



Demand Management Scenario

RAPC Meeting

Prepared for:

Regional Airport Planning Committee



METROPOLITAN
TRANSPORTATION
COMMISSION



Bay Conservation
Development Commission

Objective of the Demand Management Scenario

*Estimate the Potential Delay Reduction Benefits of
a Generic Demand Management Program*

Scope of the Demand Management Forecast Analysis

- ◆ **Assumes Demand Management is Implemented at SFO Only, Since OAK and SJC are not Forecast to Incur Serious Delays**
- ◆ **Forecast Year is 2035**
- ◆ **Focus is on Small Aircraft in the Peak Period When Poor Weather Conditions (Fog) Can Significantly Reduce SFO's Hourly Runway Capacity**
- ◆ **The Peak Period is Defined as 6 hours from 8:00AM to 2:00PM**

Key Elements and Major Assumptions – *Passenger Airline Markets*

◆ **Bus Substitution in Close-in Markets**

- Flights to markets under 100 air miles (or under a 2 hour drive) are eliminated and frequent bus service is implemented

◆ **Demand Management Principally Affects Turboprop and RJ Flights with Fewer than 100 Seats**

- 50% of small aircraft flights during shoulder periods (8:00-8:59AM and 1:00-1:59PM) are assumed to shift to adjacent hours
- Remaining small aircraft flights during the Peak are assumed to be upgauged to 100-seat jet aircraft

◆ **Some Narrowbody Jet Flights May Also Respond to Demand Management Measures**

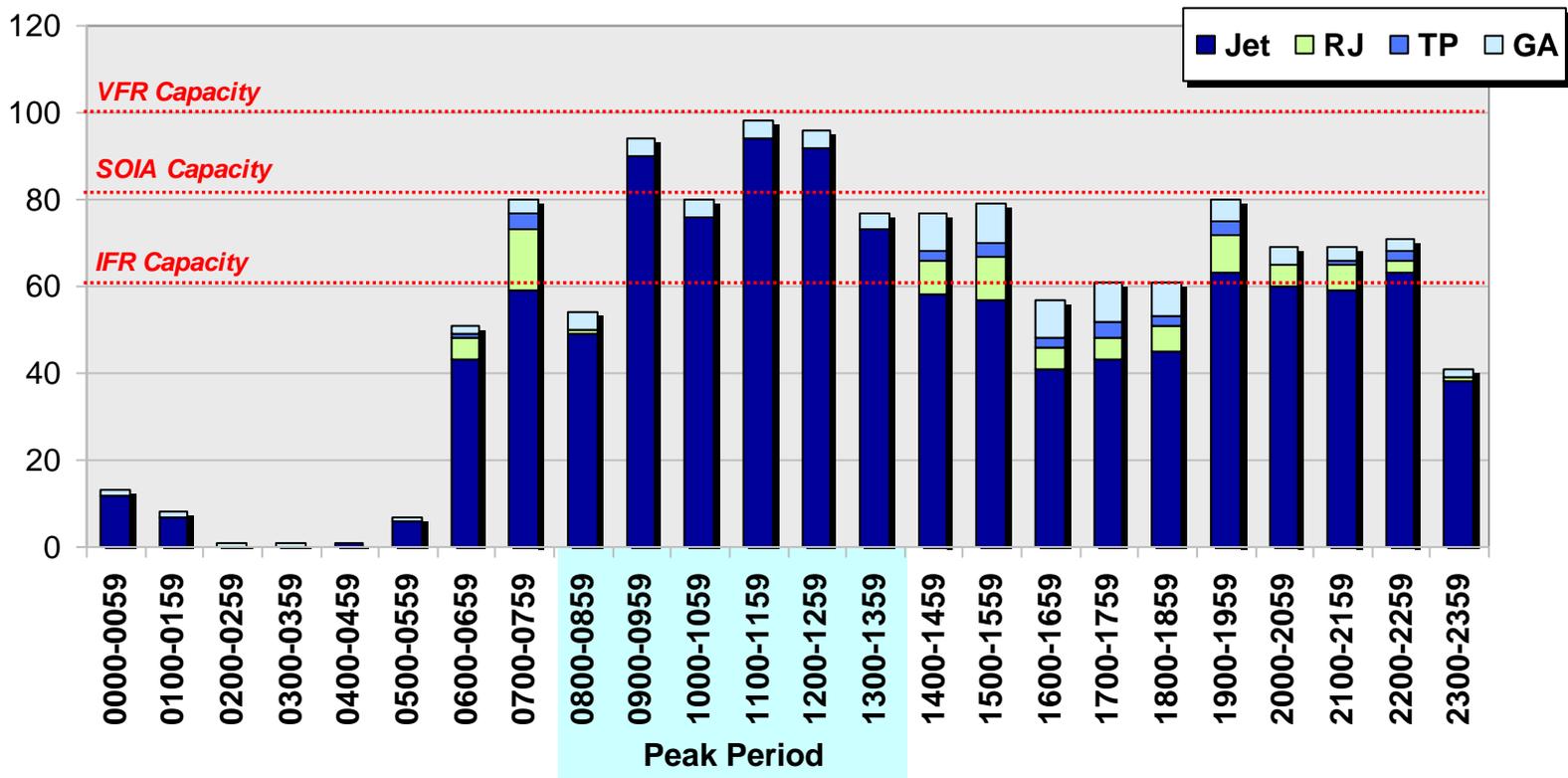
- 20% of narrowbody jets during shoulder periods (8:00-8:59AM and 1:00-1:59PM) are assumed to shift to adjacent hours

Key Elements and Major Assumptions – *General Aviation*

- ◆ **GA Flights are Assumed to be Limited by Facility Management Policies**
 - 2035 GA activity held constant at the actual 2007 GA activity level, with forecast growth in GA demand accommodated at Bay Area GA Reliever airports
- ◆ **Assumed a Minimal Number of GA Operations Would Still Operate During the Peak Through a Slot Reservation System**
 - Peak period GA activity limited to 4 operations (2 arrivals and 2 departures) per hour
 - Base Case average peak demand is 6 GA operations per hour
 - GA operations not accommodated during the peak move to off-peak hours

In the Demand Management Scenario, Passenger Airline and GA Demand Falls Below VFR Capacity During the Peak, But Remains Well Above IFR Capacity

Average Daily Passenger Airline and GA Operations by Hour
Demand Management Scenario Forecast 2035



Conclusions & Next Steps

Conclusions

- ◆ **Demand Management May Not be Sufficient to Eliminate Serious Delays in Poor Weather Conditions**
- ◆ **The Effectiveness of Demand Management at SFO in 2035 is Limited by:**
 - The share of total airport operations by small aircraft (passenger and GA) declines over the forecast period from 35% in 2007 to 20% in 2035
 - *Demand Management further reduces the small aircraft share to 14%*
 - The baseline forecast already accounts for upgauging from 30 and 50-seat aircraft to 70-seat aircraft
 - Large jet aircraft operations, which exceed IFR capacity for most of the peak period in the Base Case, are not affected by demand management

Next Steps

- ◆ **Assess Potential Impacts on SFO Delays, Noise and Air Quality**

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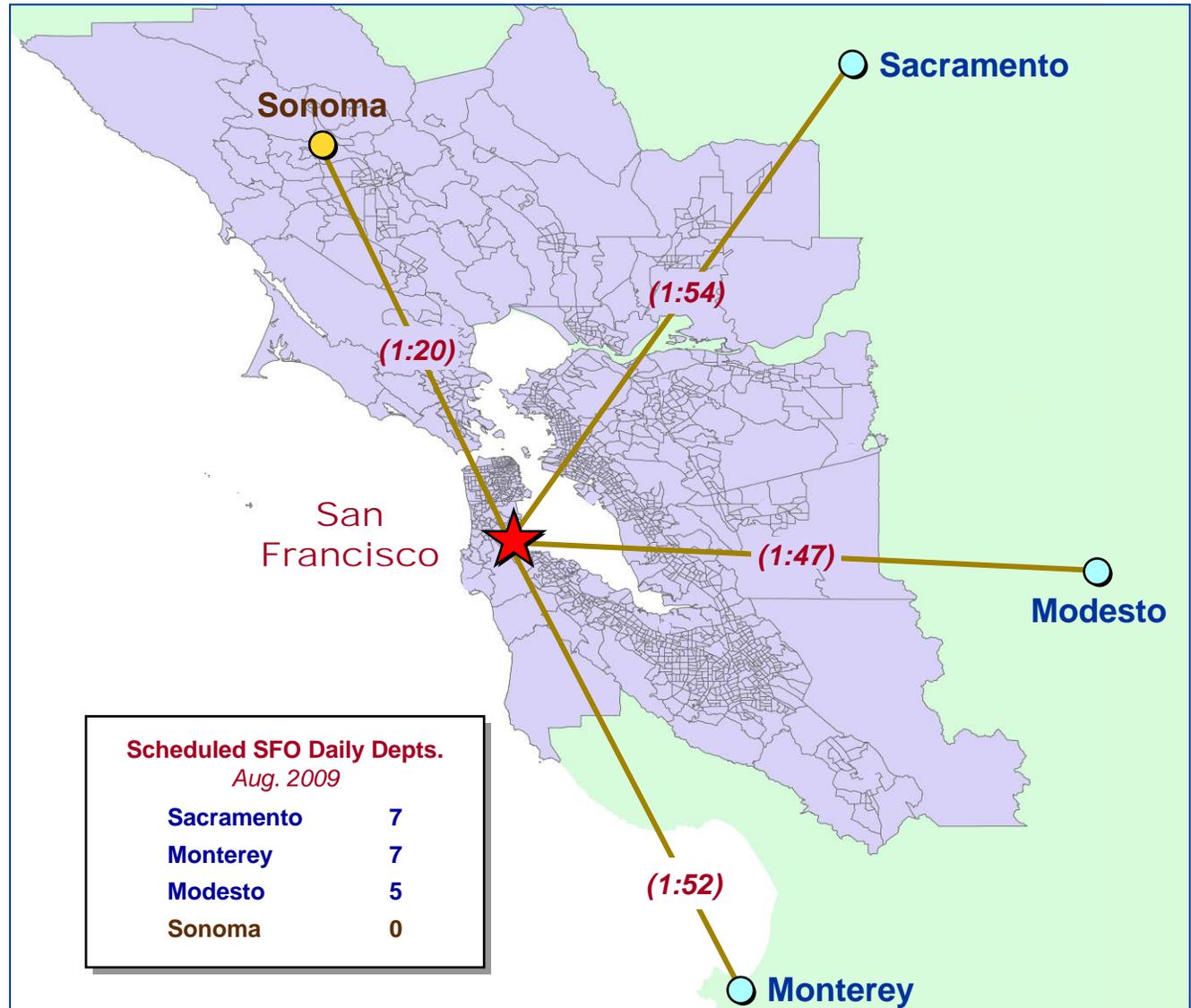
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Appendix

Bus Substitution in the Monterey, Modesto and Sacramento Markets Would be Similar to How the Sonoma County-SFO Market is Served Today

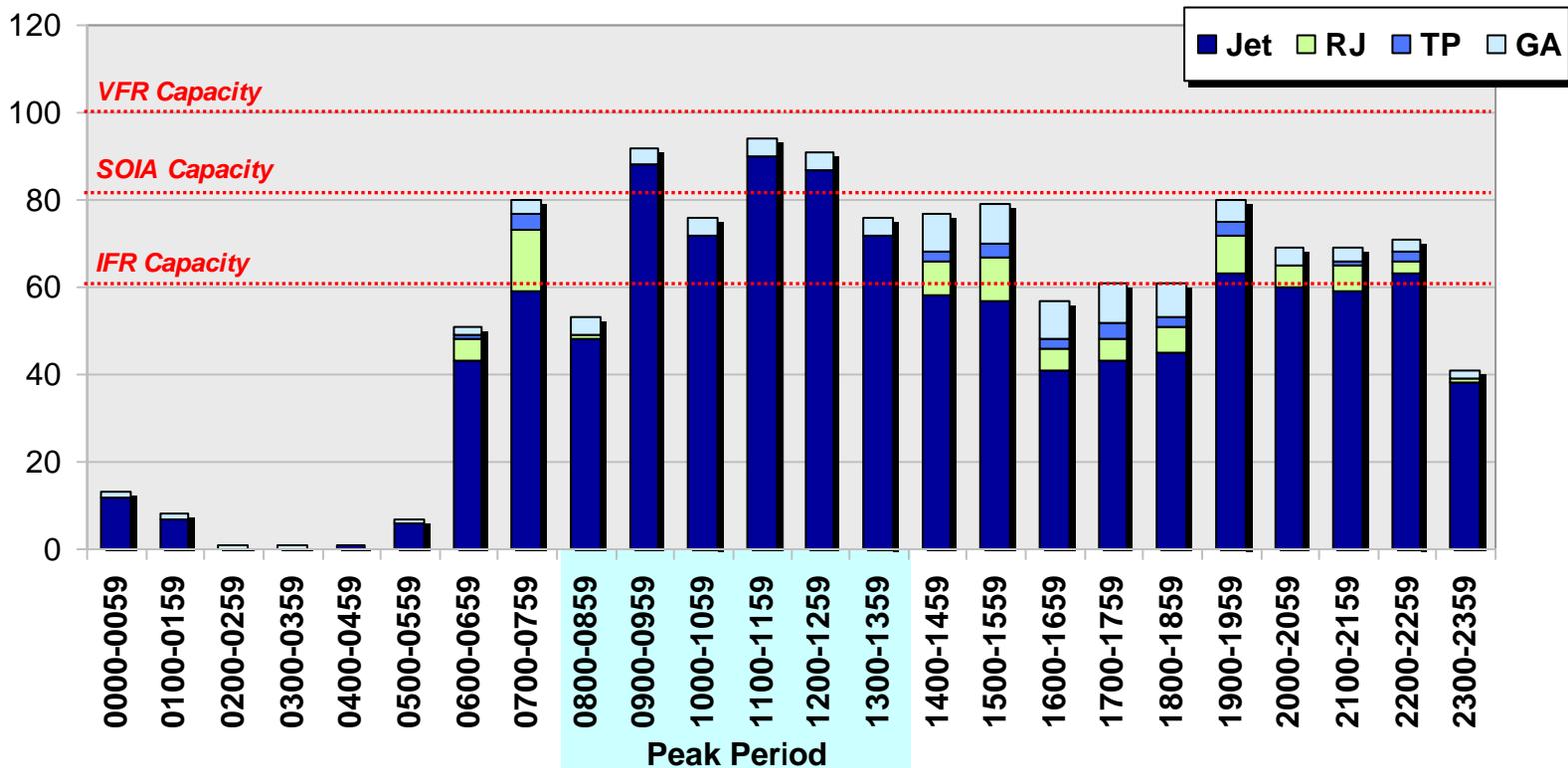
Monterey, Modesto and Sacramento account for 10% of small aircraft operations during the peak period in the 2035 Base Case



If Some Small Aircraft Flights are Eliminated and Not Upgauged SFO Demand Would Still Significantly Exceed IFR Capacity During the Peak Period

Sensitivity Analysis

Average Daily Passenger Airline and GA Operations by Hour
Demand Management Scenario Forecast 2035



Assumes that 50% of Peak Period Small Aircraft Flights (after schedule shifts) are Eliminated and Only 50% are Upgauged

If Half of the Small Aircraft Flights in the Peak Were Eliminated, Total Peak Period Activity Would be Reduced by an Average of 3 Flights per Hour

Comparison of DM Scenario and DM Sensitivity Case

Average Daily Passenger Airline and GA Operations by Hour
Demand Management Scenario Forecast 2035

