



RESPONSE TO PUBLIC WORKSHOP COMMENTS

SOUTH SAN FRANCISCO WORKSHOP (MAY 10, 2010)

We shouldn't fill the bay to increase capacity.

- Response: The purpose of the study is to look at a range of options for serving projected demand that could provide alternatives to filling the bay.

We should be able to expand capacity by smart technology to allow for side-by-side landings.

- Response: The study has evaluated these technologies as a way to address capacity problems at SFO during bad weather. As mentioned in the meeting presentation, many issues still need to be resolved in order for the benefits of these technologies to be fully realized.

SJC isn't a good option because of the proximity to development, including high-rise buildings.

- Response: SJC is a key element of the regional airport system, and some of the strategies being evaluated in the study would be aimed at obtaining more use out of SJC as a way to balance passenger loads among the three airports. Land use compatibility issues will continue to need to be addressed at the local level.

Oakland may have the ability to construct a second runway without filling the bay.

- Response: The study is not looking at new runways at any of the major Bay Area airports; however, a second closely spaced parallel runway at OAK would not result in much new runway capacity compared to one that would be spaced farther apart and would provide for simultaneous aircraft operations on both runways in poor weather. Additionally, existing airport facilities may be too close for a new runway if it is located inland to the east, between the main runway and terminals.

FAIRFIELD WORKSHOP (MAY 11, 2010)

There needs to be a systematic evaluation to weigh all possible scenarios and develop costs for alternatives.

- Response: Yes, that's what the study goals and scenario evaluation are intended to do; comparing the cost of all the scenarios is more challenging because of the many unknowns involved.

Aircraft design technology and fuel technology is changing so fast; who knows what will be happening in 20 years.

- Response: Yes, this is a very difficult aspect of long-range planning for major infrastructure improvements. Our approach will need to be very flexible.

None of the scenarios provided a distinct separation of the type of aircraft movement (e.g., separate cargo and passenger).

- Response: This would be very difficult to accomplish in the real world, given the fact that the airlines make decisions about which airports to serve and what types of service to provide. In addition, dedicated air cargo activity mostly occurs during off-peak hours and the vast majority of cargo is carried in the bellies of passenger aircraft.

Levels of general aviation are too high at major airports – maybe they should be moved to smaller airports.

- Response: This is something we have studied in the demand management scenario, where we assume that the growth in business-jet activity is primarily handled at the region's major general aviation facilities and not at the major airports.

There should be greater weight to the infrastructure surrounding the airports. It is the time it takes to get to, park at, and get through the airport that keeps people from using different airports.

- Response: MTC's long-range transportation plan includes projects that will improve access to airports, which should make it easier to use all the airports in the Bay Area.

There's going to be a major requirement to improve flight control technology because of the complexity of activity at airports. What we have today can't handle the load.

- Response: The FAA is studying these improvements and will likely implement many of them as part of the NexGen effort to upgrade their entire air traffic control and management system.

Travis would be a good hub for cargo (particularly because of the security issues of combined passenger and military uses).

- Response: There must first be a cargo market and airline interest. The initial analysis performed did not identify this as a promising strategy, at least in the near term; however, as noted above, there are many unknowns when it comes to developing long-range plans, and Travis AFB should be protected as a regional aviation resource in case the need arises in the future.

Only about 5% of major flights are all cargo, so the only way to impact it is to deal with passenger traffic. Therefore you need to develop infrastructure to redirect passengers away from SFO.

- Response: In the next phase of our work, we will be looking more closely at strategies that could help spread traffic from San Francisco to OAK and SJC airports, which have available runway capacity.

Security clearance is critical at Travis. Clearing a cargo plane is far easier than clearing a plane full of people.

- Response: Comment noted.

Travis shouldn't even be discussed unless the military is supportive.

- Response: The study has had some preliminary contact with the military on this issue.

Plans to install more wind turbines could create more problems with radar at Travis.

- Response: Comment noted. This issue is being addressed by the County's Airport Land Use Commission.

The old 1976 Joint Use Study envisioned a separate operation on the east side of the airport and that is the only way it will work in today's world.

- Response: The study staff will be meeting with planners at Travis AFB to review the 1976 concept for joint use and determine whether this concept is still valid from a facilities planning standpoint.

Given the loss of funding and BRAC, joint use can be a way to keep Travis open.

- Response: Comment noted.

The airlines and cargo carriers need to be part of the equation; what incentives can you give them to move from one airport to another?

- Response: The airlines are certainly very cost-sensitive these days, so anything that could lower their facility and operating costs would be an incentive. Some airports have subsidized new airline service through federal and local programs, although the goal is to have the service become self-supporting.

Airline planners should be working with RAPC and RAPC's consultants.

- Response: Study staff has attempted to incorporate airline input into our work by having experts who are very knowledgeable about the airline industry as advisors. We have not been successful in getting any airline representatives to participate in our process, as they are more focused on nearer-range plans and surviving the current economic challenges.

The Air Force should have a technical advisor at the table.

- Response: The study team has been in contact with planners at Travis AFB.

The incentives for air carriers will only work if there is local benefit to communities in infrastructure, trade.

- Response: Comment noted.

Coordinate with the major cargo users to find out what their needs are and if they are looking for opportunities to relocate.

- Response: The study is primarily about how to solve long-range capacity problems at the three major airports. Serving the region's projected air cargo needs does not appear to present a major capacity issue for any of the major airports; hence the study has not pursued looking for alternate air cargo facilities.

Keep in mind that a huge amount of cargo is carried in passenger airplanes.

- Response: This is primarily the case for international air cargo, where international carriers use their passenger flights for transporting air cargo. Carrying cargo in the belly of international passenger flights is more economical than handling this cargo with a dedicated all-cargo aircraft.

If 50% of the concern is environmental, Travis options need to acknowledge that there will be noise and other environmental issues that offset the commerce advantages.

- Response: If future plans identify a need for air passenger or air cargo service at Travis AFB, these issues would certainly need to be addressed.

What type of cargo are we talking about? A large portion is overnight.

- Response: The timing of air cargo aircraft operations is one reason they do not present a major capacity issue for the three major airports. Most cargo flights are at different times of the day than passenger flights.

When the three potential internal (secondary) airports are evaluated, the planning should focus on one and not try to spread the trips between three markets.

- Response: Comment noted. That will definitely be a consideration as we evaluate and move forward into the next phase of our work.

Will the analysis account for changes in ground traffic for people who use the alternative airports?

- Response: Yes, the study will evaluate both the passenger benefits (reduced distance, travel time, and cost) and the indirect benefits, such as lower emissions from airport passenger vehicles traveling to closer airports.

Did you consider a hydrofoil between SFO and OAK? A ferry link is problematic because of security, dredging needs. Also, a BART connection was found to be infeasible because of cost.

- Response: Yes, these types of connections between the airports have been mentioned many times, and the benefits to air passengers and the regional airport system appear to be small in relation to the costs.

The study goals are wide-ranging and should be weighted. How will that be done?

- Response: The study has not weighted the goals, as this is clearly a difficult task given the range of opinions about what goals are more important than others. By presenting performance results for all the goals individually, people will have more information to weigh in advising us which goals they feel are most important. And then the regional policy committee for the study can take this input into account in formulating the Vision and Implementation Plan, which will be developed at the end of all the work.

If the problem is capacity, why not start the presentation with a cost analysis of the various capacity solutions. Is the problem capacity at IFR? If so, then what are the costs of solving the problem?

- Response: It would be very difficult to evaluate the costs of all the different scenarios the study has looked at so far on a level playing field, and many of the costs are still unknown (e.g., the final cost for high-speed rail or the full cost of the FAA's NexGen air traffic system). There are both capital and operating costs that must be considered, which would be very challenging to estimate given the large number of cost elements involved and the many assumptions that would need to be made. Solutions to the IFR capacity problem will come with NexGen

technologies, which have many different costs, from technology development and certification, to installation in the field and on aircraft, to the actual operation of the system. It would be difficult to assign a portion of these costs to the Bay Area due to the national scope of the program and say this is the cost of improving IFR capacity at Bay Area airports.

Are the studies going to look beyond the Bay Area? What happens in the larger airport world?

- Response: The study is certainly looking beyond the Bay Area in addressing proposed solutions to capacity problems — from HSR, which is a statewide approach, to use of airports outside the region for handling some of the Bay Area's passenger demand, to new air traffic technologies which are national in scope. We will also be looking at experiences with various demand management approaches that have been tried in other areas.

Scenario #6 is probably the ultimate solution in the next 20 years. Airplanes will fly and land themselves very soon. Air traffic control will be automated. Technology is going to be the ultimate solution.

- Response: Yes, technology looks very promising, but there are caveats as listed in the opening presentation that reflect some major uncertainties as to the ultimate benefits and the time frame in which we will see these technologies come to fruition.

Are we trying to disperse passengers throughout the region (and beyond), or are we trying to reduce the loads on SFO in order to accommodate more flights at the big three airports?

- Response: The study has looked at both approaches and will continue to do so.

United Airlines should move their maintenance from SFO to Travis.

- Response: Comment noted.

What's the expected timeline and milestones?

- Response: The timeline for the study (if that is the question) is to have the recommendations out for review in the first part of 2011 and to have an additional round of public input on these recommendations about the same time.

Will the diversion of passengers to rail solve the capacity problem at SFO?

- Response: High-speed rail would not solve SFO's capacity problems because it would only divert air passengers to rail in some of SFO's California air travel markets, whereas there is a significant amount of service to other domestic and international destinations.

OAKLAND WORKSHOP (MAY 12, 2010)

Capacity problems at SFO – study needs to describe what expansion of the airport to meet demand would look like.

- Response: The study is not looking at runway expansion at SFO. The airport is currently updating an existing terminal to more efficiently serve future passengers.

The demographic trends are shifting people from the suburbs back to the cities and that trend should be accounted for in the study.

- Response: The study has estimated where air passengers would be located in the future using the latest set of regional demographic projections as a basis for these estimates. These include less population in the suburbs and more people in the urban core over the long term. This trend could have both positive and negative effects. It could reduce the amount of vehicle travel to the airports, but it could also increase the number of people living in the vicinity of the three major airports and in areas exposed to airport noise.

Has there been any consideration of sea level rise? All Bay Area airports will be under water.

- Response: Yes, both SFO and OAK are looking at the issue in terms of what is needed to protect their runways.

Suggestion to look at revising the goals to encourage multimodal access to the airport and connecting to other forms of transportation.

- Response: The latest Regional Transportation Plan includes a number of multimodal access improvements for the three major airports. The plan anticipates having good linkages between a future high-speed rail system and

the airports to enable air passengers to transfer between the airports and high-speed rail serving central and southern California.

Were the weather patterns considered in the relative value of each airport?

- Response: The study has looked at 10 years of weather data as part of the runway capacity analysis. Certainly poor weather at SFO has the biggest impact on regional air traveler delays, while OAK and SJC have relatively fewer weather-related delays.

What is the holdup for implementing the current air traffic control technology?

- Response: The FAA's NexGen system is a long-range vision for improving the nation's air traffic performance that involves many separate initiatives. Funding is currently an issue, but beyond that there are still technological and stakeholder issues to resolve as well (i.e., issues for pilots, air traffic controllers, airports, and the air passengers themselves).

Multimodal access needs to be further explored.

- Response: See comment above.

The study should include an apples-to-apples comparison between different scenarios to see how air stacks up against high-speed rail, auto, etc.

- Response: The goals for the study were formulated to facilitate such comparisons. In particular, high-speed rail has been evaluated on an apples-to-apples comparison (to the extent possible) with other scenarios, such as redistributing more traffic between the three airports, use of alternative secondary airports, and new air traffic control technologies.

Multimodal access needs to be better coordinated so that BART actually can serve off-peak-hour travel.

- Response: Comment noted.

Has a ferry connection been considered as a way to redistribute demand?

- Response: See above response to similar question at the Fairfield workshop.

With the recent merger with United and Continental airlines, how will that affect demand?

- Response: While this remains to be determined, the two airlines generally do not have a lot of overlapping routes. So in terms of SFO airline service, there may not be much of a change.

Do we really know what the airlines are going to do? How do we work with the airlines to optimize their flights and routes?

- Response: This is probably the most difficult aspect of this type of study, as it is very difficult to determine what airlines will do in the next year, not to mention the distant 2035 future. While the public and regional agencies can express preferences for how the airport system should be configured to handle projected demand, the airlines are solely responsible for their routes, fares, and deciding which airports they will serve. The next phase of the study will determine the extent of opportunities to influence these airline decisions, through various demand management approaches that the FAA and a few other airports have tried.

Airlines should be at the table, SkyTran should be at the table, better public involvement.

- Response: See above comment about airline participation. All meetings of the study are open to interested parties to attend.

NASA and innovative research firms/organizations should be at the table so that the study can be cutting-edge.

- Response: A NASA representative intimately familiar with NexGen serves on our expert panel evaluating new air traffic control technologies.

Information needs to get out to the public. Information needs to come together somehow to inform decision-making.

- Response: Yes, this is being done in many formats. The study's website is a good source of information: www.regionalairportstudy.com.

There needs to be a BART extension to OAK.

- Response: BART is still planning to construct this extension.

Livable communities should be a high and important consideration. The discussion needs to be focused on noise; aircraft will start operating later and later.

- Response: One of the study goals is livable communities, and the noise impact from additional passenger and air cargo flights has been evaluated in terms of the regional population exposed to airport noise levels of 55 and 65 CNEL. This evaluation has also considered how aircraft operations may shift from less to more noise-sensitive hours of the day due to flight delays and other influences. This evaluation has been performed for each of the six scenarios, so the information is being considered in the technical and decision process.

Analysis of high-speed rail hasn't factored in the delays that will take place to pass through security. Such delays could be comparable to the delays at airports and could level the comparative advantages of high-speed rail.

- Response: This issue has been raised with the California High-Speed Rail Authority, and they believe that such a rigorous TSA-type system will not be required. If such a system were to be put in place, it would affect the ridership estimates for high-speed rail, as additional time would need to be allocated for each passenger's trip to go through screening.

The technology exists to make better air quality a reality. There should be more discussion of this, including cost benefit analysis.

- Response: One of the study goals is clean air. The study has looked at future emissions from aircraft and automobiles used by air passengers to travel to and from the airports as a way to determine future trends. Automobile emissions are clearly on the decline due to stringent regulations on manufacturers, but as flight volumes increase, aircraft emissions (primarily nitrogen oxides and hydrocarbons, which combine to form ozone) will also likely increase as there is no new technology for aircraft engines that can offset these increases.

High-speed rail is operating at a high air friction level compared to aircraft.

- Response: The study has looked at the relative greenhouse gases generated by aircraft and high-speed rail, and high-speed rail appears to offer significant greenhouse gas reductions due to its electric power source, even considering aerodynamic drag at 220 mph speeds.

What is the governance going to be? Is there some other way to govern air traffic?

- Response: The main governance for air traffic is air safety. The FAA has imposed flight limits in the past on several highly congested airports to ensure both safety and efficiency of aircraft operations.

The question was asked: If the study was endorsed, would the regional agencies become advocates?

- Response: That is clearly the intent of the regional agencies involved in the study. The overall goal of the study is to develop regional consensus for an approach to the Bay Area's airport capacity issues and then to advocate for the measures required to achieve this approach.

The study will involve close coordination with Fairfield, Sonoma County, Concord, and Santa Rosa.

- Response: Yes, and the study staff is coordinating with airports and elected officials in these areas.

What is the future of building a new airport in the Bay Area?

- Response: Highly unlikely due to costs and environmental impacts. The study looked at this issue early on, and it is not under consideration. However, Travis AFB is still being considered, and if used for civilian operations, this would involve building new facilities separate from the military operations. So in a sense, this would be a new airport.

Travis is the only option. It's a ready-made option to the big three airports.

- Response: The demand forecasts, however, do not indicate a strong natural market for Travis AFB, which is located in between two fairly large and cost-competitive existing commercial airports—Oakland and Sacramento. Airline service at Travis AFB would likely attract passengers that already use Sacramento airport, plus some passengers that use OAK and SFO. Currently, airlines are reducing service at these types of secondary airports to control costs.

Transit/transportation access would have to be better in order to make Travis work.

- Response: Yes, there would need to be better rail and road connections to the local and regional networks.

Contact with the high-speed rail authority is important. Vision California should be considered in the airport discussion.

- Response: The study does keep in contact with the California High-Speed Rail Authority.

ALUCs that were established for the secondary airports should probably be given greater authority to protect aviation to preserve capacity into the future.

- Response: The ALUC for Travis AFB has been very successful in preserving compatible land uses around the airport, and Sonoma County's ALUC is also involved in plans related to expanded air passenger service. The existing ALUC legislation does allow local jurisdictions to override the ALUC with a two-thirds vote and by making certain "findings"; however, there are ways to address this issue as well without new legislation.