Chapter 2: Summary of Existing Conditions

"Preparation is rightly two-thirds of any venture.”
— Amelia Earhart

2.1 Background

OAK is located in the City of Oakland, about 6.5 statute miles southeast of downtown Oakland in Alameda County along San Francisco Bay. The Airport is 2,600 acres, including 327 acres of wetlands under jurisdiction of the U.S. Army Corps of Engineers. The surrounding cities include Alameda (to the northwest), Oakland (to the north), and San Leandro (to the southeast). Access to OAK is primarily by Interstate Highway 880, Hegenberger Road, and 98th Avenue to Airport Drive (to access South Field). Other major roadways serving OAK include Doolittle Drive / State Route 61, Harbor Bay Parkway, Ron Cowan Parkway, and Davis Street / State Route 61.

OAK is a primary commercial service airport with four runways: one primary air carrier runway at South Field (Runway 11-29) and three runways at North Field (Runway 9R-27L, Runway 9L-27R, and Runway 15-33). The Airport is served by several passenger and cargo airlines. In calendar year 2004, OAK accommodated approximately 14 million annual passengers (explaning plus deplaning) and was the 33rd busiest in the U.S. in terms of total passengers, according to Airports Council International-North America. The Airport is served by FedEx, the largest air cargo operator at OAK, handling over 80% of the air cargo in and out of the Airport (by weight, in calendar year 2004), as well as United Parcel Service (at almost 15% by weight in calendar year 2004), ABX Air / DHL, Ameriflight, as well as some smaller air cargo feeders.

2.2 Existing Land-Use Map

Figure 2.1 shows an existing land-use map of OAK. The colors on the map represent the types of aviation land use, which are summarized in Table 2.1.

The largest aviation land use at OAK is Airfield, which is approximately 1,078 acres. South Field, which is defined as the Airport area south of Ron Cowan Parkway, is dominated by Passenger Facilities (approximately 208 acres), including Terminals 1 and 2, and air cargo facilities (approximately 104 acres), the largest of which is the FedEx Metroplex (their west coast hub operation). North Field (the Airport area north of Ron Cowan Parkway) contains a variety of aviation land uses, the largest of which is general aviation (approximately 85 acres), including aircraft hangars, ramps, and two fixed base operators, KaisertAir and Business Jet Center. North Field also accommodates some air cargo facilities (approximately 30 acres), including ABX Air / DHL and Ameriflight.

2.3 Existing Airport Data

Figure 2.2 presents existing conditions data for OAK. It summarizes general Airport characteristics, Airport employment data, operational statistics, North Field and South Field land-use data, runway data, and instrument approach capabilities.

Of particular interest is the intensity of usage of the passenger terminal facilities at South Field (see right-most column in Figure 2.2). In June 2004, each of the existing 24 aircraft gates at OAK had, on average, 8.6 departures...
per day, with over 10 departures per day on average for the 12 aircraft gates used by Southwest Airlines. This compares to just over 6 departures per gate per day (from 31 gates) at Mineta San José International Airport and just over 4 departures per gate per day (from 98 gates) at San Francisco International Airport. The national average is about 5.5 departures per gate per day. Although it is generally considered good management practice to maximize use of resources such as aircraft gates, the terminal facilities (Terminals 1 and 2) at OAK are generally overstressed and provide a poor level of service for airline passengers. Examples of poor level of service in Terminals 1 and 2 include crowded corridors, hold rooms, restrooms, and concessions.

A better measure to compare gate use at different airports is passengers per gate because airports can be served by different size aircraft (in terms of the number of seats per aircraft). Some types of aircraft can take longer to unload, load, and service, increasing the time the aircraft must be parked at the gate and decreasing the number of possible departures per gate per day. For example, San Francisco International Airport is a major international gateway served by many widebody aircraft, such as Boeing 747s. Although these widebody aircraft use the gate longer, they seat more airline passengers than the smaller narrowbody fleet (e.g., in the case of a Boeing 747, almost three times as many as a typical new Boeing 737, a typical narrowbody aircraft at OAK). In April 2004, OAK accommodated 49,618 passengers per gate on average (from 24 aircraft gates), and 58,727 passengers per gate from the 12 gates used by Southwest Airlines. This compares to slightly over 30,000 passengers per gate at Mineta San José International Airport and slightly over 28,000 passengers per gate at San Francisco International Airport for all of April 2004.

This concept of departures and passengers per gate and level of service will be important in Chapter 4, where the number of aircraft gates required to serve future airline passenger demand is discussed in detail.
Figure 2.1

Existing Land-Use Map

Oakland International Airport
Master Plan
March 2006

LEGEND

- Airfield
- Passenger Facilities
- Cargo
- Aviation-Related Support
- General Aviation
- Aviation-Related Business
- Recreation
- Undesignated

- Buildings
- Runways
- Taxiways
- Roadways
- Future Roadways
- Land
- Water
- Wetlands
- Bay Trail

Note: This graphic was prepared by the Port of Oakland as part of a master plan for Oakland International Airport. The master plan assessed many possible ideas and planning concepts. This graphic is conceptual in nature and for planning purposes only. It does not propose any particular course of action (it might represent an idea or concept that was discarded) and must be interpreted in the context of the entire master plan document.
Airport Setting

The original Oakland Airport was built in 1927 at North Field and is still in operation today serving smaller aircraft for air cargo, general aviation and corporate jet activities. Commercial passenger and cargo jet aircraft operate from South Field, which opened in 1962.

General Characteristics

- Location: 6.5 statute miles south of the downtown area of Oakland in Alameda County along San Francisco Bay
- Elevation: 9 feet above mean sea level at the Airport Reference Point (Federal Aviation Administration)
- Size: Approximately 2,600 acres (including 507 acres of wetlands under jurisdiction of the U.S. Army Corps of Engineers)
- Employment: Over 10,000 aviation-related employees on-site, 25% are cargo-related (Bay Area Economic Forum, 1999 data)

Aviation-Related Employees On-Site

- Owners and operated by the Port of Oakland
- Location Identifier: OAK
- Over $121 million in annual revenue (FY 2003–2004)

Annual Revenue, FY 2003–2004

<table>
<thead>
<tr>
<th>Revenue Source</th>
<th>Percent of Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Transportation and Parking</td>
<td>37%</td>
</tr>
<tr>
<td>Passenger-Related Uses</td>
<td>40%</td>
</tr>
<tr>
<td>Air Cargo Uses</td>
<td>5%</td>
</tr>
<tr>
<td>General Aviation Uses (North Field)</td>
<td>10%</td>
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<tr>
<td>Other Uses</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Airport Role

- Primary commercial service airport

Surrounding Areas

- Cities of Alameda, Oakland and San Leandro
- Aviation-related land uses surrounding the Airport include off-Airport parking lots, rental car facilities, hotel/motels, and cargo facilities

Access

- Highway Access: I-880
- Roadway Access: Hegenberger Rd, Airport Dr, Davis St, Ron Cowan Parkway, Doolittle Dr (I-80/500), Harbor Bay Parkway and 98th Ave.
- BART bus between the Bay Area Rapid Transit (BART) Oakland Coliseum station and Terminals 1 and 2

South Field

South Field has one runway (11/29), which provides service to larger commercial aircraft, including turbo-jet and turbo-fan aircraft, four-engine reciprocating powered aircraft and turbo-props over 17,000 pounds.

Passenger-Related Facilities (308 total acres)

- Passenger terminals: 429,000 gross square feet, plus 127,000 gross square feet with the Terminal Expansion Program
- Terminal 1 (16 gates) and Terminal 2 (9 gates)
- Parking: 2,800 public and 1,500 employee parking spaces totaling 73 acres
- Remote overnight aircraft parking (33 acres)

Enplanements

- Daily Gate Usage (June 2004 data, departures)
  - 8.6 departures per gate per day (all 24 gates)
  - 10.3 departures per day from 12 Southwest Airlines gates
  - This compares to 6.3 departures per day from 31 gates at SJC
  - This compares to 4.3 departures per day from 98 gates at SFO
  - This compares to a national average of 5.5 departures per gate per day (Solomon Smith Barney 2003 Hub Fact Book)

- April 2004 Gate Usage (monthly passengers)
  - 45,618 passengers per gate (all 24 gates)
  - 58,727 passengers from 12 Southwest Airlines gates
  - This compares to 30,561 passengers per gate at SJC (from 31 gates)
  - This compares to 28,270 passengers per gate at SFO (from 98 gates)

- Cargo Facilities and Support (104 total acres)
  - FlxEd (UPS), U.S. Postal Service

Air Cargo

- A component of the Airport Development Program

Bay Area Area Cargo Market Share

- Source: Bay Area Economic Forum, 1999 data

Note: All data is provided by the Port of Oakland unless otherwise noted.