# PRESENTATION OUTLINE FEBRUARY 25, 2009 GAO COMMITTEE

# 1. Introduction by Airport Director

- a. Introductions.
- b. Historical background.

# 2. Airport Property Management (Tom Paine & Ian Taylor)

- a. Responsibility.
- b. Legal Authority.
- c. Rental Rate Adjustment Policy & Methodology.
  - i. Appraisal.
  - ii. Fair Market Value defined.
  - iii. Ground Rent Factor (Rate of Return).
  - iv. Adjustment cycles.
  - v. Appraisal process.
  - vi. Arbitration.
- d. Historical trends.
- e. Elimination of Subsidies.
- f. The Boeing 2008 Arbitration results.
- g. Proposed 2009 Ground Rental Rate Adjustment for Non-Boeing Leaseholds & Preferential Use Agreements.
- h. FAA regulatory requirements.
  - i. Equity.
  - ii. Self-Sufficiency.
  - iii. Non-exclusive rights.
  - iv. Grant Assurances.

# 3. Future Airport Development and Financial Plan (Airport Director, Airport Finance Manager)

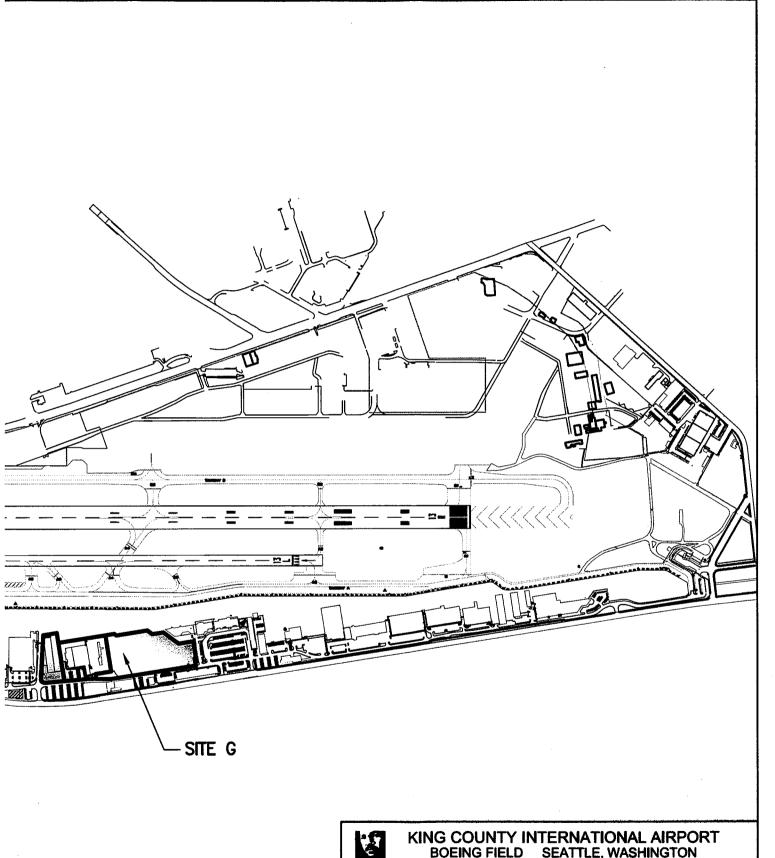
- a. 2009 Operating & Capital Budget Appropriation.
  - i. Forecast revenue.
  - ii. Forecast expenditures.
  - iii. January 2009 Activity Report and apparent trends.
- b. 3-Year Financial Plan (2009 2012)
  - i. Operating
  - ii. CIP (6-year plan 2009 2014)
- c. Market Demand & Facility Analysis (November 2008)
  - i. Analysis assumptions.
  - ii. Sites identified.
  - iii. Compliance with Airport Master Plan and Airport Layout Plan (ALP).
  - iv. Timeline.

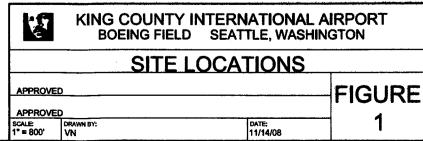
- d. Recent Lease Activity/Sales.
  - i. Classic Helicopters.
  - ii. WASDOT Site Re-development.
  - iii. Interest in AOC Site Re-development.
  - iv. RFP for Lot 13 Redevelopment.
  - v. Bankruptcy.

# 4. Questions.

# 5. Reference/Source Documents.

- a. Applicable Sections of Title 15 King County Code.
- b. FAA Grant Assurances.
- c. Instrument of Transfer under the Surplus Property Act of 1944.
- d. Market Demand and Facility Use Analysis (November 2008).
- e. FAA Advisory Circular 150/5190.6 Exclusive Rights at Federally Obligated Airports.
- f. FAA Policy Statement on Airport Rates & Charges.





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# KING COUNTY INTERNATIONAL AIRPORT

# **Market Demand and Facility Use Analysis**

Prepared for: King County International Airport / Boeing Field Seattle, Washington

November 2008



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# King County International Airport Market Demand and Facility Use Analysis

The King County International Airport (the Airport) serves the greater Seattle region. The Airport is the most convenient land airport serving downtown Seattle because it is located about five miles south and approximately 10 minutes drive time from the city's central business district. About six miles south of the Airport is the Seattle-Tacoma International Airport (Sea-Tac), which is the region's principal commercial service airport. Sea-Tac ranked in 2007 as the 18<sup>th</sup> busiest U.S. airport in passenger volume.

The location of the Airport in relation to downtown Seattle and Sea-Tac is shown on Figure 1.

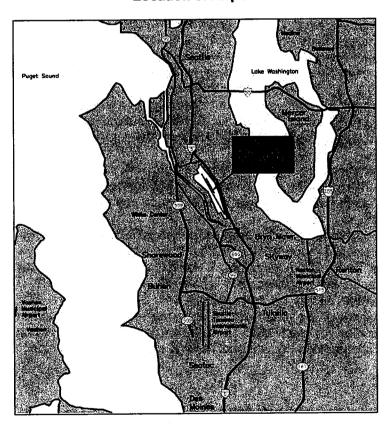


Figure 1
Location of Airport

According to the FAA aircraft operations data for 2007, the Airport was the 36th busiest airport in the United States with 300,184 operations. This averages 822 operations per day or, if all operations were to occur during the busiest daylight hours, roughly 69 per hour.

General aviation accounted for 222,864 operations or 74 percent of activity during 2007. In the same year, there were 10,622 air carrier operations, 64,237 air taxi operations, and 2,421 military operations. This variety of users is relatively rare among the busiest U.S. airports in operations, making the Airport a true multi-purpose facility. In contrast, Sea-Tac had 347,046 aircraft operations in 2007 or approximately 15 percent more than King County International. However, most of Sea-Tac's operations were commercial passenger flights.

Surrounding the Airport's two runways, a variety of users and tenants are located. The largest of these tenants is the Boeing Company that has their 737 delivery facility on the field. Boeing's test facility, military development center, and various aircraft modification, paint, and maintenance hangars, as well as offices are also located either on the field or on nearby sites. Three Fixed Base Operators (FBOs) are located on the Airport, as well as various other aviation related businesses. A number of large, private hangars for corporate aircraft surround the airfield, as do smaller hangars that hold single or multi-engine piston aircraft. Other areas on the Airport contain aircraft ramp and tie-down space, as well as the passenger terminal, offices, automobile parking, roads, and miscellaneous uses.

The Airport's runways (designated 13L-31R and 13R-31L) and land are oriented in roughly a north-south direction with the east side bounded, first, by Airport Way South – a four-lane arterial. Next to Airport Way South is the multi-track, main north-south right of way of the Union Pacific/Burlington Northern Santa Fe railroads. Immediately east of the railway is a large ridgeline occupied by Interstate 5. On the west side of the Airport, another four-lane arterial - East Marginal Way - bounds the Airport. On the west side of this highway are a number of large industrial sites and to the west is the Duwamish Waterway. As will be identified in this report, the result is a relatively crowded and land-locked airport with little room to expand.

Due to the land-constrained site, the 594-acre Airport is very congested with no empty space for new development. The purpose of this study is to analyze certain areas of the Airport for redevelopment to obtain the most appropriate and revenue positive land use.

This report is organized to define the purpose of the project and to summarize the conclusions and recommendations. Next, the report will identify the three sites proposed for development including their current use, size, and facility constraints. It will also classify the many possible uses of Airport land and identify potential land development issues influencing the Airport. The opportunities for Airport land development based on both supply and demand factors will be recognized and evaluated and an analysis of the development opportunities will be made in order to differentiate the potential opportunities for each site. Finally, the various site development options will be evaluated, financial comparisons developed, and a plan for development and implementation presented.

## **Report Purpose**

The Airport's objective for this analysis is to identify the most appropriate uses for three sites (to be identified in this report as C, G, and K). The three sites will be fully described in the report, but their potential development is intended principally to:

- Fit with the Airport's mission and obligations to its sponsors.
- Be consistent with FAA airport planning and policy requirements.
- Improve the long-term financial self-sufficiency of the Airport.

The facilities of the Airport have been previously studied in reports such as the Master Plan, that focused on physical assets and meeting FAA design standards. This report will utilize previous analysis facility data, but focus on the *demand* for Airport facilities. The analysis will also address the potential *financial benefits* of development to the Airport and for the community.

This analysis is in line with the Mission Statement of the Airport, which follows:

# King County International Airport - Mission Statement

Develop the full potential of the Airport as an economic engine for the Puget Sound Region by ensuring optimal use of its land, facilities, and infrastructure.

The continued redevelopment of the Airport to provide maximum economic benefit to the region is a long-term effort. The process involves responding to the demands of tenants and users, as well as balancing those potentially conflicting demands with governmental procedures for use and leasing of the Airport. This redevelopment process is complicated by the high demand for on-Airport facilities and the wide variety of existing users and tenants. In fact, this Airport sees aircraft landings from the largest four engined cargo transports down to the smallest single seat pleasure helicopters and there are on-Airport tenants from small retail stores to massive aircraft manufacturing buildings. Thus, this land use evaluation addresses a multitude of potentially conflicting issues such as the limited available land for development and the need to fund Airport capital development and pay operating costs.

## **Proposed Development and Implementation Plan Summary**

In general, the Airport's land can be identified as fully occupied with virtually no Airport-owned space currently vacant. Therefore, any new development at the Airport has to occur by redevelopment and/or reallocation of land. The summary of recommended uses and action plans for the three sites studied in this analysis are presented in Figure 2.

Figure 2
Summary of Land Use Recommendations

Area	Acres	<b>Current Use</b>	Key Site Constraints	Recommended Use	Necessary Actions
Site C	8.4	Office buildings	Non-Airport land; Existing office buildings	Corporate hangars	Acquire Woods-Meadows parcel; Demolish existing buildings; Seek development proposals
Site G	10.2	Air cargo handling	Existing tenants; Old buildings and a hangar; Possible environmental issues	Air cargo airline operation; air cargo transfer support; aircraft maintenance hangar	Acquire EMF site lease; Demolish hangar and buildings; Negotiate with current tenants
Site K	2.8	Vacant	Limited land area and height for building	T-Hangars	Seek T-hangar developer

These recommendations are made based upon the factors identified in this analysis, but principally the highest long-term monetary return to the Airport and the current demands of tenants. By increasing revenue, the Airport is expected to best meet its requirement to serve the people of the Puget Sound Area and continue in operation for the long term. Further, the demand for Airport facilities by various types of users can best be satisfied.

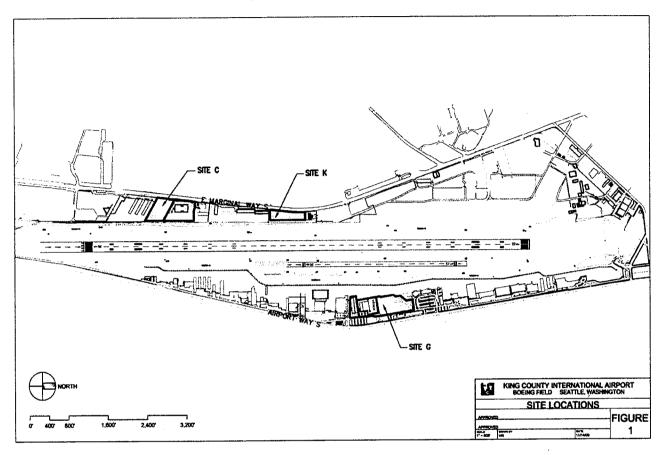
## **Physical Identification of the Development Sites**

This section identifies the overall Airport facilities and presents details on the three sites under study. The Airport is located on 594 acres approximately five miles south of the central business district of Seattle. The north part of the Airport is in the City of Seattle, while the south part is in the City of Tukwila. The areas east, south, and west of the Airport are generally industrial, while the area north is mixed light industrial, retail, and residential. Highway access is convenient via Interstate 5 and numerous local roads.

The current Airport site is almost fully developed with facilities for aircraft manufacturing support, corporate hangars, FBOs, and general aviation, as well as commercial passengers and air cargo. The main tenant is the Boeing Company, but the Airport's lease records list over 25 other major tenants and numerous short-term executive hangar, T-hangar, and tie-down contracts.

In general, each development site under study in this analysis is squeezed between a major road and the Airport's runway/taxiway system. All sites are to some degree limited by FAA mandated height restrictions. While waivers to certain FAA height restrictions might be possible, they are not assumed in this analysis. In contrast, the closeness to the runway/taxiway system makes each of these sites extremely valuable for aviation-related use. The locations of the three sites under study are presented on Figure 3.

Figure 3
SITE LOCATIONS



The three sites are described below including their general size, location, topography, height restrictions, setback restrictions, air access, ground access, source of utilities, auto parking, and existing use.

• Site C - Site C is located on the southwest side of the Airport bounded: 1) on the south by executive hangars C, D, and E; 2) on the west by East Marginal Way South; 3) on the north by the old Washington State Aviation hangar and GA aircraft parking area [note that this site has just been leased to a firm for corporate hangar development]; and 4) on the east by Taxiway B. The site totals about 8.4 acres, but, as noted, it is currently two separate parcels. The Airport does not own the approximately 3.7 acre Woods-Meadows property, which contains two one-story office buildings and vehicle parking. Several tenants currently occupy these buildings. The Airport Office Center (AOC) property is owned by the Airport and contains one large office building surrounded by vehicle parking; however, the building is not currently occupied, but it is for rent. The AOC parcel is measured in this document at approximately 4.7 acres.

Both sites are irregularly shaped and together they form a roughly 900-foot by 440-foot rectangle. The site is relatively flat with good ground (vehicle) access from East Marginal Way and good airside access from Taxiway B. Utility access is available along East Marginal Way. Both sites are restricted from a building and aircraft parking perspective by various airfield height and activity restriction lines – some of these height restricting lines and the shape of the site are indicated on Figure 4.

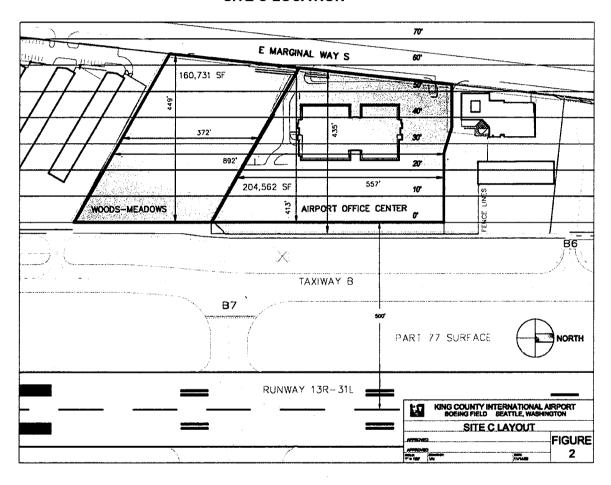


Figure 4
SITE C LOCATION

This site is also shown as Figure 5 in an aerial view with the Woods-Meadows land in the front of the picture and the AOC parcel in the rear.

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Figure 5

• Site G - Site G is an approximately 10.2 acre parcel in the center of the east side of the Airport just south of the passenger terminal. The west side is bounded by Taxiway A, while the east side is bounded by the interior Airport access road. South of the site is the Hangar Holdings Company property, which is occupied by a large corporate hangar and north of the property is the Airport passenger terminal complex. Currently UPS and Ameriflight use the site for air cargo transfer and aircraft repair and staging. The vacant former FedEx building occupies the southern portion of the site.

Presently, Site G consists of a large area of aircraft ramp, a roughly 200 by 200-foot hangar with adjacent offices, and two, long, thin cargo sort buildings. The first sort building is a roughly 200 foot by 10 foot shed, called the UPS Sort Shack. It is located in front of Hangar 5, which is the Ameriflight hangar. The UPS Sort Shack is surrounded by air cargo containers and does not appear to be used. It is one story of wood construction and was once used to sort and stage air cargo; however, today most UPS air cargo is loaded into and out of containers at an off-site facility. The second sort building is the former FedEx structure located at the southern edge of the site – removed from where the aircraft park. Hangar 5 is used for Ameriflight maintenance and two small turbo-prop aircraft can fit in one side of the building; the other side of the hangar is used for ground service equipment maintenance and storage. Adjacent office areas are apparently used for pilot briefings, maintenance administration, and employee break and locker rooms. Approximately 60 cars can park next to the hangar and there is space for over 100 cars to park on a separate parcel across the interior Airport access road.

The site is flat and it has utility access along the Airport service road. The Airport-owned land across the access road from the site potentially offers space for vehicle parking, office buildings, or other uses that do not require airfield access – thereby making the site more valuable for aircraft-related use.

In contrast to Sites C and K, the leasable land in Site G is set well back from the FAA mandated "imaginary" surfaces of the airfield operations area that restrict building and parking of aircraft; therefore, almost all of the site can be used for tall buildings or large aircraft parking. While these height restrictions are not unlimited, Site G can be used for parking most types of wide body aircraft and/or construction of large aircraft hangars. However, the potential environmental limitations of the EMF site must be considered for belowground contaminates before any construction. This site is shown on Figure 6.

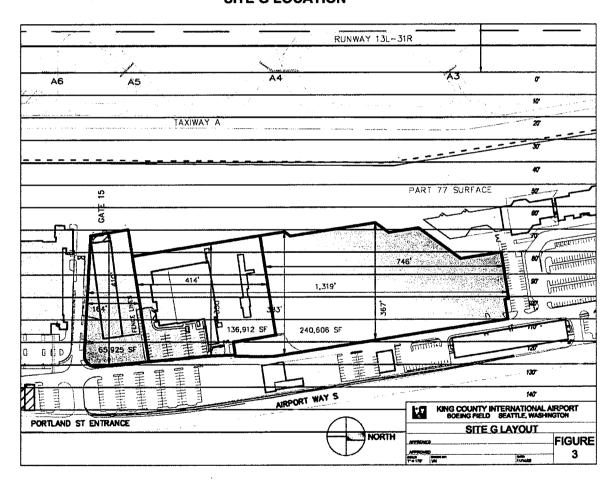


Figure 6
SITE G LOCATION

Site C is shown on an aerial photo in Figure 7.

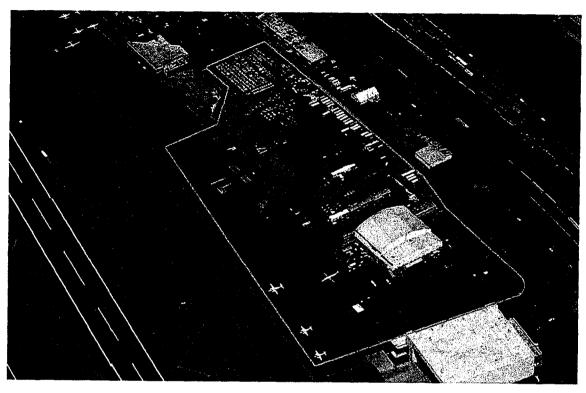
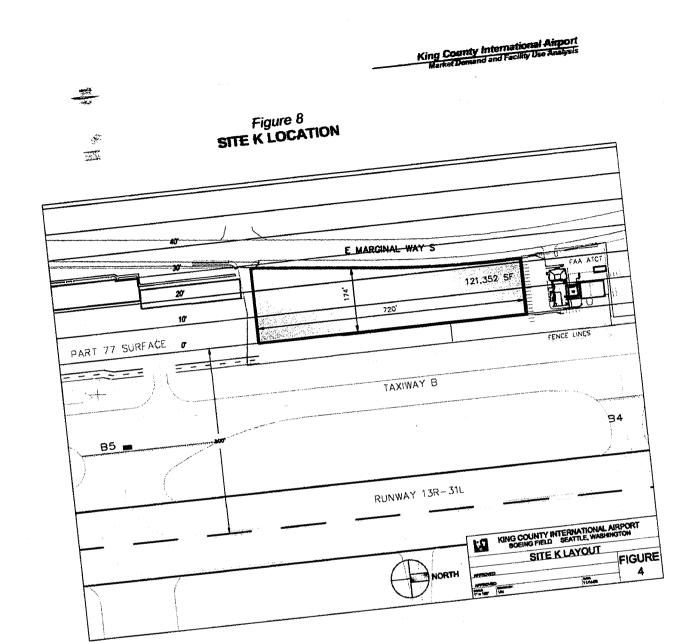


Figure 7
Aerial Photo of Site G

**Site K** - Site K is a long, thin parcel approximately 2.8 acres in area, with its use severely height restricted by its proximity to Taxiway B. The site is bounded on the north by the air traffic control tower (FAA ATCT), on the east by Taxiway B, on the south by three sets of Thangars, and on the west by East Marginal Way South as shown on Figure 8. Note that water, sewer, and electricity are potentially available along this roadway and the site is flat and partially paved. Based on the site's location, both air and ground access is excellent. The site most likely cannot be fully developed for aviation use because some area must be reserved for automobile access and parking.

The site is presently not leased, but it is occasionally used for overflow vehicle and/or small aircraft parking. The facilities across East Marginal Way South are a metals foundry and Boeing offices.



Site K is shown on an aerial photograph in Figure 9.



Figure 9
Aerial Photo of Site K

## **Identification of Possible Airport Land Uses**

This section will describe the *potential* land uses for Airport land with a short description of each type of use. From this list of potential uses, the opportunities for development of each site were evaluated. Note that all the aviation-related uses require some type of airfield access, roadway access, vehicle parking space, security, and access to airport services such as fueling.

- Ramp space Ramp or apron is an open paved area where aircraft are staged for loading and unloading. Occasionally ramp space is used for temporary aircraft parking.
- **Tie-downs** These are paved areas where GA aircraft are stored. Rope, chains, webbing, or some other material "ties" the aircraft to hooks in the ground to keep the aircraft from moving in the wind.
- T-Hangars As the term is used at the Airport, T-hangars are small aircraft hangars, with doors, where one, single engine, piston-powered aircraft is stored.
- Executive hangars As the term is used at the Airport, executive hangars are slightly larger structures where two engine, piston powered aircraft are stored.
- Common (multi-tenant) hangars These are larger hangars where several aircraft of various sizes and of different tenants are stored. All such common hangars at the Airport are operated by an FBO who manages the movement of aircraft in and out of the hangar.
- Corporate hangars These are large hangars for the exclusive use of one tenant. They
  generally are used to store one or more corporate jet aircraft. A number of such corporate
  hangars are located at the Airport.

- Fixed Base Operator (FBO) facilities Full service FBOs generally have terminal buildings (with pilot lounges, flight planning space, offices, and rest rooms), ramp space, maintenance hangars, common hangars, and, in some cases, executive and/or T-hangars under their control. FBOs also have facilities for the aircraft services such as fueling and deicing. The Airport has three full service FBOs and several firms that provide limited aviation-related services.
- Maintenance hangar Separate aircraft maintenance hangars are also common at airports where private firms repair or service aircraft. At the Airport, all the current maintenance hangars (other than the Boeing facilities) are under control of an FBO.
- Air cargo feeder carriers Facilities needed for cargo air taxi carriers vary from use of the public ramp to park one or more aircraft to hangars/buildings to repair aircraft, manage the operation, and stage cargo. Two air cargo feeder airlines currently utilize the Airport.
- Major air cargo carriers The large air cargo airlines generally need ramp to park one or more large jet aircraft, as well as additional ramp for feeder-type air cargo aircraft. Paved space is needed to stage main deck loaders and containers, as well as the trucks that deliver and pick up cargo. A package sort and office facility may be necessary depending on the scale of the operation; however, the main sort and container loading facility is generally off-airport. Three major domestic air cargo airlines (BAX, DHL, and UPS) use the Airport. Note the Airport is used for domestic air cargo; the region's principal international air cargo airport is Sea-Tac.
- Passenger airline facilities Passenger airlines need ramp area and a terminal where
  passenger processing occurs. The terminal has space for passenger and baggage staging,
  as well as security, concessions, and similar passenger amenities. Service facilities for
  fuel, catering, deicing, baggage handling, and other services may also be necessary or they
  can be provided by an FBO. Several relatively small scheduled passenger airlines utilize
  the Airport and charter flights are frequent visitors.
- Hotel Some airports have on-property hotels to serve commercial air passengers, aircraft
  crew, and others. No hotel is currently located on Airport property because the on-Airport
  demand is believed to be relatively low and there are many hotels in downtown Seattle and
  in the vicinity of Sea-Tac, just five or six miles away.
- Non-aviation commercial Airport land not needed for aviation-related purposes can be
  used for other types of commercial business to generate land rent and take advantage of
  available infrastructure. This use can be factories, distribution centers, offices, retail, or any
  type of activity. The Airport currently does not have any industrial tenants, but a small
  parcel cut-off from taxiway access is used as a plant nursery.
- Air museum The Airport has an aviation history museum that requires runway/taxiway to acquire and relocate its aircraft.
- Airport operations An airport operator needs administrative office facilities, as well as service/maintenance facilities for mowing, snow removal, facility repair, ARFF, law enforcement, customs, and other related services. The FAA needs space for their Air Traffic Control Tower.
- **Public agencies** Various public agencies, in addition to the Airport management/operations unit, are located on the field. These public uses include a police aviation unit and several King County departments, which have offices on Airport property.

There are other uses of airport land in addition to those above. However, these are the principal aviation-related uses currently at the Airport or suggested for evaluation in this analysis. Certain areas of the Airport are also used for roads, vehicle parking, and as buffer zones or green spaces.

## **Airport Land Development Issues**

The Airport is faced with a number of possible concerns regarding use of its limited land area. The factors that influence overall Airport development are identified below:

- Limited Amount of Available Land Perhaps the most critical issue is the fact that only a small proportion of the Airport's 594 acres are available for commercial lease or public use. This is because most of the Airport's land is utilized for runways, taxiways, clear zones, public roads, and unusable space, as well as the public passenger terminal with its parking lot occupying other land area. Of the remaining useable land, almost all is already developed and fully leased leaving little property for new or expanded use. This limitation is also evident in the demonstrated need for increased ramp space to provide aircraft parking capacity at the Airport's passenger terminal building.
- <u>Intense Competition for Available Land</u> The limited amount of land available for commercial development results in competition among users or potential users for available space that in a typical commercial situation should increase the land rent.
- Potential Conflicts Between Land Uses Having a wide variety of military, commercial, and pleasure flyers, as well as aircraft as large as the Boeing 747 using the same facility as Cessna 172 and Robinson helicopters may create aircraft operational challenges. These issues involve prop-wash and jet blast issues, noise and environmental compatibility, and safety and security issues. For example, ramp security is a particular concern around general aviation tie downs and T-hangars. Further, near air cargo facilities, trucks enter and leave the secure area that must be carefully monitored. Finally, tenants such as the corporate aircraft tenants value their privacy and security and often prefer not to share facilities with other tenants.
- <u>Existing Uses and Tenant Commitments</u> The Airport has a commitment to existing users
  to recognize their leases and agreements, as well as listen to their requests to expand or
  relocate. While all these arrangements are business relationships and the Airport must put
  its own interests first, the Airport may have long-term desire to relocate or expand existing
  tenants, particularly if they are located in an area not well suited to their use.
- Compliance with Long Term Planning Concepts The Airport has prepared an FAA Master Plan Update and various tenant use and land development plans and procedures. These are designed to maximize land use and reduce conflicts among users. Certain of these conceptual uses are identified in the Airport Layout Plan (ALP), while others are identified in other Airport planning documents. These long-term plans are designed to ease conflicts of Airport planning and to guide planning decisions. While these previous plans will be identified and considered, the Airport has the final decision regarding future land use.
- Need for Airport Revenues As important as any other issue is the Airport's concern to receive a fair and equitable return for public land. The Airport is a self-supporting business entity and must price its land and user fees to generate sufficient revenue to fund all operating, capital, and other costs. Thus, each new lease is expected to increase overall Airport revenue, while being consistent with Federal and local guidelines. Note that the FAA also requires airports to be as financially self-sufficient as possible and to charge all users/tenants based on fair market value. However, it is up to the airport to seek out tenants and users that provide the maximum economic return for the land or facilities provided.
- Compliance with County and Federal Leasing Requirements The Airport is required to
  follow King County guidelines regarding competitive and fair leasing, as well as and other
  contract provision requirements. The Airport is further required to follow the FAA's
  requirements, such as the Grant Assurances and Rates and Charges Guidelines, regarding
  airport financial self-sufficiency and equal treatment of similar tenants/users. In addition,

the Airport must comply (to the degree practical) with FAA rules regarding non-discriminatory access for leasing, non-exclusive contracts, and open public access to the facility.

- <u>Limited airfield capacity / Need for Compatible Uses</u> The Airport has two runways and it shares airspace with Sea-Tac and other airports. This results in a limited amount of available air and ground infrastructure to support additional tenants. Further, Airport capacity and safety are usually increased if similar types of aircraft are operated. Therefore, some consideration may need to be made in choice of tenants for consistency in types of use particularly in adjacent areas because of jet blast and security issues.
- Desire for New Types of Tenants and New Land to Generate Airport Revenue The Airport
  has been limited in the past by existing long-term leases and relatively few types/numbers
  of tenants to generate the necessary revenue to cover all operating costs. Therefore, any
  opportunity to add adjacent land, diversify the tenant/user base, and/or add new sources of
  revenue should be explored.

These issues are further complicated by the limited availability of Airport capital funds to develop new facilities. While there are obvious, long term benefits to adding or constructing new facilities, the Airport may be limited in its ability to up-front the cost of extensive ramp, hangar, security, access, land, or other new facilities. Therefore, the capital cost of the various development alternatives and/or the method of funding development are additional concerns for future development. Further, the long-term upkeep, maintenance, and insurance costs of new tenants must be included to identify the full cost or benefits of a proposed new development.

#### **Goals for Airport Land Development**

This section of the report will identify the goals of land use planning at the King County International Airport. The basis issue is to comply with the Airport Mission Statement by addressing its goals. In addition, certain concerns regarding the development of the Airport will be identified in this section.

- <u>Provide Regional Benefit</u> Certainly one of the most important considerations of airport land development is that the community will benefit by providing jobs or otherwise stimulating economic activity.
- <u>Fit Regional Aviation Planning Guidelines</u> The FAA and State develop plans for the coordination and overall benefit of aviation to the nation and to the region. Therefore, any suggested activity at the Airport will comply with both the national and state system plans. In addition, regional land use and zoning need to be considered. Regional and state plans continue to recommend that the Airport fulfill its roles as a major air cargo, manufacturing, and GA/Corporate center, while addressing the growing demands for new aviation services.
- <u>Serve the Needs Currently Provided</u> The Airport currently serves a diverse collection of users and tenants, as well as providing other services to the community. Land planning seeks to continue to support these uses and users which include:
  - The flight testing, delivery, modification, and other operations of Boeing that are located on the field.
  - o Scheduled and air taxi short-haul passenger flights.
  - Corporate aviation for businesses both based in the region and visiting. The large firms headquartered or with major presence in the region include Starbucks, Microsoft, Costco, Amazon, Nordstrom, Safeco, Weyerhaeuser, PACCAR, and Alaska Air.

- Sports team and other passenger charters such as for the Immigration and Naturalization Service.
- Presidential and other official governmental visits to the Northwest.
- The Museum of Flight, located on the field.
- U.S. Customs, which operates a point-of-entry facility on the field.
- Provide Airport Security Maintain the highest level of Airport security.
- <u>Diversify the Types of Users and Tenants</u> To the degree possible, the Airport should attempt to have a compatible, but diverse collection of users and tenants, avoiding over concentration of activity or revenue in any one type of tenant/user.
- <u>Generate Steady and Predictable Revenue</u> From an Airport business perspective, there is a critical need for a predictable and reliable stream of revenue.
- <u>Support the Region's Economy</u> Finally, the Airport's mission is to keep itself in operation, while generating even greater good for the region.

The issues of Airport operation also include recognizing certain other factors that influence Airport land use planning and development. These other factors include:

- Capital cost The Airport has limited availability of funds to construct common area or tenant facilities. Therefore, both the level and source of capital funding is important.
- Operating cost In addition to the initial capital cost of any improvements, the level and source of on-going maintenance and upkeep costs needs to be considered.
- Environmental considerations Any new use or users also needs to be respectful of the environment issues associated with an 80-year-old facility. In addition, increasing environmental costs associated with storm water management or mitigation needs to be factored into development strategies.
- Runway capacity The capacity of the runway/taxiway/ramp system is finite; therefore, any change in airfield use should evaluate increased delay on existing and future tenants, although the airport has a theoretical capacity of 425,000 annual operations. The actual peak period use and mix of aircraft sizes operations must be considered.
- Revenue impact Each potential change of land use needs to evaluate the level of revenue that might disappear or the amount expected to be generated. Further, the year-by-year level of revenue may need to be identified, if the lease or user fee amounts can vary and/or if they can be changed with inflation, cost increases, or other factors.
- Influence on other tenants Positive or negative impacts on other tenants should be recognized. This includes the opportunity for continued or new revenue to one or more of the FBOs by increased Airport use.
- Safety/Security Any activity that increases the amount or kind of police/security or Airport Rescue and Fire Fighting (ARFF) presence should be recognized.
- Regional impact (economic/other) Finally, the number of jobs retained or added within the community on a long-term basis should be considered, as well of the value of any new aviation activity to the region. For example, the Airport has initiated a home insulation program that should aid in community acceptance of new activity.

Consideration of these factors is part of the balance of positive and negative factors associated with the lease or use of Airport land and/or facilities.

#### **Summary of Previous Airport Land Use Planning and Demand Analysis**

The August 2001 Master Plan provides the foundation for Airport facility planning. An output of the Master Plan was the Airport Layout Plan, which is the official FAA document used to guide facility development. The Master Plan evaluated Airport facilities based on FAA standards and identified the anticipated demand for aviation related activity. With certain proposed modifications, the Master Plan found the <u>airfield</u> had adequate capacity. Regarding the development of airport <u>land</u>, the Master Plan reached two conclusions:

- There is a lack of developable land at the Airport, and
- There is an inability to significantly expand the Airport's land holdings.

The result was that the Master Plan found, "the total accommodation of all forecast landside demand is not feasible."

The Master Plan further addressed the specific types of Airport land use. In general, the Master Plan calculated that the Airport support facilities such as the ARFF, air traffic control tower, fuel storage, and Airport maintenance facilities were generally adequate — assuming continued modernization. The passenger terminal facilities were found to be adequate for current and anticipated demand, but would be inadequate if scheduled commercial passenger service was significantly increased. The potential issues were in the two remaining areas of: 1) accommodating air cargo and 2) providing aircraft storage facilities. In both cases, the Master Plan found the Airport short of both current and future capacity. More specifically, the report found that air cargo currently occupied 22 acres, but would need 43 acres by 2015. For aircraft storage, the report found that additional hangar facilities were needed for 72 aircraft and additional tie-downs for 21 aircraft. Transient aircraft would need additional space for 20 aircraft.

A subsequent study was made to specifically analyze on-Airport land use leasing practices. This October 6, 2006 study completed by Landrum and Brown, *Planning for the Future: Alternative Land Use and Revenue Optimization*, found the Airport facility was extremely land constricted and there was no way that all users requesting or desiring space could be accommodated. This report found that the Airport's primary goal should be maintaining financial solvency and therefore it should strive for:

- more intensive land use
- more advantageous lease terms
- fully compensatory rents

That is, over the long term the Airport should obtain more revenue from its most precious asset – its land.

This analysis updated the measurement of anticipated demand to today's conditions and finds there exists a shortage of land for air cargo facilities and corporate aircraft storage based on current tenant requests. The expectation also exists for continued increases in air cargo and aircraft storage demand. The current status of demand in these two areas is addressed below.

 <u>Air Cargo Demand</u> – The Airport has recently spoken with each of its scheduled air cargo carriers, specifically UPS, DHL, BAX Global, Ameriflight, and PacAir. Each sees a continued demand for air cargo and wants to remain at the Airport. UPS and Ameriflight each expressed interest in expanding their facilities. Slightly complicating the situation is that nationally DHL is in negotiation with UPS to assume their flight services, which may

16

- change the location of certain aircraft on the Airport, but not influence the forecast of demand.
- Aircraft Storage The current Airport hangar waiting list has 55 individuals that have expressed interest in T-hangars and 27 that have expressed interest in executive hangars. This list was updated in the beginning of 2008, so it is believed to be current. However, there is no cost or obligation for having your name on the list and persons can also be on hangar wait lists at multiple airports, so the number of hangars actually expected to be leased would be less than the number of names on the hangar waiting list. Further, the price of the monthly rent would significant impact the number and size of the hangars rented. In addition, there has been interest in additional corporate hangars at the Airport. While there are no active requests for exclusive corporate hangars at the Airport, within the past year, several large Seattle-area firms have visited the Airport to inquire about space and several firms have located their aircraft with an FBO. For example, within the last six months, one of the largest regional corporations placed their aircraft in an FBO hangar and another delayed their request for space until the economy improves.

Based upon the number of names on the waiting list for T-hangars and executive hangars, as well as the historical interest of firms in corporate hangars, significant demand for hangar space is believed to exist. In addition, the existing FBOs have also expressed interest in leasing space for additional corporate aircraft storage.

## **Evaluation of Potential On-Airport Land Uses**

This section of the report will evaluate each site for potential use using the principals and options previously identified. A subsequent section will further define the potential uses based on expectations for financial return.

#### Site C

Two parcels, each of which has office buildings on the site, currently occupy Site C. While office buildings are a compatible use next to an airport, they fail to take advantage of the very limited amount of land next to the runway/taxiway for aircraft use. Particularly at this Airport, where only a relatively small amount of land is available and the airfield has more capacity, the land adjacent to the runway should be utilized to its maximum extent. Further, the region has ample existing office space and/or land to build new offices. Therefore, continued use of this land for office buildings is not recommended.

The site is likely too large and valuable for ramp or tie-downs, and it is too small for major air cargo operations. Further, the site is too far from the terminal for intense commercial passenger, air cargo, or air taxi use. Therefore, it appears to be best suited for corporate hangars or expansion of FBO aircraft service facilities. However, the FBO offices are located on the other side of the runway, so corporate aircraft hangars appear to be the most logical use. Because these two sites are not seriously height restricted, they represent one of the few on-Airport locations remaining for corporate or other large common hangars.

As will be presented in a separate section below, corporate hangars on this site represents the highest annual revenue at minimum capital development cost to the Airport. Further, annual Airport maintenance and operating costs are low and financial risk is minimal with new corporate hangars, which is an advantageous position for the Airport.

There is a need for additional corporate hangars as indicated by the interest shown to Airport Management by a number of corporate operators and FBOs. In fact, one large local corporation is building a corporate hangar on the land immediately north of Site C, while another firm postponed their proposed new hangar construction due to economic conditions. Finally, the Master Plan analysis indicates this area should be utilized for corporate hangars and the approved ALP marks this area for such use. Therefore, corporate hangars are the recommended use for Site C.

The timing of this development is dependent upon a number of issues such as the consideration of acquisition of the Woods-Meadows site. However, whether the parcels are developed together or separately, they need to be converted to corporate hangar use. The revenue to the Airport would be similar if it is developed as one site or two; however, the value to the tenant would be higher if both parcels could be planned together so that land could be more efficiently utilized.

As necessary, demolition of the current buildings on the site should be left to the site developer to minimize cost to the Airport. However, if the Airport decides to tear the buildings down, the cost of this effort should, to the extent possible, be recovered from the tenant.

#### Site G

UPS and Ameriflight currently use Site G for air cargo aircraft loading and unloading, as well as staging and repair of aircraft and ground equipment. Therefore, because of the existing use and desire of the current tenants to remain, lease of the area for air cargo aircraft and air cargo staging is recommended. Further, air cargo use typically represents the highest financial return for Airport land with airside access.

Boeing leases the northern portion of the site from the Airport and subleases it to UPS. Because Boeing no longer has a use for this parcel, they have expressed to the Airport their interest in terminating the lease. The Boeing leasehold is known as the EMF site because of its former use. The parcel leased by Boeing contains 241,208 square feet or approximately 5.5 acres. No buildings are located on the EMF site, but it was previously used for industrial production and certain contaminates remain buried underground. Reuse or construction on the EMF site would require consideration of the previous use. The EMF lease thereby occupies roughly half of Site G and its re-acquisition is desirable for any future use of the area. Therefore, its immediate acquisition is recommended.

UPS needs a substantial ramp area to park its aircraft and stage the trucks, containers, and equipment needed to service its aircraft. Therefore, a large ramp area is essentially all they need - which is an effective use for the EMF site, because it has limits on construction due to the site's potential sub-soil contamination. Further, as will be shown in the financial analysis, major carrier air cargo use is potentially the most valuable use of Airport land.

The remainder of Site G contains an aircraft hangar and two small buildings – all of which have been identified for demolition due to their poor condition, high maintenance cost, and lack of suitability to today's needs. Once these building are cleared, Ameriflight can construct a new hangar, as they have requested. This new hangar will be specifically constructed to service their aircraft. The remainder of the site can continue to be used for aircraft parking, cargo loading/unloading, ground equipment staging, and truck parking.

It should be noted that specific facility planning analysis is needed in consultation with UPS/Ameriflight to determine the exact configuration of the site. Issues to be determined with UPS and Ameriflight include:

- How many aircraft and of what type they intends to park
- What buildings, if any, they will construct specifically the Ameriflight hangar
- How much cargo staging area is needed
- The location of the gate/security station

Finally, the potential use of land across the Airport access road needs to be examined to determine if UPS/Ameriflight desire these parcels for vehicle parking, office, or other use.

Another issue to be addressed in the site negotiation is the availability of sufficient land so that some area in the northwest corner of the site may be considered for joint use either for overflow air cargo aircraft parking or as ramp area for other large aircraft. That is, the northwest portion of the site is adjacent to the passenger terminal, so that when not used for air cargo, it could be an overflow area for charter passenger aircraft to park.

Finally, a determination on the future of Gate 15 at the extreme south end of the site needs to be made. This gate is currently used by Ameriflight, but leased by DHL. If possible, this gate should be closed to reduce the changes of illegal entry and to eliminate the cost of a gate security system, but that depends upon the specific needs of the tenants. The development of additional aircraft parking at the terminal building would address the Gate 15 issues and provide the Airport more flexibility in serving transient and tenant needs.

#### Site K

The land at Site K is currently unused, though it was identified in the Master Plan for T-hangar development. Because the site is so narrow and is located within the Airport's aviation height controlled surfaces, the development options for this site are limited. Potential options include: 1) automobile parking, 2) GA aircraft ramp, 3) GA aircraft tiedowns, 4) T-hangars, and 5) as-needed construction staging area space as the site is currently used.

Due to the size, location, and height restrictions for development, it is recommended that the Airport solicit offers to build T-hangars, which is practically the only revenue-producing use. Note that "T-hangars" in this section indicates any type of small aircraft hangar including shade, portable or box hangars, as well as T-hangars. If T-hangars are constructed the site would generate revenue and accommodate users who desire cover for their aircraft. In this manner, presently under-used land would be transformed to area that is more revenue productive.

#### **Financial Comparison of Potential Uses**

The purpose of this section is to classify the Airport's revenue for each land use category. This information will be used to compare the categories and, when combined with the other factors presented in this analysis, recommend the proposed land uses that provide the most benefit to the Airport. This section will first identify the amount of land that can be leased at the Airport. Next the per square foot revenue from current leases will be calculated and listed in rank order. Finally, other financial considerations of Airport leases will be recognized.

#### Identification of Leasable Area

As previously discussed, most of the Airport's 594 acres are reserved for runways, taxiways, clear zones, and other areas designated for aircraft movement. More specifically, 339.7 acres are identified as aircraft movement related or 57 percent of the total Airport land area. This leaves 254.3 acres or 43 percent for potential tenants or other Airport use. The breakdown of land use between the runway related and potentially leasable land is shown on Figure 10.

Figure 10
Identification of Leasable Airport Land Area

Type of Land Use	Acres	Share
Aircraft Operation and Safety Areas	339.7	57%
Potential Development Areas	254.3	43%
Total Area	594.0	100%

In order to identify the revenue potential of the Airport's leasable area, the contracts for all current tenants were examined and categorized. The analysis indicated 16 major categories of tenants, as well as 4 categories of public use. The public use area represents approximately 500,000 square feet for the FAA Air Traffic Control Tower, Airport operations, the military, and other public use. Most of these public use tenants pay no rent based upon law. These public uses are not expected to change and are not discussed any further in this analysis.

The total area available for lease is 254.3 acres or 11,078,078 square feet. Excluding the 500,458 square feet of public area identified above leaves 10,577,620 square feet that the Airport can use to generate revenue. Within the categories of private users, The Boeing Company leases 4,637,029 square feet or roughly 44 percent of the total for their aircraft modification, delivery, flight test, and other operations. The next largest category is FBO leases for ramp, terminal, hangars, and related uses representing approximately 11 percent of the leasable square feet. Air cargo space is the third largest category with roughly 9 percent of the available space. The remaining 36 percent of leasable area is distributed among a variety of tenant types.

## Revenue by Category of Land Use

The revenue of each user category was calculated based upon current leases. The categories of use were then ranked based upon revenue per square foot to the Airport. The type of use that returns the highest amount to the Airport was identified as air cargo leases that generate \$2.99 per square foot annually. The second category was commercial passenger service related space at \$2.38 per square foot, and the third category was full service FBOs at \$2.34 per square foot. The next four categories generate \$2.07 per square foot representing various types of large hangars, as well as a flight-training hangar and office-use lease. The remaining categories returned less per square foot with tiedowns providing the lowest return to the Airport at \$0.80 per square foot annually. These categories of land use with the current square footage and rent per square foot are shown on Figure 11.

Figure 11
Rank of Categories of Leasable Land and Rent per Square Foot

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Revenue		Area	Revenue
Rank	Type of Land Use	(Sq. Ft.)	(Sq. Ft.)
	PRIVATE USE	•	
1	Air Cargo	930,081	\$2.99
2	Passenger	149,896	\$2.38
3	FBO - Ramp/Terminal/Hangar	1,148,812	\$2.34
4 Tie	Corporate Hangars	510,752	\$2.07
4 Tie	Common Hangar - Multi-tenant	532,609	\$2.07
4 Tie	Maintenance Hangars	33,703	\$2.07
4 Tie	Flight Training	69,239	\$2.07
5	GA Services	523,317	\$2.00
6 Tie	Aviation Fuel Farm	24,000	\$1.65
6 Tie	Retail (Aviation Related)	13,600	\$1.65
7	Executive Hangars	120,000	\$1.59
8	Non-Aviation	500,435	\$1.37
9	T-Hangars (Including Site K)	528,432	\$1.34
10	Boeing Leaseholds	4,637,029	\$1.28
11	Office	389,917	\$1.27
12	Tie-Downs	465,798	\$0.80
	Subtotal Private Use	10,577,620	\$1.67
	PUBLIC USE		
	FAA	83,135	<del></del>
	Airport Operations Offices	30,000	
	Military	333,234	
	Public Agencies Facilities	54,089	
	Total	11,078,078	

Based on the rent and other revenue the Airport receives, air cargo, FBO, and passenger-related uses generates the most income per square foot. In addition, air cargo and commercial passenger activity generates FAA Entitlement Grant funds for the Airport. The passenger activity generates \$1 million in grants annually for the Airport, while the air cargo activity generated almost one-half million dollars for 2008. The FAA grants by category for 2008 are presented in Figure 12.

Figure 12
Airport Grant Earnings by Category

Type Activity	2008 Entitlement
Commercial Passengers	\$1,000,000
Air Cargo Landing Weight	\$474,782

The result is air cargo activity at the Airport actually generates \$3.50 per square foot and scheduled air passenger activity generates \$9.05 per square foot - if the FAA Entitlement Grant funds are allocated to the land leased. Therefore, the continued utilization of Airport space by air cargo and scheduled passenger activity is financially valuable because these uses return the greatest overall value to the Airport.

#### **Capital Investment Considerations**

Another significant issue to consider in developing Airport property is that certain types of land use require the Airport to invest funds in facility improvement, while in others the tenant invests the capital for facility improvements. The Airport currently has limited funds for new capital investment; therefore, it is seeking tenants willing to invest their own funds.

Generally, the Airport must make a capital investment to attract certain categories of tenants, while certain other types of tenants build their own facilities as shown on Figure 13.

Figure 13
Source of Airport Capital Investment by Category

Airport	Private	Either Type
Scheduled Passenger	Air Cargo	Fuel Farm
Executive Hangars	FBO Facilities	Common Hangars
T-Hangars	Corporate Hangars	Office Facilities
Aircraft Tie-Downs	Maintenance Hangars	Retail Facilities

While the source of capital investment is not fixed; traditionally, the Airport funds certain types of improvements and tenants fund others, as shown in the table. However, some categories like multi-tenant common hangars and aviation fuel farms have no set pattern of investment and either the Airport or tenant can fund the initial construction.

The concern raised by this capital investment issue is that the Airport is ready to lease unimproved land for tenants to invest; however, the Airport is not easily capable of investing substantial capital to provide facilities for new tenants. Therefore, the proposed land uses in this analysis are recommended to be air cargo, corporate hangars, tenant-developed Thangars, or other categories that do NOT require Airport capital investment because the initial investment of Airport construction funds effectively reduces the rent paid and demands capital funds from the Airport that may not be available.

#### **Maintenance Considerations**

Another revenue concern for the Airport is the cost of maintenance and upkeep of any new facilities. This issue is similar to capital investment in that the Airport revenue per square foot is reduced if the Airport has maintenance responsibility for the land. For example, on certain portions of the Airport, the responsibility for grounds upkeep and building repair rests with the Airport, while for most corporate hangars and FBOs, among other uses, the tenant is responsible for these costs.

#### Length of Lease Considerations

The final area of interest to the Airport with regard to land use is the length of the lease and the stability of the tenant base. In general, the Airport would prefer long-term tenants to provide a stable revenue base and allow for potentially greater third party investment. Long-term tenant leases also typically cost less to administer because short-term tenants and leases can have a high turnover.

Certain land uses are much more preferable to the Airport based on this analysis. The typical financial type indicators for land use are shown by category on Figure 14.

Figure 14
Revenue and Responsibility Matrix of Land Uses

	Revenue	FAA Grant	Capital	Maintenance	Lease
Type of Leasable Land	(Sq. Ft.)	Receipts?	Costs	Costs	Term
Air Cargo	\$2.99	Yes	Tenant	Tenant	Long
Commercial Passenger	\$2.38	Yes	Airport	Airport	Short
FBO - Ramp/Terminal/Hangar	\$2.34	No	Tenant	Tenant	Long
Corporate Hangars	\$2.07	No	Tenant	Tenant	Long
Common Hangar (Multi-tenant)	\$2.07	No	Either	Either	Short
Maintenance Hangars	\$2.07	No	Either	Either	Long
Flight Training	\$2.07	No	Either	Either	Short
GA Services	\$2.00	No	Either	Either	Short
Aviation Fuel Farm	\$1.65	No	Either	Either	Long
Retail (Aviation Related)	\$1.65	No	Either	Either	Short
Executive Hangars	\$1.59	No	Airport	Airport	Short
Non-Aviation	\$1.37	No	Tenant	Tenant	N/A
T-Hangars (Including Site K)	\$1.34	No	Airport	Airport	Short
Boeing Leaseholds	\$1.28	No	Tenant	Tenant	Long
Office	\$1.27	No	Either	Either	Medium
Tie-Downs	\$0.80	No	Airport	Airport	Short

The result of this financial analysis of land uses provides a number of indicators that certain categories are preferable to others. Therefore, these higher revenue, less capital intensive, less maintenance, and longer-lease uses are recommended for the King County International Airport. Specifically, air cargo is recommended to remain on Site G because it is one of the best options financially. For Site C, corporate hangars are recommended because they will return the most financially on this particular land area. In addition, Site K is recommended for T-Hangars because this is the only type of land use likely to provide any financial return from this site.

#### Summary of National and Regional Aviation Demand

Demands for most types of aviation activity are predicted to increase by the FAA. The annual FAA forecast of activity is contained in the *FAA Aerospace Forecast, Fiscal Years 2008-2025*. This document indicated air passengers are expected to grow at a 3.0 percent annual rate over the next 18 years. Domestic air cargo volume is also expected to grow at a 3.0 percent rate in the period.

In the same period, total aircraft operations at airports with air traffic control towers are expected to grow at a 1.8 percent annual rate. The growth of general aviation activity is expected to be concentrated in turbine-powered aircraft, which are expected to increase in number by 3.7 percent annually. Piston engined aircraft are expected to grow by 0.5 percent annually in the same period.

This growth of airport activity is expected to be shared amount all U.S. airports. The public use airports in the State of Washington are shown in Figure 15.

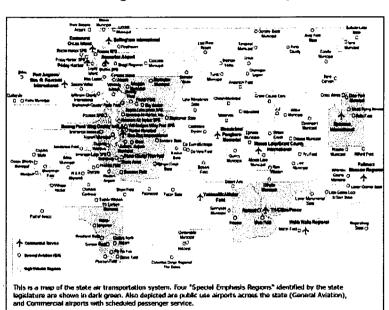


Figure 15
Washington State Public Use Airports

The specific airports located in the Puget Sound region are shown in Figure 16.

COUPEVILLE **®** 2001 **(20)** WASHINGTON (SE) STATE ARLINGTON MUNICIPAL AVIATION SYSTEM ISLAND PLAN **② @** PORT TOWNSEND **(25**) **Puget Sound Area ③** SECUIM VALLEY 5 JEFFERSON CO INT'L **6 ®** WHIDBEY AIRPARK **®** CLALLAM 0 (3) **NORTHWEST** (**3**0) 204 LEGEND EVERETT SNOHOMISH 1 NPIAS **100** [2] PRIMARY COMMERCIAL SERVICE Ø **(104)** 5 SNOHOMISH CO PAINE FIELD ▲ RELIEVER HARVEY FIELD GENERAL AVIATION PRESTAIR FIELD C) HELPORT 3 SEAPLANE BASE (12) **①** NON-NPIAS 1 **(94)** (624) STATE OWNED ➂ MUNICIPAL **22** PRIVATE, PUBLIC USE (**367**) (A) HELIPORT SEAPLANE BASE S POULSBO MILITARY **289** REGION BOUNDARY (**22**) **2 13 ®** 3 **(39) JEFFERSON ®** (**620**) SEATTLE KITSAP (310) BORING FIELD KING CO INTI ( 13 WILL ROGERS
WILEY POST MEMORIAL **® OLYMPIC** ◉ **®** RENTON MUNICIPAL BREMERTON NATL ◉ **®** 1 KING (FF) (1) **®** (P) CREST AIRPARK AUBURN MASON TACOMA NARROWS 1 TACOMA: SANDERSON FIELD 1 SHELTON Į® **(40)** œ **(80)** AMERICAN LAKE (82) 0 PIERCE COUNTY /
THUN FIELD/ 0 ø (1) GRAY AAF THURSTON 😇 0 PIERCE 90 **(8)** 

Figure 16
Puget Sound Area Airports

As identified earlier, the Airport is in competition with these other airports to attract new tenants. At the same time, the geography and economic strength of the greater Seattle area will likely result in a greater demand for aviation services and support that is available at the existing airports. This allows the Airport to be selective in its choice of tenants.

## **Site Development Recommendations**

This section provides the analysis of the recommended land use for each of the three sites and an explanation of how each site should be developed. Next steps in the process are also identified.

#### Site C

Site C consists of approximately 8.4 acres on the southwest side of the Airport bounded by the main runway on the east and East Marginal Way on the west. The site consists of two adjacent parcels as follows:

- <u>Airport Office Center</u> One parcel is occupied by a two-story office building with a footprint of approximately 300 feet by 150 feet and adjacent approximately 300vehicle parking lot. This is the 4.7-acre Airport Office Center (AOC) parcel.
- Woods-Meadows Site Two, one-story office buildings, surrounded by parking lots, occupy the 3.7 -acre adjacent parcel; however, the Airport does not own this land. The Airport calls the parcel the Woods-Meadows land.

Together the two sites offer approximately 8.4 acres of potential land for Airport development - if the non-owned parcel is acquired and the buildings are removed from both parcels.

The recommended use of the site is for corporate aircraft hangars. In order to change the use of the site from office buildings to aviation, the following steps are needed:

- The Airport should acquire the 3.7-acre "in-fill" parcel not currently owned to protect
  the perimeter of the Airport and obtain the land for aviation use. Acquisition may
  require several years and actions by the County Executive and County Council in
  order to acquire this parcel, if necessary, through eminent domain.
- Once the site(s) are clear of office buildings, they should be used for corporate hangars. Corporate hangars are recommended because they provide a higher monetary return to the Airport with no initial capital requirement, as well as no annual cost for upkeep, repair, or capital improvements for the structure or pavement.
- To construct the corporate hangars, a Request for Proposals (RFP) for aviation development should be prepared, so that market forces both determine the best use and fund the construction of the hangars, as well as provide for the long-term management and maintenance of the leasehold.

It should be understood that market forces have both short and long-term components. The Airport should determine within the framework of revenue needs, redevelopment goals, and business development policy, the best return on investment. In addition, the Airport has to balance the advantages of early redevelopment versus holding the land to fulfill longer-term objectives. This analysis indicates that holding the properties for long-term corporate hangar development makes the most economic sense.

In summary, Site C should be combined (if possible) and converted to aviation use with an RFP – the use is expected to be corporate hangars. In this manner, the last parcels immediately adjacent to the Airport's runway system, not currently used for aircraft-related activity, are converted for more appropriate aviation-related use. Further, increased revenue is generated by the new tenants to support Airport operations without expenditure of scarce Airport capital funds.

#### Site G

At approximately 10.2 acres, Site G is the largest area studied in this analysis. The current use is for wide-body and other aircraft parking, but an approximately 200 by 200-foot hangar and small freight handing buildings are currently located on the site. The parcel also includes the vacant former FedEx building on the southern boundary. Because of the site's large amount of high-strength pavement and setback from the runways and taxiways, it is one of the few ramps where wide-body aircraft can currently be parked at the Airport.

The principal current user of the site is the United Parcel Service (UPS) to load and unload its wide-body MD-11, A-300, B-747, and B-767 aircraft. On a typical day, four large jet UPS aircraft are handled at the site with two or more often being loaded simultaneously. To service the various aircraft and handle the cargo, there are always trucks, main deck aircraft loading devices, containers, and miscellaneous cargo-handing equipment parked around the site. In addition to UPS, Ameriflight parks smaller twin-engine turbo-prop aircraft (Beach 1900 type) on the site for cargo aircraft loading and unloading. In addition, Ameriflight uses the hangar for aircraft maintenance. On a typical day, four Ameriflight aircraft are parked on the ramp or are being serviced in the hangar. The hangar is also used for repair and storage of UPS ground support equipment and office space for pilot briefing and/or other services. Two other small buildings provide sorting space for air cargo.

This site is recommended for continued use as an air cargo aircraft parking ramp and around-to-air cargo transfer center for the following reasons.

- This site is currently used for air cargo plane-to-ground transfer purposes and the main tenant (UPS) seeks to stay and expand their operation. The current negotiations between UPS and DHL suggest growth in this activity. Ameriflight has also expressed interest in remaining on the site and building a hangar.
- This is one of the few areas of the airport suitable for wide body aircraft to be parked and so this use should be maintained, otherwise, there would be no area to park wide body aircraft and continue large aircraft air cargo service to/from the Airport.
- Air cargo aircraft use is consistent with current aviation activity and provides substantial economic value to the Airport and King County.
- Air cargo provides a diverse use versus the Airport's other aircraft manufacturing, FBO, and hangar tenants; diversity of types of tenants and Airport uses is valuable to insure the economic stability of the Airport.
- Compared with other proposed uses, air cargo service is expected to provide the
  greatest financial benefit to the Airport with direct revenue from land rent, landing
  fees, and fuel fees. In addition, the Airport earns approximately \$500,000 per year
  in FAA Air Cargo Entitlement Grants based on the Airport's annual volume of air
  cargo handled. The amount of these annual FAA grants represents a major source
  of the Airport's capital funding.

- The Master Plan and ALP also recommends this site for air cargo, so the recommendation of this analysis is consistent with previous professional planning criteria.
- Finally, the Puget Sound Regional Council has identified a role of the Airport for domestic air cargo. Therefore, the Airport is consistent with this regional planning agency.

In order for Site G to be fully developed for air cargo use, the following steps are recommended.

- Re-acquire the lease to a portion of the site called the EMF parcel from The Boeing Company. That firm has a 5.5-acre portion of the site under long-term lease, but does not use the land and sub-leases it to UPS. This step includes resolution of any environment issues associated with previous use of the site.
- Demolish the small sorting structures, the Ameriflight hangar, and the former-FedEx building now located on the site because they are beyond the end of their useful lives and provide no current rental value.
- Identify the amount of space in the northwest corner of the site, if any, to be
  reserved for passenger aircraft parking adjacent to the passenger terminal. Note
  that no ramp area is recommended in this analysis for expanded passenger terminal
  aircraft parking; rather, UPS and Ameriflight can share the current Site G ramp area
  in case of overflow aircraft parking from the current passenger terminal ramp.
- Lease the site to the prime tenant(s) specifically UPS and/or Ameriflight by direct negotiation. A single lease of the site would provide ease of site management and the anticipated prompt construction of new facilities such as the maintenance hangar. However, separate leases with UPS and Ameriflight are recommended so that each tenant can maintain their own identity. Alternatively, an air cargo facilities developer could also lease the entire site and sublease to the existing tenants; however, this developer option is only recommended if negotiations with UPS and Ameriflight fail.

In summary, Site G is recommended to be the Airport's principal site for large air cargo aircraft to park and load/unload. While the air cargo is expected to be mostly sorted off-Airport, Site G will provide for the transfer of containers from aircraft to and from trucks. This use is expected to provide maximum benefit to the Airport and the community.

#### Site K

Site K is approximately 2.8 acres in area and is a long thin parcel at approximately 720 feet long by an average of 174 feet wide. However, development of the site is limited by Part 77 height restrictions, so that only the far western portion of the site is capable of accommodating buildings and even than, the height of any buildings is restricted.

The site has been vacant; however, it is currently being used for construction staging for the repaving of Taxiway B. The site is now covered with contractor vehicles, piles of material, and construction trailers.

For the future, it is recommended that Site K be offered to developers for general aviation (GA) T-hangar development. Based on a calculation by the Airport, approximately 14 single engine T-hangars can be built on the site. Use of the site for GA hangars is recommended because:

- GA parking, tie-downs, or hangars are practically the only uses that will fit on the site and the Master Plan and ALP recommend this use based on previous analysis.
- GA hangars are in demand at the Airport.

The best way to gauge the demand and permit construction of hangars is to allow a developer the rights to build at a minimum of 14 hangars and charge users what the market will bear. In this manner, the true market demand and value can be identified.

In summary, Site K is one of several sites around the Airport suitable and recommended for GA aircraft storage. While the site is relatively small, it provides the opportunity for further GA hangar development.

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