CHINIAK BAY

STA 174+66.63
FUTURE RUNWAY 25 THRESHOLD
ELEV = 19.79'

STA 174+33.43
BEGIN EXISTING RUNWAY 25
ELEV = 19.60'

STA 174+52.64
BEGIN EXISTING RUNWAY 25
ELEV = 19.57'

COAST ELEV = 0.00'
CLEARANCE ELEV = 19.30'
NO THRESHOLD SITTING
SURFACE OBJECT
PENETRATIONS

RUNWAY 25 APPROACH PLAN

RUNWAY 07 APPROACH PLAN

OBSTRUCTION DATA TABLE

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>PENETRATION DISTANCE (Ft)</th>
<th>DESCRIPTION</th>
<th>DISPOSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1250</td>
<td>(BROWATER MOUNTAIN)</td>
<td>-</td>
</tr>
</tbody>
</table>

RUNWAY 07 APPROACH PROFILE

RUNWAY 25 APPROACH PROFILE

KODIAK AIRPORT
AIRPORT LAYOUT PLAN

DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

FAA AIRSPACE REVIEW NUMBER: 02-AN-20

ALASKA AERIAL SURVEY
FLYING DATE: DATE
FLYING TIME:
CHECKED:
SIGNATURE:

DATE: 3-17-94
CHECKED:
SIGNATURE:

RUNWAY 07/25 APPROACH SURFACES PLAN & PROFILE

SHEET 7 OF 13
A. Purpose

This Narrative Report is included with the Airport Layout Plan (ALP) for Kodiak, Alaska, in accordance with Federal Aviation Administration (FAA) Airport Design Advisory Circular (ADAC) 01-19/FSD 5300.01. ADAC 7-207. C Amendment 2 provides a comprehensive analysis in accordance with FAA AC 150/5300-13D/AC 150/5300-13D/AC 150/5300-13D/AC 150/5300-13D. The rationale for improvements to the Kodiak Airport is outlined in this narrative report.

B. Introduction

Kodiak, population 6,750, is located on the eastern tip of Kodiak Island in the Gulf of Alaska. It is served by flights to and from other villages of the island, but is not served by any interisland connection to the continental United States. The community services as a regional aviation center and also serves the eastern Alaska Peninsula. Food, fuel, medical care, and other services for these villages are provided from Kodiak.

The U.S. Navy constructed Kodiak Station, which includes what is now known as the Kodiak Airport, in 1946. The runways, taxiways, and terminal area were leased to the State of Alaska in 1972. The Alaska Department of Transportation and Public Facilities (ADOT&PF) continues to be responsible for the improvement, operation, and maintenance of most of the airport facilities. Today, Kodiak Station is the largest operational U.S. Coast Guard (USCG) base in the United States. The station serves as a focal point for rescue operations and the enforcement of maritime laws in the North Pacific and the Bering Sea. The airport supports all types of aviation activities, including military, commercial, and general aviation.

Kodiak has the second largest port in southeast Alaska and third in value. The Kodiak Airport receives scheduled air service, has an air traffic control tower, and is the site of approximately 46,000 aircraft operations of all types annually.

C. Airport Usage and Fleet Mix

The Kodiak Airport is located at 57°44'57" north latitude and 153°29'44" west longitude on Kodiak Island. Located 3 miles southwest of the City of Kodiak, the airport is approximately 248 air miles southeast of Anchorage. Originally constructed by the U.S. Navy in 1940, the runways, taxiways, and terminal area were leased to the State of Alaska in 1972. DOT&PF currently operates and maintains the airport under a lease agreement with the USCG.

The most demanding military aircraft is the Lockheed Martin C-130 (ARC C-130), while the most demanding civil aircraft is the Boeing 737-400. Based on the aircraft fleet mix, available operational data, communication with local air carriers and airport personnel, and the forecast of future fleet mix and stage lengths, runways 7/25 and 18/36 should be designed to accommodate aircraft with an ARC of C-44. Runway 11/29 should be planned for aircraft in the ARC B-III.

The Current Fleet Mix at the Kodiak Airport is listed in Table 1 with their associated airport reference code, operational and performance characteristics, and, on which ramp areas, general aviation (local or air terminal), air carrier, and military, several on taxi lane, commuter, or airport carrier operations are expected at Kodiak. Additionally, the Alaska Department of Transportation and Development for Aircraft Operations as a base for many GA and military aircraft, as referenced in Table 2.

Table 1

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>ARC Approach Speed (knots)</th>
<th>Length (ft)</th>
<th>Wingspan (ft)</th>
<th>MTW (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cessna 150/208</td>
<td>A-I</td>
<td>81</td>
<td>23-27</td>
<td>32-35</td>
</tr>
<tr>
<td>Brit-Hobson Islander</td>
<td>A-II</td>
<td>21</td>
<td>35</td>
<td>4,800</td>
</tr>
<tr>
<td>DHC-2</td>
<td>A-III</td>
<td>90</td>
<td>84</td>
<td>35,300</td>
</tr>
<tr>
<td>Cessna 185</td>
<td>B-II</td>
<td>107</td>
<td>105</td>
<td>58,143</td>
</tr>
<tr>
<td>Douglas D-26</td>
<td>B-III</td>
<td>108</td>
<td>117</td>
<td>104,000</td>
</tr>
<tr>
<td>Boeing 737-400</td>
<td>C-III</td>
<td>139</td>
<td>94</td>
<td>140,000</td>
</tr>
<tr>
<td>Boeing 737-200</td>
<td>C-IV</td>
<td>137</td>
<td>93</td>
<td>115,500</td>
</tr>
<tr>
<td>Lockheed C-130</td>
<td>C-IV</td>
<td>97</td>
<td>132</td>
<td>155,000</td>
</tr>
</tbody>
</table>

D. Aviation Demand Forecast

By estimating the elements of demand, compared over time, in relation to the capacity of the airport, the essential factors of airport function development can be identified. To prepare the forecast for the Kodiak Airport, available historic and current aviation activity information, including number of operations, passenger disembarkations, fuel mix, cargo, and mail volumes have been assembled. The forecast aviation has been prepared to reflect the expected changes in cargo and air traffic demand at the Kodiak Airport and the development of the Kodiak Launch Complex. Liquefied Natural Gas (LNG) exports will be included in the forecast approach to the Kodiak Airport and have flown from several existing Liquefied Natural Gas (LNG) export facilities.

Based on the forecast, the number of operations on the Kodiak Airport was forecast to approximately 46,000 annually over the forecast period. The forecast number of aircraft operations was approximately the same as the number of aircraft operations over the forecast period.

E. Airport Design Criteria

Kodiak Airport is classified as a Regional Center Airport in the ASK. The role of a Regional Center Airport is to be served on a primary interisland service to a region of Alaska and to a regional population center with a population greater than 1,000 persons. Based on the forecast demand the Kodiak Airport should remain classified as a Regional Center.

Federal and state authorities provide criteria standards to which runways, safety areas, taxiways, aprons, lighting, direct fire areas, clearance from areas, and runway information points should be developed. The FAA standards are based largely on airport classification.

The following is a summary of the findings and recommendations based on identified existing conditions of Kodiak Airport.

Runway 7/25: Runway 7/25 should be retained and planned for ARC C-175 design standards. The existing 3,377-ft length should be retained to accommodate aircraft use of the runway and to accommodate the critical aircraft for runway length (Boeing 737-400). The minimum runway width is 150 ft for ARC C-175/ARC 200. It is recommended that the existing 75 ft in length of the airport runway be lengthened to 150 ft and accommodate the critical aircraft for runway length (Lockheed Martin C-130 Hercules).

Runway 11/29: Runway 11/29 should be retained and planned for ARC B-III design standards. The minimum runway width should be 150 ft. It is recommended that the existing 75 ft in length of the airport runway be lengthened to 150 ft and accommodate the critical aircraft for runway length (Boeing 737-400). The minimum runway width is 150 ft for ARC B-III/ARC 200. It is recommended that the existing 75 ft in length of the airport runway be lengthened to 150 ft and accommodate the critical aircraft for runway length (Lockheed Martin C-130 Hercules).

Runway 18/36: Runway 18/36 should be retained and planned for ARC C-IV design standards. The minimum runway width is 150 ft. It is recommended that the existing 75 ft in length of the airport runway be lengthened to 150 ft and accommodate the critical aircraft for runway length (Boeing 737-400). The minimum runway width is 150 ft for ARC C-IV/ARC 200. It is recommended that the existing 75 ft in length of the airport runway be lengthened to 150 ft and accommodate the critical aircraft for runway length (Lockheed Martin C-130 Hercules).

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