Regional Airport Planning Committee

Adopted Regional Airport Planning Committee Work Plan
(July 28, 2006)

Process. The review and possible update of the 2000 Regional Airport System Plan (RASP) will be conducted by the Regional Airport Planning Committee (RAPC) functioning as an *investigative panel* relying heavily on information provided by staff, the airports, Federal Aviation Administration (FAA), airline representatives, and other aviation experts. Consultants will be used in several areas to fill in key information. There will be three sequential phases to the review. In each phase, staff will prepare a report that will provide background and staff analysis of the subject matter of each work task. The staff report will be distributed to RAPC and the public well in advance of RAPC meetings. Experts from the airports, the aviation industry and consultants will be invited to RAPC meetings to discuss the work task subject and respond to RAPC member questions. Each phase will culminate in a staff report summarizing the Committee's major findings and conclusions and providing direction for subsequent phases. Each phase will provide for ample public involvement.

1. **Phase 1.** The initial phase will focus on strategies to maximize the capacity of airport operations and existing runways at Oakland (OAK), San Francisco (SFO) and San José (SJC). Staff will review potential demand management strategies at each airport and recent advances in air traffic control technology. This Phase will also include a review of possible new institutional arrangements to better manage future air traffic demand.

2. **Phase 2.** Depending on the findings from Phase 1, Phase 2 will either: (a) provide greater detail and analysis of the most promising demand management strategies at each airport, or b) analyze the remaining alternatives to new runways, including high speed rail and use of other airports in the Bay Area and nearby to relieve air passenger, air cargo, and general aviation demand at the three major commercial airports.

3. **Phase 3.** Depending on the findings from Phase 2, Phase 3 could, depending on RAPC's direction, include a more in depth analysis of the alternatives considered in Phase 2, or further studies of new runways at OAK and SFO.

4. **Schedule and Budget.** Phase 1 will be funded with $365,000 from MTC and should be completed within a year, or possibly less, depending on the frequency of RAPC meetings. Phase 2 will be initiated after Phase 1 and will require funding from other sources, such as the Federal Aviation Administration (FAA) and the commercial airports. The cost of Phase 2 will be determined by the work recommended by RAPC, and could cost $500,000 or more for the study of alternative airports. Phase 2 will likely take over a year to complete, depending on the detailed scope of work.

Proposed Phase 1 Work Plan. The work plan includes an initial overview of all the alternatives to new runways considered in the previous Regional Airport System Plan (RASP), but then focuses primarily on demand management and new technology strategies. Since new runways appear to be infeasible at this time primarily due to their costs, it is essential that all three of the region's commercial airports make the best use of their existing runway capacity and airport operations. This analysis will also provide a solid foundation for RAPC to engage the region in a larger and more challenging discussion of possible redistribution of service to outlying airports, if it appears that demand management and new technology alone will not be sufficient to meet the region's long-range aviation demand.

1. **Task 1. Review Conditions at Existing Airports.** This task will summarize existing information about airport operations and runway capacity at OAK, SFO and SJC as these conditions, including the constraints on runway capacity, are central to the regional interest in alternative strategies for meeting future air transport demand. Generally, these conditions are:

- SFO: Significantly reduced capacity/large delays during poor weather; noise impacts on surrounding communities, airfield constraints related to the handling of the next generation of Super Jumbo jets.
- OAK: Single air carrier runway for air passenger, air cargo, and some general aviation (noise abatement) operations; limits on use of North Field (noise abatement).
- SJC: Closely spaced air carrier runways, continuing general aviation presence, air cargo growth.

Product: Report and presentation to RAPC describing airport operations, runway capacity and recent improvements from implementing air traffic control technology and other conditions at the three commercial airports.

2. **Task 2. Overview of RASP Alternatives.** The 2000 RASP discussed most of the major alternatives to new runways and provided a preliminary analysis of their benefits, including demand management, new technology, high speed rail (HSR), use of alternative airports, shifting general aviation and air cargo to other facilities, etc. As a starting point for the new study, staff will summarize the work that was done for the RASP and the conclusions reached at that time. Key experts will be invited to the RAPC meetings to assist with the discussions, including representatives from the Bay Area commercial, general aviation, military and federal airports and from the ongoing high-speed rail study. This overview will enable RAPC to obtain preliminary information about all the alternatives, and then identify key areas of interest for future work phases.

- What did the last RASP analyze and what were the conclusions?
- What is the history of the strategy?
- What is the current status?
- What are the key implementation issues (legal, technical, funding, institutional and governance, economics (airports/airlines), long-term efficacy, etc.)?
- What does RAPC want/need to know more about?

Product: Presentation and report to RAPC identifying the findings and conclusions reached in the last RASP update

3. **Task 3. Review Aviation Forecasts.** Rather than repeating the detailed forecasting from the earlier RASP, this task will focus more globally on: (1) how new trends in the aviation industry could affirm or alter previous conclusions about the adequacy of existing airport operations and runways to serve projected demand, and (2) the implications of these trends for developing new demand management and technological solutions to future airport operations and runway capacity problems using information from the airports, the FAA and the aviation industry, staff will prepare a report summarizing future aviation trends and invite these key experts to provide their views to RAPC on:

- Future air passenger and air cargo growth trends (effect of competition and rising costs–labor, fuel, etc.);
- Changing aircraft requirements (size, type of aircraft);
- Load factor trends;

- Potential emergence of new markets (e.g., new air taxi service using small, very light jets); and
- Changing airline scheduling practices and the impact on airport operations and runway demand at critical hours of the day.

  Product: Staff will prepare a report on future aviation trends

4. **Task 4. Assess Potential Demand Management Strategies.** The term "demand management" covers a wide range of approaches to more efficiently use the capacity of existing air carrier runways. The purpose of this task will be to review demand management strategies that would be appropriate for each airport, or combination of airports, considering weather conditions, runway configurations, and operations. Demand management strategies typically address one or more of the following: the level of allowed runway activity (through controls on the number of aircraft operations, sometimes called "slots"), the timing of activity (to reduce the concentration of flights during certain hours of the day), or the size of aircraft using the runways (larger aircraft handle more passengers per landing or takeoff). Some demand management approaches may involve pricing mechanisms to better allocate scarce capacity.

Fortunately, there is extensive research and history on the use of demand management strategies that can inform discussions of these various approaches. Under federal law, airports may develop demand management plans (Part 161 "Access Restrictions") to meet existing or projected problems, provided they are coordinated with the FAA and meet a prescribed set of statutory tests (the actual implementation of any of these potential strategies would be beyond the scope of this study and would require much more extensive work by the airports with the FAA).

Staff will prepare a report analyzing potential demand management strategies, including a description of strategies used in other areas of the country and abroad, and invite the FAA and the airports to RAPC to address the following topics:

- FAA: the process for an airport to propose a Part 161 "access" control program for runway use (pricing, aircraft size, other); examples of controls currently in effect or proposed for other airports (e.g., federally enacted slot controls and perimeter rules); and
- Airports: the airports (or their consultants) will discuss any demand management strategies that have been suggested in the past or are under consideration, as well as factors they believe would be crucial for FAA approval. Some general aviation airports (Sonoma County, Buchanan Field) have had access controls associated with prior airline service. These airports would be invited to discuss how they were structured.

  Product: *Staff will prepare a report analyzing and summarizing potential demand management strategies, including an identification of those strategies that could provide a benefit to the region.*

5. **Task 5. New Air Traffic Control Technology.** The term "air traffic control technology" covers a wide gamut of potential new technological advances for better management of airspace and runway capacity. Some of the technology is more applicable to the larger "enroute" airspace for flights between airports, while some is more applicable to the immediate runway environment. Staff will provide a summary of technologies that are used in other areas to improve airport operations and increase airport capacity. The FAA will be invited to RAPC to discuss overall trends in airport delays (due to changing aviation activity, weather patterns, airspace redesign, new technology, or a combination of these factors) and how the air traffic control system is designed to manage delays. The FAA and representatives from NASA will also be asked to review advances in new air traffic control technology and procedures that could help reduce existing and future congestion at airports, with particular attention to three areas:

- The status of technologies that would enable SFO and other airports with closely spaced parallel runways to accommodate more aircraft during periods of bad weather (i.e., Required Navigation Performance, Precision Runway Monitoring);

- Technologies that would reduce the spacing between aircraft on final approach to a runway (required for safety reasons due to wake vortices generated by aircraft wings that affect trailing aircraft); and
- The timeframe for implementing new technologies.

Product: Staff will prepare a report describing and analyzing new air traffic control technology and a report summarizing the RAPC presentations by experts on new air traffic control technologies.

6. **Task 6. Governance and Institutional Review.** In the past there has been public interest in a regional airport authority as a possible institutional mechanism to redistribute traffic among the three commercial airports and better match runway demand and capacity. This task will review the authority and powers of existing multi-airport authorities and applicable federal aviation law and present this information to RAPC. As part of this task staff will also attempt to provide answers to the following questions:

- Would new institutional arrangements make it easier to implement new Demand Management and Air Traffic Control Technologies?
- Could new institutional arrangements provide for better coordination between the airports, airlines and FAA to reduce delays?
- What would be the real world consequences of new institutional arrangements (financial, political, legal)?
- Would these arrangements require federal and or state legislation or are there other means to implement new institutional arrangements?

Product: Staff will prepare a report analyzing existing and possible new institutional arrangements.

7. **Task 7. Public Involvement.** In addition to RAPC's public meetings, RAPC will hold at least one regional forum to review the findings and conclusions from Phase 1. Staff will summarize the major findings and conclusions from the work outlined above for presentation at the regional forum(s).

Product: Regional forum(s) and summary of the public input.

8. **Task 8. Next Steps.** Based on the findings and conclusions from Phase 1 and the public input, RAPC would develop recommendations for proceeding with work on subsequent phases, as appropriate. These recommendations would complete Phase 1.

Product: Staff would prepare a report summarizing RAPC's recommendations

Phase 2 Work Plan. Phase 2 will either consist of more detailed work on selected demand management strategies and new technology and/or, if demand management and new technology do not appear to adequately address future airport operations and runway capacity problems, Phase 2 will look at other approaches, such as:

- Using the future California High Speed Rail (HSR) system, currently in the planning stage, to accommodate some of the air passengers traveling to the Central Valley and Southern California;
- Improving and encouraging airlines to use other Bay Area airports for passenger and air cargo service, such as Travis Air Force Base, Moffett Federal Airfield, Sonoma County Airport (Santa Rosa), Buchanan Field (Concord), Byron (eastern Contra Costa County), Napa Airport (Napa), Livermore Airport (Livermore); also included in this discussion will be the potential for airports in neighboring regions, such as Stockton and Monterey, to

expand service and thereby serve more local passengers who would otherwise use the Bay Area airports; and

- Upgrading the Bay Area's general aviation "reliever" airports to attract small aircraft activity away from the airports and runways used by the larger commercial jets.

In evaluating the alternatives above, Phase 2 will provide information on the following areas: (a) the number of air passengers are projected to use either a future HSR system or an alternative airport; (b) the impact of this passenger diversion on airport operations and runway demand at the three major commercial airports; (c) the cost of improving alternative airports; (d) the level of community interest in new air service, incentives for airlines to serve new air ports; and (f) new institutional arrangements for funding and operating new airports as well as ensuring airport and surrounding land use compatibility. Because of the anticipated public interest in alternative airports, this phase would also include a major public information and participation component.

Phase 3 Work Plan (additional funding required). Depending on the outcome of Phase 2, Phase 3 may:

- Conduct more detailed work on one or more of the Phase 2 alternatives; or
- Proceed with further studies of new runways at existing airports (and their associated environmental issues), if RAPC concludes that none of the strategies or combination of strategies considered in Phase 1 and Phase 2 can accommodate future demand.