUNTY GENERAL PLAN AND, AS SUCH, THE GENERAL PLAN RECOMMENDS A NORTH-SOUTH RUNWAY BE CONSTRUCTED FOR THE LIHUE AIRPORT.

RELATIVE TO THE LIHUE DEVELOPMENT PLAN, PLEASE BE INFORMED THAT A NATURAL SHORELINE AREA ACCESS IS PROPOSED WITHIN THE MAKAI AIRPORT BOUNDARIES. THIS ACCESS IS TO EXTEND FROM KAUA'I SURF HOTEL ALONG THE COASTLINE, ON PAST THE LIGHTHOUSE, AROUND AHUKINI LANDING AND HANAMAULU BAY. THESE SHORELINE AREAS ARE VERY POPULAR FOR FISHING AND ARE MADE ACCESSIBLE BY THE VARIOUS OWNERS OF THE LANDS. WE TRUST THAT ACCESS TO THE SHORELINE ARE ALWAYS PROVIDED WITH ANY EXPANSION PLANS TO THE AIRPORT.

THANK YOU FOR GIVING US THIS OPPORTUNITY TO COMMENT ON THE AIRPORT MASTER PLAN.
To, State of Hawaii, Department of Transportation,

Re: Expansion of Lihue Airport:

This is one man's opinion, but in a population of perhaps 35,000, the opinion of one should not be totally without weight. The present airport is not adequate, more is the proposed altered airport.

Our airport is one more casualty of the jet age. Propeller driven planes could land at our airport without overflying a mountain range or any school. The one that brought me to Kauai did just that.

The terminal facilities, then existing, seemed to be completely adequate for the traffic of that time.

The runway was somewhat shorter, and I would imagine it had not yet begun to disintegrate under the weight of the jets. That was seven years ago, and I think that airport is a pretty good picture of the airport the residents of Kauai need today.

Everything more than that is adjunctive to tourism.

Somewhere along the line, our public servants decided it was incumbent upon them to allow jet aircraft to endanger the lives and interrupt the classes of our school children to land tourists at an airport in no way adequate for the jet tourist flow. With this decision (or lack of same) the two planes, which look for the jet could restrict their route to airspace offshore of our island, were
...forced to overfly business and residential areas in order to approach the field in a pattern compatible with the jet use of the field.

Apparently for the same reason they at present overfly the Milpitas Hospital on take-off. The quality of life in the Milpitas area is not greatly enhanced by these developments.

I do not dispute myself that the citizenry of Kennewick will rise up in righteous indignation and demand that our children in their classrooms be freed of jeopardy and intolerable disturbance. That is not a viable choice; we have sold our freedom to make such a choice for a mere of tourist potlatch.

It may appear that a discourse on tourism is not pertinent to a discussion on airport expansion. Nothing is greater pertinent and not. Robert Moses and Co. have launched the subject by saying, in effect, that tourists come here because there is a place, not because there is a way to get here. It is a non sequitur worthy of their report.

Tourism is certainly the leading reason, probably the sole reason, that our present airport has become inadequate and that a new one is being contemplated. (Is "contemplated" the right word, or would it be more correct to say, "contemplating"? I think and Co. contamination that we cannot choke off the tourist fixed at the airport is probably true.)
But we can throttle it. And we, the people of Kauai, must have control of that throttle if we are to be in the driver's seat of our own island's destiny. We, not Oahu, must be the ones who determine the extent to which we allow ourselves to become economically dependent on the tourist industry.

The irregularities, incursions, and superficialities of tourism rule it out as the staple, or even a major, industry for any realistic, self-respecting, actualizing community. I believe Kauai is such a community; it need not sell its substance, or beg, to eat. Kauai should not allow tourism to expand freely. To what extent it should be allowed to expand, I do not know; but I believe it is near the highest level we should allow right now. We need not expand it, but we can not stand back without hurting some of our fellow citizens. This for me is sufficient argument to retain at least this level of tourism which we demonstrate daily we can live with. If the present airport, handling only planes of a type that need not overspill our schools, can serve the present (or a very slightly increased) number of passengers, it can be made to serve adequately. If it can, another, more scheduled (above) runway might be needed. But this is not yet time to discuss that. First Kauai must have control of that throttle.

The question, as I see it, is how can we hold
tourism to this level, or whatever higher level we decide upon. We cannot regulate who or how many will arrive through our airport. We can't, but market forces could, and we could control the market forces. We do not now have that control. Oahu has it. Whether or how Kauai could gain control over its own port of entry I do not know. At present Kauai does not determine landing fees at Lihue Airport, Honolulu does. Without that control, any discussion of this airport expansion is ridiculously premature. We would be acquiring on our own, delivering into surfdom, if we did not oppose it.

Joe Littleman
In 1970 a cost/benefit analysis entitled "The Visitor-Industry Impact on Hawaii's Economy" was undertaken by a group of professional economists called "Monroe Associates." The study was undertaken in order to set the true value of middle-income tourists who are actually contributing much to the economy. The amount of visitor dollars spent were weighed against the cost to the taxpayers in terms of providing public services for tourists — such as roads, police protection, and airports.

The study found that the taxpayers' cost of services for the average tourist increases 1.7% per year, while the tourist's contribution to the local economy increases 3% per year.

At 7% interest, the costs to the taxpayer double in slightly more than 10 years.

The study tabulated the visitor dollar contribution and the rising cost of public services, and projected that by 1985 the margin of benefits over costs for these tourists would be very minimal.

These figures were tabulated before the cost of energy began to rise so dramatically. An updated cost/benefit analysis with today's fuel prices in mind would show that the cost of public services has increased at an even greater rate than was foreseen. In addition, in figuring the price-tag of
Tourism in Hawaii, the Mathematica economists did not tabulate in such costs as having to close down Waikiki in the summer of '46 because of sewage contamination. I would like to urge the Department of Transportation to investigate thoroughly the economic reality of the costs of tourism to Hawaii, before proposing to spend millions of our dollars on more facilities for tourists. Thank you.

Mrs. Alice T. White
NOISE:
The noise problem over KCC, Kauai High School and surrounding areas is the major factor being used to justify the entire $85.8 million airport expansion plan. However, let's look at the major problems the airport expansion will create.

TOURISM:
The airport is needed to accommodate the projected number of tourists that will come to Kauai in the future. In 1974 Kauai had about 745,000 tourists. Kent, Harwick & Mitchell, the consultant firm hired by the DOT, projected the number of tourists for Kauai in 1985 at 2.5 million, or approximately as many tourists as the whole State had in 1974. These projections came from figures offered by the HVB, Airlines and hotel operators. This will mean that the Kauai visitor industry will have to double the number of hotel rooms to accommodate all the tourists.

From these facts alone, it is clear that the expansion of the airport and hotel development are tied up very closely—one cannot exist without the other.

JOBS:
The airport expansion will provide airport-related jobs for 500 people over the next 20 years. This is the projection of the Airport Master Plan Study. Of course, the increase in resort development that will follow the airport project will increase the number of construction and resort jobs. But, because there will be a great increase in population there will still be high unemployment. According to State statistics and Federal statistics, the work force in the State of Hawaii doubled from 1950-1973, while, during the same period the unemployment rate tripled.

PRICES AND TAXES WILL GO HIGHER as the cost of living and the cost of government go up. A good example of this is the recent pay raises for government officials.

More AGRICULTURAL JOBS WILL BE LOST because of increasing use of agricultural lands for urban development. For instance, the Leadership Homes project at Hahaleleu would take 1,000 acres cut in 1975 production and the airport expansion will eventually take 1,500 acres of land out of agriculture. (See Table B-2).

A SHORTAGE OF HOUSING THAT PEOPLE CAN AFFORD will continue to be a great hardship. Sales of single family residences on Oahu listed with the Multiple Listing Service averaged $85,450 in the first half of 1973 and $85,950 in the first half of 1974.

BIG CITY LIVING FOR KAUAI? The urbanization of Kauai will result in problems that, so far, have been small compared to the problems on Oahu. Some of these problems are: traffic, crime, family breakdowns and mental illness.

EVICTIONS and fights against them have spread all across the Islands in the last few years because of tourist development and government projects (like the airport expansion and SS-3). Thousands of people have been evicted or threatened with eviction in places like Waiola Valley, Halawa, Ota camp, Kuamalu-Waikii, Ohiatown, Waihale Valley and Kula. There are many more.

CRIME has risen 115% on Kauai according to a recent report from the Kauai Police Department. Urbanization will surely drive this rate up even higher.

URBAN TRAFFIC will not only be inconvenient for Kauai drivers, but it will also endanger public safety. MORE ACCIDENTS and MORE FATALITIES. Roads and highways will have to be built, improved and widened. This will cause evictions in many cases and will encourage even more traffic. In the last 15 years the number of major traffic accidents more than doubled and the number of traffic deaths went up 65%.
FAMILY BREAKDOWN will become more commonplace. The frustrations that lead to divorce, runaways and juvenile delinquency will build up as jobs, income and housing get harder and harder to find. The number of divorces quadrupled in 15 years. In 1973 7,217 juveniles were arrested for all types of crimes, in 1974 this figure rose to 8,241.

All these problems, especially the last, will lead to more MENTAL ILLNESS and EMOTIONAL DISTURBANCE for our people.

AIR FREIGHT AND ALTERNATIVES:

Recently the farmers on Kauai asked the Public Utilities Commission (PUC) to provide a common fare to help agriculture on Kauai. The daily air freight flights to Kauai leave here empty — not even paying their fuel costs — but under the existing air cargo rates the farmers cannot afford to ship their produce by air and must rely on twice weekly shipment by barge. If the PUC and the Federal Trade Commission (FTC) would adjust freight rates so the farmers could enjoy common fare rates our farmers would be able to compete for mainland and Japan markets. By a common fare, pressure on the farmers would be reduced and the industry could seek other alternatives.

New ways of surface shipping are alternatives. Seaflight, temperature and gas controlled containers are in the future. Another possible alternative is subsidies to the airlines to cover the costs of the common fare.

Statistical Sources: State of Hawaii, Department of Planning and Economic Development; Department of Transportation, Airport Master Plan Study; Federal Bureau of Labor Statistics; EDA, Socio-Economic Impact Statement on RE-3: Housing Supply and Demand in Hawaii, 1975; Statistical Report 107, Research and Economic Analysis Division, DFED.

PREPARED BY: CONCERNED CITIZENS ABOUT THE LILUE AIRPORT.
December 16, 1975

Mr. Andrew Bushnell, President
Kauai Community Research Group
c/o Lihue Regional Library
Box 445
Lihue, Hawaii 96766

Dear Mr. Bushnell:

Subject: Master Plan Study
Lihue Airport

This is in reply to your letter of December 13, 1975 requesting postponement of the public hearing scheduled for December 18, 1975 in Lihue. Your letter was received by this office on December 16, 1975.

Every effort has been made by the staff of the Airports Division and its consultant to satisfy the concerns of the Kauai Community Research Group. When the Master Plan and Environmental Impact Assessment Report were available for public examination, a complete set of these reports plus the special report by Environmental Communications, Inc. were sent to Ms. Karen Fisher of your organization. Your statement that the documents were available only during working hours is therefore without merit.

The Federal Aviation Administration prescribes requirements for public hearings in their Advisory Circular 150/5100-7A in compliance with statutory requirements for airport development proposals. The documents relating to the master plan were made available to the public in excess of the 30 days required by the FAA.

During the public meetings held in Lihue on May 22, 1973 and August 14, 1973, we emphasized the Department's desire to provide as much information and data needed by the public to review our proposal. I believe you were present at one of the meetings at least. Knowing of your organization's interest, we have made a special effort to communicate with your members whenever they inquired about the project.
Background reports are all referenced in bibliography of the environmental report along with information as to the location of the material. It is impossible and not a requirement to make reference material available to the public at the location of the environmental report.

You were apparently misinformed of the contents of the environmental report. The information given at the earlier public information sessions was identical to that contained in the report. Further, the public information meetings are not statutory requirements but an effort on our part to keep the community informed of our plans.

December 18, 1975 is not the last day to submit comments to the Department on the proposed master plan and environmental study. The Department will receive written comments up to and including January 2, 1976 as indicated in the notice of public hearing.

In view of the above, we will not postpone the public hearing scheduled for December 18, 1975.

Very truly yours,

OWEN MIYAMOTO
Chief, Airports Division

cc: Herman Bliss, FAA
    John Sanders, PW
    Melvin Kojima, EPA
    GEQG
c/o Lihue Regional Library
Box 445
Lihue, Hawaii 96766
December 13, 1975

Mr. Owen Miyamoto
Airports Division
Department of Transportation
Honolulu International Airport
Honolulu, Hawaii 96819

RE: LIHUE AIRPORT MASTER PLAN STUDY FOR LIHUE, KAUAII, HAWAII

Dear Mr. Miyamoto:

The people of Lihue and Kauai recognize the crucial importance of the Lihue Airport Master Plan Study to the future of our town and island.

Many citizens, including our group, the Kauai Community Research Group, have been attempting to inform themselves about the plan and to analyze the proposal.

As our investigations have proceeded, it has become clear that adequate study of the issues will not be possible by December 18, 1975, the date set for public hearing. This is so for the following specific reasons:

1. **Limited access to the Master Plan and Environmental Impact Assessment.** To our knowledge, there were only four copies of these voluminous documents publicly available on the island. These were available primarily during working hours when most people were unable to study them.

2. **Insufficient time for review.** The public has been given only 30 days to review lengthy documents which took paid consultants months to prepare. Thirty days are insufficient time (especially considering the limited availability of the documents) for public discussion, not to mention analysis, of such a highly complex, impact-laden proposal.

3. **Inaccessibility of background reports.** Many of the projections, assumptions and conclusions in the Master Plan and Impact Assessment are based on studies
located in Honolulu. Without access to such studies we cannot evaluate the findings and conclusions of the Master Plan and Impact assessment.

That prior public informational sessions were held will not be a sufficient answer to the above. The information given to those of us who attended those sessions was quite different and much less detailed than the present proposal.

For the foregoing reasons and in the interest of adequate public review, we respectfully request that the above-mentioned problems be remedied, that the December 18 hearing be postponed to a later date, and that adequate public notice be given of the new date.

Thank you.

Sincerely yours,

[Signature]

Andrew Bushnell, President
Kauai Community Research Group

cc: Federal Aviation Administration
The Honorable Patsy T. Mink
Environmental Protection Agency, Washington D.C.
Environmental Protection Agency, Region IX
Secretary of Transportation, Department of Transportation
Council of Environmental Quality
FROM: Office of the Director  
Department of Transportation  
Honolulu, Hawaii  

Dec. 5, 1975  
166-75

FOR RELEASE WEDNESDAY, DEC. 10, 1975

A public hearing has been scheduled for 7:30 p.m. Dec. 18 in the 
Kauai Public Library in Lihue to describe the environmental impact 
assessment report on the recommended Lihue Airport master plan.

State Transportation Director E. Alvey Wright said that the pre-
sentation will include the report prepared by the department's con-
sultant, Peat, Marwick, Mitchell & Co. This describes the impacts 
which the improvements are expected to have on the Lihue area, as 
proposed in the master plan.

Although the report encompasses improvements proposed in a 20-year 
master plan, it concentrates on those recommended for a 1975-1980 Phase 
One implementation. This includes the acquisition of approximately 
1,530 acres of land adjacent to the airport on the north side of 
Hanamaulu Bay.

It also includes construction of a new 6,500-foot north-south 
runway described at a previous informational meeting Aug. 4, the 
installation of an instrument landing system and approach lighting 
system on the new runway.

Development of a new passenger terminal southwest of the existing 
one, new aircraft parking apron, terminal access and roadway loop and 
new parking facilities also are included in Phase One, as is an air 
cargo building, fire station, new sewer and drainage systems and exten-
sion of the water distribution system.
The environmental impact assessment report may be reviewed at
the four public libraries on Kauai and the Lihue Airport manager's
office as well as at the Honolulu International Airport engineering
offices.

Persons wishing to comment on the report and the plans may do
so at the hearing or file written statements with the Director of
Transportation, 869 Punchbowl St., Honolulu, Hawaii, 96813, through
December 3, 1975

Mr. James Morrow
American Lung Association of Hawaii
245 North Rukui Street
Honolulu, Hawaii 96817

Dear Mr. Morrow:

Subject: Lihue Airport Master Plan

In response to your telephone request of December 1, 1975, we enclose herewith a copy of the Preparation Notice for the Lihue Airport Environmental Impact Statement.

Very truly yours,

OWEN HIYAMOTO
Chief, Airports Division

Incl.
cc: AIR-E
Ms. Joanne Yukimura  
Rural Route 1  
Box 28B  
Lihue, Kauai 96766

Dear Ms. Yukimura:

Subject: Lihue Airport Master Plan

In response to your telephone request of November 24, 1975, we enclose herewith a copy of the Preparation Notice for the Lihue Airport Environmental Impact Statement.

I have taken the liberty of advising the Environmental Quality Commission of your interest in the project. The Commission will send you a copy of the EIS as soon as it is available for distribution.

Very truly yours,

CHIEF MIYAMOTO  
Chief, Airports Division

Encl.  
cc: AIR-E
LEGAL NOTICES
ADVANCE NOTICE OF 90TH ANNUAL HEARING
CONVINCING PROSPECTS, FAVORABLY
AIRPORT DEVELOPMENT

Ellum Airport
Ellum, Hawaii

THIRD AND PLACE, OF NOTICE: On November 18, 1976, at 7:00 p.m. at the Kauai Public Library, 546 Hanalei Street, Lihue Island of Kauai, Hawaii, an open public hearing on the following proposed airport development:

Phase 1 (1959-1963)
1. Extension and relocation of existing runway 13 to 1,900 feet in length and 100 feet in width with associated taxiways, lighting, and marking.
2. Construction of a new FAA control tower.
5. Development of a new air traffic control system.
6. Construction of new airport drainage system.

Phase 2 (1963-1965)
1. Extension of runways 10 and 28 to 3,000 feet in length and 100 feet in width with associated taxiways, lighting, and marking.

Phase 3 (1965-1969)
1. Construction of a new air traffic control system.
2. Construction of new airport drainage system.

Reference C-33
NOTICE OF OPEN PUBLIC HEARING

CONCERNING PROPOSED AIRPORT DEVELOPMENT

Lihue Airport
Lihue, Kauai, Hawaii

TIME AND PLACE OF MEETING—On December 18, 1975 at 7:30 p.m. at the Kauai Public Library, 4346 Hardy Street, Lihue (Island of Kauai, Hawaii), an open public hearing on the following proposed airport developments:

Phase I (1975-1978)

1. Acquisition of approximately 1,530 acres of land adjacent to Lihue Airport and on the north side of Hanamoku Bay.
2. Construction of a new north-south Runway 17/35 0,500 feet by 150 feet and associated taxiways, lighting and markings.
3. Installation of an instrument landing system (ILS) and medium intensity approach lighting system with runway alignment indicators (MARKERS) at Runway 35.
4. Construction of a new airport parking apron to accommodate ten air carrier aircraft parking positions and taxiway to connect with the existing terminal.
5. Construction of a new terminal.
6. Development of a new terminal access and runway loop.
7. Construction of a new automobile parking facility to accommodate 800 automobiles.
8. Construction of an additional taxiway facility at the airport.
10. Construction of additional general aviation parking aprons.
11. Development of an air taxi terminal including building, roadway, and automobile parking area.
12. Construction of new help desk adjacent to the proposed air taxi terminal.
13. Relocation of the FAA control tower.
14. Development of additional ground transportation lease plots.
15. Expansion of the Airport sewer system.
16. Expansion of the water distribution system.

FOURTH NOTICE OF HEARING—To consider the economic, social, and environmental impacts of the proposed airport development project and its consistency with the goals and objectives of such urban planning as has been carried out for this area.

CONFLICT OF THE MEETING—Representatives of the State Department of Transportation will at the outset present a summary of their views concerning the airport and the proposed airport project, economic, and environmental impact, and their consistency with the overall urban planning and planning. Other persons present and desiring to do so will be afforded the opportunity to present written statements to consider written statements to the project. Such statements may be submitted no later than January 2, 1976 and should be addressed to: Director, Department of Transportation, Box 201, Punchbowl Street, Honolulu, Hawaii 96813.

AVAILABILITY OF ENVIRONMENTAL STATEMENT—The State of Hawaii Department of Transportation is required to prepare an Environmental Impact Statement (EIS) in connection with the construction of the Lihue Airport Master Plan Study. Consultants for the State of Hawaii Department of Transportation have prepared an Environmental Impact Statement (EIS) in connection with the construction of the Lihue Airport Master Plan Study describing the environmental impacts which Lihue Airport and the proposed airport are expected to have. Although the EIS covers only the General Aviation parking apron, it contains data on those recommended for federal air navigation purposes.

Phase II (1979-1985)

1. Extension and widening of existing Runway 4.
2. Extension of taxiway A in length and width for associated taxiways, lighting, and markings.
3. Strengthening existing Runway 3 0,000 feet by 150 feet to accommodate two additional air carrier aircraft.
5. Construction of additional air carrier aircraft parking positions.
6. Construction of additional automobile parking facilities to accommodate 200 automobile parking spaces.
7. Construction of new parking facilities to accommodate 300 automobile parking spaces.
8. Construction of new airport parking facilities to accommodate 300 automobile parking spaces.
9. Construction of new airport parking facilities to accommodate 300 automobile parking spaces.
10. Construction of new airport parking facilities to accommodate 300 automobile parking spaces.
11. Development of additional ground transportation lease plots.
12. Development of additional air carrier aircraft parking aprons.
15. Development of additional air carrier aircraft parking aprons.
17. Development of new ground transportation lease plots.

Phase III (1986-1993)

1. Development of a second passenger terminal building northeast of the Phase I Terminal.
2. Construction of an air carrier aircraft parking apron to the northeast to accommodate live air carrier aircraft.
3. Extension of the terminal complex access and curvatures and two taxiways in the northeast.
4. Development of the automobile parking facilities to accommodate an additional 500 automobiles.
6. Development of additional airport bus and truck parking facilities.
7. Expansion of the air carrier terminal including expansion of the building, a new access road, and additional air carrier parking aprons to accommodate an additional air carrier aircraft.
10. Development of an air taxi terminal including building, roadway, and automobile parking area.
11. Expansion of the general aviation aircraft parking aprons to accommodate two air taxi aircraft parking positions and 30 general aviation aircraft.
12. Development of new help desk adjacent to the proposed air taxi terminal.
13. Relocation of the FAA control tower.
14. Development of additional ground transportation lease plots.
15. Expansion of the Airport sewer system.
16. Expansion of the water distribution system.

FOURTH NOTICE OF HEARING—To consider the economic, social, and environmental impacts of the proposed airport development project and its consistency with the goals and objectives of such urban planning as has been carried out for this area.

CONFLICT OF THE MEETING—Representatives of the State Department of Transportation will at the outset present a summary of their views concerning the airport and the proposed airport project, economic, and environmental impact, and their consistency with the overall urban planning and planning. Other persons present and desiring to do so will be afforded the opportunity to present written statements to the project. Such statements may be submitted no later than January 2, 1976 and should be addressed to: Director, Department of Transportation, Box 201, Punchbowl Street, Honolulu, Hawaii 96813.

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Appendix D

STATE OF HAWAII
ENVIRONMENTAL QUALITY COMMISSION
Appendix D

STATE OF HAWAII
ENVIRONMENTAL QUALITY COMMISSION

Introduction

This appendix documents the information generated in accordance with the State of Hawaii Environmental Quality Commission's Rules and Regulations to fulfill the requirements of Chapter 343, Hawaii Revised Statutes, for the preparation of an Environmental Impact Statement for the Lihue Airport Master Plan Study.
PREPARATION NOTICE, EQC BULLETINS, WRITTEN COMMENTS AND RESPONSES, IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN SECTION 343, HAWAII REVISED STATUTES, AND THE STATE OF HAWAII ENVIRONMENTAL QUALITY COMMISSION ENVIRONMENTAL IMPACT STATEMENT REGULATIONS


4. Letter from Mr. Owen Miyamoto to Mr. James Morrow, dated December 3, 1975.


8. Letter from Mr. Albert O. Y. Tom, Chairman, Environmental Quality Commission, to Mr. E. Alvey Wright, Director, Department of Transportation, dated August 12, 1976.


11. Memorandum from Andrew J. T. Chang, Director, Department of Social Services and Housing, to E. Alvey Wright, Director, Department of Transportation, dated August 16, 1976.

(11/76)
12. Letter from Kisuk Cheung, Chief, Engineering Division, U.S. Army Engineer District Honolulu, to E. Alvey Wright, Director, Department of Transportation, dated August 19, 1976.

13. Letter from Herman C. Bliss, Chief, FAA Airports Division, to Director, Office of Environmental Quality Control, dated August 24, 1976.


16. Letter from Doak C. Cox, Director, Environmental Center, University of Hawaii, to E. Alvey Wright, Director, Department of Transportation, dated September 2, 1976.


(11/76)

24. Memorandum from Richard E. Marland, Director, Office of Environmental Quality Control, to Mr. E. Alvey Wright, Director, Department of Transportation, dated September 13, 1976.

25. Memorandum from Hideto Kono, Director, Department of Planning and Economic Development, to Dr. Richard E. Marland, Office of Environmental Quality Control, dated September 13, 1976.


27. Letter from Gordon Soh, Department of Land and Natural Resources, to Office of Environmental Quality Control, dated September 16, 1976.


29. Letter from Brian Nishimoto, Director, County of Kauai Planning Department, to E. Alvey Wright, Director, Department of Transportation, dated October 21, 1976.

30. Letter from E. Alvey Wright, Director, Department of Transportation, to Captain Wayne R. Tomoyasu, Hawaii Air National Guard, dated November 9, 1976.

31. Letter from E. Alvey Wright, Director, Department of Transportation, to State Land Use Commission, dated November 15, 1976.

32. Letter from E. Alvey Wright, Director, Department of Transportation, to East and West Kauai Soil and Water Conservation Districts, dated November 15, 1976.

33. Letter from E. Alvey Wright, Director, Department of Transportation, to Amfac Communities - Hawaii, dated November 15, 1976.

34. Letter from E. Alvey Wright, Director, Department of Transportation, to United States Department of the Interior, Fish and Wildlife Service, dated November 15, 1976.

(11/76)
35. Letter from E. Alvey Wright, Director, Department of Transportation, to K. Hayama, Federal Aviation Administration, dated November 15, 1976.

36. Letter from E. Alvey Wright, Director, Department of Transportation, to the Department of the U.S. Army, dated November 15, 1976.


38. Letter from E. Alvey Wright, Director, Department of Transportation, to University of Hawaii, Environmental Center, dated November 15, 1976.

39. Letter from E. Alvey Wright, Director, Department of Transportation, to Gordon Soh, Department of Land and Natural Resources, dated November 15, 1976.

40. Letter from E. Alvey Wright, Director, Department of Transportation, to Hideto Kono, Director, Department of Planning and Economic Development, dated November 15, 1976.

41. Letter from E. Alvey Wright, Director, Department of Transportation, to Amfac, Inc., dated November 15, 1976.

42. Letter from E. Alvey Wright, Director, Department of Transportation, to James W. Morrow, American Lung Association of Hawaii, dated December 6, 1976.

43. Letter from E. Alvey Wright, Director, Department of Transportation, to Dr. James Kumagai, State Department of Health, dated December 6, 1976.

44. Letter from E. Alvey Wright, Director, Department of Transportation, to Dr. Richard E. Marland, Director, Office of Environmental Quality Control, dated December 6, 1976.

45. Letter from E. Alvey Wright, Director, Department of Transportation, to Mr. Brian Nishimoto, Planning Director, County of Kauai Planning Department, dated December 6, 1976.
October 15, 1975

Environmental Quality Commission
550 Halseauuila Street, #301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement
Preparation Notice
Lihue Airport Master Plan Study
Project No. G-6

The Department of Transportation is required under the provisions of the National Environmental Policy Act of 1969 and Federal Aviation Administration requirements to prepare an Environmental Impact Assessment Report (EIAR) for the long-range (20-year) Lihue Airport Master Plan Study. The EIAR will become our draft EIS after modification subsequent to the public hearing and will fulfill the requirements of Chapter 343, Hawaii Revised Statutes, for the preparation of an Environmental Impact Statement for the Lihue Airport Master Plan Study.

Therefore, in accordance with State of Hawaii Environmental Quality Commission's Rules and Regulations, notice is hereby given that preparation of the Environmental Impact Statement is in progress and is scheduled to be completed in January 1976. The EIAR will be available for public review, in November 1975 prior to a public hearing tentatively set for December 1975.

Comments should be addressed to the Department of Transportation, Airports Division, Honolulu International Airport, Honolulu, Hawaii 96819, Attention Mr. Owen Miyamoto. If there are any questions, you may contact Mr. Miyamoto at 847-9432.

Very truly yours,

E. ALVEY WRIGHT
Director

Enclosure

cc: Mr. John Sanders, PHN
ENVIRONMENTAL IMPACT STATEMENT
PREPARATION NOTICE

LIHUE AIRPORT
Lihue – Kauai County

(a) Proposing Agency – State of Hawaii Department of Transportation, Airports Division

(b) Approving Agency - Governor, State of Hawaii/Director U.S. Department of Transportation

(c) Agencies and individuals consulted or contacted:

U.S. – Federal Aviation Administration
U.S. – Environmental Protection Agency
U.S. – Soil Conservation Service
U.S. – Department of the Navy
U.S. – Department of Commerce – National Weather Service
U.S. – Coast Guard
U.S. – Corps of Engineers

State – Office of Environmental Quality Control
State – Department of Agriculture
State – Department of Health
State – Department of Land and Natural Resources
State – Department of Planning and Economic Development
State – Department of Transportation

University of Hawaii – Waikiki Aquarium
- Hawaii Institute of Geophysics
- Sea Grant Program (Kauai)

Hawaii Visitors Bureau

Kauai County – Mayor’s Office
- County Council
- Planning Department
- Public Works Department
- Water Department
- Office of Economic Development

Kauai Community College

John Uyeno 
Mike Dyer 
Mr. Bailey 
George Cooper 
Joseph Harris 
Helen Hopkins 

President—Kauai Chamber of Commerce 
Kilauea Management Company 
Molokai Papaya Farmers’ Cooperative 
Radio Station KIVM 
University of Hawaii, Sea Grant Advisor, Kauai 
Sierra Club, Life of the Land
(d) Project Description

1. **Location:** The location of the Lihue Airport and the recommended Airport improvements proposed in the 1995 Airport Master Plan are shown on Exhibits A, B, and C.

2. **Objectives:** The basic objective of the airport master plan study is to develop a technically sound and economically feasible long-range development program for aviation facilities at the Lihue Airport. Preparation of an airport master plan will allow for the orderly expansion of the Airport to ensure that future developments are economically justifiable, responsive to public air transportation needs, physically effective and efficient, environmentally compatible, and financially feasible. In particular, emphasis will be placed on the need for a new runway alignment to reduce the impact of aircraft operations on schools and residential areas to the south and to provide a precision instrument approach capability and the need for new and expanded terminal facilities.

An Environmental Impact Assessment Report (EIAR) which addresses the recommended Airport Master Plan, with emphasis on improvements scheduled during the initial stage of development (to 1980) will be prepared as part of the Project.

3. **Summary of the Proposed Project:** The draft Airport Master and Land Use Plan, shown on Exhibit A, represents a guide for airport development throughout the 1995 planning period, and indicates possible developments beyond 1995 for which land should be reserved at this time.

Other than the airport developments described below, the master planning process provides for the reservation of sufficient land to accommodate facilities that may be required beyond 1995. The reservation of land for such future facilities preserves the long-range development potential of the Airport, thereby guaranteeing the longevity of the Airport beyond the current planning period.
The improvements are in three implementation phases: Stage I (1975-1980), Stage II (1981-1985), and Stage III (1986-1995). Although the EIAR covers improvements proposed by the 20-year Master Plan, it concentrates on those recommended for implementation during Stage I. Because environmental conditions are not static—especially those involving the man-made or human community—it is anticipated that improvements proposed for implementation after Stage I will require at least an up-dating of the EIAR and probably the drafting of an entirely new report to reflect future changes in environmental conditions. Stage I of the overall improvement program is shown on Exhibit B. The following paragraphs describe specific improvements recommended in the proposed program.

Stage I (1975-1980)

- Acquisition of additional private land adjacent to the Airport and on the north side of Hanamaulu Bay for the new Runway 17-35 and future clear zones, for the passenger terminal complex development, and for other Airport improvements.

- Development of a new north-south Runway 17-35 (6,500 feet by 150 feet) and associated taxiways, lighting, and marking. The Plan recommends Runway 35 be equipped with an instrument landing system (ILS) and a medium intensity approach lighting system with runway alignment indicator lights (NALSR).

- Installation of a visual approach slope indicator (VASI-4) with runway end identifier lights (REIL) is proposed for the existing Runway 21.

- Development of the first phase of a new passenger terminal complex southwest of the existing terminal. This includes a new passenger terminal building; a new aircraft parking apron to accommodate ten air carrier aircraft parking positions; a new terminal access and curbside roadway loop; a new parking facility to accommodate up to 800 automobiles; a new ground transportation building; tour bus and truck parking; and initial development of a new air cargo facility.

- Installation of a new sewer system to be connected to the County Sewage Treatment Plant south of the Airport; improvement and extension of the existing water distribution system; construction of new drainage systems for the airfield and terminal complex; and construction of new crash/fire/rescue (C/F/R) building.

Stage II (1981-1985)

- Extension and widening of Runway 3-21 to 6,500 feet in length and 150 feet in width, with associated taxiways, lighting, and marking. Strengthen existing Runway 3-21 and associated taxiways.

- Installation of a VASI-4/REIL is proposed for Runway 17.
Expansion of the new passenger terminal complex, as required, to both the southwest and northeast including additional air carrier aircraft parking apron and automobile parking spaces.

Expansion of air cargo facility, as required, and new air cargo aircraft parking apron.

Development of new general aviation T-hangar units and aircraft parking apron.

Development of State Airports Division Baseyard; and ground transportation lease plots.

Stage III (1986-1995)

Expansion of the passenger terminal complex, as required, to the northeast including additional air carrier aircraft parking apron and automobile parking spaces. Ahukini Road will be realigned and the terminal complex roadway extended.

Expansion of the new air cargo facility with a new access road off State Route 51.

Expansion of general aviation area including an air taxi terminal building, roadway, and automobile parking area; T-hangar units and aircraft parking apron; a helipad; and fixed base operator lease plots.

Relocate the FAA control tower.

(e) The Environmental Impact Assessment Report will cover the following:

1. The Recommended Airport Master Plan - 1995

2. Project Need

3. Community and Natural Environmental Setting

4. Environmental Impacts of the Recommended Airport Master Plan on:
   Aircraft Noise, Air Quality, Water Quality and Drainage, Social and Community Development, Public Park and Recreation Areas, Archaeological and Historic Sites, Wildlife and Vegetation, and Coastal Zones.

5. Any Adverse Environmental Effects which Cannot be Avoided should the Project be Implemented Associated with:

6. Mitigating Measures Taken to Reduce or Minimize Impacts
7. Alternatives to the Proposed Project including:

Alternative Modes of Transportation, Use of Existing Airports, Alternative Airport Locations, Do-Nothing Alternative, and Alternative Airport Configurations.

8. The Relationship between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

9. Any Irreversible and Irretrievable Commitments of Resources which would be Involved in the Proposed Project should it be Implemented

(f) Requirement to Perform Environmental Studies

This Environmental Impact Assessment Report (EIAR) will represent the culmination of environmental activities undertaken as part of the Lihue Airport Master Planning Study. The EIAR is being prepared in response to requirements of the "National Environmental Policy Act (NEPA) of 1969" (Public Law 91-190); Federal Aviation Administration Order 5050.2A, "Procedures and Policy for Processing Airport Development Actions Affecting the Environment;" and the State of Hawaii Environmental Quality Commission's "Environmental Impact Statement Regulations" (pursuant to Chapter 343, Hawaii Revised Statutes).
ANTICIPATED EIS'S (Proposed actions for which EIS Preparation Notices have been received and for which the deadline for request to be consulted parties has passed.)

- Kuhio Ave. Widening (DPU, City/County); Kalanianaole Hwy. Transportation Corridor (DOT); Zone Change, Makaha (Queen's Medical Center, et. al.); Planned Development - Housing, Kahului (Aheimanu Investment Co. & Valley of the Temples Corp.), Honolulu
- Rapid Transit System (DTS, City/County); 2nd Entrance Road to Nahiulu (DOT); Shafter Flats Transfer Station (DPU, City/County); Ewa High & Intermediate School, Site Selection (NAGS); Laulehua Elementary School, Site Selection (DAGS); Makawao Intermediate School, Site Selection (DAGS); Whaler's Wharf (Whaler's Wharf Limited); 483 Acres at Poipu (Mona Corporation); Leilehua High School Complex Development Report (NAGS); Nahiulu Transfer Station and Landfill (DPU, City/County).

PROPOSED EXEMPTION LISTS

Commission action on the Dept. of Land and Natural Resource's proposed exemption list, published in EQC Bulletin I-7, was deferred until certain modifications are made to accommodate concerns raised at the October 6, EQC meeting.

Meanwhile, the Commission will review at its November 3 meeting the following exemption lists submitted by the DOT, DAGS, HHA, and the Public Works departments of the City and Hawaii Counties. Comments from the public are welcome.

Department of Transportation

1. Subdivision of lot(s) not previously subdivided into highway parcel(s) and highway remnant parcel(s) of which the construction of the subject highway has already been completed.
2. Subdivision of portion of highway due to encroachment or determined surplus.
3. Consolidation of residential-zoned highway remnant parcels into one lot(residential).

Department of Accounting and General Services

Class 1 - Operations, Repairs and Maintenance

1. Building
2. Structure
3. Furniture
4. Equipment
5. Electrical System
6. Communications System
7. Plumbing System
Environmental Impact Statements listed herein are available for review at the following public depositaries:
Office of the Environmental Quality Commission; Legislative Reference Bureau; State Library; and the Kalani, Kamehameha, Pearl City, Hilo, Wailuku, and Lihue Regional Libraries. Statements are also available at State Branch Libraries that are in proximity to the site of a proposed action (indicated with project description).

Due to limited request, Negative Declarations are available only at the Commission's office.

Requests for material listed herein may be placed by telephone or letter. Please provide the name and telephone number of a contact person when making requests. Charges for the material may be assessed to cover mailing and reproduction costs. See EQC Bulletin I-8 for the schedule of charges.

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### DETERMINATIONS

#### I. EIS PREPARATION NOTICES, AGENCY ACTION

<table>
<thead>
<tr>
<th>proposed action—proposing agency</th>
<th>Project description</th>
<th>deadline for req. to be consulted by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Seretani–Smith Project—Dept. of Housing &amp; Community Development, City &amp; County contact: Setsuo Izutsu, DHCD, City &amp; County, 650 S. King St., Hon., 96813, phone 523-4209.</td>
<td>Previously reported in EQC Bulletin I-8</td>
<td>Nov. 7</td>
</tr>
<tr>
<td>2. Makiki Elementary School Site Selection—Dept. of Accounting &amp; Gen. Services contact: Herbert Ishida, DADS, P.O. Box 119, Hon., 96810, phone 548-5703.</td>
<td>Previously reported in EQC Bulletin I-8</td>
<td>Nov. 7</td>
</tr>
<tr>
<td>4. Hawaii Belt Road, Kohala to Papa—Dept. of Transportation contact: Kenneth Au, DOT, 869 Punchbowl St., Hon. 96813, phone 548-3830.</td>
<td>Previously reported in EQC Bulletin I-8</td>
<td>Nov. 7</td>
</tr>
</tbody>
</table>
5. **Kuakini Highway Realignment, Island of Hawai‘i—**
   Dept. of Transportation...
   Proposed action would provide an improved highway of 3.1 miles in the North Kona District, parallel to the coastline and approx. 1/2 miles inland. Three alternate corridors are being considered.
   contact: Kenneth Au, DOT, 600 Kapilani Blvd., Rm. 301, Hon. 96813, phone 548-3830.
   Nov. 24

6. **Lihue Airport Master Plan Study—**
   Dept. of Transportation
   Proposed action consists of developing a master plan for Lihue Airport to provide for its orderly expansion. Emphasis would be placed on the need for a new runway alignment, an instrument approach capability, and expanded terminal facilities.
   contact: Onen Miyamoto, DOT, Airports Division, Honolulu International Airport, Hon. 96819, phone 847-9432.
   Nov. 24

7. **Kaneohe Civic Center Site Selection—**
   Dept. of Accounting & Gen. Services
   Proposed action involves the selection of a site for the proposed Kaneohe Civic Center, a 2- or 3-story building that would house various governmental agencies presently located only in Honolulu or in scattered locations in Windward Oahu. Recommended site is owned by Bishop Estate and is located on the mauka-Kahuku corner of the Kamehameha Highway St. intersection.
   contact: Lloyd Takahashi, DACS, P.O. Box 119, 96810, phone 548-5460.
   Nov. 24

   Dept. of Accounting & Gen. Services
   Proposed action consists of preparing a report for the redevelopment of Waipahu Intermediate School. The report would be used for reference and control in the implementation of the school development plan.
   contact: Herbert Ishida, DACS, P.O. Box 119, Hon. 96810, phone 548-5703.
   Nov. 24

### II. EIS PREPARATION NOTICES, APPLICANT ACTIONS

<table>
<thead>
<tr>
<th>Proposed action</th>
<th>Applicant/approving agency</th>
<th>Project description</th>
<th>Deadline for requests to be consulted party</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Zoning Change, St. Louis Heights St. Louis-Chaminade Education Center/ Dept. of Land Utilization, City &amp; County</td>
<td>Daniel, Mann, Johnson &amp; Mendenhall, 210 Hard Ave., Hon. 96814.</td>
<td>Previously reported in EQC Bulletin I-8</td>
<td>Nov. 7</td>
</tr>
</tbody>
</table>

### III. NEGATIVE DECLARATIONS, AGENCY ACTIONS

<table>
<thead>
<tr>
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<th>Project description</th>
</tr>
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</table>
| 2. Herbicide Removal of Noxious Shrubs and Trees— Dept. of Land & Nat. Resources | | Proposed action involves herbicide treatment of 500 acres of noxious shrub infested rangeland in Kekeha Kamehekia Management area, Kauai, and selective thinning of 200 acres of scrub forest by felling trees and treating stumps with herbicides. Target species include: Lantana, alsi'
November 24, 1975

Ms. Joanne Yukimura
Rural Route 1
Box 283
Lihue, Kauai 96766

Dear Ms. Yukimura:

Subject: Lihue Airport Master Plan

In response to your telephone request of November 24, 1975, we enclose herewith a copy of the Preparation Notice for the Lihue Airport Environmental Impact Statement.

I have taken the liberty of advising the Environmental Quality Commission of your interest in the project. The Commission will send you a copy of the EIS as soon as it is available for distribution.

Very truly yours,

[Signature]

OWEN MIYAMOTO
Chief, Airports Division

Encl.
cc: AIR-E
December 3, 1975

Mr. James Morrow
American Lung Association of Hawaii
245 North Rukui Street
Honolulu, Hawaii 96817

Dear Mr. Morrow:

Subject: Lihue Airport Master Plan

In response to your telephone request of December 1, 1975, we enclose herewith a copy of the Preparation Notice for the Lihue Airport Environmental Impact Statement.

Very truly yours,

OWEN MIYAMOTO
Chief, Airports Division

Encl.

cc: AIR-E
Environmental Quality Commission
550 Halekauwila Street
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement
Lihue Airport Master Plan Study
Project No. G-6

In accordance with Sub-Part F, Section 1:50, of the State of Hawaii Environmental Quality Commission Regulations, we are filing herewith the EIS for the Lihue Airport Master Plan Study. Enclosed are sixty (60) copies for your distribution and review.

Since the proposed master plan for Lihue Airport will require the acquisition of the surrounding agricultural land, a special use permit for urban use will be necessary. For this reason, we will appreciate a copy of the EIS be sent to each of these agencies - State Land Use Commission, Kauai County Land Use Commission, and the Land Use Division of DPED.

If you need further information, please call Mr. Owen Miyamoto, Chief, Airports Division at 847-9432.

Very truly yours,

E. ALVEY WRIGHT
Director

Enclosure

cc: OEOC
   PMN, Mr. John Sanders
   State Land Use Commission
   Kauai County Land Use Commission
   Land Use Division, DPED
   } without enclosure
Office of Environmental Quality Control
550 Halekauwila Street
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement
Lihue Airport Master Plan Study
Project No. G-6

In accordance with Sub-Part F, Section 1:50, of the State of Hawaii Environmental Quality Commission Regulations, we are filing herewith the EIS for the Lihue Airport Master Plan Study. Enclosed are the original signed copy by the Department of Transportation, Airports Division, the proposing agency, and the additional five (5) copies.

If you need further information, please call Mr. Owen Miyamoto, Chief, Airports Division at 847-9432.

Very truly yours,

E. ALVEY WRIGHT
Director

Enclosures

cc: EQC
✓PWM, Mr. John Sanders\{ without enclosures
REGISTER OF CHAPTER 343 DOCUMENTS

Environmental Impact Statements listed herein are available for review at the following public depositories: Environmental Quality Commission Office; Legislative Reference Bureau; Sinclair Library, State Main Library and the Kaimuki, Kaneohe, Pearl City, Hilo, Wailuku, and Lihue Regional Libraries. Statements are also available at State Branch Libraries that are in proximity to the site of a proposed action (indicated with project description).

EIS Preparation Notices are available from the respective proposing agency or applicant. Please request copies from the listed contacts. A 30 day period is allowed for requests to be a consulted party. Please contact the project proposer.

Anticipated EIS's are proposed actions for which EIS Preparation Notices have been received and for which the deadline for requests to be consulted parties has passed.

Negative Declarations are determinations by an agency that a given action does not have a significant effect on the environment and therefore does not require an EIS 14(p). Publication in the Bulletin of a Negative Declaration initiates a 30 day period during which litigation measures may be instituted.

Comments may be made and sent to the proposing agency or approving agency. The Commission would appreciate receiving a carbon copy of your comments.

EIS PREPARATION NOTICES

SANPO COMMERCIAL COMPLEX, WAIKIKI
Sanpo Land Industrial Co., Ltd. & R.P. Cutshaw & Assoc., Inc.
Dept. of Land Utilization, C&C of Honolulu.

Previously reported in EQC Bulletin II-14

Contact: Sanpo Industrial Co., Ltd.
Robert P. Cutshaw and Assoc., Inc.
Suite 1305, Ala Moana Bldg.
1441 Kapiolani Bldg. Honolulu, Hi.
96814

Deadline: Aug 24

KAUAI MOTORCYCLE PARK, WAILUA,
KAUAI
Kauai Motorcycle Association
Dept. of Land & Nat. Resources

Previously reported in EQC Bulletin II-14

Contact: D. Genegabus, c/o Danny's Electronics, 1340 Kuhio Hwy., Kapaa, Hi. 96746

Deadline: Aug 24

HEEIA-KAI 1.5 MILLION GALLON RESERVOIR
HEEIA-KAI, OAHU
Board of Water Supply, City and County of Honolulu

Previously reported in EQC Bulletin II-14

Contact: Lawrence Whang at 548-5221

Deadline: Aug 24
Construction over a 12-to 15-year period of approx. 31 miles of highway in the districts of North and South Kona from Kealakowaa Heiau at Holualoa to Milolii Junction at Papa. Two principal alternative alignments are being considered. The recommended route will be selected after review of the draft EIS. A calls for widening and improving portions of the existing highway and providing a new highway west of the existing highway for a portion of the project distance; Alternative B calls for the same improvements except that the new highway will be located east of the existing highway. The existing road is comprised of Kuakini Hwy. from Kealakowaa Heiau to Honalo, and Hamalahoa Hwy from Honalo to Papa. (Draft EIS also available at Holualoa, Kailua-Kona, and Kealakekua libraries.)

Deadline for Comments: Sept. 15

Phased II (1981-1985): 1) extension and widening of Runway 21; 2) strengthen existing interisland Runway 3-21 and associated taxiway with asphalt concrete overlay; 3) VASI-4/REIL for Runways 17 & 35; 4) initial phase of a new passenger terminal complex southwest of the existing terminal including: a passenger terminal bldg., 10 air carrier aircraft parking positions, 800 parking spaces, ground transportation bldg. and general aviation aircraft parking apron for 20 aircraft; 5) sewer system; 6) relocation of Nat'l Weather Service Office; 7) improvements to the water distribution system; and 8) expansion of the drainage system.

Phased III (1986-1985): 1) expansion of the passenger terminal bldg.; 2) additional parking for 200 cars; 3) 2 air carrier aircraft parking positions; 4) demolition of old passenger terminal; 5) expansion of new air cargo terminal; 6) aircraft parking apron to accommodate 2 air cargo aircraft; 7) development of the general aviation area to the north of the passenger terminal complex; 8) State Airports baseyard facility; 9) fuel storage area; 10) expansion of the water distribution system and drainage system; 11) relocation of the transformer bldg. (EIS also available at Hapapepe, Kapaa, and Wainee libraries.)

Deadline for Comments: Sept. 7

This project will lie in the district of Hamakua and South Kohala.
MEMORANDUM

TO: E. Alvey Wright, Director
   Department of Transportation

FROM: Albert Q. Y. Tom, Chairman
   Environmental Quality Commission

SUBJECT: Environmental Impact Statement for Lihue Airport Master
         Plan Study, Lihue, Kauai

Copies of the subject EIS's were officially received and
distributed on August 5, 1976. Pursuant to Chapter 343, Hawaii
Revised Statutes, we have sent copies of the EIS's to agencies and
organizations indicated on the attached distribution list. To allow
for a thirty day public review period, deadline for comments is
September 7, 1976. Availability of the EIS has been published in
the August 8, 1976 EQC Bulletin. All written comments will be direct-
ed to the Office of Environmental Quality Control with a copy to your
agency.

If you should have further questions regarding this matter,
please contact Helene Takemoto of OEQC at 548-6915.

Attachment
**Project Name:** Lihue Airport Master Plan Study

**Location:** Lihue, Kauai

**Proposing Agency/Applicant:** DEPT. OF TRANSPORTATION

**Accepting Authority/Approving Agency:** GOVERNOR

**Date Sent:** August 5, 1976

**Deadline Date:** September 7, 1976

### STATE AGENCIES

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### UNIVERSITY OF HAWAII

- Environmental Center (4)
- Water Resources Research Center
- Marine Programs

### FEDERAL

- Environmental Protection Agency...
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Soil Conservation Service
- D.E. Dep. of Agriculture

### D.A.F.E.

- Commanding General/Environmental Section
- Navy
- Army
- D.A.F.E.
- U.S. Coast Guard

### MEDIA

- Honolulu Star-Bulletin
- Advertiser
- The Sun Press - Oahu
- Ka Leo O Hawaii - UH
- Hawaii Tribune - Hawaii
- East Hawaii Today - Kona
### HONOLULU - CITY & COUNTY AGENCIES

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### HAWAII - COUNTY AGENCIES

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### KAUAI - COUNTY AGENCIES

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| 1 | Ms. Joanne Yukimura  
R. R. #1  
Box 28-B  
Lihue, Kauai 96766 |   |   |
| 2 | Jim Morrow  
American Lung Assn.  
245 N. Kukui St.  
Honolulu, Hi. 96817 |   |   |
| 3 | Life of the Land  
404 Piiholo St.  
Honolulu, Hi. 96814  
Attn: Bill McCarthy |   |   |
| 4 | Federal Aviation Administration |   |   |

**Totals:** 10
Reference D-9

University of Hawaii at Manoa
Water Resources Research Center

MEMORANDUM

August 6, 1976

MEMO TO: Environmental Quality Commission

FROM: Reginald H. F. Young
Asst. Director, WRRC

SUBJECT: EIS for Lihue Airport Master Plan Study

We have read with interest the subject EIS and appreciate the opportunity to have participated in its review. We endorse the statement (p. VI-3) that an overall drainage study is necessary as part of any planned expansion.

There have been reports in the literature on the treatment and disposal of wastewaters from aircraft maintenance and airport operations. However, we concur that the principal wastewater load at the Lihue Airport should be similar in nature to a combination of domestic and commercial wastewaters and thus should not pose a difficult treatment problem.

The EIS is returned for your further use.

EHFY:jm

Enclosure
Hieng

Dr. Albert Tom, Chairman
Environmental Quality Commission
550 Helekauwila Street
Honolulu, Hawaii 96813

Dear Dr. Tom:

Lihue Airport Master Plan Study

Thank you for sending us a copy of the Environmental Impact Statement for the proposed "Lihue Airport Master Plan Study." We have received the publication and have no comments to offer.

We are returning the Environmental Impact Statement for the proposed project per your request.

Yours truly,

Yayne R. Tomoyasu
Captain, C.E., HARNP
Contr & Engr Officer

Enclosure
MEMORANDUM

TO: The Honorable E. Alvey Wright
    Director, Department of Transportation

FROM: Andrew I. T. Chang, Director

SUBJECT: Lihue Airport Master Plan Study

The Department of Social Services and Housing has reviewed the subject report and has no comments to offer.

Thank you for the opportunity to review this Environmental Impact Statement.

[Signature]

Director

cc: Office of Environmental Quality Control
Mr. E. Alvey Wright, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Wright:

We have reviewed the environmental impact statement for Lihue Airport Master Plan Study and offer the following comments for your consideration.

a. We have no flood information available at this time on the proposed site. We note that the statement recommends that a detailed drainage study of the entire regional drainage basin be conducted as soon as possible.

b. Since the proposal will commit a large area to airport development, consideration might be given to a discussion of the visual-aesthetic impacts of the ultimate facility and any design aspects for beautification and enhancement.

Thank you for the opportunity to review this statement.

Sincerely yours,

[Signature]

KISUK CHEUNG
Chief, Engineering Division

Copy furnished:
Dr. Richard E. Marland
Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street
Honolulu, Hawaii 96813
AUG 24, 1976

Director
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Sir:

The Federal Aviation Administration, Airports Division, Pacific-Asia Region, wishes to acknowledge receipt of the Environmental Impact Statement for the Lihue Airport Master Plan Study.

As the lead federal agency designated to subsequently accept and distribute the Draft and Final Environmental Impact Statements for formal federal review, this division has previously provided comments on the subject EIS document on October 15, 1975 and July 6, 1976 to the State of Hawaii, Department of Transportation, Airports Division.

In reviewing the subject document, we do not consider it in an acceptable format, nor have all environmental issues noted in our comments been fully addressed.

We would expect that all of the prerequisites to addressing of environmental issues be accomplished prior to our acceptance of the DEIS and FEIS.

We appreciate the opportunity to comment on the document.

Sincerely,

[Signature]

HERMAN C. BLISS
Chief, Airports Division, APC-600

cc:
State of Hawaii, DOT
Reference D-14

DIRECTOR'S OFFICE

SEP 1 / 19 PM '76
DEPT. OF
TRANSPORTATION

80 AUG 1976

Environmental Quality Commission
State of Hawaii
550 Halokauwila Street
Room 301
Honolulu, Hawaii  96813

Gentlemen:

Reference is made to Environmental Impact Statement for Lihue Airport Master Plan Study, dated July 1976.

We have reviewed the EIS document and have no comments to offer. There are no Army facilities on the Island of Kauai at present.

Thank you for the opportunity to review this document.

Sincerely yours,

CARL P. RODOLPH
Colonel, CE
Director of Facilities Engineering

CF:
Mr. E. Alvey Wright, Director
State of Hawaii
Dept of Transportation
869 Punchbowl Street
Honolulu, Hawaii  96813
Reference D-15

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Division of Ecological Services
821 Milliken Street
Honolulu, Hawaii 96813

August 31, 1976

Interim Director
Environmental Quality Commission
550 Haliakuila Street, Room 301
Honolulu, Hawaii 96813

Dear Sir:

This provides comments on the environmental impact statement for
Lihue Airport Master Plan Study, Kauai, Hawaii

GENERAL COMMENTS

As mentioned in the environmental impact statement, drainage is a problem
in the general area of Lihue Airport as flooding frequently occurs during
periods of heavy rainfall. Although coastal settling ponds receive the
area's drainage before its discharge into the ocean, their capacities are
surpassed during peak storm runoff and significant amounts of pollutants,
especially silt, continue to enter the coastal waters from non-point sources.
It should be stated within the text that increased runoff with additional
silt, petroleum products, etc., from the proposed project, will intensify
the problem and further affect marine resources along the coast.

SPECIFIC COMMENTS

In Section IV, page 30, under Fauna, the following is stated: "No known
endemic or native mammals are found on the Island,..." It is suggested
that this statement be changed or qualified to acknowledge the Hawaiian bat
(Lasiurus cinereus semotus), an endemic mammal and listed as endangered on
the federal register, is found on Kauai.

We appreciate this opportunity to comment.

Sincerely yours,

Maurice H. Taylor
Field Supervisor

cc: ARD, AE
DOT
September 2, 1976

E. Alvey Wright, Director
Dept. of Transportation
809 Punchbowl Street
Honolulu, HI 96813

Lihue Airport Master Plan Study

Dear Mr. Wright:

The Environmental Center has been assisted in the review of the above cited Environmenal Impact Statement by Marshall Mock, Kauai Community College.

Time and available personnel have not permitted us to prepare our usual broad review of this EIS. We have two brief comments:

Page IV-24

It is indicated that the land needed for the new runway is Class B and involves 570 acres. The diversion of the land to a transportation use seems to represent an exception to the State's policy to preserve agricultural uses in "prime" agricultural lands.

Page V-55a

It is stated that the airport will serve the demand and not generate it. It may be true that the planned airport facilities will serve a need that is expected in the future with or without the airport. On the other hand, the new facilities may be used to justify requests for approval of projects which depend on these facilities. Indirectly, the airport expansion may produce an expansion in tourist facilities which, as the EIS states, will increase the number of tourists coming to Kauai.

We appreciate the opportunity to review this EIS.

Very truly yours,

Doak C. Cox, Director

cc: OEQC

AN EQUAL OPPORTUNITY EMPLOYER
September 3, 1976

Office of Environmental Quality Control
550 Halekauwila Street
Room 301
Honolulu, Hawaii 96813
Attention: Mrs. Takemoto

Gentlemen:

This is in response to the Environmental Impact Statement covering the Lihue airport expansion dated July, 1976, by Peat, Marwick and Mitchell Company.

Page V-49 Drainage

Lihue Plantation Company prefers not to combine irrigation ditches with storm drainage. If irrigation and storm drainage systems are combined, who will be responsible for maintenance?

Page VI-3 Loss of Agricultural Land

The ramification of losing agricultural land is important. The fixed costs operating the factory, agricultural machinery, trucks, etc. and their manning will not decrease; rather, unit fixed costs will increase.

We feel that these comments should be covered in the final Environmental Impact Statement.

Very truly yours,

AMFAC, INC.

J.R. Loomis, Director
Land and Civil Engineering
Agriculture Group

JRL:vk

cc: Lihue Plantation Co.
September 3, 1976

Office of Environmental Quality Control
350 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Attention: Mrs. Takeioto

Gentlemen:

This is in response to the Environmental Impact Statement covering the Lihue airport expansion dated July, 1976 by Peat, Marwick and Mitchell Company.

1) A comparison of the subject report with the November, 1975 Environmental Impact Assessment Report results in:
   a) A 15% reduction in the projected 1995 air carrier operations
   b) An 80% expansion of the NEF 25 contour for the proposed runway at its shoreline intercepts south of the runway, but no change in that contour around the existing runway.

   No explanation for the change was found in the subject report. Because of the traffic forecast decrease, we think such is in order.

2) Sewage treatment and effluent disposal is described as an unsolved problem. The logical solution is given as tie-in to an expanded central County treatment facility. There is a substantial probability that effluent disposal by ocean outfall will be the most acceptable method; this method will require underpassing the proposed runway.
Office of Environmental Quality Control
September 3, 1976
Page 2

We believe that minimum cost to all concerned is possible by joint effort by State, County and the owners of those lands proposed to generate sewage by urban development. We suggest that the State initiate discussions on this approach.

Thank you for this opportunity to make these comments. We will be glad to confer further on this matter.

Very truly yours,

AMFAC COMMUNITIES-HAWAII
a division of AMFAC, INC.

E. W. Broadbent
Vice President

cc: State Department of Transportation

Attn: Mr. E. Alvey Wright, Director
September 6, 1976

State of Hawaii
Environmental Quality Commission
Office of the Governor
550 Kalekauwila St., Rm. 301
Honolulu, Hawaii 96813

Attn: Deputy Chairman

Gentlemen:

On the afternoon of August 31, I received your letter regarding the Environmental Impact Statement for the Lihue Airport Master Plan Study.

Due to a prior commitment of my time I could not spend the time it would take to read the two volume statement carefully and make comments on it. I would like the comments I made in my testimony submitted at the public hearing held in Lihue to stand as they are, as they still reflect my opinions.

Sincerely,

[Signature]

Mrs. Robert Hopkins
P. O. Box 266
Hanalei, Hawaii 96714
September 7, 1976

Dr. Richard E. Warland, Director
Office of Environmental Quality Control
550 Halikauwila Street, Room 301
Honolulu, Hawaii  96813

Dear Dr. Warland:

Subject: Environmental Impact Statement for the Lihue Airport Master Plan Study

We have reviewed the air quality section of the subject EIS and found that while parts of it have been rewritten and corrected it is basically in the same condition as its predecessor EAAR upon which we have commented to DOT Airports Division several times with copies to your office. To summarize some of our major comments for you one more time, we offer the following:

1. What the preparers describe as "worst case conditions" are in fact average conditions in terms of aircraft activity levels and best case conditions in terms of meteorology. To assume that hourly emissions will be dispersed up to an altitude of 1,050 m in a 2,400 m by 7,500 m box when the bulk of the emissions occur right on the ground is an ideal and practically impossible situation. This results in a significant underestimation of air quality impact.

2. Landing-takeoff (LTO) emission factors (pounds per LTO) are still being multiplied by the number of operations instead of the number of LTO's which is obviously wrong (See Table V-5). This results in a two-fold overestimation of air quality impact.

3. In addition to the incorrect labeling of emissions as mg/m³ in Table V-5, there is a new mathematical error not noted in our previous comments. All hourly CO values are wrong by a factor of 10.

4. The EIS continues to indicate a misunderstanding of the difference between emissions and ambient air quality. Table V-5 and Exhibit N (b) incorrectly identify as emissions values which have units of µg/m³ when in fact µg/m² are units of air quality measurement. The best example of this misunderstanding is the sentence on p. V-41 which states:
"Hourly aircraft emissions can be directly compared to air quality standards utilizing the box method to project future emissions."

Emissions cannot be directly compared to air quality standards (AQS). The box method does not project future emissions. Like any other dispersion model, it allows the translation of emissions into air quality estimates which then can be compared to AQS.

5. Engines not representative of the aircraft class indicated are still being used, and the result is an underestimation of pollutant emissions.

6. The generation of motor vehicle emission factors (EF) was revised and is much more technically sound than the earlier effort. We have only a couple of minor comments regarding it. The use of linear interpolation to determine the 1985 EF introduced some error since by 1985 and beyond the EF curve is no longer linear and is changing slope due to the attrition of older vehicles and the increasing percentage of newer vehicles meeting more stringent standards. For basically the same reason the extrapolation to 1995 is not quite right since by that time the curve will have leveled off as virtually all vehicles on the road will be meeting the same standards.

As a result of the above and all the errors noted in our letters of January 19, 1976, June 21, 1976, and August 11, 1976, the impact of the proposed master plan on air quality remains unknown. We trust that all errors will be corrected and the air quality impact accurately assessed before this EIS is accepted.

Sincerely yours,

James W. Morrow, Director
Environmental Health

cc: E. Alvey Wright
Dr. James Kumagai
Reference D-21

440 Alexander Young Building, Honolulu, HI 96813

SEP 8 12 58 PH 76
September 24, 1976
TRANSPORTATION

Dr. Richard E. Marland
Office of Environmental Quality Control
550 Halekamala Street, Room 301
Honolulu, Hawaii 96813

Dear Dr. Marland:

Subject: Environmental Impact Statement for Lihue Airport
Master Plan Study

We have reviewed the subject document and offer the following comments for your consideration:

In the DEIS it states "ultimate development of Lihue Airport as recommended in the Master Plan is estimated to take 570 acres of sugarcane land out of production, or approximately 1 percent of the total cane land on the island of Kauai." Over 90 percent of the 570 acres is Lihue silty clay which is classified by the Soil Conservation Service as prime farmland. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops.

We recommend that careful consideration be given to all possible alternatives before considering the trade off of 500 plus acres of prime farmland for an airport expansion.

Thank you for the opportunity to review this document.

Sincerely,

Francis C. H. Lum
State Conservationist

cc: E. Alvey Wright, Director
Dept. of Transportation
869 Punchbowl St.
Honolulu, HI 96813
DEEE (Mr. Nakashima, 4492158)

SUBJECT: Environmental Impact Statement

to: Environmental Quality Commission
550 Hakekauwila Street, Room 301
Honolulu, Hawaii 96813

1. This headquarters has no comment to render relative to the environmental impact statement for the Lihue Airport Master Plan Study on the Island of Kauai.

2. We greatly appreciate your cooperative efforts in keeping the Air Force apprised of your development projects throughout the State and the opportunity to review the subject statement.

BEN D. KOSA
Dep Dir of Civil Engineering
MEMORANDUM

To: Dr. Richard E. Marland, Director
   Office of Environmental Quality Control

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement (EIS) for Lihue Airport Master Plan Study

Thank you for allowing us to review and comment on the subject EIS. Please be informed that we have several concerns in regard to this Lihue Airport Master Plan Study.

Staff comments are as follows:

Sewage Disposal:

All airport expansions should be coordinated and phased with the County STP expansions.

1. Sewage generated by Lihue Airport should be hooked up to the County system. The present cesspool sewage system is not performing satisfactorily, requiring pumping almost weekly.

2. The proposed Lihue STP ocean outfall sewer will require an easement through the area of the proposed airport expansion. If the new airfield could not accommodate both the construction of this proposed ocean outfall sewer and allow normal airport traffic flow, the construction of the proposed ocean outfall sewer should precede the proposed airport expansion.

NPDES:

The proposed airport expansion will remove approximately 570 acres of cane land which is or would be utilized for the disposal of sugar mill process waste water and sewage effluent. This estimate of 570 acres of cane land could be a gross underestimation since poor planning of the airport expansion could cut off all of the makai cane lands from being irrigated with cane waste water and sewage effluent.

This is recycled paper
Dr. Richard E. Morland

1. Lihue Plantation will be forced to cut back approximately 5.7 mgd of mill waste water from being disposed in their mokai fields which:

(a) represents between 41-49% of their mill waste water;

(b) could result in the violation of their NPDES permit requirements which include the use of disposal fields;

(c) could create mosquito population explosions as a result of the significantly reduced area of available disposal fields; and

(d) could result in the levy of fines as a result of NPDES enforcement action.

2. The County will be forced to seek other means of effluent disposal which may include the construction of additional injection wells, outfall sewers, or additional pumping facilities to move the effluent to other disposal fields.

Air Quality:

The "box model" is not adequate to identify ambient air quality effects of this proposed expansion of Lihue Airport. More sophisticated diffusion models are available and would provide a better estimate of ambient air quality effects if the necessary data were available. It is believed that meteorological data is recorded at the airport and ambient air quality data is recorded at the Kauai District Health Office. It is also believed that the airport topography is very suitable for available diffusion models which are more appropriate than the "box model."

Noise Impact:

It is noted that neither the State nor the County have promulgated a noise control regulation for Kauai. Aircraft noise should be adequately addressed by FAA regulations.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

JAMES S. KUNAGAI, Ph.D.

cc: Dept. of Transportation

Kauai DMO
MEMORANDUM

TO:     E. Alvey Wright, Director
Department of Transportation

FROM:  Richard E. Marland, Director
Office of Environmental Quality Control

SUBJECT: Environmental Impact Statement for Lihue Airport
Master Plan Study

As of this date, this Office has received thirteen comments on the above subject. An attached sheet lists the responding agencies and/or organizations.

In our review of the EIS, we have found several areas in which the discussion should be expanded. We offer the following comments:

CONTACTED AGENCIES (p. I-11)

During the preparation of the EIS, our Office was contacted and should be listed as such.

CORRECTION (p. II-6)

The second line of the document refers to it as ETAR. In order to avoid confusion, this should be corrected.

NUMBER OF FLIGHTS (p. III-20)

Although the number of flights is listed, the peak hours flights per day should be listed in order to give a more realistic flight distribution. Also, the peak number of flights for the future should be given.

CONFUSION (p. IV-16)

The EIS states, "The conservation district and all activities permitted within such a district are regulated directly by the State Land Use Commission." This statement is misleading. The Department of Land and Natural Resources also regulates activities within the conservation district by issuing conservation district use applications.
In the comparison of the December 1972 R. C. Loehr study, does the three pounds per acre per year of nitrogen values and phosphorus outputs consider the same amount of rainfall and terrain as Lihue Airport?

**Ambient Noise**

The EIS presents data and information only for certain jets. We recommend that discussion be given to helicopters and private planes. These aircraft have different flying patterns and may affect ambient noise levels other than around the proposed runway.

**Use of Proposed Runway**

The EIS does not mention whether the proposed action will be capable of landing larger jets than the ones presently serving Kauai. Will Lihue be a port entrance for mainland and/or foreign flights? Will it be able to accommodate larger jets for future plan?

**Present Runway**

Will the existing runway be used after the new runway is constructed? If so, how would these two runways affect the air and noise quality? Since the EIS is directed only to the new runway, it is important to discuss the impact of both runways if they are in operation.

**Air Emission** (p. V-35)

One of our major concerns is this section. In section 1.42 n. of the EIS Regulations, it states a, "Summary of unresolved issues and with a discussion of how such issues will be resolved prior to commencement of the action, or what overriding reasons there are for proceeding without resolving such problems." However, the air quality section has not indicated unresolved issue. We refer you to the comment by the American Lung Association.

Further, the EIS states, "...the methodology is designed to express the 'worst case condition' and therefore all aircraft emissions within the volume will be used." What volume is this in reference to? We also find that this statement is misleading. The data are calculated as gross daily and hourly aircraft emissions (Table V-5) and average daily LTO (Table V-4). However, the worst case is not clearly shown from the tables. The peak hours with little or Kona wind conditions are not discussed. The EIS should also note that because humidity and weather temperature strongly affect the length of take-off for an aircraft, the rate of air emissions may increase. These factors should also be considered in the data. As a result, the conclusion on air quality may differ
than the present conclusion in the EIS. For example, page V-45, table V-15 shows that during 1974, January 27, February 24, and September 16 had values quite close to the state air quality standards. If these readings were taken during peak hours and at worst conditions, the values may have exceeded the standards.

If this condition could possibly exist presently, will air quality standards be exceeded in the future under worst conditions?

Thus, it is important to discuss the worst conditions with factors of humidity, wind conditions, and temperature at peak hours in order for a more accurate analysis. An expanded discussion is warranted.

SEWAGE DISPOSAL (pps. V-47 & 48)

What is the present capacity of the sewage at the airport?
What is the projected sewage load?

Although we realize that plans are tentative, we anticipate once a sewage treatment plant is determined, consideration of Chapter 343, Hawaii Revised Statutes should be given.

DRAINAGE (p. V-51)

Although the EIS states, "Expansion of the Airport as proposed will increase impervious surfaces (airfield, aircraft parking apron, roadways and parking, and roofs), thus increasing surface runoff and aggravating the poor drainage situation now in existence," no quantification is attempted. Rough figures of increase runoff can be predicted as shown by the studies at the University of Maryland. In addition, the study examines the impact of the debris on water quality and have found that surface run-off attributed greatly to the adverse water quality. Thus, we recommend an expanded discussion to include the amount of runoff, the drainage paths, and the effect it may have on the water quality.

SURFACE TRAFFIC AND AIRPORT AREAS (p. V-52)

It is important to note that much traffic is generated from commercial planes arriving and departing during peak hours. However, by giving the total counts and average counts does not indicate the actual distribution. Thus, our Office recommends a discussion of the peak traffic loads and its ingress and egress of the airport during peak hours.

SECONDARY IMPACTS (p. V-56a)

In general, secondary impacts have been inadequately discussed. The proposed action will contribute to growth. However, the burden of growth stimulation should not simply be passed to the state and local agencies. Your participation in this action is a vehicle and part of the stimulant to growth and development that contributes to increased population and increased pollution. By
increasing the airport capacity, you are participating in growth. Thus, the discussion of secondary impacts is not sufficient and warrants an expanded discussion.

In addition, the EIS states, "The purpose of the recommended Airport Master Plan is to provide airport facilities commensurate with the level of demand, rather than to induce growth in order to generate greater demand." On the other hand, with restricted transportation facilities to Kauai, demand may decrease. Thus, by adding a new runway, one could assume the proposed action is creating the demand rather than accommodating the demand since the EIS states that the present runway is capable of serving larger jets and the future traffic. Thus, in this view, the secondary impacts become quite significant. Then, the water supply, land values, transportation, existing lifestyle, public utilities, and surrounding areas become affected.

WILDLIFE AND VEGETATION (p. V-68)

The EIS mentions that two species, Hawaii Stilt and Hawaiian Coot, could frequent the Ahukini Reservoir located outside the area "proposed for acquisition and development as part of the Master Plan." However, birds are not stationary creatures. Will they interfere with the flight patterns of aircraft? Will the two endangered birds be protected? Are any mitigation measures proposed for the protection of the birds and passengers?

ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Secondary impacts should also be discussed in this section.

MITIGATION MEASURES

Although the EIS discusses mitigation measures for noise, what about its impacts to the passengers and workers on the ground? Also, mitigation measures during construction should be discussed in the document.

CONSERVATION OF ENERGY

It is important to note that we are still in an energy crisis. By implementing the proposed action, it will have an impact on the consumption of our precious natural resources. Thus, we strongly recommend a discussion of how this action will affect the energy crisis. Will the new runway increase fuel consumption because of the longer taxing distance to the ground terminal?

SHORT-TERM USES VS. LONG-TERM PRODUCTIVITY

We recommend that this section be expanded to include secondary impacts in terms of increased energy consumption, population growth, urbanization, and change of existing lifestyle.
LIST OF APPROVALS

One of the requirements for an EIS is to include a list of approvals specified by section 142 6. of the EIS Regulations. We recommend that this be included.

CONSULTATION PROCESS

Although the EIS includes and documents the public hearing and the testimonies, the consultation process is not documented. In section 142 m. of the EIS Regulations, it states that the EIS shall include a "Reproduction of comments and responses made during the consultation process." Inclusion of the comments and responses of the consultation process assures the reviewer and the accepting authority that public input was considered and that the proposing agency endeavored to develop a fully acceptable document prior to the time the EIS is filed with the Environmental Quality Commission. As a result, the EIS will not be a complete document unless this has been included.

RECOMMENDATIONS

For brevity and fairness, our Office did not attempt to summarize other reviewers. Instead, we strongly recommend that careful consideration be given to each comment. In responding to comments during the review process, we also recommend that your responses be sent directly to the commentor with a copy to our Office. If reference is made to the revised EIS in your response, the response should be accompanied by the revised EIS or excerpts of the document to assure that an adequate response has been given.

Further, the EIS Regulations states that the accepting authority need not consider responses after the fourteen day response period. However, because of the controversial nature of the proposed action and our substantive comments, we will consider responses beyond the fourteen day response period.

We trust that our comments have been helpful to you in preparing the revised EIS. We thank you for the opportunity to comment of the EIS. We look forward to the revised EIS.

attachment
LIST OF COMMENTERS

FEDERAL

*U.S. Army Engineer District
   August 19, 1976
*Department of the Army (Facilities Engineering)
   August 30, 1976
*U.S. Fish and Wildlife
   August 31, 1976
*Soil Conservation Service
   September 7, 1976
   Department of the Air Force
   September 9, 1976

STATE

   Department of Defense
   August 9, 1976
*Department of Social Services and Housing
   August 16, 1976

COUNTY OF KAUAI

UNIVERSITY OF HAWAII

   Water Resources Research Center
   August 6, 1976
*Environmental Center
   September 2, 1976

PRIVATE SECTOR

*Amfac Communities-Hawaii
   September 3, 1976
Amfac Inc.
   September 3, 1976
Helen Hopkins
   September 6, 1976
*American Lung Association
   September 7, 1976

*comments forwarded by reviewer
MEMORANDUM

TO: Dr. Richard E. Marland
Office of Environmental Quality Control

FROM: Hideto Kono, Director

SUBJECT: Environmental Impact Statement for the Lihue Airport Master Plan Study

We have reviewed the subject EIS and wish to offer the following comments for your consideration.

The State Comprehensive Outdoor Recreation Plan, prepared by this agency, identifies the coast from Mananaulu Bay through Ninini Point as having significant recreation potential. Hence, we are pleased that the proposed north-south runway is located such that shoreline encroachment is avoided and public access maintained.

It is noted, however, that the Nawiliwili Light Station at Ninini Point, presently owned and administered by the Coast Guard, falls within the proposed airport boundary. As you may know, the Coast Guard has been automating such facilities and declaring adjacent lands surplus. State and local agencies are eligible to acquire the surplus property for recreation purposes at no cost. Therefore, it should be indicated whether or not this property, under the Master Plan, would be available for recreational use; if not, the loss of recreation potential should be identified as an adverse impact.

The above notwithstanding, the subject statement appears to be reasonably adequate in its consideration of impacts that might be anticipated with implementation of the Lihue Airport Master Plan.

We have no other comments to offer at this time, but appreciate the opportunity of review.
Dr. Richard E. Ready
Office of Environmental Quality Control
251 Middle Street, Room 301
Honolulu, Hawaii 96813

Dear Dr. Ready:

We, the East and East Ko'olau and Water Conservation District (EKWC), have reviewed the comments sent to you by Francis I. Lyman, State Conservationist, concerning the Environmental Impact Statement for Lihu'e Airport Master Plan Study. We would like to go on record expressing Mr. Lyman's comments. Very careful consideration should be given to all feasible alternatives before using prime farmland.

Changes in runoff and drainage systems will have an adverse effect on Lihu'e Plantation's environment. Lihu'e and possibly the ocean. Rainwater discharging from Lihu'e Plantation will need to be diverted elsewhere for control, and the increased cost of pumping should be considered in the overall plan. The concern about substantially harmful soil erosion and sedimentation only reinforces the fact that the airport plan is approved we would like to request a comprehensive conservation plan be prepared for the area. We also want an opportunity to review and comment on the plan.

Thank you.

Sincerely,

Albert Morgan
Chairman, East Ko'olau WCD

John H. Ko'oka, Jr., Chair
Wast Ko'olau WCD

cc: H. Alway Weight

Francis C. H. Lyman
September 16, 1976

Office of Environmental Quality Control
550 Halekauwila Street
Honolulu, Hawaii 96813

Gentlemen:

We have reviewed the EIS for the Lihue Airport Master Plan Study.

Implementation of the plan will have minimal impact on wildlife. There are no endangered wildlife species present, nor any habitat for endangered wildlife. Although irrigation ditches will be crossed, there is no evidence that they are presently used by endangered water birds.

The impact on agricultural operations dependent on the ditches should be covered. We support the idea of undertaking a regional drainage study with a view toward minimizing potential non-point pollution of the shoreline. But for the drainage study, the EIS document adequately assesses Phase I impact on biological and fishing values.

We are especially pleased to note (p. V-69) that public access to the shoreline will be retained.

Very truly yours,

GORDON SOH
Program Planning Coordinator
MR. DONALD BRENNER, DEPUTY DIRECTOR  
Environmental Quality Commission  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Dear Mr. Bremner:

Pursuant to your letter of September 13, 1976, we have the following comments to offer with respect to the EIS for the Lihue Airport Master Plan. Specifically, we would like to address the last paragraph of section IV-20 of the document which states:

"According to the State Department of Land and Natural Resources, an airport is an urban use that may be authorized in an agricultural district by means of a special use permit. The existing 177-acre Lihue Airport is classified as urban. Expansion of Airport boundaries or acquisition of surrounding properties for Future Airport development requires an amended use permit to include all new properties."

We note that the existing Lihue Airport (as shown in Exhibit A of the EIS) is situated entirely within the State’s Agricultural District, except for a very minor portion along the shoreline which is designated Conservation. The present facility is considered a non-conforming use within the Agricultural District; therefore, expansion of the airport would require either:

1) Approval of a Special Permit by the Kauai County Planning Commission and the Land Use Commission under the provisions of Sec. 205-6, HRS, or

2) Approval of a boundary amendment from Agricultural to Urban by the Land Use Commission, as provided for under Sec. 205-4, HRS.
Enclosed are copies of the Commission's Rules and Regulations, a Citizens' Guide to the Rules and Regulations, and a copy of the Land Use District Map covering the Lihue Airport Area.

Thank you for the opportunity to comment. Should you have any questions on the above, please do not hesitate to contact this office.

Very truly yours,

AH SUNG LEONG
Acting Executive Officer

ASL: yk
Enc.
cc: Department of Transportation
October 21, 1976

Mr. E. Alvey Wright, Director
Dept. of Transportation
359 Punchbowl Street
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement, Lihue Airport
Master Plan Study

In reviewing the subject project, we concur that there will be some unavoidable negative impacts that will occur as a result of the expansion of the airport—these being, aircraft noise, loss of agricultural land, water runoff, and sewage disposal. Because agriculture is one of the two major economic bases for Kauai, we are specifically concerned with "the loss of agricultural lands."

The EIS includes testimony prepared by Amfac, Inc. stating that tremendous problems will incur as a result of the loss of 570 acres (approximately 3% to 4% of their total acreage) of cultivated cane lands. Mill operations, irrigation systems, production volumes, and employment will be affected. The company estimates a loss equal to 8.6% of their 1975 production volumes.

The EIS does not address loss of revenues to the County as a result of taking this much acreage out of production and placing it under government ownership. To lessen the impact of the loss of agricultural lands, alternatives should have been
Mr. E. Alvey Wright  
Page 2  
October 21, 1976

explored to allow cultivation between the runways, as is done in European countries. Furthermore, low lying areas where cane production would not affect viewpoints from the control tower, could be identified, such that cultivation can continue and the acreage loss can be reduced.

We feel that the removal of 570 acres of highly productive agricultural lands is such a tremendous loss to Lihue Plantation Company and to the agricultural base of Kauai that further study relating to efficient utilization of the surrounding airport lands, is warranted. If the airport expansion is going to jeopardize the operations of a major company, important to the economy of Kauai, then we should do all that is possible to provide the necessary support that the company will need in order to maintain feasible operations.

The foregoing should be considered in light of the 1976 State Legislatures' adoption of Act 199 which specifically limits uses to be permitted in the State Agriculture District on Class A or B soils lands. The airport expansion as proposed will result in considerable acreage of Class A and B soils taken out of agricultural use. Although HRS 205-5 does provide for unusual and reasonable uses on State Agriculture District lands through Special Permits applied before the State Land Use Commission, Act 199 is intended to supplement HRS 205 and the airport expansion should be appropriately evaluated as a significant expansion of an existing non-conforming use on State Ag District, Class A and B soils lands.

On page IV-20, third paragraph, the second sentence, "The existing 177-acre Lihue Airport is classified as Urban." This is not correct. It is presently classified agriculture.

We hope our impact will be of value to you and appreciate the opportunity to provide comments.

[Signature]
BRIAN HIGUCHI
Planning Director
Reference D-30

November 9, 1976

AIR-EP
2032

Captain Wayne R. Tomoyasu
Hawaii Air National Guard
Department of Defense
State of Hawaii
Fort Ruger
Honolulu, Hawaii 96816

Dear Sir:

Subject: Lihue Airport Master Plan Study
Project No. G-6

We appreciated receiving your comments on the State Environmental Impact Statement (pursuant to Chapter 343, Hawaii Revised Statutes) for the Lihue Airport Master Plan Study.

We wish to thank you for the interest you have shown in this study and in particular for the time you have taken to review and comment on this document.

Very truly yours,

E. ALVEY WRIGHT
Director

cc: Mr. John Sanders, P.M.
Honorable Andrew I. T. Chang, Director
Department of Social Services and
Housing
1390 Miller Street
Honolulu, Hawaii 96813

Colonel Carl P. Rodolph
Director of Facilities Engineering
Department of the Army
Building 230, Ft. Shafter
APO San Francisco 96553

Mrs. Robert Hopkins
P. O. Box 266
Hanalei, Hawaii 96714

Mr. Reginald H. F. Young
Assistant Director
University of Hawaii
Water Resources Research Center
2540 Dole Street
Honolulu, Hawaii 96822

Department of the Air Force
Headquarters, 15th Air Base Wing
(PACAF)
APO San Francisco 96553

Attention DEEE (Mr. Nakashima)

Captain Wayne R. Tomoyasu
Hawaii Air National Guard
Department of Defense
State of Hawaii
Fort Ruger
Honolulu, Hawaii 96816
State Land Use Commission  
Department of Planning & Economic Development  
State of Hawaii  
Honolulu, Hawaii 96813

Gentlemen:

Subject: Lihue Airport Master Plan Study  
Project No. G-6 (S-1020)

Thank you for your comments on the EIS for the Lihue Airport Master Plan Study.

The State Department of Transportation is presently in the process of applying for an amended use permit to include all new properties proposed for acquisition on the Master Plan.

Very truly yours,

[Handwritten Signature]

ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control  
    Mr. John Sanders, Peat, Marwick, Mitchell & Co.
East and West Kauai
Soil and Water
Conservation Districts
P. O. Box 1012
Lihue, Hawaii 96766

Gentlemen:

Subject: Lihue Airport Master Plan Study
Project No. G-6 (S-1020)

This is in response to your comments on the EIS for the Lihue Airport Master Plan Study.

We concur that any reduction of agriculturally productive land on Kauai is an important matter worthy of detailed consideration. As part of the Master Plan Study for Lihue Airport, a number of alternatives were considered including relocation to another site; various airfield and terminal complex alternatives in connection with the present site; and a "do nothing" option. Regarding alternative sites, the analyses indicated that an airport developed at either of the two possible sites (Kilauea Bay-Moloaa Bay and Port Allen), which were acceptable from an aeronautical standpoint, would result in a greater loss of agricultural land than the recommended improvements at the present Airport site. As a consequence, both sites were rejected as viable alternatives.

The studies further determined that the addition of a new north-south runway at the present Airport, to be used in conjunction with the existing runway in order to improve aircraft approach conditions and mitigate the currently adverse noise impacts over Kauai High School and nearby residential areas, was necessary. Moreover, based upon various airfield and terminal complex layout configurations, and as a result of public input at the formal Public Hearing, the final Airport Master Plan was developed to minimize the taking of productive agricultural land to the greatest extent possible.
Inasmuch as the development of an overall airport master plan is generalized rather than specific, it was not possible to perform a detailed drainage analysis as a part of the Lihue Airport Master Plan Study. However, recognizing that there is presently a serious drainage problem at Lihue Airport, as well as in its immediate vicinity, one of the recommendations of the study is that a detailed drainage study be performed in the near future as a joint effort of the State, local, and private interests. We assume that the East and West Kauai Soil and Water Conservation Districts would be involved in such a study. The questions raised by the Districts concerning the Lihue Mill waste water disposal and potentially harmful soil erosion and sedimentation would have to be resolved as a part of such a drainage study. In any case, the designers of the drainage system shall work with you to find the best system to resolve the problem.

We appreciate your comments and interest in our program.

Very truly yours,

E. ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
November 15, 1976

Amfac Communities - Hawaii
P. O. Box 3230
Honolulu, Hawaii 96801

Gentlemen:

Subject: Lihue Airport Master Plan Study
Project No. 6-6 (5-1020)

This is in response to your comments on the EIS for the Lihue Airport Master Plan Study.

In addition to the reduction in air carrier operations noted in the comments, the 1995 mix of air carrier operations has also been revised as presented on Table V-4. These changes result in more operations of noisier B-727-200 aircraft and fewer DC-10 operations than previously forecast. The increase in aircraft noise exposure characteristics for the B-727-200 as compared to the DC-10 is barely noticeable for the take-off roll (on the existing Runway 3) because there is a high attenuation of sideline noise while the aircraft is still on the ground. However, the difference in aircraft noise exposure characteristics on the approach path (to Runway 35) is noticeable where the increased noise of each B-727-200 aircraft arrival offsets the overall reduction in aircraft operations.

Regarding sewage disposal, it is our understanding that the County plans to use deep-well injection rather than discharge into the Pacific Ocean. This approach would eliminate any need for an ocean outfall. However, there appears to be some controversy between the State Health Department and the County as to whether deep-well injection is acceptable. This matter will have to be resolved before construction of the runway commences in that an ocean outfall sewer line would necessarily have to underpass the proposed runway.
Amfac Communities - Hawaii
Page 2
November 15, 1976

We concur with the comments that a joint effort for sewage treatment of the entire area needs to be worked out by all concerned parties.

We appreciate your comments and assistance in planning Lihue Airport.

Very truly yours,

E. ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
United States Department of the Interior
Fish and Wildlife Service
821 Mililani Street
Honolulu, Hawaii 96813

Gentlemen:

Subject: Lihue Airport Master Plan Study
Project No. G-6 (S-1020)

This is in response to your comments on the EIS for Lihue Airport Master Plan Study.

The detailed engineering studies for the north-south runway (currently underway) include a drainage analysis. The drainage analysis will investigate the need for additional settling ponds to handle anticipated peak flows and thus reduce potential problems caused by pollutants, especially silt. The EIS will be revised to reflect this comment.

We will include the Hawaiian bat (Lasiurus cinereus semotus) in the list of endemic mammals and note that it is an endangered specie.

We appreciate your comments and interest in our program.

Very truly yours,

E. ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
November 15, 1976

Mr. K. Hayama
Acting Chief, Airports Division
Federal Aviation Administration
Department of Transportation
P. O. Box 4009
Honolulu, Hawaii 96813

Dear Mr. Hayama:

Subject: Lihue Airport Master Plan Study
Project No. 6-6 (S-1020)

This is in response to your August 24th comment to the Office of Environmental Quality Control on the EIS for the Lihue Airport Master Plan Study.

As noted, you have previously submitted written comments on earlier versions of this report in October 1975 and July 1976. The October 1975 comments have been responded to and have already been incorporated in the report.

The July 1976 comments have been reviewed with FAA, the State Office of Environmental Quality Control, and the State Department of Transportation, and will be incorporated, where appropriate, in the Federal Draft EIS to be submitted to FAA following completion of the State EIS process.

We appreciate your concern.

Very truly yours,

E. ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
Reference D-36

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

November 15, 1976

Department of the
U.S. Army
Engineer District Honolulu
Building 230
Fort Shafter
APO San Francisco 96558

Gentlemen:

Subject: Lihue Airport Master Plan Study
Project No. G-6' (S-1020)

This is in response to your comments on the EIS for the
Lihue Airport Master Plan Study.

As part of the detailed design and actual development
of the proposed Airport improvements, maximum consideration
will be given to the visual-aesthetic impacts of these
facilities, in particular, the new passenger terminal complex.
Toward this goal, the 1985 Airport Master and Land Use Plan
(Exhibit B on page II-3) recommends considerable landscaping
both in the area of the new passenger terminal complex and
along the Ahukini Road access to and from the Airport.

We appreciate your comments and interest in our program.

Very truly yours,

ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
Reference D-37

Mr. Francis C. H. Lum
State Conservationist
U. S. Soil Conservation Service
440 Alexander Young Building
Honolulu, Hawaii 96813

Dear Mr. Lum:

Subject: Lihue Airport Master Plan Study
Project No. G-6 (5-1020)

This is in response to your comments on the EIS for the Lihue Airport Master Plan Study.

As noted on page V-55 of the EIS, it is an expressed goal of the State to minimize the amount of land taken out of agricultural production for airport improvements. The land recommended for acquisition in fee title is the minimum acreage required. The loss of this very productive cane land is also acknowledged as being the major adverse impact of the proposed airport improvements.

Many alternatives were considered during the Study before the recommended Master Plan was developed. Among the alternatives analyzed were the possible use of other modes of transportation; alternative airport locations; the existing airport without improvement ("do nothing" alternative); and the existing airport with alternative airfield and terminal locations and configurations that might alleviate present and potential adverse environmental impacts on the Airport environs.

We appreciate your comments and interest in our program.

Very truly yours,

[Signature]
E. ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
November 15, 1976

University of Hawaii
Manoa Campus
Environmental Center
Crawford 317
2550 Campus Road
Honolulu, Hawaii 96822

Gentlemen:

Subject: Lihue Airport Master Plan Study
Project No. G-6 (S-1020)

This is in response to your comments on the EIS for the Lihue Airport Master Plan Study.

As noted on page V-55, it is an expressed goal of the State to minimize the amount of land taken out of agricultural production for airport improvements. The land recommended for acquisition in fee title is the minimum acreage required. This loss of cane land is also acknowledged as being the major adverse impact of the proposed improvements. While it is very productive cane land, the acreage to be lost from actual production represents about 1% of the total cane land on Kauai.

As stated in the EIS under the discussion of the do-nothing alternative (page VIII-15), there is sufficient capacity at the existing Lihue Airport to handle all forecast aircraft operations through the 20-year planning period. The estimated capacity of the existing single runway is 170,000 operations per year. By 1995, the number of aircraft operations is forecast at 82,000 operations per year or less than 50% of the capacity of the present single runway. Only 35,500 of the 1995 forecast total operations will be air carrier operations. Therefore, even with no Airport improvements, growth on the Island could continue.

By way of example, no major improvements have been made at the Airport for many years and yet this has not constrained tourist and other growth on Kauai. Since 1967, visitor accommodation units on the Island have increased from 1,260 to 3,102 units in 1974. During this same period, estimated west-bound visitors increased from 275,461 to 601,703.
Although there will be an approximate 25% increase in airfield capacity, to 210,000 operations per year with the addition of the north-south runway, this cannot be construed as participating in growth when so much unused airfield capacity already exists. It is important to realize that the new runway has not been recommended because of a need to provide additional capacity to accommodate forecast increased demand. Rather, the new runway has been recommended to reduce to the greatest extent possible, the impact of aircraft operations on existing schools and residential areas to the south, and to provide a precision instrument approach capability that cannot be provided for the existing runway because of the mountainous terrain south of the Airport.

The existing Lihue Airport functions as a service facility. It neither promotes nor restricts growth on the Island. As stated in the EIS (page V-56a), the number of people traveling to and from Kauai (other than local residents) is primarily a function of (1) the attractiveness of Kauai as a visitor destination area and (2) the visitor accommodations available on the Island.

The control of development to accommodate visitors rests with County government through the regulation of land use, zoning, and the issuance of building permits for commercial, resort, and residential development. As noted previously, even if the State Department of Transportation does nothing to improve Lihue Airport, tourism on Kauai could continue to grow if County government finds it in the best interests of the Island to authorize additional commercial, resort, and residential development. On the other hand, the State Department of Transportation could greatly expand the Airport and not induce additional growth if the County government were to adopt a very restrictive policy toward resort development, for example, by not permitting development of any additional visitor accommodation units on the Island. Therefore, the indirect impacts associated with an expansion in tourist facilities will be determined by what happens elsewhere than on the Airport proper.

We appreciate your comments and interest in our program.

Very truly yours,

E. ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control
    Mr. John Sanders, Peat, Marwick, Mitchell & Co.
November 15, 1976

Mr. Gordon Soh  
Program Planning Coordinator  
Department of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii 96813

Dear Mr. Soh:

Subject: Lihue Airport Master Plan Study  
Project No. G-6 (S-1020)

This is in response to your comments on the EIS for the Lihue Airport Master Plan Study.

The impact on agricultural operations dependent on the ditches will be covered in the detailed drainage study currently underway and the actual cane fields will be identified. This should include the provision of siphons under the proposed new Runway 17-35 to irrigate the cane field lying east of the proposed new runway.

We appreciate your comments and interest in our program.

Very truly yours,

E. ALVEY WRIGHT  
Director

cc: Office of Environmental Quality Control  
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
Dear Mr. Kono:

Subject: Lihue Airport Master Plan Study
Project No. G-63 (S-1020)

This is in response to your comments on the EIS for the Lihue Airport Master Plan Study.

The Coast Guard's Nawiliwili Light Station at Ninini Point is not proposed as a part of the recommended Airport acquisition program and is thus available for purchase by State and local agencies for recreational purposes. However, given the proximity of the Coast Guard property to the threshold of the proposed Runway 35 (2,700 feet) and its location directly under the primary aircraft approach path, the State Department of Transportation would desire to be consulted prior to development of the property for recreational purposes in order to ensure a use fully compatible with aircraft and airport operations.

We appreciate your comments and interest in our program.

Very truly yours,

E. ALVEY WRIGHT
Director

cc: Office of Environmental Quality Control
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
November 15, 1976

Amfac, Inc.
P. O. Box 3230
Honolulu, Hawaii 96801

Gentlemen:

Subject: Lihue Airport Master Plan Study
Project No. G-6 (S-1020)

This is in response to your comments on the EIS for the Lihue Airport Master Plan Study.

The dual function of irrigation ditches and storm drainage refers to the existing conditions and it is not a recommendation that these two systems be combined in the future.

We concur that the ramification of losing agricultural land on Kauai is important. The unit fixed costs are likely to increase due to the loss of agricultural land for both airport improvements and any additional urban development (such as that proposed on the Lihue Area Development Plan).

Any losses attributable to Airport improvements will be the subject of future negotiations between the State and Amfac and these cannot be defined until the exact acreage to be lost from production has been resolved.

We appreciate your comments and look forward to the continued cooperation in planning Lihue Airport.

Very truly yours,

[Signature]
Director

cc: Office of Environmental Quality Control

[Signature]
Mr. John Sanders, Peat, Marwick, Mitchell & Co.
Mr. James W. Morrow  
Director  
Environmental Health  
American Lung Association  
of Hawaii  
245 N. Kukui Street  
Honolulu, Hawaii 96817  

Dear Mr. Morrow:

Subject: Lihue Airport Master Plan Study  
Project No. 6-5  

This is in response to your September 7, 1976 comments on the  
EIS for the subject study.

1. through 4. At an October 29, 1976 meeting of representatives of the State Departments of Health and Transportation, American Lung Association of Hawaii, Peat, Marwick, Mitchell and Company, and Environmental Communications, Inc., it was agreed that a modification of the box model procedure would be acceptable for the air quality analysis. As a result, a new air quality impact assessment has been prepared based on Argonne National Laboratory, Center for Environmental Studies, An Air Pollution Impact Methodology for Airports, Phase I, a report prepared for EPA, January 1973. This new assessment reviewed the potential impact on air quality within, and in the vicinity of, the Lihue Airport under the most adverse meteorological conditions and assumed these coincided with peak hour aircraft operations. It is noted that the methodology is based on the most adverse meteorological conditions (Stability F) and considers both line and area sources.

The air pollution consultant has contacted you regarding your concerns and the methodology used for this new study. A copy of the air quality impact assessment is enclosed for your review.

*Air quality impact assessment is included as pp. 22-46h of EIS.
5. Aircraft engines representative of the different aircraft types have been used for purposes of this analysis as it is not possible to project precise engine types and model variations that may be used in the future.

6. The comments are noted.

We appreciate your patience and the cooperation extended to our Consultants in the preparation of EIS.

Very truly yours,

[Signature]

Enclosure

cc: OEQC
    PMH, J. Sanders
December 6, 1976

Dr. James Kumagai
Deputy Director for Environmental Health
State of Hawaii
Department of Health
Honolulu, Hawaii

Dear Dr. Kumagai:

Subject: Lihue Airport Master Plan Study
Project No. G-6

The following are responses to your September 10, 1976, comments on the EIS for the subject study.

Sewage Disposal

We concur that the Airport should be connected with the Kauai County Sewage Treatment Plant.

Regarding the Lihue Sewage Treatment Plant ocean outfall sewer, it is our understanding that the County intends to use a deep-well injection process, thus eliminating the need for such an outfall. We concur that if an ocean outfall is required, provisions for its installation under the proposed north-south runway will have to precede runway construction.

NPDES

The use of adjoining cane fields for the disposal of Lihue Mill waste water, as well as other irrigation problems at Lihue Airport and in its immediate vicinity, was recognized in the Airport Master Plan Study. However, because of the generalized nature of an airport master plan, it was neither practical nor possible to carry out a detailed drainage analysis.

Nonetheless, it should be noted that a generalized drainage plan was developed as part of the Master Plan study to provide siphons under the proposed Runway 17-35 to irrigate the cane fields lying east of the proposed new runway. Mill waste waters could then continue to be used on these fields, although in limited quantities.
In order to resolve the questions of drainage, irrigation, and potential pollution of off-shore ocean waters, a complete and detailed drainage study has been recommended. Such a study should be performed in the near future as a joint effort of State, local and private interests.

Additionally, until negotiations are completed between the State and the Lihue Plantation Company relative to land acquisition, the exact acreage of cane fields to be acquired and the impact on adjacent fields cannot be precisely determined.

**Air Quality**

At a meeting of representatives from the Airports Division of this department, the State Department of Health, American Lung Association of Hawaii, Peat Marwick, Mitchell and Company, and Environmental Communications, Inc., on October 29, 1976, it was agreed that a modification of the box model procedure would be acceptable for the air quality analysis. As a result, a new air quality impact assessment has been prepared based on Argonne National Laboratory, Center for Environmental Studies, An Air Pollution Impact Methodology for Airports, Phase I, a report prepared for EPA, January 1974. This new assessment reviewed the potential impact on air quality within, and in the vicinity of the Lihue Airport under the most adverse meteorological conditions and assumed these conditions coincided with peak hour aircraft operations. The new assessment also took into consideration the diffusion of area and line sources of air emissions. The methodology for this new study has been reviewed with the American Lung Association of Hawaii. A copy of this air quality impact assessment is enclosed for your information.

**Noise Impact**

Regarding aircraft noise, full compliance with FAR Part 36; Noise Standards: Aircraft Type and Airworthiness Certification has been assumed in the noise analysis for future aircraft types serving Lihue Airport. The 1995 NEF noise contours as shown on Exhibit J (Page V-16) were based on the assumption of full compliance with FAR Part 36.

We appreciate your comments and special interest in our program.

Very truly yours,

[Signature]

J. Alvey Wright
Director

Enclosure

cc: OEQC
    PMM, J. Sanders

*Air quality impact assessment is included as pp. 22-46h of EIS.*
Dr. Richard E. Marland, Director
Office of Environmental Quality Control
Room 301
550 Halawa Street
Honolulu, Hawaii 96813

Dear Dr. Marland:

Subject: Lihue Airport Master Plan Study
Project No. G-6

This is in response to your September 13, 1976 comments on the EIS for the subject project.

Contacted Agencies (page I-11)

On page I-13 OEQC will be added to the list of organizations contacted.

Correction (page II-6)

"EIA" has been changed to "document."

Number of Flights (page III-20)

A sentence will be added to the EIS to indicate that the peak hour air carrier operations are forecast to increase from 11 in 1974, to 12 in 1980, to 13 in 1985, and to 14 in 1995.

Confusion (page IV-16)

The statement on page IV-16 will be amended to read: "The conservation district and all activities within such a district are regulated by the State Land Use Commission and Department of Land and Natural Resources."

R. C. Leohr Study (page IV-46)

In terms of local values, the amounts of nitrogen and phosphorus outputs generated locally are considered similar to R. C. Leohr's analysis. The terrain and rainfall at Lihue Airport have also been taken into consideration.
Dr. Richard E. Marland  
Page 2  
December 6, 1976

Ambient Noise

The noise contours presented in the EIS include the impact of all fixed wing aircraft including air carrier jet aircraft and private general aviation aircraft. Helicopters were excluded from the analysis because they generally do not follow established flight paths and therefore noise exposure contours were not plotted for them. The aircraft operations used in the noise analysis for 1974 and 1995 (except for helicopters) were presented in the attached Table V-4 on page V-26. (Note: Due to the revision of the air quality analysis, this table is now included as Table III-6 on page III-23a.) Also, refer to Exhibit I (page V-12) which depicts the noise contours for both air carrier aircraft flight patterns from the east as well as general aviation flight patterns from the west above Rice Street. The noise contours are discussed on pages V-11 to V-15 of the report.

Use of Proposed Runway

The Airport has been planned for inter-island operations only and not for mainland and/or foreign flights. As described on page II-1b, the aircraft used for inter-island operations in the future could include the B-727 and possibly the new Airbus-type aircraft (such as the DC-10, L-1011, and A-300). These aircraft are larger than the DC-9 and B-737 aircraft presently serving Lihue. The recommended 6,500-foot runways can accommodate the forecast operations of all current and potential inter-island air carrier aircraft through 1995 as noted on page II-1b.

Present Runway

As shown on the 1995 Airport Master and Land Use Plan (Exhibit B, page II-3), the existing runway will continue to be used after the new runway is constructed. The preferential use of both runways in the future, to minimize adverse environmental impacts, is described on page V-14.

The impact of the operation of both runways on air and noise quality is discussed throughout the report. For example, refer to Exhibit J, 1995 Noise Exposure Forecast Contours (page V-16), which represent the noise contours for both runways. Also the aircraft operations used in the air quality analysis (Table III-6 on page III-23a) are for operations on both runways.

Air Emission (page V-35)

At an October 29, 1976 meeting of representatives from the Airports Division of this Department, the State Department of Health, American Lung Association of Hawaii, Peat, Marwick, Mitchell & Co., and Environmental Communications, Inc., it was agreed that a modification of the box model procedures would be acceptable for the air quality analysis. As a result a new air quality impact assessment has been prepared based on
Argonne National Laboratory, Center for Environmental Studies, An Air Pollution Impact Methodology for Airports, Phase I, a report prepared for EPA, January 1973. This new assessment reviewed the potential impact on air quality within, and in the vicinity of, the Lihue Airport under the most adverse meteorological conditions and assumed these conditions coincided with peak hour aircraft operations. The new assessment also took into consideration the diffusion of area and line sources of air emissions. The methodology for this new study has been reviewed with the American Lung Association of Hawaii. A copy of this new air quality impact assessment is enclosed for your information.

It is noted that your specific concerns relating to humidity and temperature were considered; however, these characteristics, unless extremely high or low, are not normally taken into consideration. The worst meteorological condition (Stability F) was utilized because the methodology agreed to required the use of this meteorological condition. Peak hour aircraft operations were also considered in the new air quality assessment.

The distance required to take off is dependent upon many factors including temperature, wind, aircraft weight, aircraft engine model, flap setting, runway gradient and pilot technique. Therefore, take-off distances, even for the same type of aircraft, will vary throughout the day and year. As a result, representative data have been used.

**Sewage Disposal** (pages V-47 and 48)

As noted on page IV-48, at the time of this report, the present Airport cesspool system was unable to handle present flows. Also, on average, over 38,000 gallons per week (or 5,485 gallons per day) of sewage effluent had to be removed by truck to other off-airport cesspool systems in the summer of 1975. The State has recently installed, in 1976, five new cesspools with a total capacity of 6,280 cu. ft. (47,000 gals.). The estimated 1995 sewage load of 130,000 gallons per day has been added on page V-48.

The State Department of Transportation concurs that consideration of Chapter 343, Hawaii Revised Statutes, should be given once plans for the sewage treatment plant have been completed.

**Drainage** (page V-51)

Although it is possible to make rough calculations on the increase in storm water runoff due to the increase in impervious surface area, such figures would have little meaning until exact drainage courses could be determined. Therefore, such calculations were deferred until after the completion of detailed engineering studies for the north-south runway (currently underway) which also include a drainage analysis. Air quality impact assessment is included as pp. 22-46h of EIS.
Argonne National Laboratory, Center for Environmental Studies, An Air Pollution Impact Methodology for Airports, Phase I, a report prepared for EPA, January 1973. This new assessment reviewed the potential impact on air quality within, and in the vicinity of, the Lihue Airport under the most adverse meteorological conditions and assumed these conditions coincided with peak hour aircraft operations. The new assessment also took into consideration the diffusion of area and line sources of air emissions. The methodology for this new study has been reviewed with the American Lung Association of Hawaii. A copy of this new air quality impact assessment is enclosed for your information.

It is noted that your specific concerns relating to humidity and temperature were considered; however, these characteristics, unless extremely high or low, are not normally taken into consideration. The worst meteorological condition (Stability F) was utilized because the methodology agreed to required the use of this meteorological condition. Peak hour aircraft operations were also considered in the new air quality assessment.

The distance required to take off is dependent upon many factors including temperature, wind, aircraft weight, aircraft engine model, flap setting, runway gradient and pilot technique. Therefore, take-off distances, even for the same type of aircraft, will vary throughout the day and year. As a result, representative data have been used.

Sewage Disposal (pages V-47 and 48)

As noted on page IV-48, at the time of this report, the present Airport cesspool system was unable to handle present flows. Also, on average, over 38,400 gallons per week (or 5,485 gallons per day) of sewage effluent had to be removed by truck to other off-airport cesspool systems in the summer of 1975. The State has recently installed, in 1976, five new cesspools with a total capacity of 6,280 cu. ft. (47,000 gals.). The estimated 1995 sewage load of 150,000 gallons per day has been added on page V-48.

The State Department of Transportation concurs that consideration of Chapter 343, Hawaii Revised Statutes, should be given once plans for the sewage treatment plant have been completed.

Drainage (page V-51)

Although it is possible to make rough calculations on the increase in storm water runoff due to the increase in impervious surface area, such figures would have little meaning until exact drainage courses could be determined. Therefore, such calculations were deferred until after the completion of detailed engineering studies for the north-south runway (currently underway) which also include a drainage analysis.

*Air quality impact assessment is included as pp. 22-46 of EIS.
Surface Traffic and Airport Areas

We concur that peak hour traffic projections are important and these were presented in the attached Table V-8 on page V-32 of the report. (Note: Because of the revision of the air quality analysis, this table is now included as Table V-16 on page V-52a.)

Secondary Impacts (page V-56a)

In their comments on secondary impacts, the State Office of Environmental Quality Control has made four basic assumptions:

1. The proposed action (Lihue Airport Improvements) will contribute to the growth of Kauai.

2. Growth stimulation should not simply be passed to the State and local agencies.

3. By increasing the Airport capacity, you are participating in growth.

4. With restricted transportation facilities to Kauai, demand may decrease.

Implicit in these four assumptions is the further assumption that the State Department of Transportation can regulate off-airport growth on the Island by expanding or decreasing air transportation facilities. In a general sense this might be true if, and only if, existing air transportation facilities restricted the movement of people and goods. In the case of Kauai, insofar as the movement of both people and goods are concerned, this assumption is not valid.

As stated in the EIS, under the discussion of the do-nothing alternative (page VIII-15), there is sufficient capacity at the existing Lihue Airport to handle all forecast aircraft operations through the 20-year planning period. The estimated capacity of the existing single runway is 170,000 operations per year. By 1995, the number of aircraft operations is forecast at 82,000 operations per year, or less than 50% of the capacity of the present single runway. Only 35,500 of the 1995 forecast total operations will be air carrier operations. Therefore, even with no Airport improvements, growth on the Island could continue.

By way of example, no major improvements have been made at the Airport for many years and yet this has not constrained tourist and other growth on Kauai. Since 1967, visitor accommodation units on the Island have increased from 1,260 to 3,102 units in 1974. During this same period, estimated westbound visitors increased from 275,461 to 601,703.
Although there will be an approximate 25% increase in airfield capacity - to 210,000 operations per year with the addition of the north-south runway - this cannot be construed as participating in growth when so much unused airfield capacity already exists. It is important to realize that the new runway has not been recommended because of a need to provide additional capacity to accommodate forecast increased demand. Rather, the new runway has been recommended to reduce, to the greatest extent possible, the impact of aircraft operations on existing schools and residential areas to the south, and to provide a precision instrument approach capability that cannot be provided for the existing runway because of the mountainous terrain south of the Airport.

The existing Lihue Airport functions as a service facility. It neither promotes nor restricts growth on the Island. As stated in the EIS (page V-45a), the number of people traveling to and from Kauai (other than local residents) is primarily a function of (1) the attractiveness of Kauai as a visitor destination area and (2) the visitor accommodations available on the Island.

The control of development to accommodate visitors rests with County government through the regulation of land use, zoning, and the issuance of building permits for commercial, resort and residential development. As noted previously, even if the State Department of Transportation does nothing to improve Lihue Airport, tourism to Kauai could continue to grow if County government finds it in the best interests of the Island to authorize additional commercial, resort and residential development. On the other hand, the State Department of Transportation could greatly expand the Airport and not induce additional growth if the County government were to adopt a very restrictive policy toward resort development; for example, by not permitting development of any additional visitor accommodation units on the Island.

Additionally, the presence of Airport facilities will not automatically attract airline activity. Because of the costs involved, the airlines which serve Kauai will not provide new service or increase existing service unless the demand warrants. The Islands of Molokai and Lanai, as well as Maimea-Kohala on Hawaii, serve as cases in point. Each has an airport which will accommodate air carrier service and yet each has a low level of air carrier activity.

Therefore, the State Department of Transportation cannot pass the burden of growth stimulation to the local agencies but can only identify that level of government which has the authority and ability to control growth of or relevant to Kauai.
In summary, the improvements recommended in the Lihue Airport Master Plan will not contribute to the growth of tourism on Kauai. Therefore, the secondary impacts associated with tourism including the impact on water supply, land values, existing lifestyle and public utilities will be determined by what happens elsewhere than on the Airport proper.

The discussion of secondary impacts (page V-56a) has been expanded to cover these comments.

Wildlife and Vegetation (page V-68)

The impact of aircraft operations on wildlife frequenting the Ahukini Reservoir will be improved by construction of the north-south runway, inasmuch as air carrier aircraft arrivals under Tradewind conditions and air carrier aircraft departures under Kona conditions will be shifted approximately one mile further to the east away from potential habitat areas.

Adverse Environmental Effects Which Cannot be Avoided (Section VI)

Refer to the above response on Secondary Impacts.

The secondary impact of increased demand on local water and sewer systems has been added to this section.

Mitigation Measures (Section VII)

The following text will be added to this Section:

"The noise impact from aircraft operations on passengers and workers on the ground will be greatly reduced as shown by comparing Exhibits I and J on pages V-12 and 16. Based on 1974 aircraft operations (Exhibit I on page V-12) the passenger terminal complex is within the NEF 40 contour. However, based on estimated 1995 aircraft operations and the location of the proposed new passenger terminal complex further away from the existing runway, then the new passenger terminal complex will be between the NEF 25 and 30 contours (Exhibit J on page V-16).

"Additionally, noise mitigation measures for passengers and workers on the ground are a function of the specific architectural design and construction of the terminal and other buildings—design of Airport structures...
"Regarding construction impacts, this document addresses an Airport Master Plan and does not constitute actual approval of any specific construction project. Further, the subject Master Plan does not contain the detailed architectural and engineering studies and designs needed to assess actual construction impacts (such as precise amounts of cut and fill grading, actual types and amounts of building materials to be used, or the sources of such material, etc.). Construction impacts will be thoroughly covered at such time as detailed engineering and/or architectural designs are completed and specific construction project approvals sought.

"It is reasonable to assume that accepted State and Federal procedures will be utilized to minimize impacts during construction as has been the case in other Airport construction projects performed by the State Department of Transportation."

Conservation of Energy

The following text on Conservation of Energy will be added to Section IX:

"During Tradewind conditions, occurring approximately 90% of the time, the distance on approach to Runway 35 will be reduced by up to three nautical miles over the present approach to Runway 3. A similar reduction will occur during Kona conditions (about 10% of the time) for take-offs on Runway 17 instead of the existing Runway 21. Use of the new Runway 17-35 will increase taxiing distances by about 500 feet for landings under Tradewind conditions. However, the distance required to taxi for take-off under Kona conditions will be reduced by 400 feet with the new runway. Since aircraft burn more fuel in the air than taxiing on the ground, there should be a fuel savings with the addition of the new runway, even if the amount of such "saved" fuel is nominal.

"The total vehicle-miles traveled by airport employees and passengers, and therefore, the fuel consumed for airport related trips (refer to Table VIII-2 on page VIII-11), is reduced by retaining the Airport at Lihue rather than relocating it to an alternative location at either Kilaeua Bay - Moloa Bay or Port Allen as discussed in Section VIII."

Short-Term Uses Versus Long-Term Productivity (Section IX)

There will be little population growth attributable to increased Airport employment (an estimated increase of up to 500 employees over the 20-year period). Existing lifestyle - if it is to be changed at all - will be modified by what happens off the Airport."
Dr. Richard E. Marland  
Page 8  
December 6, 1976

Refer to the above comments on Conservation of Energy for the impact on energy consumption. Refer to the comments on Secondary Impacts for the impact on urbanization of Kauai as the control of this development, as with visitor accommodations, rests with County government through the regulation of land use, zoning, and the issuance of building permits for residential, commercial, industrial and other development off the Airport.

List of Approvals

The State Department of Transportation has not yet approved, adopted, or funded any future projects recommended in this Airport Master Plan Study.

A new section, Section XI, List of Necessary Approvals, will be added to the document together with the following text:

"Prior to proceeding with implementing the Master Plan, the State will request approvals and permits from the following agencies:

Federal Aviation Administration
Chairman, State Department of Land and Natural Resources
Chief, State Department of Transportation, Highways Division
Kauai County Planning Director
Kauai County Water Department Manager
Kauai County Chief Sanitarian
Kauai County Fire Marshal"

Consultation Process:

The State's response to telephone requests received as part of the EIS consultation process are included (letters 31 and 32) in the documents. Copies of the State's EIS Preparation Notice request and the notice published in the EQC Bulletin will be added together with the comments and responses of the EQC public review process.

We appreciate your comments and assistance in preparing the EIS.

Very truly yours,

[Signature]

V. Alvey Wright
Director

Enclosures

cc: PMM, J. Sanders
December 6, 1976

Mr. Brian Nishimoto
Planning Director
Planning Department
County of Kauai
4280 Rice Street
Lihue, Hawaii 96766

Dear Mr. Nishimoto:

Subject: Lihue Airport Master Plan Study
Project No. G-6

This is in response to your October 21, 1976 comments on the EIS for the subject study.

Loss of Agriculture Lands

The State Department of Transportation concurs that the loss of 570 acres of cultivated cane lands will have an impact on Lihue Plantation Company's operations and presumably on the County through loss of revenues. There are a number of factors which did not permit final determination of the impacts associated with the loss of agricultural land at the time the document was prepared.

First, there is the question of using the land adjacent to the runways for agriculture. It is not possible to define precisely which cane fields will have to be acquired or the effects on mill operations, production volumes, etc. until land acquisition negotiations between the State and the Lihue Plantation Company commence. There may be a need to consolidate some of the cane fields outside of the recommended land acquisition area in order to reduce or eliminate residual cane field parcels which would be uneconomical to work either because of small size or irregular shape.
Mr. Brian Nishimoto  
Page 2  
December 6, 1976

Second, with regard to the irrigation system, the over irrigation (see page 6 of reference 21 in Appendix C of the EIS) of the cane fields because of their use as a disposal field for mill waste waters has contributed to the flooding problems at the Airport. The combination of the irrigation and drainage systems or the separation of the two systems in the Airport vicinity as well as a determination of what quantity of the mill waste waters can be applied to the cane fields without aggravating the drainage situation will be addressed in an overall drainage study for the Airport and its vicinity. Such a study will also consider the impacts of the conversion of cane lands to urban uses for the area south of Ahukini Road and west of State Route 51 as recommended in the Lihue Development Plan.

Finally, the State is encouraging the retention of agriculture in the vicinity of the Airport. In fact, the land between the runways referred to in your letter and the land east of the proposed new north-south runway is recommended to be kept in agricultural use to act as a buffer between the Airport and urban development and to reduce to the maximum extent possible the loss of productive agricultural land. Even within the proposed Airport boundary, shown on Exhibit B on page II-3, it may be possible to retain some land in continued agricultural production. The area that could be retained will depend on the detailed engineering design of Runway 17-35, airport line-of-sight criteria and obstruction clearance criteria, and the feasibility of retaining such parcels in agricultural production. The State Department of Transportation is willing to work with the Lihue Plantation Company and Kauai County in resolving these critical questions.

Classification of Lihue

The text on page IV-20, third paragraph, second sentence will be corrected.

We appreciate your comments and assistance in planning Lihue Airport.

Very truly yours,

[Signature]

E. Alvey Wright  
Director

cc: OEQC  
PMM, J. Sanders