MEETING SUMMARY

Stephen Kiehl - Provided an overview of PSRC and the regional airport system planning program.

Charlie Riordan – Proved a background of the scope of work and schedule of activities, meetings and deliverables.

Kent Duffy – FAA has a goal of establishing 500 Localizer Performance with Vertical Guidance (LPV) approaches each year, with all suitable runway ends complete by 2016. FAA hopes to use the results of the Busy Airport Study as a National Airspace System NAS-wide template to apply throughout the nation.

Neil Rood – Discussed the Busy Airport Classification analysis and provided an explanation of the calculation used to determine which airports would be defined as “busy” and included for further analysis in the study. Neil mentioned that he has noticed some of the LPV minimums higher than the Instrument Landing System (ILS) minimums for the same runways. Fred Mitchell mentioned that some of the current LPV minima are a result of expedited application of Terminal Instrument Procedures (TERPS) criteria and may not reflect the ultimate attainable airport access. In some cases, the minimums could be improved.

Carolyn Read – FAA Airports has a goal of achieving a GIS platform (AGIS) for all airports to provide for accurate and up-to-date survey data to support NextGen. With some of the existing LPV approaches, the information was based upon GIS data using surveys that were done too quickly. The FAA can support scoping of Airport Layout Plan updates to include AGIS tasks specific to LPV approach procedures.

Neil Rood discussed the inventory phase of the Busy Airport Study and the meetings that were held at the airports in the PSRC area.

Peter Morton – In explaining the three major components of NextGen (communication, navigation, and surveillance) he said navigation is the predominant technology that will be of interest to airports as they prepare for NextGen.

Mark Wallace – The study needs to specifically address airport sponsor ambitions, and these are not always expressed in an airport master plan or an ALP. Mark indicated that the study should identify the goals for each airport and then recommend implementing NextGen technologies to meet the goals. Peter Anderson recommended that the communities be educated about how NextGen technologies will be positive for them (potentially reducing noise), and not negative.
Norm LeFevre – While the General Aviation (GA) community has not embraced NextGen yet, in ten years Required Navigation Performance (RNP) capability is likely to expand into large parts of the business GA market. To take full advantage of RNP we’ll need pilot training and airport infrastructure in place, not just aircraft equipage.

Kent Duffy – Don’t assume the GA fleet will transition to RNP. Only the high end of the GA market has an incentive to invest in NextGen (business case, benefits outweigh costs, higher operations, etc.).

There was discussion suggesting that RNP is a “solution of last resort” when LPV does not satisfy the need. For light GA aircraft, the FAA representatives commented that some of the aircraft owners who only fly their aircraft locally or in Visual Meteorological Conditions will probably not invest or upgrade their aircraft radios and navigation systems to allow executing RNP approaches.

There was also discussion regarding the need to explore a “hybrid” solution for improved approach minimums which could be built around LPV technology.

Norm LeFevre – LPV is the final leg of RNAV. We shouldn’t think of LPV as a standard cookie-cutter technology. SeaTec specialists developed an opinion that the transition to the final approach segment needs to take place no lower than 1000 feet AGL, or else a new type of non-precision “Dive and “Drive” procedure would be developed using LPV, which would not enhance flight operations safety.

Kent Duffy – FAA’s long term NextGen strategy is to deploy RNAV everywhere and RNP where needed.

Norm LeFevre – FAA has always looked at a 3-degree glide slope as the requirement for instrument approaches (typically for an ILS). Many GA airports cannot achieve this slope. FAA needs to look at a steeper glide path at GA airports. Seaplane bases have established instrument approaches in Alaska, but this is NOT the norm, and FAA would think long and hard about similar applications here. There would need to be a compelling need, as established by users and sponsors.

Sara Dalton – RNP provides significant air traffic benefits for arrivals.

Peter Anderson – The study should address the issue of community noise, and how NextGen can be used to reduce noise impacts on communities around airports.

Ryan Zulauf – Renton Airport needs RNP to accommodate Boeing Company’s growing activity at the Renton plant, particularly as the 737-MAX steps up production. Ryan has asked PSRC to use the NextGen study to identify new regional policy which would support NextGen improvements at Renton (as well as elsewhere) as an economic development tool.

Kent Duffy – FAA defines GA too broadly. Particularly in this study, we need to focus on the much more narrow sectors of the GA market which have a need for NextGen, who can make a business case for investing, and for whom airports can justify investments to accommodate NextGen. In discussing the navigation aspects of NextGen, Kent suggested this study look at any gaps in ADS-B and LAAS geographic coverage (and facilities) as part of the gap analysis (not just looking at gaps at each airport).
An action item was assigned to the SeaTec Team to include a discussion of GA aircraft categories in the Busy Airports study. Four possible category structures could be:

1. Heavy GA for high-end business jets flying corporate missions; likely to be RNP capable.
2. Part 23 certified aircraft flying Part 135 operations. Likely to have RNP equipage potential, though current avionics are not certified for RNP.
3. Privately owned small and well equipped GA aircraft already WAAS equipped which might upgrade to RNP with a compelling personal business case, particularly if RNP capability can be packaged with the forthcoming mandatory ADS-B Out equipage implementation deadline (2020) and future ADS-B In capability.
4. Privately owned small GA aircraft that will equip for GPS non-precision approach capabilities, mandatory minimum ADS-B Out capability, and little else.

Bill Ayer – asked if the growth rate/ shrink rate of GA activity and based aircraft has been analyzed. Stephen Kiehl mentioned that PSRC has not visited the regional forecast for 11 years, and the forecast needs to be updated. However, strength is in the business segment and the GAMA numbers are encouraging. The LATS study shows growth at the higher end of the GA market. John Shambaugh of the WSDOT Aviation Department confirmed this, citing results from the 2009 LATS study.

Don Larson – Asked whether we could use existing LAAS capability across the region.

Steve Taylor – Responded to Don Larson’s question by saying Boeing’s experience is yes, LAAS does provide regional coverage.

An action item was assigned to the SeaTec team to investigate the ADS-B coverage currently in place in the PSRC area and understand if coverage will extend to the ground at the Busy Airports.

Carolyn Read – Asked whether the study will look at airport interactions and synergies. Mr. Kiehl said yes, Task 5 of the work scope will address this, although the budget will not allow for an extensive analysis, only a first step toward identifying issues and future analysis needs.

Gary Molyneaux – Asked how the PSRC study would blend with the Sea-Tac “Greener Skies” study. Mr. Kiehl answered that PSRC is aware of the Greener Skies work, and attended meetings last week. However, the Greener Skies study is focused on Sea-Tac while our study is focused on the GA system.

Sara Dalton – Confirmed Mr. Kiehl’s answer, saying the Greener Skies study will only look at Sea-Tac interactions with Boeing Field, but she said there’s no other reason for the two studies to be coordinated.

Norm LeFevre – In discussing the issue of how changing activity and fleet mix are in some cases at odds with existing airport reference codes (ARC), Norm said some airports are regularly accommodating higher category aircraft than supported in the ARC. He said this is typically addressed with modifications to standards and operational procedures on a case-by-case basis. Still, this could be an issue at an airport like Renton, when 737-MAX production rates could push the airport’s critical aircraft up from the current B-II to a C-III.
**Bill Ayer** - Said NextGen implementation will have considerable costs, and asked who would be paying for what.

**FAA and Sea-Tec staff** – In answer to Mr. Ayer’s question, FAA and Sea-Tec staff said the costs would be borne by users in the case of aircraft equipage, by airport sponsors and the FAA in the case of airport improvements, and by FAA in the case of procedures development.

- Actions that were discussed and recommended for further study under another project:
  1. Understand airport requirements from points of view of business, community, resident users, and itinerant users.
  2. Understand airport WX conditions and minima needed.
  3. Identify, at least qualitatively if not quantitatively, the benefits that will produce a business case.
  4. Evaluate the airport situation and politics that will facilitate or impede the airport moving forward.
  5. Outreach to communities describing the benefits of NextGen technologies.
  6. Update the forecast of GA activity.