This is the presentation for Public Open House 5 being conducted for the Ted Stevens Anchorage International Airport Master Plan Update. It is being delivered at 6:15 PM on Thursday, May 23rd at the Coast International Inn in Anchorage, Alaska. The presenter is Evan Pfahler, Project Manager with Reynolds Smith, and Hills, Inc. (RS&H).

- The presentation will last approximately 30-40 minutes.
- The presentation will be followed by an open question-and-answer session.
- The audience will be asked to hold questions until the question-and-answer session.

Prior to the presentation, an Open House was held from 5:30 PM to 6:15 PM during which attendees could view Master Plan Update information and speak with representatives of the Master Plan Update Team.
The Master Plan Update Team wants to ensure the audience is reminded what an airport master plan is. United States public commercial service airports are encouraged to prepare airport master plans by the Federal Aviation Administration (FAA). The FAA provides grant funding for airport master plans through the Airport Improvement Program (AIP) and publishes an advisory circular [150/5070-6B, Airport Master Plans] that provides guidance on all elements of the master plan process. The FAA defines an airport master plan as “...a comprehensive study of an airport [that] usually describes the short-, medium-, and long term development plans to meet future aviation demand.” It is important to note that a master plan is intended to prepare an airport to meet future aviation demand, which is estimated through a forecast.
The Master Plan Process is cyclical. This Master Plan Update is the seventh known update to the Master Plan for Ted Stevens Anchorage International Airport. This Master Plan Update will be updated in another 7 to 10 years. Master Plan Updates are the first step in the planning process, not the last. Prior to implementation of most projects recommended in the Master Plan Update, the Airport would be required to conduct environmental analysis, advanced planning, preliminary and final design, and permitting, and to secure other approvals.
The purpose of this presentation is to update Master Plan Update project progress and to share five possible alternatives for the future development of Ted Stevens Anchorage International Airport.
The schedule above illustrates the plan phases, past and tentative future dates for Master Plan Update Public Open House events, Technical Advisory Committee Meetings, and Working Group meetings. Your continued involvement in the Master Plan Update process is both welcome and encouraged.

To date, we have completed Project Initiation, Inventory, and Facility Requirements. Past presentations and information on these phases are available online at: www.ancmasterplan.com/library/.

As a reminder, the FAA has already approved the updated forecast of aviation activity for Anchorage International Airport. The forecast is available at http://dot.alaska.gov/aias/news.shtml#forecasts

The Master Plan Update team is currently analyzing the five draft alternatives. The Master Plan Update will be adopted by the Airport at the end of 2013. It is important to recognize that the Master Plan Update process is the first step in the planning process and not the last step. Additional environmental analysis and permitting may be required prior to implementation of actions recommended in the Master Plan Update.
The Master Plan Update team is working on continued public and stakeholder involvement and technical analysis.

The early stages of alternatives development consider the future needs of the various functional areas of the Airport such as the airside, terminal, landside, and airport support facilities. There are a total of five alternatives being introduced in this presentation.

The Master Plan Update team continues to meet with stakeholders and has hosted a Public Seminar covering FAA Grant Assurances. We are preparing responses to public comments received through the close of the last online open house (April 4, 2013), and anticipate publishing a comment-response report in the next few months. Of note, the Master Plan Update team has also conducted a phone survey.

For FAA Grant Assurances Seminar documentation: http://ancmasterplan.com/library/
ANC Master Plan Update // Public Open House 5

Phone Survey Summary

conduct in March by Craciun Research
304 Anchorage Households
Focused on Master Plan Update issues

The phone survey is one of many public involvement tools used to gather community input from the entire Municipality of Anchorage regarding the Airport’s Master Plan Update. The survey was conducted by Craciun Research and covered 304 households in Anchorage, distributed as follows:

Northwest – 64 respondents (21.1%)
Southwest – 76 respondents (25.0%)
Northeast – 88 respondents (28.9%)
Southeast – 76 respondents (25.0%)

These survey results, as well as all other feedback we have received to date, will be taken into consideration during the alternatives evaluation process of the Master Plan Update. The public will have ongoing opportunities to comment on the alternatives, either at the public open house, the online open house, or via comment card, the project website, or email.

The complete phone survey report, including methodology, questions asked, and responses received can be viewed online at:
Three of the top findings from the phone survey include:

1. Eighty-one percent (81%) of study respondents rank the Airport as very important to the local economy.

2. Anchorage residents use the many parks and recreation areas in West Anchorage that are located on and near Airport property. Sixty percent (60%) of survey respondents said they use the Coastal Trail around Point Woronzof.

3. Most residents of Anchorage desire that the Airport grow at its current location; eighty percent (80%) of those in the survey support growth, acquiring land as necessary in the current location.

The complete phone survey report, including methodology, questions asked, and responses received, can be viewed online at:

There are five Draft Alternatives for the possible future development of Ted Stevens Anchorage International Airport.

The elements of each Draft Alternative are described in this presentation. The Draft Alternatives may be refined to reflect the input of the Master Plan Update Working Group, Technical Advisory Committee, general public, and results of the technical analysis. As input is considered and technical analysis occurs, elements of the Draft Alternatives may be refined to better accommodate forecast demand or address Master Plan Update goals and objectives.
The goal of the Alternative 1 is to minimize development to incorporate only those elements required to meet current FAA standards and only those projects funded by tenants.

Alternative 1 will be evaluated as a no action alternative and is anticipated to constrain the future growth of the Airport because it would not increase the Airport’s capacity to accommodate landings and take-offs. Alternative 1 is not anticipated to meet future aviation demand at the Airport.
The goal of the Alternatives 2, 3, 4, and 5 is to meet facility requirements.

Alternatives 2, 3, 4, and 5 will be evaluated as alternatives that are anticipated to accommodate the future demand for landings and take-offs. The Master Plan Update technical analysis will determine whether each of these alternatives is capable of accommodating some demand or all future demand. Alternatives 2, 3, 4, and 5 are anticipated to meet different levels of future demand based on varied operating conditions.
A trigger point is a point at which an action may be required to address an impact. In the case of airports, increases in landings and take-offs result in increases in congestion on the airfield. Congestion results in flight delays. Short duration flight delays are acceptable by airlines and passengers if they are infrequent. However, at a certain point, the trigger point, the growth in landings and take-offs will result in delays that airlines and passengers find too time-consuming and too costly.

The Alaska International Airport System (AIAS) Planning Study surveyed airlines and determined that 30 minutes of delay is generally considered unacceptable during peak periods if it occurs on a regular basis.

Preliminary analysis has determined that Anchorage International Airport would experience delays of 30 minutes or more during peak periods on a regular basis when annual operations (landings and take-offs) reach approximately 258,000.

The ANC Master Plan Update will evaluate what improvements would help minimize flight delays at the Airport with more landings and take-offs occurring. These improvements would be necessary when operations growth occurs and must account for growth occurring more slowly or more rapidly than forecast.
Strategic land management involves the proper allocation and prioritization of existing and future facilities to allow for the maximum efficient use of Airport land.

Strategic land management allows the Airport to accommodate near-term needs while protecting lands that may be critical to long-term needs. The Master Plan Update helps the Airport identify long-term needs.
The elements of each Draft Alternative are described in this portion of the presentation. The Draft Alternatives may be refined to reflect the input of the Master Plan Update Working Group, Technical Advisory Committee, and general public, and the results of the technical analysis. As input is considered and technical analysis occurs, elements of the Draft Alternatives may be refined to better accommodate forecast demand or address Master Plan Update goals and objectives.

Alternatives will be presented by functional component.

• First, each alternative’s airside elements will be presented.
• Second, each alternative’s terminal elements will be presented.
• Third, each alternative’s landside elements will be presented.
• Lastly, each alternative’s airport support elements will be presented.

Alternative elements can be paired differently than shown. As an example, a refined preferred alternative may feature the terminal element included in Alternative 4 and the airside element featured in Alternative 2.
We will start with each alternative's airside elements.
Draft Alternative 1 overview.
Alternative 1 limits investment at ANC to those elements necessary to meet airport design standards while identifying areas for tenants to develop facilities as they see fit.

The airside elements in Alternative 1 are required to meet new FAA airport design standards. The Alternative 1 airside elements are included in all five alternatives.

Alternative 1 attempts to maintain balance between the airside, terminal, landside, and airport support facilities. Alternative 1 does not meet the facility requirements and may result in untenable delays and a reduced level of airport efficiency. It is anticipated that Alternative 1 would reduce the Airport’s economic benefit to Anchorage and Alaska.
There are two primary airside modifications included in Alternative 1. The first includes reducing the length of Runway 15-33 to eliminate an existing runway intersection with Runway 7L-25R.
The existing Runway 33 extension would be eliminated, reducing Runway 33 departure length by about 890 feet. This would allow an existing intersection with Runway 7L to be eliminated. Elimination of this runway intersection may reduce air traffic control work load and permit more efficient use of existing runways and taxiways in this area.

The runway extension was needed for older aircraft with less efficient take-off performance. Modern airliners have superior runway take-off performance that no longer necessitate the Runway 33 extension.
The second modification would remove angled taxiways connecting two parallel runways.
The existing taxiways, shown in white and gray hatch, would be removed, as angled taxiways directly connecting two runways are no longer allowed by FAA. The removed taxiways would be replaced with ninety-degree, perpendicular taxiways to enhance safe and efficient runway entrances and exits as well as crossings.
Draft Alternative 2 overview.
Alternative 2 balances demand between Anchorage International Airport and Fairbanks International Airport, making greater use of existing Alaska International Airport System (AIAS) infrastructure.

Alternative 2 attempts to maintain balance between the airside, terminal, landside, and airport support facilities. Alternative 2 meets the facility requirements with the assumption that half of all “gas-n-go” air cargo flights would utilize Fairbanks International Airport (FAI) instead of Anchorage International Airport. It is anticipated that Alternative 2 would reduce the Anchorage International Airport’s economic benefit to Anchorage but may maintain the economic benefit of aviation in Alaska.

Though Alternative 2 assumes some air cargo demand would be accommodated at Fairbanks International Airport, it should be noted that the ANC and FAI cannot require airlines to utilize a specific airport. Airlines have the right to utilize any public use airport that provides the required facilities.
Alternative 2 is not a “no action” alternative, as it would require improvements to facilities at Fairbanks International Airport including AIAS and FAA investments in apron facilities, airline investments in fueling, and other support facilities.
Draft Alternative 3 overview.
Alternative 3 utilizes existing airfield infrastructure at Anchorage International Airport to maximize capacity of existing runways by eliminating the preferential runway use policy during daytime hours. This policy is currently in effect at all times to reduce noise impacts on residential areas east of Anchorage International Airport. Alternative 3 would result in an increase in noise impacts due to more frequent use of Runway 7L for departures by jet and heavy jet aircraft.

Alternative 3 attempts to meet demand without any substantial investment in new airfield infrastructure. Alternative 3 attempts to balance airside, terminal, landside, and airport support facilities. Alternative 3 meets the facility requirements for terminal, landside, and airport support facilities. However, it does not meet the airside facility requirements in all conditions. The Airport would continue to rely on a single north-south runway, significantly reducing airfield capacity and efficiency during certain weather conditions.
Alternative 3 would modify how the Airport currently operates. Today, Anchorage International Airport operates in Configuration 1 70 percent or more of the time. Configuration 1 utilizes Runway 7R for planes landing and Runway 33 for planes taking off. This configuration routes most air traffic over water, away from noise-sensitive residential areas, but fully uses only two of Anchorage’s three runways. Runway 7L-25R is used in a limited capacity to serve small aircraft and regional traffic. The Airport’s existing preferential runway use program does not allow the use of Runway 7L for departures solely for the purpose of reducing delays.

*Note that all runways can currently be used as needed to accommodate runway closures due to maintenance or snow removal and to accommodate wind and weather.*
Alternative 3 would provide additional capacity with the existing three-runway system by eliminating restrictions on runway use during the hours between 7:00 AM and 10:00 PM.

During peak **arrival** periods when there are more landings than take-offs, air traffic control would use Runway 7R and Runway 15 for arriving aircraft. Runway 7L would be used for all take-offs.

*This provides two runways for arriving aircraft and one runway for departing aircraft.*
Alternative 3 would provide additional capacity with the existing three-runway system by eliminating restrictions on runway use during the hours between 7:00 AM and 10:00 PM. During peak departure periods when there are more take-offs than landings, air traffic control would use Runway 7L and Runway 33 for departing aircraft. Runway 7R would be used for all landings.

This provides two runways for departing aircraft and one runway for arriving aircraft.

Though Alternative 3 would provide additional capacity during the most common operating configurations, it would not provide any additional north-south runway capacity. This alternative, therefore, would not provide any relief when winds dictate the exclusive use of the north-south runway. Strong winds in a north or south direction require that all operations utilize only Runway 15 or Runway 33. During these periods, the Airport is unable to accommodate demand and the effects of delay would become more pronounced over time, even with the implementation of Alternative 3.
Alternatives 4 and 5 consider providing an additional runway to accommodate more landings and take-offs at Anchorage International Airport. The purpose of providing an additional runway is to allow the Airport to accommodate demand and continue to operate efficiently with minimal delays during most or all conditions.

The FAA provides guidance on the design and placement of runways. Parallel runways are preferred due to their enhanced efficiency. The capacity of two or more parallel runways is dependent on how close together they are. In general, the farther apart two runways are, the greater their collective capacity is.
A new runway south of the existing east-west runways was eliminated from consideration due to likely impacts to airport facilities and Kincaid Park, and proximity to residential areas.
A new runway to the north of the existing east-west runways was eliminated from further consideration due to likely impacts to airport facilities, and proximity to residential areas.
A new runway east of the existing north-south runway was eliminated from further consideration due to impacts to airport facilities and proximity to residential areas.
Consideration of a new runway west of the existing north-south runway would have fewer impacts to existing airport facilities and would be farthest from residential areas.
Draft Alternative 4 overview.
Alternative 4 increases airport capacity by adding a new north-south runway parallel to and west of Runway 15-33. The parallel runways would be separated by 908 feet between runway centerlines. A closely spaced parallel runway provides modest additional capacity. Alternative 4 attempts to balance airside, terminal, landside, and airport support facilities. Alternative 4 is not anticipated to completely meet the facility requirements in all conditions because closely spaced runways cannot be operated independently.
Alternative 4 includes an approximately 10,000-foot-long runway 908 feet west of existing Runway 15-33 and a parallel taxiway 520 feet west of the new runway. The close spacing of the two north-south parallel runways would increase capacity for landings and take-offs to a limited degree. During poor weather, the two runways would not accommodate landings and take-offs at the same time.

The runway shown in Alternative 4 was included in the 2002 Anchorage Master Plan as the preferred alternative and has been on the FAA conditionally approved Airport Layout Plan since that time.

Some anticipated impacts associated with Alternative 4 include:

- A parcel of land east of the Anchorage Water and Wastewater Utility Asplund Treatment Plant
- A portion of The Tony Knowles Coastal Trail would require rerouting (the Airport remains committed to providing a contiguous Coastal Trail and is committed to working with trails and recreation representatives to identify an acceptable improvement to maintain the continuity of the Coastal Trail)
- Required modifications to the Point Woronzof overlook
Draft Alternative 5 overview.
Alternative 5 increases airport capacity by adding a new north-south runway parallel to and west of Runway 15-33. The parallel runways would be separated by approximately 3,100 feet between runway centerlines. A widely spaced parallel runway provides substantial additional capacity. Alternative 5 attempts to balance airside, terminal, landside, and airport support facilities. Alternative 5 is anticipated to completely meet the facility requirements in most conditions because widely spaced runways can be operated independently.
Alternative 5 includes an approximately 8,000-foot-long runway approximately 3,100 feet west of existing Runway 15-33 and a parallel taxiway 520 feet east of the new runway. The wide spacing of the two north-south parallel runways would substantially increase capacity for landings and take-offs. During poor weather, the two runways would accommodate landings and take-offs at the same time, providing substantial additional capacity in all weather conditions in which north-south runways are in use.

Some anticipated impacts associated with Alternative 5 include:

- Portions of two parcels of land would be needed west of the Airport including portions of Point Woronzof Park
- A portion of the Tony Knowles Coastal Trail would require rerouting (the Airport remains committed to providing a contiguous Coastal Trail and is committed to working with trails and recreation representatives to identify an acceptable improvement to maintain the continuity of the Coastal Trail)
- Cook Inlet fill would be required at the north end of the parallel runway
Next we will discuss each alternative’s terminal elements. Any terminal alternative can be paired with any airside alternative. As an example, a refined preferred alternative may feature the terminal element included in Alternative 4 and the airside element featured in Alternative 2.
Draft Alternative 1 includes the continued use of the North Terminal. The facility is maintained and repaired as necessary. There is no capital investment made in the terminal in this alternative. A hotel site is also identified.
Draft Alternative 2 includes the complete renovation of the North Terminal. The renovation would allow the facility to continue to serve the Airport for an additional 20 or more years. A hotel site is also identified.
Draft Alternative 3 includes the downsize and renovation of the North Terminal. The building footprint would be reduced such that four gates would remain in the North Terminal. The renovation would allow the North Terminal to serve the Airport for an additional 20 to 30 years. Domestic flights would also operate out of the South Terminal’s A Concourse during evening operations so as to not impede the regional carrier operation during the daytime. A hotel site is also identified.
Draft Alternative 4 includes the removal of the North Terminal concourse, leaving the terminal processor facility. A new pier would be added on the South Terminal, adding five gates for domestic and international flights. The new pier would require relocation of three apron parking spots west of the terminal. The former North Terminal site could then be used as apron area for parking aircraft. A hotel site is also identified.
Draft Alternative 5 includes the complete removal of the North Terminal concourse and processor facility. A new pier would be added on the South Terminal, adding five gates for domestic and international flights. The new pier would require relocation of three apron parking spots west of the terminal. The former North Terminal site could then be used as apron area for parking aircraft. A hotel site is also identified.
Next we will discuss the landside elements for the alternatives.
The landside alternative includes the management of demand or expansion of the parking facilities near the South Terminal, as necessary. The existing parking facilities can be managed, modified, or enhanced in their current location to serve the Airport’s landside needs throughout the 20-year Master Plan Update period.
Lastly, we will discuss the airport support elements for each alternative.
Airport support includes the remaining functional elements of the Airport.

- General aviation facilities include the apron, hangar, and landside components.
- Cargo airport/airline facilities include apron, hangar, warehouse, and landside components.
- Airport/airline support facilities include fueling, hotels, aircraft ground handling, and other functional uses.
Airport support alternatives will be presented for each Airpark. First, the South Airpark elements will be discussed then the North and West Airparks will be discussed together.

The Master Plan Update draft alternatives do not include any major changes to how the East Airpark operates, as this area is fully developed.

The airport support alternatives may be paired with the airside alternatives differently than presented here. As an example, a refined alternative may feature the airport support element included in Alternative 4 and the airside element featured in Alternative 3. It should be noted, however, that the development of the North Airpark and the West Airpark directly correlates to particular airside alternatives.

The airport support elements in each alternative are intended to be balanced with the airside capacity. As an example, it is anticipated that if airside Alternative 2 were implemented, there would be an overall reduction in the demand to develop cargo facilities at Anchorage International Airport because some portion of cargo activity would utilize Fairbanks International Airport in lieu of Anchorage International Airport. In other words, the airport support elements may be interchanged within the alternative to a limited degree.
First, the South Airpark will be presented.
For draft Alternatives 1 and 2, general aviation and small commercial aviation operations would be expanded in the South Airpark east and west of Taxiway Z as necessary. A new west access road would be provided west of Taxiway Z to facilitate development. Airline / airport support would be expanded in the former Kulis site as necessary.
For draft Alternatives 3, general aviation and small commercial aviation operations would be expanded in the South Airpark east and west of Taxiway Z as necessary. A new west access road would be provided west of Taxiway Z to facilitate that development. A larger amount of airline / airport support would be accommodated in the former Kulis site as necessary.
For draft Alternatives 4 and 5, general aviation and small commercial aviation operations would be expanded in the South Airpark east and west of Taxiway Z as necessary. Taxiway Z would be extended to the east. A new west access road would be provided west of Taxiway Z to facilitate that development. Airline / airport support would be expanded in the former Kulis site as necessary.
Though a finite portion of the South Airpark is allocated for development within the planning horizon, that is not to say that the entire South Airpark couldn’t be developed within that time period if a tenant or tenants wished to do so. If that is the case, the South Airpark would expand to the west in a manner similar to what is depicted above.
Next, we will discuss the airport support elements of the West and North Airparks.
In draft Alternative 1, the fuel storage facility would be expanded to the north as necessary. Air cargo and airline/airport support would be expanded in Postmark Bog as necessary. Air cargo would be expanded in the northern portion of the North Airpark, adjacent to Taxiway Q, as necessary.
In draft Alternative 2, the fuel storage facility would be expanded to the north as necessary. Air cargo would be expanded in Postmark Bog as necessary. Taxiway P would be extended to the east and a new taxiway would be constructed to supply access to the new development area. Air cargo would also be expanded in the North Airpark, adjacent to Taxiway Q, as necessary.
In draft Alternative 3, the fuel storage facility would be expanded to the north as necessary. Air cargo would be expanded in Postmark Bog as necessary. Taxiway P would be extended to the east and a new taxiway would be constructed to supply access to the new development area. Air cargo would also be expanded in the North Airpark, adjacent to Taxiway Q, as necessary. Air cargo and airline/airport support would also be accommodated east of the existing Postmark Drive and would be accessed from an eastward extension of Taxiway T.

Alternative 3 includes the eastward relocation of Postmark Drive in order to provide for a cohesive expansion of North Airpark facilities and enhance safe airside vehicle access to the Post Office. Businesses accessed from the existing Postmark Drive alignment would be accessible from relocated Postmark Drive and the existing alignment would be reserved for airport traffic to enhance safety.
In draft Alternative 4, the fuel storage facility would be expanded to the north as necessary. Air cargo would be expanded in Postmark Bog as necessary. Taxiway P would be extended to the east and a new taxiway would be constructed to supply access to the new development area. Air cargo would also be expanded in the North Airpark, adjacent to Taxiway Q, as necessary.

The addition of a second north-south runway in Alternative 4 would enhance the development of the West Airpark as an efficient location for air cargo operations.

Alternative 4 includes the eastward relocation of the south portion of Postmark Drive in order to provide for a cohesive expansion of North Airpark facilities and enhance safe airside vehicle access to the Post Office.
In draft Alternative 5, the fuel storage facility would be expanded to the north as necessary. Air cargo would be expanded in Postmark Bog, north of Taxiway P as necessary. Taxiway P would be extended to the east. Air cargo would also be expanded in the North Airpark, adjacent to Taxiway Q, as necessary.

The West Airpark becomes the preferred location for development of air cargo facilities in Alternative 5 due to its more central location within the modified airfield.

Access to the West Airpark from International Airport Road would be provided by a tunnel underneath the existing north-south runway, facilitating growth and development to the west.

The south half of Postmark Drive is relocated east in Alternative 5 to provide greater access to the Post Office by airlines and to enhance the continuity of the North Airpark.
In summary, there are five Draft Alternatives for the possible future development of Ted Stevens Anchorage International Airport.

The elements of each Draft Alternative are described in this presentation. The Draft Alternatives may be refined to reflect the input of the Master Plan Update Working Group, Technical Advisory Committee, and general public, and the results of the technical analysis. As input is considered and technical analysis occurs, elements of the Draft Alternatives may be refined to better accommodate forecast demand or address Master Plan Update goals and objectives.
The goal of the Alternative 1 is to minimize development to incorporate only those elements required to meet current FAA standards and only those projects funded by tenants.

Alternative 1 will be evaluated as a *no action* alternative and is anticipated to constrain the future growth of the Airport because it would not increase the Airport’s capacity to accommodate landings and take-offs. Alternative 1 is not anticipated to meet future aviation demand at the Airport.
The goal of the Alternatives 2, 3, 4, and 5 is to meet facility requirements.

Alternatives 2, 3, 4, and 5 will be evaluated as alternatives that are anticipated to accommodate the future demand for landings and take-offs. The Master Plan Update technical analysis will determine whether each of these alternatives is capable of accommodating some demand or all future demand. Alternatives 2, 3, 4, and 5 are anticipated to meet different levels of future demand based on varied operating conditions.
Thank you for viewing the Ted Stevens Anchorage International Airport Master Plan Update Public Open House 5 presentation. You may submit a comment to the Master Plan Update team on the project website at [www.ancmasterplan.com](http://www.ancmasterplan.com) or by sending an email to [contact@ancmasterplan.com](mailto:contact@ancmasterplan.com).
Draft Alternative 1 overview.
Draft Alternative 2 overview.
Draft Alternative 3 overview.
Draft Alternative 4 overview.
Draft Alternative 5 overview.