



# **SAN FRANCISCO BOARDSAILING ASSOCIATION**

1592 UNION STREET, BOX 301 - SAN FRANCISCO, CALIFORNIA 94123

## **An Examination of Delays & Runway Proposals at San Francisco International Airport (SFO)**

Revised 3/15/01

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- I. Causes of Delay at SFO
- II. Delay Solutions – Reducing Arrival Rates
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## I. SFO – Causes of Delay

While poor weather in the Bay Area can cause significant delays at SFO, there are many other causes of delays. SFO’s April 2000 Delay Study <sup>1</sup> analyzed Department of Transportation data <sup>2</sup> and found that on days when the weather was good all day an average of 149 domestic flights arrived late (1997-1999). Over 43% of the delays identified occurred on days when the weather was good all day. When weather was a factor, delays increased, but the majority of delays were still caused by the 149 flights on average that arrive late regardless of the local weather:

<b>Weather Conditions:</b>	Delays/Day Average	Delays/Day Non-Weather	Delays/Day Weather	Caused by Weather	Caused by Other
Good All Day <sup>3</sup>	149	149	0	0%	100%
Bad in Morning <sup>3</sup>	210	149	61	29%	71%
Bad All Day <sup>3</sup>	248	149	99	40%	60%

When one factors in the number of days each type of weather occurred, one can estimate the share of delays caused by local weather. An examination of all delays covered by the analysis in the delay Study indicates that only 18.8% of the delays during the 3-year period were caused by weather at SFO.

When weather is a factor, SFO and the airlines claim almost all delays are due to bad weather even though many are due to other causes including:

- Aggressive scheduling by airlines
- Slow airline loading, unloading, and fueling
- Failure by airlines to hold sufficient aircraft and crews in reserve
- Labor disputes between airlines and employees
- Computer and data line failures
- Out of area weather
- Antiquated FAA equipment/system

New runways at SFO will have no effect on the 81.2% of delays that are caused by factors other than local weather. While SFO recently claimed that it is forced to close an arrival runway 30% of the time, its own studies reveal that the correct figure is below 16% and possibly below 10% <sup>4</sup>. Over the next 2 years, new radar and approach systems

<sup>1</sup> Reducing Weather-Related Delays & Cancellations at SFO, Charles Rivers Assoc./John F. Brown Co.

<sup>2</sup> ASQP data covers domestic flights by 10 largest U.S. airlines excluding commuter flights

<sup>3</sup> Figures derived from Delay Study, Appendix C.2, Table 3 by averaging 1997, 1998, and 1999 figures

<sup>4</sup> Analysis of SFIA Runway Reconfiguration Impact on Regional Air Transportation Systems, Working Paper No. 9, Page 2-14 - P&D Aviation (3/15/99)



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### **I SFO – Causes of Delay (Page 2)**

will further reduce the percentage of time SFO must close an arrival runway due to weather.

Departure delays due to local weather are limited at SFO because two departure runways may be used even in low visibility conditions. Any departure delay at SFO related to weather is usually caused by the weather at the destination airport. The FAA will order a plane to wait at SFO if there is a concern that the destination airport will be overloaded.

SFO's proposed runways will do nothing to increase the airport's arrival capacity in clear weather. Delays that occur during good weather conditions will continue and even worsen if SFO continues to increase the number of flights scheduled. The airlines are constantly pushing for new flights and their first concern is ticket sales, not smooth operations. American Airlines CEO Don Carty admitted to USA Today, "the accusation that airlines overschedule is absolutely right. Of course we overschedule."<sup>5</sup>

A recent Department of Transportation (DOT) report<sup>6</sup> found that 74% of gate departure delays were due to airlines operations issues such as passenger loading and unloading, aircraft refueling, and baggage handling. Airline operational issues are especially likely to lead to delays because of aggressive scheduling by the airlines. The DOT report stated, "we found that air carriers schedule departures at some airports above their capacity under ideal conditions (e.g. clear weather and all runways available)."

A United Airlines press release dated April 20, 2000 indicates that one of its delay reduction techniques will be dual end boarding- allowing passengers to load and unload through two doors to reduce turnaround times. Clearly there is a limited amount of time allowed for turnarounds if dual end boarding is a technique that will make the difference between a flight leaving on time or not.

United Airlines has indicated that it will eliminate 30% of the existing delays through operational changes. The FAA is already planning to move ahead with upgrades to air traffic control equipment and systems and most of these upgrades should be in place many years before new runways could be completed. The estimates in SFO's Runway Reconfiguration Study indicate that the completion date for new runways would not be until 2010 or later<sup>7</sup>.

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<sup>5</sup> USA Today, September 13, 2000

<sup>6</sup> Report No. CR-2000-112 (July 25,2000)

<sup>7</sup> URS Greiner Runway Reconfiguration Study (April 1999) – Table 5.5.3.1



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### **II. SFO - Reducing Delays by Reducing Arrival Rates**

SFO suffers delays in good weather and bad when a large number of planes arrive in a short period of time. These spikes in demand are the result of:

- Scheduling more flights than the airport can accommodate under ideal conditions
- Scheduling a large number of flights to arrive or depart at nearly the same time
- Allowing a high volume of small propeller driven commuter planes

United Airlines intentionally operates a large number of flights on smaller planes to keep competitors out of its hub at SFO. SFO's Delay Study <sup>8</sup> reported that United explained, "if it were to reduce its LAX-SFO service frequency by the amount implied by our recommendation, its competitors would jump into the market, filling the time slots opened up." The Delay Study further found that United's approach is to "**schedule more flights than SFO can accommodate on many days and then cancel the ones you can't operate.**"

During Summer 2000, United operated 38 SFO-LAX roundtrips using Boeing 737 aircraft seating only 134 passengers. United opted to use smaller jets even though SFO's Delay Study found that, "larger aircraft are more fuel efficient on a per seat basis, and they generally also reduce crew costs per seat. They also reduce noise and air pollution." SFO-LAX flights departed at a rate of one plane every 27 minutes. If United had used larger 200 seat aircraft, it could have moved just as many passengers while eliminating at least a dozen flights per day. Even with a reduced number of flights, it could have maintained a frequency of one departure every 42 minutes.

On a typical morning, SFO has at least 13 flights scheduled to depart at exactly 7 a.m. even though the departure rate at SFO is less than one plane per minute (47 planes/hour). It would take 17 minutes for these 13 flights to depart under the most ideal conditions. SFO's Delay Study found that there are four concentrations of arrivals each day that exceed the airport's maximum capacity to accept arrivals. One concentration results in 20 planes being scheduled to land in 15-minute period even though the airport can only handle one arrival per minute under ideal conditions. These scheduling practices guarantee delays.

Commuter planes operating out of SFO account for 18% of the flights but carry only 3% of the passengers. The commuter planes, typically seating 30 passengers, serve smaller communities such as Eureka, Sacramento, Monterey, Modesto, and Santa Rosa. These smaller planes actually take up more time and space in the pattern because they are slower and must follow farther behind large jets to avoid turbulence. Officials at La

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<sup>8</sup> Reducing Weather-Related Delays and Cancellations at SFO, Charles River Assoc./John F. Brown Co.



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### **II. SFO - Reducing Delays by Reducing Arrival Rates (Page 2)**

Guardia Airport calculate that they can land two large jets in the time it takes for three commuter planes to arrive.

SFO can reduce delays in all weather conditions by:

- Spreading arrivals and departures more evenly
- Using larger planes to reduce the total number of flights
- Reducing the number of commuter flights

While the rate of scheduled arrivals at SFO can exceed the arrival capacity of 60 planes/hour, the average rate of arrivals at SFO during all peak hours (6 a.m. to 10 p.m.) is only 34 planes/hour<sup>9</sup>. If arrivals were scheduled more evenly, delays would be reduced. The current spike in arrival demand at 10 a.m. is especially problematic because fog conditions at SFO usually linger until 10 a.m. but clear before 11 a.m.

Although SFO is one of the nation's busiest airports, only 31% of its passenger flights use planes that seat more than 150 passengers. While logic would dictate a shift to larger aircraft, the Runway Reconfiguration Study predicts minimal shifts by the airlines.

Commuter flights from cities located within 100 miles of San Francisco (Monterey, Modesto, Sacramento, Santa Rosa) could be reduced or eliminated. Other cities with multiple small plane flights to/from SFO could have a reduced number of flights using larger planes. Passengers who arrive primarily to connect to other flights from cities like Fresno could opt to either arrive early on a larger plane or make their connection through another airport like LAX. Residents of the Bay Area need to balance the environmental and economic cost of filling the Bay against maintaining high levels of service to outlying communities that benefit a small number of people.

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<sup>9</sup> Calculated from Exhibit 15 (Scheduled Operations by Hour), Regional Airport System Plan (2000)



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## III. SFO - Reducing Delays through Capacity Enhancement

SFO stresses the fact that its arrival capacity drops from 60 aircraft/hour to 30 aircraft per hour during poor weather. The implication is that it is dealing with an extra 30 planes per hour when it goes to a single runway for arrivals. In fact, the average arrival rate during the peak hours of a typical day is 34 arrivals/hour<sup>10</sup>. In the next two years, SFO will have a new radar system (PRM) and a new approach pattern (SOIA) that will allow for arrival rates of 38-45 planes/hour even when the airport is experiencing low cloud cover. SFO's hourly arrival rate only exceeds 42 flights/hour during 3 hours of the day and its maximum hourly arrival rate is 46 flights/hour<sup>10</sup>.

NASA and the FAA are developing a number of new technologies that will ensure that SFO's arrival capacity on the existing airfield exceeds the average arrival rate. If steps are taken to spread the arrivals more evenly throughout the day, then the increase in arrival capacity will lead to a significant reduction in weather-related delays. The long-term goal of NASA's Terminal Area Program (TAP), "is to achieve the same level of airport capacity and safety associated with clear weather operation during instrument meteorological conditions."

In addition to the SOIA approach, SFO should be introducing air traffic management systems, such as FAST (final approach spacing tool) and TMA (traffic management advisor). These systems allow air traffic controllers to route and sequence planes more efficiently. TMA and FAST have permitted a 10-15% increase in arrival rates at the congested Dallas-Fort Worth airport. With the combined improvements from these systems, SFO could realize arrival rates from 40-50 flights/hour even in poor weather.

NASA, the FAA, and commercial partners are also working on satellite navigation and avoidance systems (GPS/ADS-B ) and wake vortex detection systems that will allow a greater number of planes to arrive safely in poor weather. New satellite based navigation and avoidance systems have the capability to increase safety in all phases of flight by allowing a pilot to 'see' all other similarly equipped aircraft in real time whether they are on the ground or in the air.

### **Improving arrival Flows under instrument weather conditi**

Type of System	Systems	Improvement	When
Dual Approaches in poor weather:	SOIA	+ 25-50%	At SFO 2001/2002
Optimizing arrival flows:	PFast/TMA	+ 10-15%	In use at Dallas
Satellite/GPS systems	WAAS/LAAS/AILS/ADS-B	+ 50-100%	Development & Field Test

<sup>10</sup> Calculated from Exhibit 15 (Scheduled Operations by Hour), Regional Airport System Plan (2000)



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### **IV. SFO - Traffic Impacts**

Forecasts call for a dramatic increase in the volume of passengers and cargo moving through SFO. By 2020, the projections call for SFO to serve 63,000 additional passengers per day and for air cargo flights to more than triple. Most of the passengers and all of the cargo will move in and out of the airport via the surrounding roadways and freeways. This will result in significant increases in congestion on Highways 101, 280 and 380 and the Bay Area bridges. Highway 101 already reaches and exceeds full capacity on a regular basis. Based upon the historic rate of vehicle trips per passenger<sup>11</sup>, SFO would see an additional 70,000 vehicle trips per day. While use of BART may reduce the number of vehicle trips, the increase in air cargo could result in hundreds of additional tractor trailer trips.

A significant increase in the number of passengers served by SFO will also mean an increase in the size of the workforce at SFO. Many of the workers employed at SFO do not have income levels that will allow them to live in San Francisco or San Mateo Counties. These employees will add to the increase in traffic. Some workers will take BART to SFO, but according to the Regional Airport System Plan, 71% of airport employees will drive to work.

One of SFO's primary goals in building runways is to reduce delays for air travelers. If SFO grows beyond the capacity of the roadways that serve it, air travelers will suffer new ground delays. These ground delays will also be shared by the non-flying public including commuters and operators of business vehicles that use Highways 101, 280, and 380. If a passenger must allow an extra 30-60 minutes of driving time to get to the airport, he is likely to suffer a net time loss even if his flight departs on time.

The solution to the SFO traffic problem is to spread demand more evenly among the Bay Area airports and to look into an additional airport to handle passenger and cargo demands. While these solutions do not benefit SFO's bottom line, they result in a better system for the region. An examination of the airports in the area of New York City, Washington, D.C., or Denver will serve as a good example. In each of these metropolitan areas, a new airport was built in an outlying area to meet growing demand.

An airport can only grow so large when it is located in the heart of an urban area. At some point the load must be spread out. Today SFO is ranked No. 5 among U.S. airports and No. 9 in the world for number of passengers served. SFO's growth goals call for SFO to ultimately attain the passenger levels that Los Angeles International Airport has reached today.

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<sup>11</sup> P&D Aviation – Working Paper No. 5, Page 2-31 (3/15/99): 3,280 trips per million annual passengers



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### **V. SFO - Ecological Impacts**

SFO's runway construction plans include up to two square miles of bay fill. The largest alternative calls for filling 1,332 acres of the Bay. By comparison, less than 450 acres of the bay have been lost to fill since 1970. The largest runway configurations would also restrict the tidal flow to another 5-6 square miles of bay that would be bounded on three sides. An area of the bay that was similarly enclosed by the existing runways was transformed into mud flats. In all, 8 square miles of bay could be lost to fill, but the impacts on the circulation of the bay may be even worse.

The proposed runways extend far offshore and will impede the tidal flows that flush contaminants from the South Bay. SFO's Science Panel found that with the new runways, **“changes in the tidal and sedimentation supply regimes could severely affect the form and ecological function of intertidal habitats throughout the subregion.”**<sup>12</sup> SFO's Runway Reconfiguration Study found that, “with poor tidal circulation in the South Bay, pollutants tend to build up and can be quite high during certain times of the year.”<sup>13</sup> During the summer months it takes an average of 5 months for a dissolved contaminant to be flushed out from the South Bay<sup>14</sup>. The health of the South Bay depends on the unimpeded tidal action. New runways will trap contaminants and degrade the water quality in the South Bay.

Impacts on water quality will in turn have impacts on the fish and wildlife that inhabit the Bay. The area near SFO is a Pacific Herring spawning ground and is home to the endangered California Clapper Rail. Chinook Salmon and endangered Steelhead spawn in creeks to south of SFO. In the last few years Grey Whales have returned to the Bay and have recently been active well south of the airport. Species that feed in the Bay may absorb high levels of contaminants through the food chain. An advisory from the California Environmental Protection Agency warns, “adults should limit their consumption of San Francisco Bay sport fish to, at most, two meals per month.”<sup>15</sup>

As it stands today, the health of the Bay is impaired, but San Francisco Mayor Willie Brown goes too far in stating that, “there is nothing natural about the bay.”<sup>16</sup> The fact is that the South Bay is a vital habitat that can continue to support many threatened species if it is protected and restored with care. Many government agencies and non-profit organizations are dedicated to both protection and the restoration of the South Bay.

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<sup>12</sup> Report of the San Francisco Airport Science Panel, October 19-20, 1999 – Page 17

<sup>13</sup> URS Greiner Runway Reconfiguration Study (April 1999) – Page 2-17, Section 2.3.3.1

<sup>14</sup> An Introduction to the San Francisco Estuary, Andrew Cohen (December 2000)

<sup>15</sup> California EPA- Office of Environmental Health Hazard Assessment advisory updated 5/28/97

<sup>16</sup> KGO- Channel 7 (12/4/00)



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### **V. SFO - Ecological Impacts (Page 2)**

Extensive dredging will add new contaminants and sediment to the bay waters. SFO's status summary released in November 2000 indicates that the following amounts of dredging could be required:

Bay mud to be dredged from runway sites	<b>29 million cubic yards</b>
Bay mud to be dredged to reach fill material	<b>20 million cubic yards</b>
Fill material removed from East Bay for use at SFO	<b>58 million cubic yards</b>

SFO's status summary also indicates that the following amounts of fill could be required:

<b>Fill for runway construction</b>	<b>58 million cubic yards</b>
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By way of comparison, the Port of Oakland's extensive new dredging program involves 13 million cubic yards. Maintenance dredging of the Bay's shipping channels runs between 4 million to 7 million cubic yards per year. The amount of mud SFO could dredge would cover the entire City of San Francisco a foot deep in mud. The amount of fill SFO could use for runway construction would cover the entire City another foot deep. If all of the dredge and fill were piled onto a football field, it would be over 12 miles high.

To see an image of the Bay before and after the "runway reconfiguration", please visit:

**[www.sfba.org/sfo/runways.htm](http://www.sfba.org/sfo/runways.htm)**



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### **VI. SFO - Regional Solutions**

Most of us have reached the conclusion that smart growth means looking for ways to balance housing and employment throughout the region. Our air transport capacity also needs to be balanced with housing and employment. Today, SFO carries 66% of all air passengers to and from the Bay Area.

Approximate Population of the Bay Area	6,880,000
Approximate Population of S.F. & San Mateo Co.	1,530,000
Regional Population in S.F. & San Mateo Co.	<b>22%</b>
SFO's share of Bay Area Air Passengers	<b>66%</b>

The projections in the Regional Airport System Plan (RASP) call for SFO to carry more passengers than Oakland and San Jose combined for the foreseeable future with a 55% share retained by the year 2020. This contrasts with the fact that only 22% of the Bay Area population lives in on the Peninsula (San Francisco and San Mateo Counties). If SFO continues to dominate, it will do so by drawing passengers from the North Bay, East Bay and South Bay. This will result in significant increase in traffic on the Bay Area bridges and up the Highway 101 and 280 corridors.

The alternative to having SFO continue to carry the majority of all Bay Area passengers would be to balance the load regionally. Oakland and San Jose have more room for growth and experience far less foggy weather. This is also the time to seriously consider use of an additional airport. The Regional Airport System Plan recommendation is to, "protect future options by indicating a regional interest in civil aviation use of Travis Air Force Base and Moffett Federal Airfield if these facilities become available in the future." The conversion of a federal airfield will only happen if there is a proactive regional effort. Land development around potential sites like Travis will not stop because the Regional Airport Planning Commission has made an indication of interest.

The majority of flights delayed and cancelled at SFO are flights to and from airports on the West Coast. Many of the passengers on these routes are not connecting to other flights and could choose to fly to or from San Jose, Oakland, or a new regional airport. State Law will require SFO to examine an alternative that would link Oakland Airport and SFO to allow for easy connections from airport to airport. If SFO and Oakland can be linked by a transbay tube or a high speed ferry, then travelers could arrive at Oakland to make connections to international departures from SFO.

The RASP also found that the introduction of a high-speed rail within California could reduce SFO flights by 4-7%. Standing alone this reduction seems limited, but as part of an integrated solution this is significant.



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### **VII. SFO - Environmental Mitigation**

SFO claims that the runway plan will be a win for the environment because SFO is ready to pay for the acquisition or restoration of bay wetlands (as would be required under state law). While the damage that will be done will be immediate and certain, any restoration project will take decades to complete and there will be uncertainty as to the results. Philip Williams, an expert in wetland restoration recently told the San Francisco Chronicle that, “Tidal wetland restoration is an experimental science.”<sup>17</sup> Wetlands restoration must be pursued, but given the challenges of such projects, restoration should not be used as a justification for doing significant damage to the Bay.

While SFO promises to provide a short-term funding windfall, the fact is that many other organizations are dedicated to the restoration of the same wetlands. Wetland restoration is a slow and steady process that will take decades, regardless of how much money SFO provides. Organizations like the Save The Bay believe that restoration can be achieved without allowing further degradation of the bay. State and Federal funds have recently been approved to aid in the acquisition of lands. Recently, a bill sponsored by State Assembly member Carol Migden (San Francisco) set aside \$25 million for the purchase of salt ponds in the South Bay. Private organizations like the Peninsula Open Space Trust have also provided millions of dollars for restoration.

SFO has identified numerous mitigation sites in the South Bay including the Cargill salt ponds. This is ironic because the new runway configurations would impair the tidal flows to South Bay and make restoration of these sites more difficult. SFO’s Runway Reconfiguration Study found that, “with poor tidal circulation in the South Bay, pollutants tend to build up and can be quite high during certain times of the year.” SFO’s Science Panel found that with the new runways, **“changes in the tidal and sedimentation supply regimes could severely affect the form and ecological function of intertidal habitats throughout the subregion.”**<sup>18</sup>

While SFO has touted the number acres that may be restored with their funds, it is important to recognize that the circulatory and water quality impacts affect the entire bay including the healthy wetlands that are dependent on the tidal cycle. Some business leaders have commented that the volume of fill seems small in comparison to the size of the entire bay. If you drop a fistful of dirt in to a goldfish bowl, you can quickly see how a relatively small amount of ‘sediment’ can affect a large volume of water.

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<sup>17</sup> San Francisco Chronicle, Will Wetlands Return?- front page 3/12/01

<sup>18</sup> Report of the San Francisco Airport Science Panel, October 19-20, 1999 – Page 17



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### **VII. SFO - Environmental Mitigation (Page 2)**

While some proponents of the airport expansion plan and the associated mitigations consider the mitigation funds to be a windfall, the fact is that most of the funds will ultimately come out of the pockets of Bay Area residents. SFO will likely obtain mitigation funds by selling airport revenue bonds. The cost of servicing the bonds would be passed directly to the airlines that would in turn factor the cost into ticket prices. If the public is going to pay for restoration, it could easily be accomplished through a state bond issue that would have a lower financial cost and a lower environmental cost to the people of the Bay Area.



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### **VIII. SFO - Airline Deregulation**

Deregulation of the Airline industry has left airports with a limited ability to influence airline decisions. If an airline insists on flying smaller aircraft that seats fewer people, the airport cannot mandate a change even if that small plane is competing with larger jets for space in the pattern during the busiest part of the day.

There is a limit to the number of planes that can fly into or out of any given airport. The right for an airline to arrive or depart has a value that increases as demand increases. If airports had the ability to adjust landing fees to reflect demand, then airlines might shift to larger planes during the peak periods and bring their smaller planes in when the airport was less congested.

Another approach, known as slot controls, would allow airports to place limits on the number of scheduled flights so that airlines do not schedule more flights than an airport can accommodate. Slot controls have been allowed at La Guardia Airport in the past. When slot controls were recently removed at La Guardia, La Guardia became the hands down leader in airport delays. La Guardia and the FAA are now addressing delays by reinstating controls. Congress is considering regulatory changes that might rationalize the use of runways at La Guardia. These changes should apply to all major airports.

Richard Golaszewski, a consultant to the FAA, concluded, "The problem is that the resources are not priced properly. In fact, they are not priced at all. That means that airlines have no incentive to limit their use of air traffic control services even at the most crowded airports... We have taken off all of the controls on what airlines can do, but we haven't done anything to balance demand and capacity."

A recent Department of Transportation report concluded that larger airlines, "at times have responded to new competition with fare cuts, capacity increases, and other practices that are designed to reduce competition."<sup>19</sup> The report found that larger airlines have used overscheduling as a tool to force competitors out. Once competitors have been driven out, fares increase. Fares from hub airports dominated by a single carrier are typically higher than those from non-hub airports. Reducing delays by flying fewer larger planes makes common sense but cutthroat competition continues to produce more planes than any number of runways can serve.

Smaller airlines are less able to tolerate delays because they tend to operate regional flights that suffer the majority of delays. Larger carriers operate a significant number of transcontinental and international flights that are less likely to be delayed or cancelled.

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<sup>19</sup> U.S. Department of Transportation Enforcement Policy – Docket OST-98-3713, 1/17/01



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### **VIII. SFO - Airline Deregulation (Page 2)**

Recently, Southwest Airlines announced that they would end all flights from SFO, citing delays as well as limited terminal facilities.<sup>20</sup> The San Francisco Chronicle reported that, “the SFO pullout leaves United as the dominant carrier on the heavily traveled paths between Los Angeles International Airport and SFO.”

Deregulation is always problematic when there are limited supplies of a product that is a necessity. Californians have learned this lesson first hand as a result of power deregulation (gas & electricity). The air transport system is a necessary part of our public transportation system and there are limits as to how many planes can use the system.

The airline deregulation during the past 20 years was designed to reduce prices and increase competition. The public has enjoyed low fares, but low fares have also led to the higher demand that strains the entire aviation system. In the long run, deregulation has not led to an increase in competition that favors the consumer. United Airlines is attempting to acquire U.S. Air, American Airlines is attempting to acquire TWA, and Continental Airlines, Delta Airlines and Northwest Airlines are looking into forming a marketing alliance. In the long run, prices may be on the rise.

If SFO had the right to reasonably regulate the airlines that operate from the airport, they could significantly reduce delays by pushing for realistic scheduling and increased aircraft size. The FAA has the ability to allow some controls while others may require action by our legislators.

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<sup>20</sup> San Francisco Chronicle, Southwest to Eliminate SFO Routes (1/23/01)



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### **IX. SFO - Recreational Impacts**

The runways will directly impact bay activities like boating, windsurfing and kayaking. Runways will block access and sedimentation will ultimately eliminate sailing and unique launching areas that cannot be replaced.

The shoreline and the bay waters near the airport provide some of the best windsurfing in the Bay Area. Windsurfers will be cut off from the middle of the bay. As silt builds up near shore areas could become too shallow for windsurfing. As it stands, some windsurfing areas are already dangerous or difficult at very low tides due to mud bars. A mud bar is usually discovered when a windsurfer's fin impacts the mud bar at high speed. As sediment builds up, these dangers and difficulties will increase. Over time, the majority of the sites and the capacity could be lost.

A site like Coyote Point Park will currently serve hundreds of windsurfers of on a windy summer day. This site cannot be replaced elsewhere. While new parking could be provided elsewhere, the winds cannot be moved. SFO experiences low cloud condition more frequently than Oakland or San Jose because it located to the east of the San Bruno gap where steady and consistent winds bring in a current of ocean air.

Two marinas are located close to the ends of new runways where increased sedimentation may choke off access. Heavy sedimentation could restrict the use of these marinas or require maintenance dredging that would continue indefinitely.

The ecological impacts will also have an indirect impact on fishing. The number of fish and the health of fish may be affected. As it stands, an advisory from the California Environmental Protection Agency warns, "adults should limit their consumption of San Francisco Bay sport fish to, at most, two meals per month."<sup>21</sup> Many subsistence fishermen are feeding their families contaminated fish at a rate that is more than 10 times the recommended limit. Many of the subsistence fishermen are unaware of the contamination dangers.

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<sup>21</sup> California EPA- Office of Environmental Health Hazard Assessment advisory updated 5/28/97



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### **X. SFO - Public Relations Campaign**

Mayor Willie Brown has created what the San Francisco Examiner called an “A-team” to sell the runway plan. In May 2000, the Mayor hired Stuart Sunshine and Karen Skelton to head the runway expansion project. Sunshine was hired for at least \$150,000/year and Skelton was hired as a consultant at a rate of \$200-300/hour.<sup>22</sup> Mr. Sunshine has stated that, “we need to find a way to sell it<sup>18</sup>” while Mayor Brown has worried that the “environmentalists are going to be a big thorn.”<sup>23</sup>

While the Mayor has created a talented team to sell the runway proposals, the fact is that the a reasonable proposal could be “sold” based on its merits instead of through the skills of a highly paid, well funded public relations team. In September 2000, Mayor Brown added his press secretary, Kandace Bender, to the SFO team. Her replacement, P.J. Johnston explained that Mayor Brown, “wants the heavy hitters out there on the runway project.”<sup>24</sup>

In numerous meetings, the expansion team has told regulators and environmentalists that they will consider all alternatives before deciding whether or not to fill the Bay. At the same time, SFO’s spokesmen have regularly told reporters that there is no way to solve delays without building new runways in the Bay. On the morning of February 2<sup>nd</sup>, 2001, SFO’s environmental manager told concerned groups that filling the Bay would be a last resort and SFO staff announced the approval of a new radar system (PRM) and new approach pattern (SOIA) that could reduce delays. That same evening, airport spokesman Ron Wilson went on television to tell the public that the new radar and approach might be helpful but the *only* way to solve delays would be to build new runways.

A San Mateo Times editorial congratulated SFO for offering to examine alternatives but added, “we don't think SFO is so much to be congratulated as to be mistrusted. We concluded a long time ago that SFO is only interested in new runways. Any alternative would mean a lessening of the airport's future political and economic position.”<sup>25</sup>

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<sup>22</sup> San Francisco Chronicle, Airport Jobs for Brown Aide, Reporter’s Daughter (5/17/00)

<sup>23</sup> Bay Insider/KTVU, Brown Names Head of SFO Expansion Project (5/16/00)

<sup>24</sup> San Francisco Examiner, Brown’s SFO “Team” Begins to Gel, (8/24/00)

<sup>25</sup> San Mateo Times, A New Study for SFO Runway Realignment (1/13/01)



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### **XI. SFO - Projection for Passenger Demand**

SFO supports its claim that it needs new runways by citing projections that call for significant growth in passenger demand. In spite of the emphasis that SFO puts on the projected growth in demand, the multi-billion dollar runway reconfiguration will not increase the overall capacity of the airport in typical clear weather conditions because it does not increase the number of active runways.

Many of these projections assume continued strong economic growth and low ticket prices. Projections that call for robust growth could prove to be overly optimistic. The U.S. economy has slowed down significantly during the last 6 months and airline operating costs are on the rise.

Low ticket prices have been largely dependent upon low fuel prices and controlled labor costs. The 1998 projections by the U.S. Department of Transportation called for fuel prices to steadily decline in real terms at least until the year 2011<sup>26</sup>. In fact, fuel prices have climbed dramatically from a low of 44¢ per gallon in March 1999 to a high of 90¢ per gallon in late 2000<sup>27</sup>. Labor costs are also on the rise as a number of unions resist airline efforts to limit wage increases. In 2000, many delays resulted from a disagreement between United Airlines and its pilots. In 2001 there may be similar problems resulting from ongoing labor disputes at United, Delta, American, and Northwest.

It is likely that there will be an increase in the number of people flying. The best solution is to fly more people using fewer planes. Fewer planes means fewer delays, less pollution, less noise, and reduced operating costs for the airlines. Alaska Airlines is adding 22 new Boeing 737-900s to their fleet that will each seat 174 passengers. The average plane in their fleet during 2000 seated only 137 passengers. With a fleet that is an average of 7.5 years old<sup>28</sup>, Alaska could easily replace all smaller aircraft before new runways could be completed and see a 27% increase in passenger capacity without any increase in flights.

SFO's own statistics show that the actual number of flights into and out of SFO is declining. The most recent aviation statistics posted on SFO's website are for July, 2000<sup>29</sup>. July is typically the peak month at SFO. The July 2000 numbers show that the total number of flight operations at SFO was 2.5% below the July 1999 level and 4.5% below the July 1998 level. SFO's staff confirms that the annual number of flights has actually been dropping over the past 2-3 years.

<sup>26</sup> U.S. Department of Transportation, Form 41 (1999)

<sup>27</sup> Bureau of Transportation Statistics - <http://www.bts.gov/oai/fuel/fuelyearly.html> (1/29/01)

<sup>28</sup> Alaska Airline Magazine, January 2001, Page A2

<sup>29</sup> [www.flysfo.com](http://www.flysfo.com) - about SFO - air traffic statistics



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### **XII. SFO - Stated Objectives for Runway Program**

SFO's Runway Reconfiguration Program has four stated objectives:

#### **1. Reduce Flight Delays**

SFO's own study reveals that the majority of delays are not the result of weather in the region. The delays can dramatically be reduced through improved technology and rational use of the existing runways. Any new runways would not be completed for another 10 years and would yield no delay reduction in the near term.

#### **2. Reduce human exposure to aircraft noise**

While new runways would allow some aircraft to arrive farther out over the Bay, airlines will insist on using the runway closest to shore in order to reduce fuel costs and taxi times. When one plane is landing farther from shore another will be landing near shore and noise reductions for those on the ground will be limited.

#### **3. Accommodate the New Large Aircraft (NLAs)**

The number of New Large Aircraft (NLAs) will be limited. By the year 2010, NLAs will only account for 4 roundtrips per day at SFO. The Boeing NLA will be much smaller than predicted, only 8% wider than the previous Boeing 747-400 aircraft, and may be able to operate on many existing airfields.

#### **4. Achieve net environmental gains for the Bay**

In the last 35 years, the Bay has been enjoying steady environmental gains thanks to public and private efforts to restore and protect the Bay. Since the formation of the Bay Conservation & Development Commission, damage to the Bay has been limited. The successful restoration of the Bay requires both protection and steady progress in restoration efforts. Restoration of the Bay without protection of the Bay cannot yield a net environmental gain because the Bay is a complex system. Restoration areas depend upon the tidal flow from a healthy bay. No amount of mitigation can justify allowing the most damaging project in a generation to go forward.