

**ENVIRONMENTAL ASSESSMENT
FOR
KALAUPAPA AIRPORT IMPROVEMENTS
KALAUPAPA PENINSULA, MOLOKAI, HAWAII
TMK 2-6-1:01, Lot 5
August 1989**

APPLICANT: State of Hawaii, Department of
Transportation, Airports Division

APPROVING AGENCY: Governor, State of Hawaii and
Federal Aviation Administration

AGENCIES CONSULTED

IN MAKING ASSESSMENT: Federal:

Federal Aviation Administration
Department of Interior,
National Park Service
U.S. Army Engineering Division,
Pacific Ocean Division

State:

Department of Health
Department of Land and
Natural Resources
Department of Transportation,
Highways and Harbors Divisions
Office of Environmental Quality Control

State Legislature:

Senator Lehua Fernandes Saling,
Chairperson, Transportation Committee
Representative Paul T. Oshiro, Chairperson,
Transportation Committee

County of Maui:

Planning Department

Private Groups:

Air Molokai
Airline Pilots Association
Aloha Airlines
Aloha Island Air
Honolulu Airlines Committee
Kalaupapa Settlement
Pacific Basin Development Council

1. INTRODUCTION

1.1 PURPOSE AND CONTENT OF THIS DOCUMENT

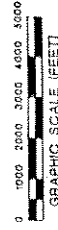
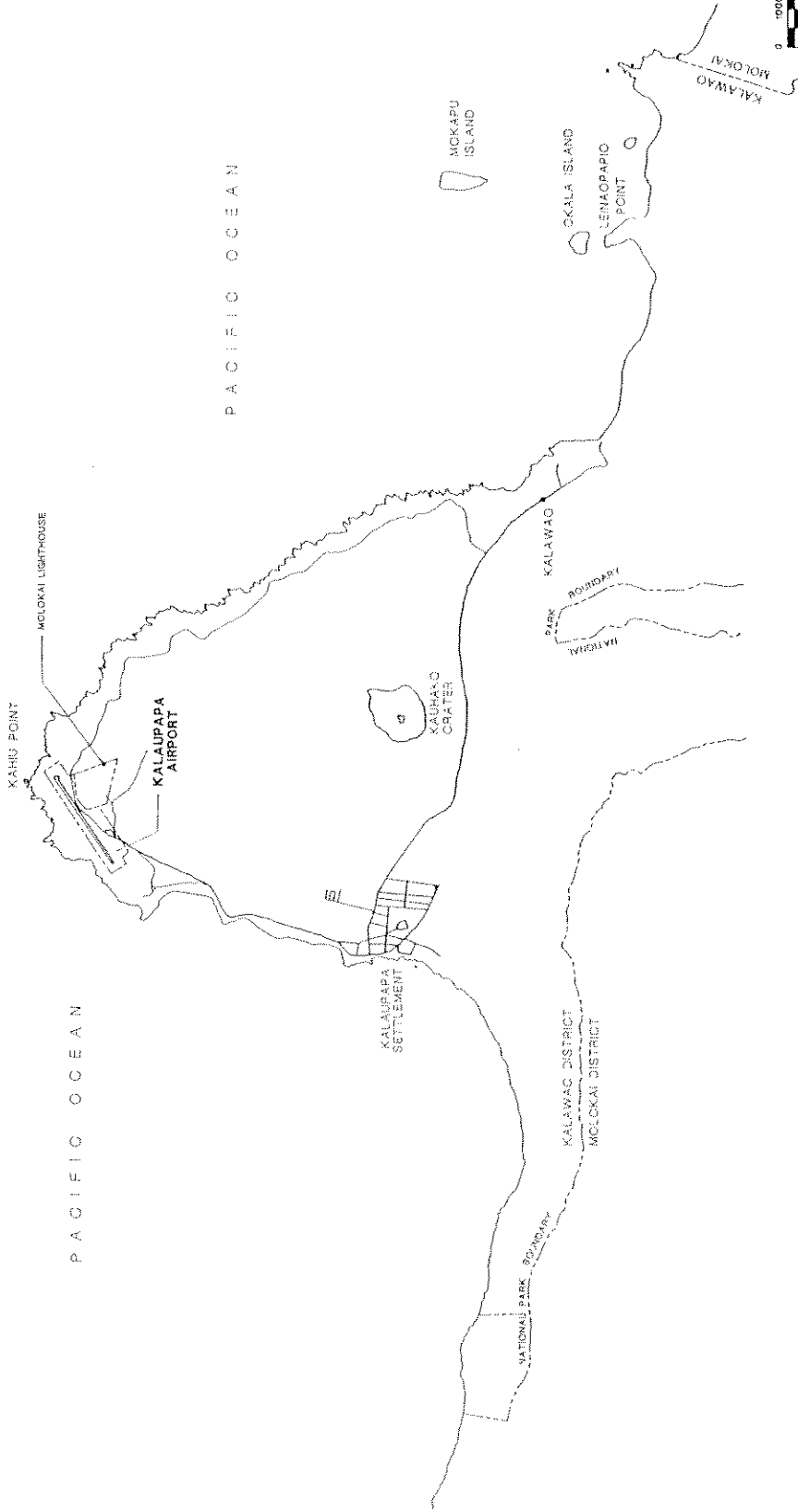
This Environmental Assessment (EA) has been prepared as an initial assessment of the potential environmental impacts that might result from improving and rehabilitating Kalaupapa Airport, island of Molokai, Hawaii. The lands on which the present airport and the majority of the proposed project are located are owned by the State Of Hawaii, Department of Transportation and are under the management of the Airports Division. The airport property is identified as Tax Map Key (TMK) 2-6-1:01, Lot 5. The airport, and all of Kalaupapa peninsula, on the island of Molokai, are located within the Kalaupapa National Historic Park which is under the jurisdiction of the U.S. Department of Interior, National Park Service. In addition, Kalaupapa peninsula is listed on the National Register of Historic Places and the U.S. Coast Guard lighthouse is listed separately on the National Register. The proposed project may include the use of federal funds as administered by the Federal Aviation Administration (FAA); possibly include construction within the Conservation District (beach area); and may require a Special Management Area (SMA) permit as administered by Maui County. As such, this EA has been prepared in compliance with FAA Order 5050.4A (October, 1985), the National Environmental Policy Act of 1969 (NEPA), the provisions of Hawaii Revised Statutes (HRS) Chapter 343 and Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules, Sections 11-200-9 through 11-200-13 and State of Hawaii, Department of Transportation Procedures, Part 9, Project Management, Chapter 4, Environmental Assessment, Technical Environmental Reports and Environmental Impact Statements (EIS) Preparation, Coordination and Review, April 3, 1989. A description of the affected environment, the alternatives considered to date, proposed mitigation measures, preliminary impact determinations based on the information contained herein and the reasons supporting those determinations are provided. The information contained in this EA has been developed from site visits, studies conducted specifically for this document and/or a companion Airport Master Plan and generally available information regarding the environmental characteristics of the project site and surrounding area.

1.2 Public Involvement

As part of the Master Plan Program, public informational meetings have been held to inform the Kalaupapa community about the airport improvement program and to receive suggestions and criticisms for consideration and possible incorporation into the planning process. To date, two public informational meetings have been held; one on inventory and forecasts and one on alternatives. Two additional public informational meetings are presently scheduled; one on preliminary plans and one on recommended plans. In addition, a Master Plan Technical Advisory Committee was formed for the purpose of reviewing and commenting on detailed technical aspects of the Master Plan Program. Membership of the committee consists of representatives of the airlines, airport tenants, governmental agencies and interested local business and community entities. The Technical Advisory Committee has had several meetings to date and will continue to meet during the remainder of the master planning and environmental analysis effort.

1.3 DESCRIPTION OF THE PROPERTY

The Kalaupapa Airport is located on the northwestern tip of Kalaupapa Peninsula adjacent to the shoreline and within a Special Use Management Zone (Kalaupapa Airport) as defined in the Kalaupapa National Historic Park Management Plan (Figures 1 and 2). The airport lands are owned by the State of Hawaii, Department of Transportation, Airports Division, and are classified Conservation by the State Land Use Commission. The airport property is identified as Tax map Key (TMK) 2-6-1:01, Lot 5. Lands adjacent to the airport are also owned by the state (Department of Health) and federal government (U.S. Coast Guard Lighthouse). Lands to the southwest of the airport, through which the airport access road passes, are owned by the state (Department of Health and Department of Hawaiian Home Lands). The present airport lands cover about 42 acres. The access road from Kalaupapa to the airport is about 2 miles long. The road surface is irregular and in poor condition over most of its length due to pavement failures and inadequate drainage. Flooding of certain portions of the road after heavy rains is reported by residents. There are neither prepared shoulders nor



FIGURE

LOCATION MAP
KALAUAPAPA AIRPORT

Edward K. Noda
and
Associates, Inc.

KALAUAPAPA AIRPORT MASTER PLAN

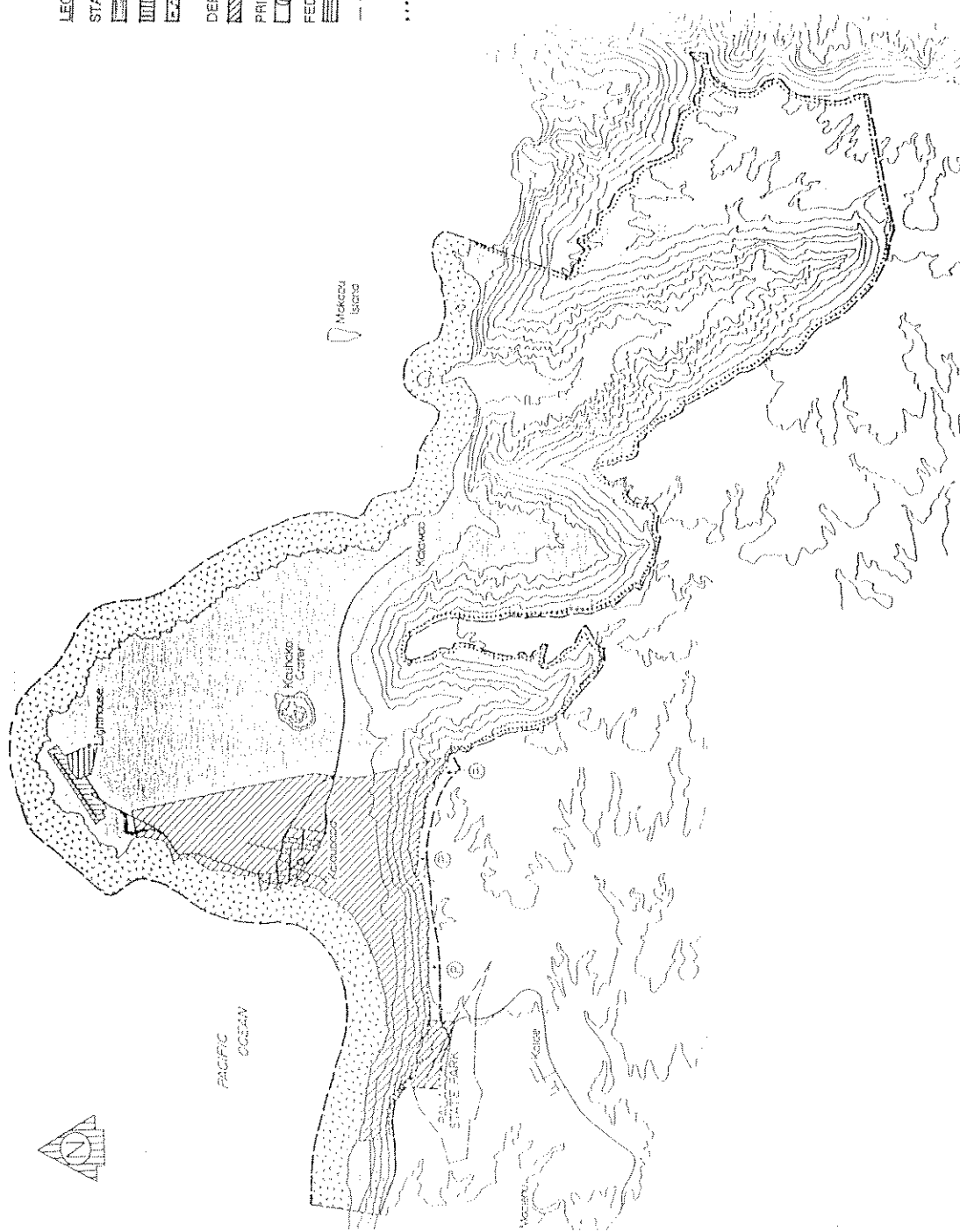
AIRPORTS DIVISION
DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII



1



PACIFIC OCEAN



LEGEND

STATE OF HAWAII

DEPARTMENT OF HEALTH

DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF LAND & NATURAL RESOURCES

DEPARTMENT OF HAWAIIAN HOME LANDS

PRIVATE

FEDERAL

NATIONAL PARK BOUNDARY

KALAWAO COUNTY BOUNDARY

Mokuauia Island

NATIONAL PARK BOUNDARY

KALAWAO COUNTY BOUNDARY



FIGURE

2

EXISTING LAND OWNERSHIP -
KALAUPAPA PENINSULA

Edward K. Noda
and
Associates, Inc.

KALAUPAPA AIRPORT MASTER PLAN

AIRPORTS DIVISION
DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII



proper roadway marking and signage. An unpaved extension of the road continues east on airport property leading to the Molokai Lighthouse Reservation, on to the shoreline beyond the lighthouse and on around the peninsula.

2. GENERAL DESCRIPTION OF THE PROPOSED ACTION'S TECHNICAL, CHARACTERISTICS

2.1 DESCRIPTION OF THE PROPOSED ACTION

Kalaupapa Airport (Figure 3) has a 2,760 ft. long paved runway but no paved taxiway or apron. The runway is not level and the pavement is showing signs of distress in several areas. Runway pavement strength is adequate to support the Cessna 400 series and DHC-6 size aircraft that principally serve it. There are no navigation or landing aids at the airport (except for wind cones located at both ends of the runway) and no runway lighting. Consequently, all operations are conducted under Visual Flight Rules. There is no air traffic control tower at the airport and enroute traffic is under the control of the Honolulu Air Route Traffic Control Center.

There are three buildings on the airport including a 1,017 square ft. terminal, a 1,229 square feet. maintenance/office building and a storage shed. The buildings are wood frame structures on concrete slabs and are in good condition. Utilities at the airport include water, electric power, sewerage and telephone. A paved, two lane asphalt access road leads to/from the Settlement which is approximately two miles distant, and there are both paved and unpaved areas for parking ground vehicles near the terminal. The access road is in poor condition over most of its length. In fiscal year 1988, the cost of airport operation was approximately \$28,000, most of which was provided by the State.

An analysis of existing airport conditions, forecast requirements and master planning for future requirements is in process. Based on the initial findings of these analyses, it is expected that future improvements to the airport could include the following items:



Department of Transportation
Republic of the Philippines

KEY PLAN / NOTES :

NO. DATE REVISION

PROJECT TITLE :

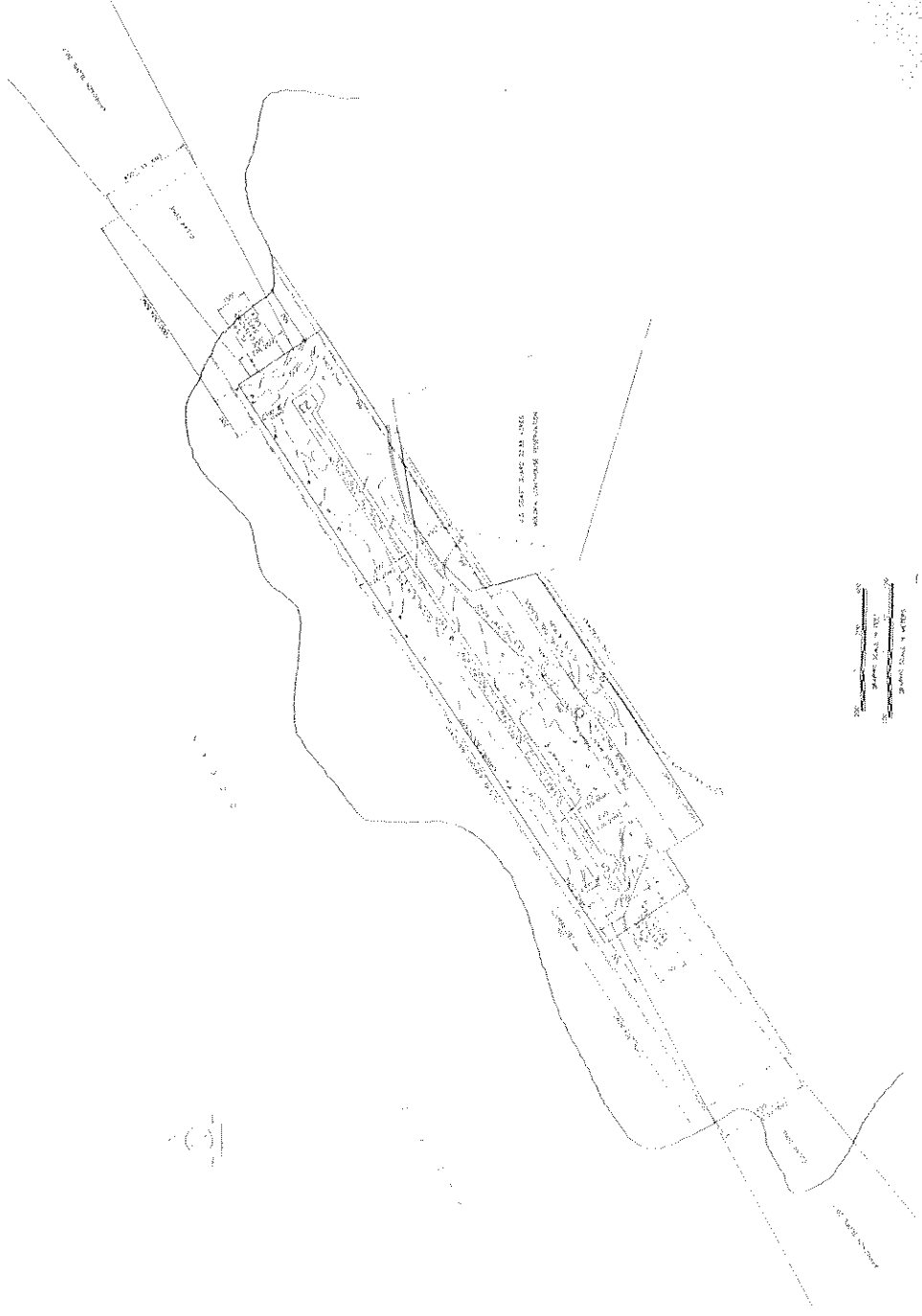
KALILAPAPA AIRPORT MASTER PLAN

SHEET TITLE :

EXISTING AIRPORT MASTER PLAN

NO. DATE REVISION

3



- o Widening, lengthening and rotating (nominally five degrees to the east) the existing Kalaupapa Airport runway.
- o Constructing a paved taxiway between the runway and existing terminal area and a paved aircraft parking apron adjacent to the passenger terminal building.
- o Providing airfield lighting for nighttime medical evacuation and VASI-2 NAVAID at the 5 end of the runway.
- o Demolishing the existing ARFF/maintenance/administration building and storage shed and constructing a new, larger facility fronting the paved apron.
- o Constructing a covered baggage area adjacent to the passenger terminal building.
- o Relocating the lighthouse road.
- o Improving the airport access road (on its present alignment) between the terminal and Kalaupapa Settlement.
- o Improving the utility systems to serve other airport developments.

Final decisions regarding the improvements to be made to the airport will be rendered following completion of on-going archaeological inventory survey work and master planning efforts. For the purposes of this EA, it is presumed that the proposed project will include the majority, if not all, of the above listed items. All construction would be performed utilizing standard airport construction techniques, procedures and materials. It is likely that a temporary concrete and/or asphalt batch plant would be set up on site due to the difficulty of getting materials to the site.

2.2 PURPOSE AND OBJECTIVES OF PROPOSED ACTION

The primary purposes of the proposed project are to provide the Kalaupapa peninsula with an airport that has greater margins of safety for the small aircraft that serve the airport; and to improve the airport facilities (runway, taxiway, apron and terminal building) to reduce operations and maintenance costs.

Accomplishment of these purposes will allow aircraft operations at times when they cannot now be conducted and encourage more frequent service, thereby providing more reliable and dependable air service for the residents and patients at Kalaupapa. Air service, for the importation of food stuffs, medical supplies and emergency medical care (evacuations), is the vital link for the peninsula with the rest of the state and world. At present, air service is curtailed at times due to adverse cross winds, waves and rocks on the runway, and severe rainstorms. A Petition For Determination of Essential Air Service (EAS) has been filed by the state with the U.S. Department of Transportation and is expected to be favorably acted upon in the near future. The proposed airport improvements would be made in concert with that determination.

2.3 NEED FOR PROPOSED ACTION

In 1980, the Kalaupapa National Historical Park was established by P.L. 96-565. The Act specifically states that the Kalaupapa Hansen's Disease patients "are guaranteed that they may remain at Kalaupapa as long as they wish." Many of the residents desire to live out their lives with Kalaupapa as their home. In order to maintain an appropriate quality of life, the assistance of a certain number of resident workers is and will continue to be required. Dependable air service will substantially add to the quality of life at Kalaupapa. The "must fly" needs of the visitor and worker residents, the present condition, including alignment, of the existing runway and the air safety characteristics of the present airport, make it imperative that the present airport facilities be upgraded to provide improved airport facilities.

2.4 REQUESTED GOVERNMENTAL ACTION

The State of Hawaii, Department of Transportation, Airports Division, will possibly request financial assistance from the Federal Aviation Administration, under the Airport and Airway Safety and Capacity Expansion Act of 1987, for the Kalaupapa Airport improvements indicated in Section 2.1 above. Future actions would include the submittal of a Conservation District Use Application (CDUA) and Special Management Area (SMA) permit to the state

Board of Land and Natural Resources and Maui County Planning Commission respectively, to enable the proposed airport improvements to move forward.

2.5 PROJECT COSTS AND SCHEDULE

The proposed Kalaupapa Airport improvements construction costs are presently estimated to be approximately \$7.1 Million (1989 dollars) exclusive of planning, design and engineering costs. Further refinements to the present cost estimates will be made during the on-going master planning efforts.

Construction of the proposed airport improvements are estimated to require 27 months, including master planning, environmental impact statement preparation and acceptance, engineering design and construction. Construction is estimated to require about 14 months, exclusive of mobilization/demobilization and depending on weather conditions.

Master planning and preliminary engineering work are underway. Final design and engineering are presently scheduled to begin in late 1989. Construction of the proposed airport improvements are expected to begin in mid-1990 and be completed by late 1991.

3. GENERAL DESCRIPTION OF THE PROPOSED ACTION'S SOCIAL, ECONOMIC AND ENVIRONMENTAL CHARACTERISTICS

3.1 SOCIAL AND ECONOMIC CHARACTERISTICS

The existing socioeconomic characteristics of Kalaupapa generally reflect one of the primary purposes of the National Park, i.e., to serve as a home for people afflicted with Hansen's Disease. Kalaupapa Settlement has a population of approximately 150 Hansen's disease patients and workers. There are fewer than 100 Kalaupapa patient residents in the settlement.

At present, 92 persons are eligible for residency with approximately 75 in residence. In addition, there are about 50 non-patient State Department of Health, National Park Service and non-government staff living in Kalaupapa.

Approximately 70 households are located in the Settlement, which has an inventory of some one hundred buildings in use. Many other buildings are located in the Settlement exist and some have historical value and are included in the National Register of Historic Places.

The average age of the patient residents of Kalaupapa is over 60, older than for other parts of the State and reflects the choice of many former patients to live at Kalaupapa. It also reflects the fact that children of patients have been removed from the Settlement, and family members of non-patient employees are usually not allowed to live at Kalaupapa.

Public Law 96-565 established the Kalaupapa National Historical Park in 1980. This law specifically states that Kalaupapa patients are guaranteed that they may remain at Kalaupapa as long as they wish. Many of these residents have chosen to continue to make Kalaupapa their home.

It is expected that the number of State Department of Health employee residents will decline slightly over the next 20 years while the number of National Park Service employee residents will increase.

The present economy of the Settlement is primarily based on activities of the Hawaii State Department of Health which operates and maintains the Settlement. In addition, the National Park Service carries on activities in the Historical Park. By law, a maximum of one hundred visitors can be admitted to Kalaupapa each day, although, at present, the actual number is much smaller.

Economic activities at the Kalaupapa Settlement are limited at present. Residents are employed by such government agencies as the State Department of Health (DOH), National

Park Service (NPS) and State Department of Transportation (DOT) as well as non-government agencies. The two tour operators providing escorted tours of the Settlement and Peninsula for visitors arriving by air, mule or hiking, are operated by resident patients. The Kalaupapa Store is for use only by the patients.

The 1980 Act provides that, "the Secretary (of the Interior) shall provide patients a first right of refusal to provide revenue-producing visitor services, including such services as providing food, accommodations, transportation, tours, and guides." The visitor industry could become a more significant part of the economy and employment on the Peninsula in the future.

Improved airport facilities are expected to result in positive socioeconomic impacts to the residents of and visitors to Kalaupapa. Improved airport facilities are planned to allow more frequent and reliable air service to Kalaupapa. This will allow residents to schedule their visits to other islands much more reliably than at present. This situation is especially critical to those who go to Honolulu for medical/dental treatments as well as being beneficial to those wishing to visit family and friends on other islands. Similarly, medical services to the patients on Kalaupapa would be more reliably scheduled, thereby aiding the patients. The proposed airport improvements are also expected to result in positive economic impacts. Improved reliability of air service, along with the potential for increased air service, i.e., more daily flights, will provide increased economic opportunities for the residents of Kalaupapa. It is expected that there would be an increase in the number of tours of the facilities and historical/cultural sites on the peninsula. An increase in the number of tours and persons taking those tours, could result in more of the residents participating in leading those tours as well as present increased opportunities for others to market their arts and crafts to the visitors. Increased numbers of visitors would also aid residents of Hawaii as well as visitors to the state in having a better understanding of the historical/cultural aspects of the peninsula and Hansen's Disease.

3.2 PHYSICAL AND NATURAL ENVIRONMENTAL CHARACTERISTICS

The proposed project will require clearing, grubbing and grading of portions of the existing runway as well as areas adjacent to and off the ends of the present runway. In general, these activities will cause some disruption to the terrestrial biotic communities, possible short-term impacts to the marine environment adjacent to the west side of the runway and minor alterations to the physical character of the site. Based on the marine and terrestrial biological surveys that have been conducted to date, the proposed project is not expected to result in significant short- or long-term adverse impacts to the physical or natural environment of the project site or area. There are no threatened or endangered species of terrestrial or marine plants or animals inhabiting or frequenting the project site or offshore area that would be adversely affected by the proposed project. The relatively minor physical changes that would be made to the site are not expected to cause or result in significant short- or long-term adverse impacts. Increased air service, should it occur, could increase average daily sound levels in the immediate vicinity of the airport. Because of the relatively low level of air traffic forecast as well as the lack of stationary air pollutant sources and the relatively constant northeast tradewinds, the proposed project is not expected to adversely affect the air quality of the project site or area. The proposed project will result in minor alterations to the present visual character of the site. The results of the terrestrial and marine surveys conducted for the proposed project, as well as the air quality and noise analyses performed, will be included in the EIS to be prepared for the proposed project.

3.3 ARCHAEOLOGICAL/HISTORICAL/CULTURAL RESOURCES

The entire Kalaupapa peninsula is known to be rich in archaeological and historical features. Several archaeological surveys have been conducted on the peninsula. However, a significant portion of the peninsula has not been surveyed. It has been reported that the 1836 population of the peninsula was 2,700 and probably much higher in pre-contact times. The known archaeological remains that exist on the ground are extensive, well preserved, largely unexplored and further evidence of a large Hawaiian population. To determine the extent of

archaeological features within the project area, an archaeological reconnaissance survey was conducted in November 1988 and a full archaeological inventory survey of the project area was conducted in July and August 1989. As a result of the reconnaissance survey, a total of 33 archaeological features were recorded in the project area; none had been recorded previously. The findings of the reconnaissance survey included a habitation complex, several shelters, large and small agricultural features, walls, animal pens and a hill-top enclosure and platform. Many of the features have multiple structural components, e.g., agricultural features associated with pens or enclosures. In general, the features are in an excellent state of preservation. No burials or religious features were identified in the project area. Subsurface excavations were not conducted as part of the reconnaissance survey, nor were significance determinations of the located features made. The results of the reconnaissance survey, as well as the inventory survey, will be included in the EIS that will be prepared for the proposed project. Further, to mitigate possible adverse impacts to the archaeological features within the proposed project boundaries, detailed mapping and recording, subsurface testing and significance determinations, in compliance with applicable federal, state and county guidelines will be made as part of the archaeological inventory survey. The results of the this survey will be used to develop appropriate mitigation measures that may include preservation "as-is", recordation and collection and preservation of significant artifacts. In addition, the results of the archaeological inventory survey will, in part, assist in the determination of the improvements to be made to the airport.

4. IDENTIFICATION AND SUMMARY OF MAJOR IMPACTS, MITIGATION MEASURES AND ALTERNATIVES CONSIDERED

4.1 MAJOR IMPACTS

The major positive impacts that would result from the proposed project are increased air service capabilities for the peninsula and patients/residents of the Kalaupapa Settlement; increased economic gains to be realized from the construction and operation of the project; and improvements to the overall quality of life in the Kalaupapa community. The proposed

project is not expected to significantly affect the physical or natural environmental characteristics of the project area or site. Similarly, the proposed project is not expected to result in any significant negative impacts to the environmental characteristics of the project area or site.

As indicated above, an archaeological inventory survey of the entire project area that might be impacted by the proposed project has been conducted. The results of this inventory will be used to determine the potential impacts to the archaeological resources of the project site and area and the mitigation measures required to minimize potential adverse impacts.

4.2 MITIGATION MEASURES

The mitigation measures proposed to assure that potential adverse environmental impacts resulting from the proposed project are minimized include limiting construction activities to daytime hours; adherence to federal, state and county environmental protection, health and safety and construction rules and regulations; appropriate preservation of significant archaeological/historical/cultural resources; and the use of caution during construction to ensure that construction debris and materials are not introduced into the adjacent marine environment.

4.3 ALTERNATIVES CONSIDERED

As noted previously, the proposed project has been designed to meet several key objectives. In keeping with sound land use and airport planning practices and applicable EIS rules and regulations, those alternatives which could feasibly attain the objectives of the proposed project, even though more costly, have been examined. The range of feasible alternatives is limited to those that provide the same level and type of services that the proposed project would, while providing those services for about the same cost with similar efficiencies. The alternatives investigated have included various alignments of the runway, various widths and lengths of the runway and the alternative of "No-Action". In general, none of the alternatives

have been found to provide the type and level of service that the proposed project would or were more costly in terms of dollars or potential adverse environmental impacts. As such, to date, the alternatives have been rejected because they do not meet the objectives of the proposed project. Further analyses are in process to determine the alternative that best meets the project objectives.

5. DETERMINATION

Based on the information available and the type of governmental action requested at present and in the future, it has been determined that although the proposed project would result in positive social, economic and environmental impacts and would not have a significant negative impact on the environment, the proposed project is located within a National Historic Park and state and/or federal funds and land could be used for the proposed project. As such, an environmental impact statement, prepared in accordance with applicable federal, state and county environmental protection rules and regulations, is required for the proposed project.

6. FINDINGS AND REASONS SUPPORTING DETERMINATION

In considering the significance of potential environmental effects, the Department of Transportation, Airports Division has considered the sum of effects on the quality of the environment and evaluated the overall cumulative effects of the proposed action. The agency has considered every phase of the proposed action, the expected consequences, both primary and secondary and the cumulative as well as the short- and long-term effects of the proposed action. As a result of these considerations, the agency has determined that:

1. The proposed action is located within a National Historic Park;
2. The proposed action could affect air, water quality and ambient noise levels;
3. The proposed action is located in a coastal water and tsunami zone;

4. The proposed action does not involve an irrevocable commitment to loss or destruction of any significant natural or cultural resource;
5. The proposed action increases the range of beneficial uses of the environment;
6. The proposed action is in concert with the State and County's long-term environmental policies, goals and guidelines as expressed in Chapter 343 HRS, and any revisions and amendments thereto, court decisions and executive orders;
7. The proposed action does not substantially adversely affect the economic or social welfare of the community or state;
8. The proposed action does not involve substantial secondary impacts, such as population changes or effects on public facilities that are not already contemplated;
9. The proposed action does not substantially affect public health;
10. The proposed action does not involve substantial degradation of environmental quality;
11. The proposed action does not substantially affect rare, threatened or endangered species or habitats;
12. The proposed action is individually limited and cumulatively does not have a considerable effect upon the environment or involve a larger commitment for larger actions.

Further, although the proposed action is compatible with the locality and surrounding project area and appropriate to the physical conditions and capabilities of the area to be served; and the existing physical and environmental aspects of the subject area essentially will be preserved; and the proposed action will not result in any significant adverse effects to the environment; and the proposed action is in keeping with the objectives and purposes of the project site and area; the proposed action is located within a National Historic Park and there is the potential that the significance of the park could be compromised. The agency will be responsible for and comply with all applicable statutes, ordinances and rules of the federal, state and county governments.