JACOBS CONSULTANCY

Alternative Scenarios

Regional Aviation Strategic Plan

Airport Advisory Committee

RASP Subcommittee

March 18, 2010

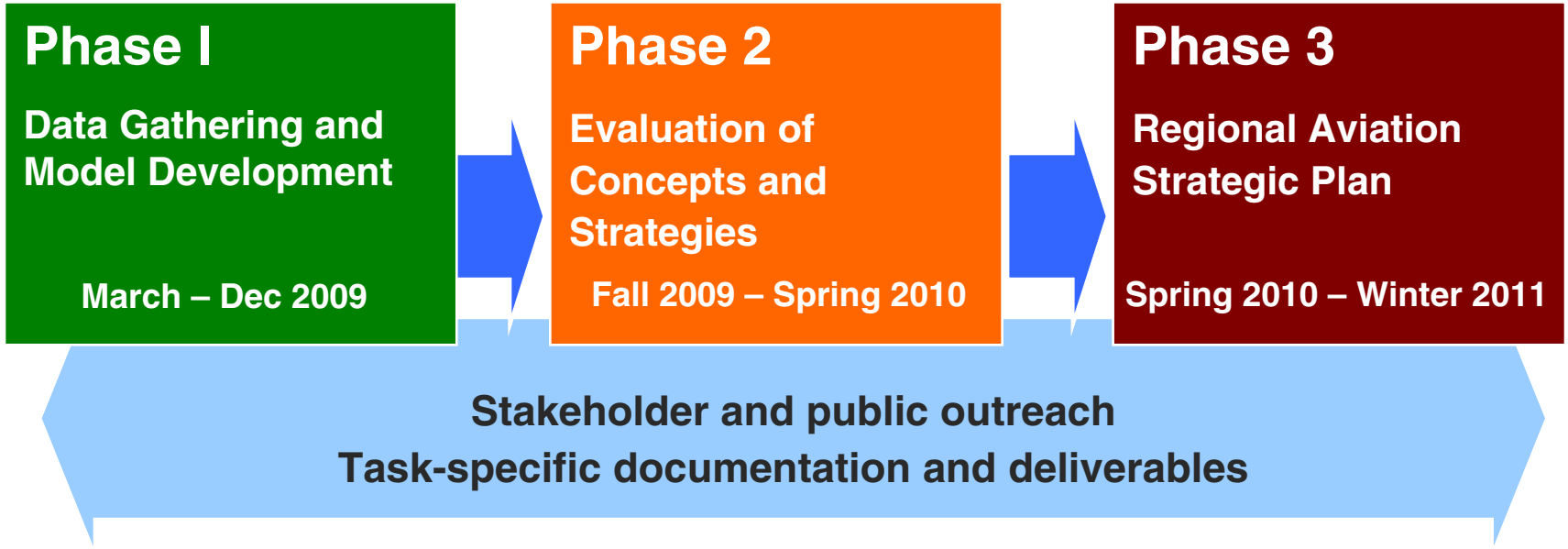
Meeting Agenda

1. Project Overview
2. Baseline Scenario
3. Alternative Scenarios
   - Commercial Passenger Optimization
   - California High Speed Rail
   - Tijuana Enhancements
   - Air Cargo and GA Optimization
4. U.S. Government Accountability Report, National Airspace System
5. Supplemental Information

Note: Model calibration is ongoing therefore the technical work contained herein remains a preliminary work in progress

Projects Overview

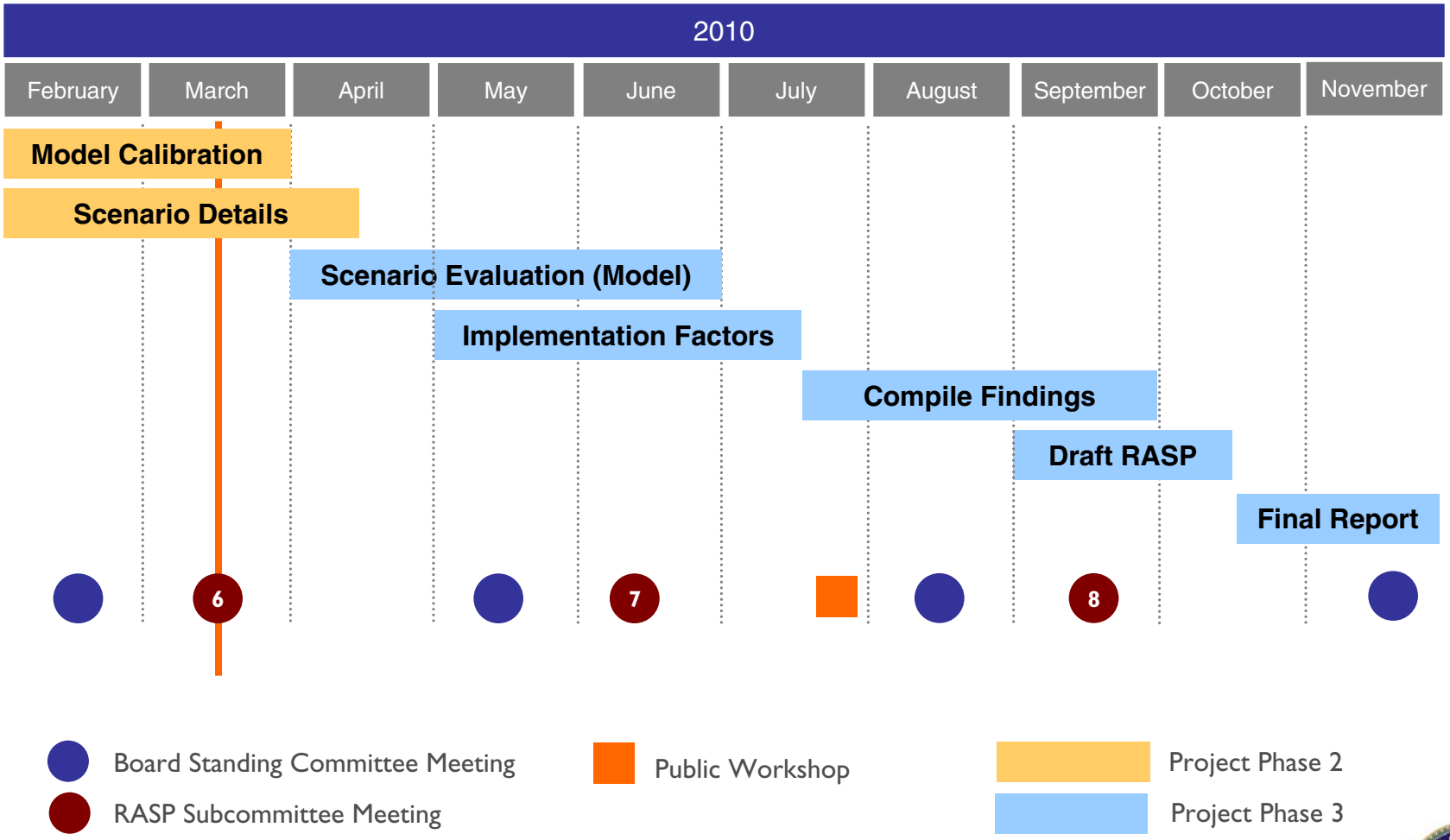
3-Phase Work Plan Culminating in 2011



The RASP is on schedule for completion in 2011

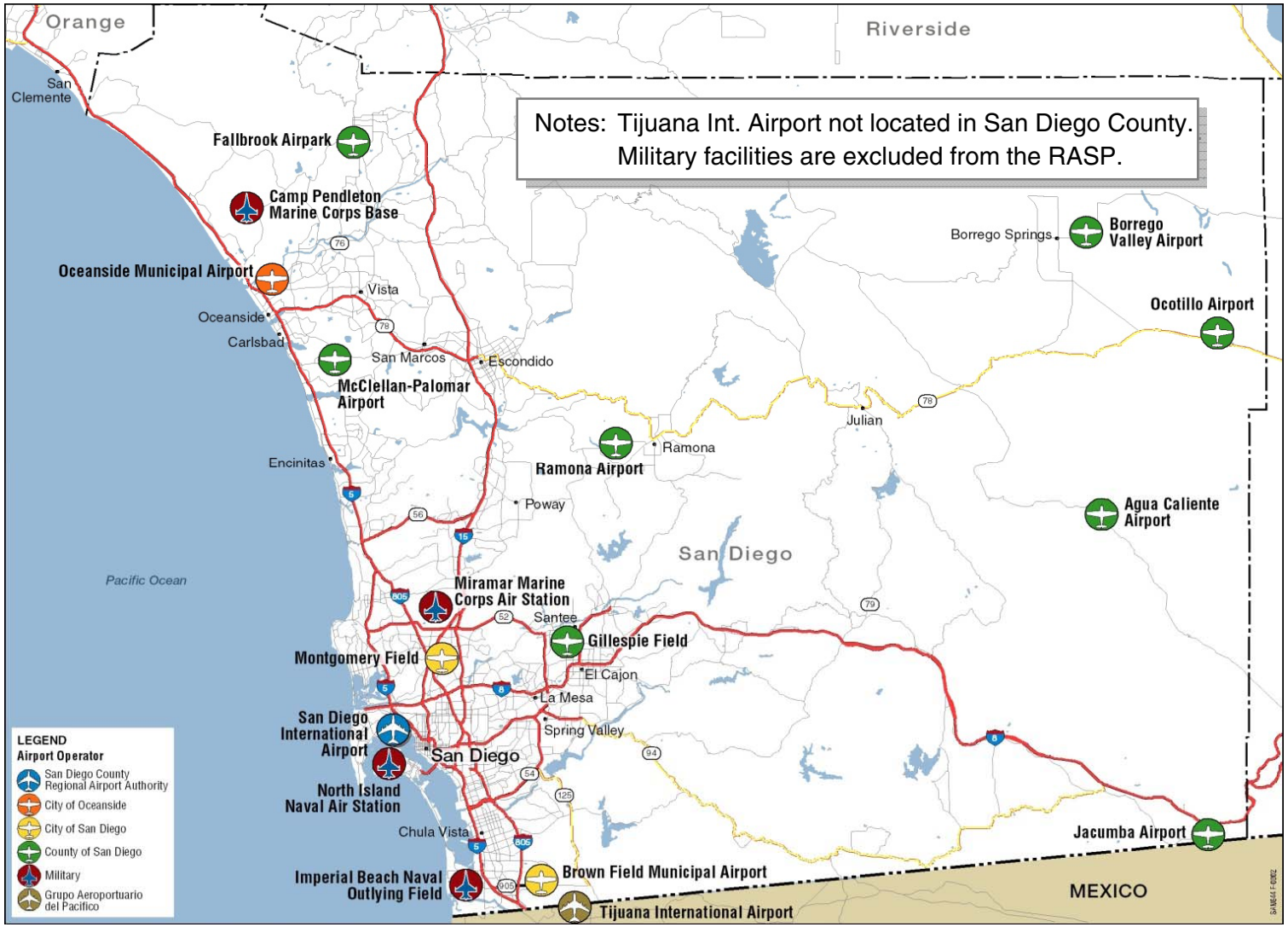
2010 Schedule and Work Plan

New Board Standing Committee May Result in Schedule Changes



Project Study Area

12 Public Use Airports Located in a Densely Populated and Developed Region



Baseline Scenario

Baseline Scenario – Regional Perspective

Capacity Constraints Will Result in Multiple "Reactions" Over the Long-term

- **A** **Airfield facility constraints "cap" activity at SDIA sometime near 2030 at around 28M annual passengers**
- **B** **Federally-mandated slot controls at SDIA result in higher fares, some larger aircraft, and higher load factors**
- **C** **Accommodation of some San Diego demand at LA region airports**
- **D** **Accommodation of some regional demand at Tijuana International Airport; increased bus service and volumes**
- **E** **Increased but restricted commercial service at McClellan-Palomar; continued <30 seat turboprops due to constrained runway length**

Baseline Scenario – Specific Projects

Current SDIA Policies and Planned Near-term Improvements Will Be Considered

- **Accommodation of existing user groups – commercial, cargo, corporate GA**
- **Continued nighttime departure curfew**
- **Includes T-2 West 10 gate addition in 2013 (ongoing)**
- **Includes Destination Lindbergh "Opening Day" recommendations for North Side**
  - Intermodal Transit Center (ITC) sized to accommodate 400-600K annual transit passengers
  - Linkage to trolleys (Blue and Orange lines), Coaster/Amtrak, and MTS
  - Consolidated rental car facility and ground transportation plaza
  - Dedicated on-airport roadway connecting ITC and south side terminals via dedicated buses
- **Assumes no new access roadway improvements or freeway ramps**
- **Assumes 2015 transit ridership goal 6% of Airport passengers (SANDAG assumption)**
- **No new access roadway improvements or freeway ramps provided**
- **Cost estimate approximately $535M (per Destination Lindbergh report)**
- **Additional factors being evaluated**
  - Funding sources to be identified with SDCRAA staff input
  - Implementation schedule around 2015; to be refined with SDCRAA staff input
  - SANDAG input
  - Operating environment of LA region airports and Tijuana; specifically, political and physical capacity constraints and planned and approved projects

Alternative Scenarios

Summary of Alternative Scenarios

Thirteen Alternative Scenarios for Evaluation of Potential System Changes

1. **Commercial Passenger Optimization**
   - A. Full Build-out of the Intermodal Transit Center at SDIA
   - B. Reserve SDIA airfield capacity for commercial passenger service
   - C. Enhance commercial passenger service at McClellan-Palomar Airport
   - D. Introduce commercial passenger service at Brown Field
2. **Enhanced Utilization of Tijuana**
   - A. Tijuana International Airport focus on commercial service
   - B. Tijuana International Airport border processing facility
   - C. Cross border airport terminal
3. **California High Speed Rail**

   Stations in downtown LA, Ontario Airport with:
   - A. Station at SDIA
   - B. Station in downtown San Diego
   - C. Stations at SDIA and downtown San Diego
4. **Air Cargo and GA Optimization**
   - A. Enhance McClellan-Palomar Airport for high-end / corporate GA
   - B. Enhance Brown Field for high-end / corporate GA
   - C. Introduce cargo service at Brown Field

1. Commercial Passenger Optimization Scenarios

A. Full Build-out of Intermodal Transit Center (ITC) at SDIA

- **ITC expanded to accommodate 1.2 -1.8M passengers**
- **ITC includes passenger processing facilities including ticketing, baggage claim, and security screening**
- **Additional improvements to improve access and alleviate congestion**
- **Automated People Mover (APM) connecting north ITC and south concourses**
- **Assumes transit ridership goal 10% of Airport passengers (SANDAG assumption)**

- **Cost estimate approximately $184M (per Destination Lindbergh report)**
- **Additional factors being evaluated**
  - Additional improvements to address access and congestion
  - Funding sources to be identified with SDCRAA staff input
  - Implementation schedule around 2030; to be refined with SDCRAA staff input
  - SANDAG input

1. Commercial Passenger Optimization Scenarios

B. Preserve SDIA Airfield Capacity for Commercial Passenger Service

- **Encourage non-commercial and GA to use alternative facilities (where available) – not all activities can be relocated**
- **Approximately 22,500 annual turboprop operations (primarily to LAX)**
- **Implementation via rate-setting, lease holds, and other Authority policies**
- **Requires SDIA-similar and/or higher level of service at surrounding airports**
  - Gillespie: Additional corporate facilities (El Cajon development) required
  - Montgomery: New hangars, FBO, etc. required
  - Brown: Elements of currently planned private development, including new FBO(s) required
  - Various airfield improvements, approach, and utility upgrades necessary

- **New FBO development around $25M**
- **Funding provided primarily from private development sources, although certain airfield improvements could be eligible for federal AIP grants**
- **User support and proximity to downtown are key criteria to success**
- **Scenario could be subject to legal scrutiny based on perceived FAA access requirements**

SDCRAA Board suggestion to consider additional alternative to de-incentivize commuter aircraft operations at SDIA; this scenario will be considered in conjunction with Scenarios 1C and 1D

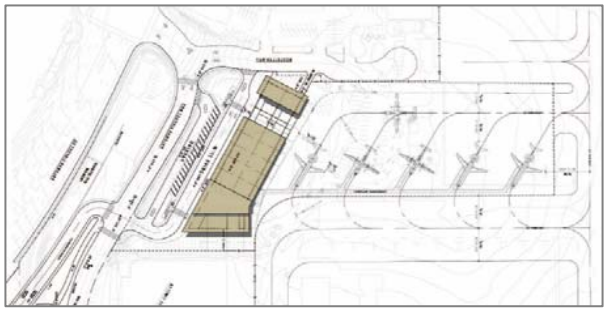
1. Commercial Passenger Optimization Scenarios

C. Enhance Commercial Passenger Service at McClellan-Palomar Airport

- **Provide facilities for multi-carrier commercial regional jet service to destinations within 1,500 miles of San Diego**
- **Requires the following for implementation:**
  - 1,000-foot runway extension to a total length of 6,000 feet
  - Max expansion of terminal facilities to accommodate about 1.35M annual passengers
  - Full build-out of multi-level parking garage
- **Facilitation enhanced via lease incentives and pricing strategies, etc.**

McClellan-Palomar terminal rendering

- **Fleet would be restricted to regional jets; mainline jets (e.g., B-737s) could not be accommodated**
- **Implementation around 2020, but would require extensive environmental review and approvals**
- **Incumbent SDIA Airlines unlikely to support split operation between SDIA and CRQ**
- **Potential funding a combination of federal AIP grants, PFCs, airline fees, general revenue bonds**
- **Cost estimates in preparation**



McClellan-Palomar terminal and parking positions

1. Commercial Passenger Optimization Scenarios

D. Introduce Commercial Passenger Service at Brown Field

- **Provide facilities for multi-carrier commercial jet service to destinations within 1,500 miles of San Diego**
- **Requires the following**
  - Runway reconstruction or overlay (for strength)
  - New terminal building
  - Access/entrance roadway improvements
  - New parking facilities
  - Facilities for FAR Part 139 certification (security fencing, fire fighting facilities, etc.)
- **Facilitation enhanced via lease incentives and pricing strategies, etc.**
- **Fleet would be unrestricted, but most likely regional jet service**

- **Funding sources most likely a combination of AIP and private funds; use of AIP would require airline approvals**
- **Additional factors being evaluated**
  - Implementation timing around 2020, including time for significant environmental review
  - Cost estimates
- **Potential constraints to implementation**
  - Airline support for a split operations between SDIA and Brown Field unlikely
  - Limited runway instrument approach capability significantly affects viability (i.e. no ILS)
  - Viability also diminished given close proximity to two existing commercial service airports (SDIA and Tijuana International)
  - Potential airspace conflict with Tijuana International

2. California High Speed Rail Scenarios

Three Alternatives Depending on Location of San Diego Station

Proposed California High Speed Rail Alignment (as of 2009)

Stations in Downtown LA and Ontario Airport with station at:

A. San Diego International Airport

- Potentially enlarges catchment area for both Ontario and SDIA
- May cause SDIA to reach capacity sooner

B. Downtown San Diego

- May encourage outbound traffic to Ontario
- May encourage SDIA capacity constraint

C. SDIA *and* Downtown San Diego

- Potentially enlarges catchment area for both Ontario and SDIA
- May cause SDIA to reach capacity sooner

2. California High Speed Rail Scenarios

Timing, Costs, and Demand Impacts Vary Depending on Station Location

Station Downtown San Diego

- **HSR station in downtown San Diego would require "connectivity" to SDIA with direct access to north side ITC (Baseline project)**
- **Location and requirements for bus or trolley connection/station being evaluated**
- **Funding sources may include federal HSR funds**
- **Implementation timing around 2025-2030 to coincide with timing of California HSR concept**
- **Cost estimates for bus and trolley connections being prepared**

Station at SDIA

- **HSR station would have to connect to north side of SDIA, near the ITC (Baseline project)**
- **Funding sources may include federal HSR funds and possibly PFC funds**
- **Implementation around 2025-2030 to coincide with timing of California HSR concept**
- **Cost estimates being prepared**

The project team will also examine the possible double-tracking of the Coaster line and the recent award of money to increase speeds on the San Diego to Los Angeles portion of the route.

Federal Funding Update – High-Speed Rail Grants (January 2010)

American Recovery and Reinvestment of 2009 (ARRA)

- **$7.9B awarded nationally; $2.34B (or 30%) for California**
  - A $2.25B for Phase I of statewide HSR plan (construction, planning, and environmental)
  - B $93M to improve existing Pacific Surfliner Corridor; project will enable increase of speeds to 110 mph between San Diego (including SAN) and Los Angeles
  - C Los Angeles–Ontario–San Diego corridor part of Phase II and did not receive funding in this cycle
- **FY 2010 to be awarded by September 2010; $2.5B funding level for HSR grants**
- **FY 2011 proposed budget awaits congressional consideration; $1.0B for HSR grants**
- **Supporters expected to press Congress for additional funding**

3. Tijuana Enhancement Scenarios

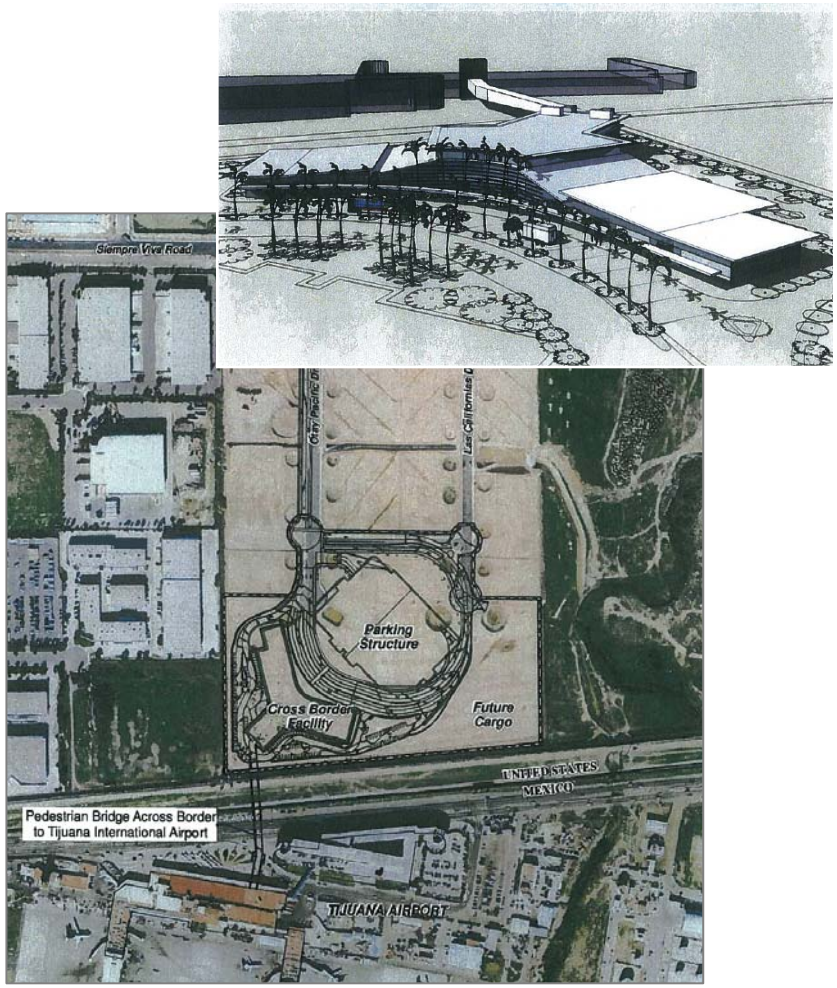
A. TIJ / Grupo Aeroportuario del Pacifico Focus on Commercial Service

- **Maximize Tijuana International Airport for commercial passenger activity**
- **No capacity increases, but focused facility construction to include:**
  - Terminal upgrades to meet international (IATA) level of service standards
  - Additional automobile parking
  - Bus terminal
- **Improved border access and crossings (*Project Smart Border 2010*); does not include cross-border facility for U.S. passengers (see Scenario 3.B)**
- **Increased shuttle and bus service from LA, San Diego, and border crossings**
- **Potential increases in air service to Mexican and international markets**
- **Funding sources may include a combination of airline fees, federal CBP, and private developers**
- **Cost estimates being prepared**

3. Tijuana Enhancement Scenarios

B. New Aviation Passenger Cross-Border Facility

- **Cross-border facility offering U.S. passengers access to Tijuana International Airport**
- **Includes vehicle parking; customs/border control; and landside "connection" or bridge to TIJ**
- **Exclusive use for ticketed passengers traveling in or out of Tijuana International Airport; ticketing, security screening and baggage handling on Mexican side in the existing terminal**
- **Similar to a pedestrian port of entry**
- **Funding likely from private sources**
- **Additional factors being evaluated**
  - Implementation timing could be as early as 2011; environmental approvals and Presidential Permit pending
  - Cost estimates in preparation



3. Tijuana Enhancement Scenarios

C. New Cross-Border Airport Terminal

- **U.S. domestic passenger terminal on the U.S. side of the border with arriving and departing passengers using TIJ**
- **Terminal use by passengers flying to and from U.S. airports and as a pedestrian port of entry for passengers traveling internationally**
- **Includes parking and redundant Mexican/U.S. facilities (ticketing, security screening, baggage handling, and customs border control, etc.)**
- **Airport level of service standards would be provided**
- **Potential funding sources may include private development, federal grants, airline fees**
- **Cost estimates being prepared**

Geneva International Airport lying on the border between Switzerland and France. Passengers may use the cross-border terminal from either nation.

4. Air Cargo and General Aviation Optimization Scenarios

A & B. Enhance McClellan-Palomar and/or Brown Field for High-end / Corporate GA

A. McClellan-Palomar Airport

- **Build-out for corporate GA; no additional passenger facilities provided**
- **Assumes airport operator (County of San Diego) would no longer accommodate commercial passenger activity; existing terminal would be converted to high-end FBO facility**
- **Require 1,000-foot runway extension to accommodate full-range of high-end GA aircraft**
- **Facilitated via leasing and pricing strategies; may also require "coordinated" FBO policy with SDCRAA and City of San Diego**
- **Funding sources likely private developers and user fees**
- **Additional factors being evaluated**
  - Implementation timing potentially around 2015; would require environmental approvals for runway extension
  - Cost estimates in preparation

B. Brown Field

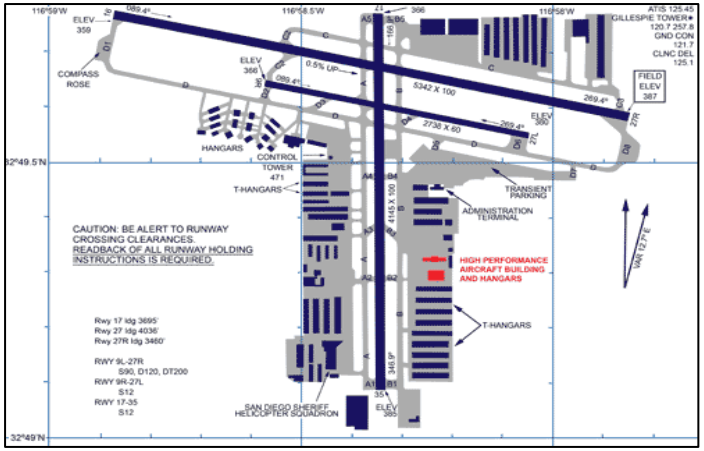
- **Construct new and build-out existing facilities exclusively for corporate GA**
- **Existing runway length is adequate, but may require runway reconstruction for strength**
- **Facilitated via leasing and pricing strategies; may also require "coordinated" FBO policy with SDCRAA and San Diego County**
- **Funding sources likely private developers and user fees**
- **Additional factors being evaluated**
  - Implementation timing potentially between 2015-2020; some planning already underway; would require environmental approvals for some projects
  - Cost estimates in preparation

4. Air Cargo and General Aviation Optimization Scenarios

C. Enhance Gillespie Field for Mix-use General Aviation

- **Maximum build-out of facilities to support corporate and recreational GA activity**
- **Assumes implementation of "El Cajon Plaza" a planned 70-acre development including indoor storage hangars and tie-down space**
- **Facilitated via leasing and pricing strategies; may require "coordinated" FBO policy with SDCRAA and San Diego County**
- **Primary funding sources include private developers and user fees; some local funding possible; some airfield projects may be eligible for federal AIP grants**
- **Additional factors being evaluated**
  - Implementation timing between 2015-2020; some planning underway; environmental approval needed for various projects
  - Cost estimates in preparation

- **Potential implementation "momentum"**
  - Orange and Green Trolley lines stop at Gillespie Field providing public transportation between the Airport and downtown San Diego
  - Parallel runways allow segregation of training operations from itinerant operations
  - Completion of CA 52 extension and interchange with CA 67 would improve accessibility



4. Air Cargo and General Aviation Scenarios

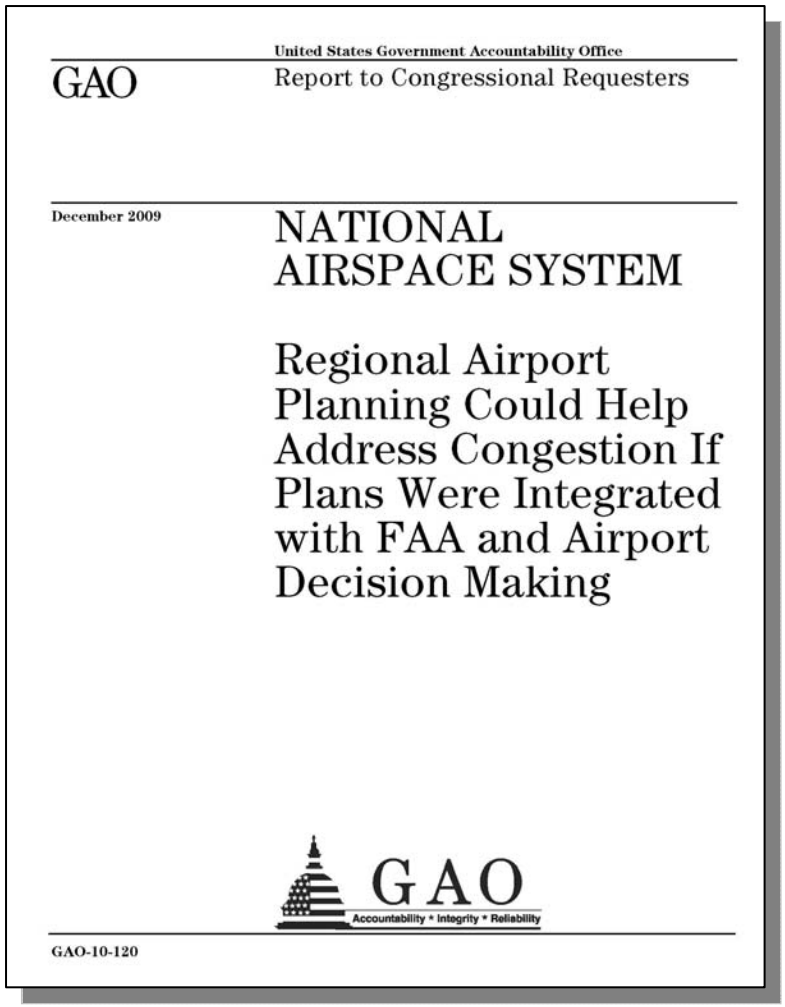
D. Introduce Cargo Service at Brown Field

- **Construction of facilities at Brown Field to accommodate cargo service**
- **Requires the following**
  - Runway reconstruction and strengthening to support cargo aircraft
  - Facilities for FAR Part 139 certification (security fencing, fire fighting facilities, etc.)
  - Enhanced access roadways and vehicle staging / parking areas
  - Warehouse, storage, and sort facilities
- **Facilitated via incentives and pricing strategies**
- **Funding sources would include combination of federal AIP grants, user fees, and private investment**
- **Additional factors being evaluated**
  - Implementation timing between 2015-2020; requires environmental approvals for various projects
  - Costs estimates in preparation

- **Potential constraints to implementation**
  - Cargo carriers unwilling to operate from facilities south of SDIA due to increases in delivery times
  - Majority of cargo at SDIA is accommodated on integrated / express carriers (90%) and originates or is destined for downtown San Diego; SDIA is the ideal geographic location
  - Limited runway instrument approach capability significantly affects viability
  - Lack of nearby cargo infrastructure (e.g., freight forwarders)
  - Significant local public and political opposition anticipated
  - AIP funding predicated on airline agreements

U.S. Government Accountability Office (GAO) Report

National Airspace System – December 2009



United States Government Accountability Office

GAO

Report to Congressional Requesters

December 2009

NATIONAL AIRSPACE SYSTEM

Regional Airport Planning Could Help Address Congestion If Plans Were Integrated with FAA and Airport Decision Making

GAO

Accountability * Integrity * Reliability

GAO-10-120

- **GAO advocates Regional Aviation System Plans**
- **GAO uses FACT-2 process (2007), which states**
  - SDIA will be severely congested by 2025 (with improvements identified by SDIA in 2007)
- **GAO believes the regional plans should examine**
  - Capacity sharing among the airports
  - Role of surface transportation as a regional connector of airports
  - Role of HSR in accommodating short-haul traffic
  - "Demand management" strategies that include changes in pricing and other optimization measures
- **SDCRAA has indicated that RASP will be used, along with other planning processes, to guide future development and policies**
- **FAA is currently beginning the FACT-3 process**
- **FACT-3 will devote greater attention to HSR issue given the recent increases in federal investment (Consultant team is tracking the development of the process)**

Supplemental Information

Baseline Facilities and Operations Data

	San Diego International (SAN)			McClellan-Palomar (CRQ)			Montgomery Field (MYF)			Brown Field Municipal (SDM)			Gillespie Field (SEE)			Ramona (RNM)			Tijuana-Rodriguez (TIJ)		
Airport Activity Statistics																					
	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)
Annual Enplanements	9.2 Million	14.1 Million	15.5 Million	46,909	50,000	426,200	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.3 Million	4.4 Million	6.9 Million
Annual Operations	229,486	309,800	363,400	212,023	268,700	279,900	222,492	271,800	--	145,661	175,900	281,500	295,652	461,000	489,600	164,699	193,000	242,100	56,200	Approx. 70,000	--
Regional Forecast Facility Improvement and Operational Assumptions	Baseline Scenario assumes construction of new gates, airfield improvements, auto parking, and roadway improvements beginning in 2009. Continued deployment of narrow body jets; replacement of small regional jets to larger regional jets; increased use of wide body jets as international activity grows; projected increase of load factors. High Scenario enplanement forecast reflects lower fuel prices more than Baseline Scenario.			Baseline Scenario assumes SkyWest will continue to serve LAX and replace EMB120 aircraft with CRJ200 (or similar) aircraft in 2013. Planned 38,000 square feet of new hangar space developed in 2009. High Scenario assumes Runway extension to accommodate CRJ200, EMB170, EMB190 and 72-seat Q400 or similar aircraft without restrictions (no indication of length required). Markets potentially served in addition to LAX include: LAS, PHX, DEN, and SFO.			None Identified			High Scenario assumes planned 340 acre development in association with Distinctive Projects Company is implemented. Development includes additional hangar capacity to accommodate 290 additional based aircraft; full occupancy realized.			High Scenario assumes planned 70 acre Cajon Air Center development is implemented with 55 acres of new aircraft storage hangars; full occupancy realized. Majority of additional based aircraft would originate from outside San Diego County (as opposed to other County airports). Forecasts represent unconstrained conditions, and activity levels may exceed current capacity.			High Scenario assumes planned development of the Ramona Air Center in 2017-2019, including 56 private hangars and 40 public hangars; full occupancy realized.			Not Included in the regional forecast		
Airport Facilities																					
FAA NPIAS Designation	Large Hub Primary Commercial			Non-Hub Primary Commercial			Reliever			Reliever			Reliever			Reliever			N/A		
California Aviation System Plan Designation	Primary Commercial Hub			Primary Commercial Non-Hub			Metropolitan GA			Regional GA			Regional GA			Regional GA			N/A		
Total Airport Acreage	661			487			456			880			775			378			1,112		
FAA Airport Reference Code	D-V			B-II			B-II			D-IV			B-II			B-II			ICAO 4E		
Runway Data	9/27 - 9,401			6/24 - 4,897			5/23 - 3,400 10L/28R - 4,577 10R/28L - 3,400 Runway strength limited to aircraft weighing less than 20K lbs.			8L/26R - 7,972 8R/26L - 3,180			9L/27R - 5,341 9R/27L - 2,737 17/35 - 4,147			9/27 - 5,000 (Paved)			9/27 - 9,711 10/28 - 8,200 CLOSED		
Instrument Approach	Runway 9: ILS CAT I Runway 27 Non-precision			Runway 24: ILS CAT I			Runway 28R: ILS CAT I			Non-precision			Non-precision			Non-precision			Runway 9: ILS		

	Oceanside Municipal (OKB)			Fallbrook Community (L18)			Borrego Valley (L08)			Ocotillo (L90)			Agua Caliente (L54)			Jacumba (L78)		
Airport Activity Statistics																		
	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)
Annual Enplanements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Annual Operations	14,128	18,200	36,500	33,286	43,200	--	26,251	22,400	--	800	800	--	4,400	4,400	--	325	325	--
Regional Forecast Facility Improvement and Operational Assumptions	High Scenario assumes Airport Property Ventures will take over management of airport; 100 new hangars developed for additional based aircraft.			None Identified			None Identified			None Identified			None Identified			None Identified		
Airport Facilities																		
FAA NPIAS Designation	General Aviation			General Aviation			General Aviation			Not in NPIAS			Not in NPIAS			Not in NPIAS		
California Aviation System Plan Designation	Regional GA			General Aviation			General Aviation			General Aviation			General Aviation			General Aviation		
Total Airport Acreage	236			290			246			351			160			131		
FAA Airport Reference Code	B-I			B-I			B-II			B-I			B-I			B-I		
Runway Data	6/24 - 2,712 Runway strength limited to aircraft weighing less than 12K lbs.			18/36 - 2,160 Runway strength limited to aircraft weighing less than 12K lbs.			8/26 - 5,011			9/27 - 2,475 (Dirt) 13/31 - 4,210 (Dirt)			11/29 - 2,500 Runway strength limited to aircraft weighing less than 12K lbs.			7/25 - 2,510 (Gravel) Runway strength limited to aircraft weighing less than 12K lbs.		
Instrument Approach	Non-precision			Non-precision			Non-precision			None (visual only)			None (visual only)			None (visual only)		

Notes: NPIAS = National Plan of Integrated Airport Systems
N/A = Not Applicable

Sources: Forecast data— *San Diego County Regional Aviation Strategic Plan - Aviation Demand Forecasts*, Landrum & Brown, Inc., December 2008.
Airport facility data—*National Plan of Integrated Airport Systems*, FAA, 2008.
Tijuana-Rodriguez data—*Cross Border Terminal - Market Demand Study*, Infrastructure Management Group, Inc., 2006.

Strategic Assessment Summary Matrix

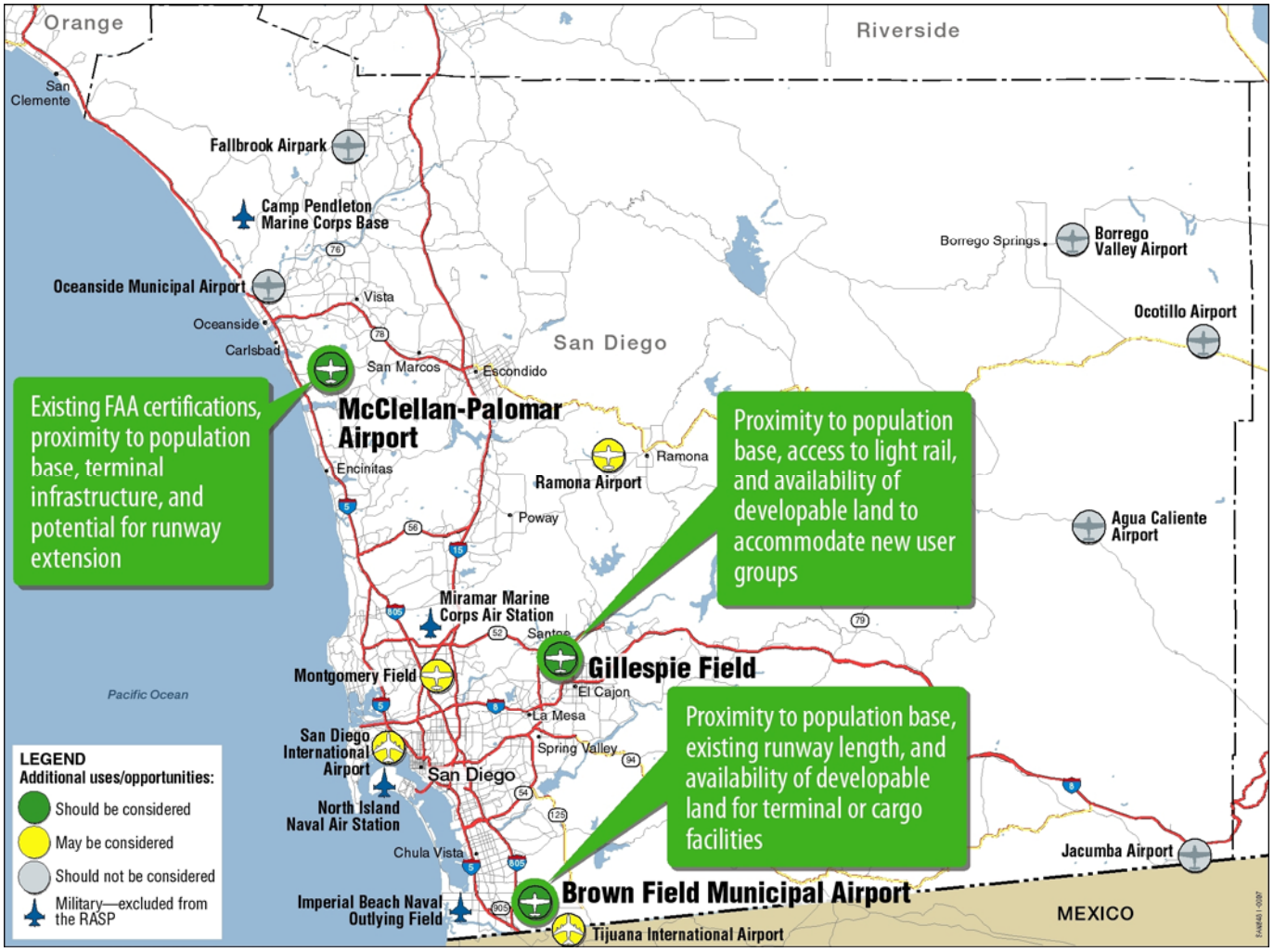
	Commercial Service		FAA Designated Reliever				General Aviation			Not in FAA NPIAS			
	San Diego International (SAN)	McClellan-Palomar (CRQ)	Montgomery Field (MYF)	Brown Field Municipal (SDM)	Gillespie Field (SEE)	Ramona (RNM)	Oceanside Municipal (OKB)	Fallbrook Community (L18)	Borrego Valley (L08)	Ocotillo (L90)	Agua Caliente (L54)	Jacumba (L78)	Tijuana-Rodriguez (TIJ)
Current Market/Role													
Ownership/Control	San Diego Regional Airport Authority	San Diego County	City of San Diego	City of San Diego	San Diego County	San Diego County	City of Oceanside	San Diego County	San Diego County	San Diego County	San Diego County	San Diego County	U.S./Mexico partnership
GA - Small/Recreational and Training	—	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	—
GA - Large/Corporate Jet and Air Taxi	✓	✓	✓	✓	✓	✓	—	—	—	—	—	—	✓
Air Carrier - Commuter	✓	✓	—	—	—	—	—	—	—	—	—	—	✓
Air Carrier - Mainline	✓	—	—	—	—	—	—	—	—	—	—	—	✓
Air Cargo	✓	—	✓	—	—	—	—	—	—	—	—	—	✓
Facility Assessment/Accommodation of Current Users													
Primary Regional Access	1.5 mi from I-5	2 mi from I-5	2 mi from CA 163	3 mi from I-805	1 mi from CA 67	20 mi from I-15	2 mi from I-15	10 mi from I-15	14 mi from CA 78	<1 mi from CA 78	37 mi from I-8	2 mi from I-8	3 mi from I-5
Airfield - Runway Length	9,401' Paved	4,897' Paved	4,577' Paved 3,400' Paved	7,972' Paved 3,180' Paved	5,341' Paved 4,147' Paved	5,000' Paved	2,712' Paved	2,160' Paved	5,011' Paved	4,210' Dirt 2,475 Dirt	2,500' Paved	2,510' Gravel	9,711' Paved
Instrument Approach	R/W 9: ILS/CAT I, R/W 27R: Localizer	R/W 24: ILS/CAT I	R/W 28R: ILS/CAT I	Non precision	Non precision	Non precision	GPS	Non precision	GPS	None	None	None	R/W 9 ILS/CAT I; R/W 27R Localizer
Passenger Terminal Building	41 gates; 18M annual passengers	New terminal w/ 4 gates; 50K annual passengers	None	None	None	None	None	None	None	None	None	None	16 gates; 4M annual passengers
FBO/Corporate Terminal	Existing	Modern	Existing	Planned	Existing	Existing	None	Existing	Existing	None	None	None	Existing
Cargo Facilities	Existing	None	Limited	None	None	None	None	None	None	None	None	None	Existing
				Possible Change In Role?					**Possible Change In Role?**				
Development Potential													
Proximity to Users/Market Base *(a)*	3 mi from downtown San Diego	32 mi from downtown San Diego	8 mi from downtown San Diego	20 mi from downtown San Diego	23 mi from downtown San Diego	36 mi from downtown San Diego	40 mi from downtown San Diego	56 mi from downtown San Diego	90 mi from downtown San Diego	95 mi from downtown San Diego	75 mi from downtown San Diego	74 mi from downtown San Diego	25 mi from downtown San Diego
Runway Upgrade	Physical constraints	Runway extension to 6,000' possible	Physical and environmental constraints	On- and off-airport land available	Physical constraints	Environmental constraints	Physical constraints	On-Airport land available	Off-Airport land available	Off-Airport land available	Off-Airport land available	Off-Airport land available	Land available
On-Airport Land Available for Development	40 acres	Terminal upgrade possible; 10 acres	17 acres	257 acres	191 acres	130 acres	17 acres	45 acres	70 acres	238 acres	N/A	56 acres	166 acres
Proximity to Highway/Mass Transit	Close to I-5; bus service	Close to I-5; bus service	Close to I-805 and I-15; bus service	Close to I-805 and I-5, CA 905 ext. planned	CA 52 extension; link to 2 trolley lines	Planned improvements	Close to I-5; bus service	Access difficult; no mass transit	Access difficult; no mass transit	Access difficult; no mass transit	Access difficult; no mass transit	Access difficult; no mass transit	CA 905 extension; bus service
Environmental Concerns/On-Airport	Some contaminated sites; habitat protection	Environmental contamination	Vernal pools, habitat protection	Vernal pools, habitat protection	No known	Extensive vernal pools	No known	No known	No known	No known	No known	No known	Unknown
Community Concerns	Noise and traffic congestion	Potential noise and development	Aircraft noise	Aircraft noise	Noise and community redevelopment	Potential future residential development	No known	No known	No known	No known	No known	No known	Social and inter-governmental issues
					Summary				**Summary**				
Consideration in the RASP													
Should the airport be considered for additional uses/opportunities to optimize the region's aviation system?	Consideration for additional uses/opportunities not expected; *Destination Lindbergh* established that SAN will reach capacity before 2030	Consideration for additional uses/opportunities should be considered in the RASP because of existing FAA certifications, proximity to population base, terminal infrastructure, and potential for runway extension	Consideration for additional uses/opportunities may be considered in the RASP because of proximity to population base and availability of land for passenger and cargo activity; physical and environmental barriers to runway extension/upgrade may prohibit accomodation of new user groups	Consideration for additional uses/opportunities should be considered in the RASP because of proximity to population base, existing runway length, and availability of developable land for terminal or cargo facilities	Consideration for additional uses/opportunities should be considered in the RASP because of proximity to population base, access to light rail, and availability of developable land to accommodate new user groups	Consideration for additional uses/opportunities may be considered in the RASP because of proximity to existing facilities, projected population growth, and planned roadway improvements; potential environmental constraints may restrict development	Consideration for additional uses/opportunities should not be considered in the RASP because of lack of infrastructure, community opposition, and limited available land for development; significant constraints to runway extension	Consideration for additional uses/opportunities should not be considered in the RASP based on remote location, access, and potential development costs	Consideration for additional uses/opportunities should not be considered in the RASP based on remote location, access, and potential development costs	Consideration for additional uses/opportunities should not be considered in the RASP based on remote location, poor access, and potential development costs	Consideration for additional uses/opportunities should not be considered in the RASP based on remote location, poor access, and potential development costs	Consideration for additional uses/opportunities should not be considered in the RASP based on remote location, poor access, and potential development costs	Consideration for additional uses/opportunities may be considered in the RASP because of proximity to population base and existing infrastructure; intergovernmental agreement required for cross border operation

(a) Proximity to downtown San Diego used as criterion in this matrix.
Note: NPIAS = National Plan of Integrated Airport Systems

LEGEND: Compatible; Marginal; Incompatible

Strategic Assessment Findings

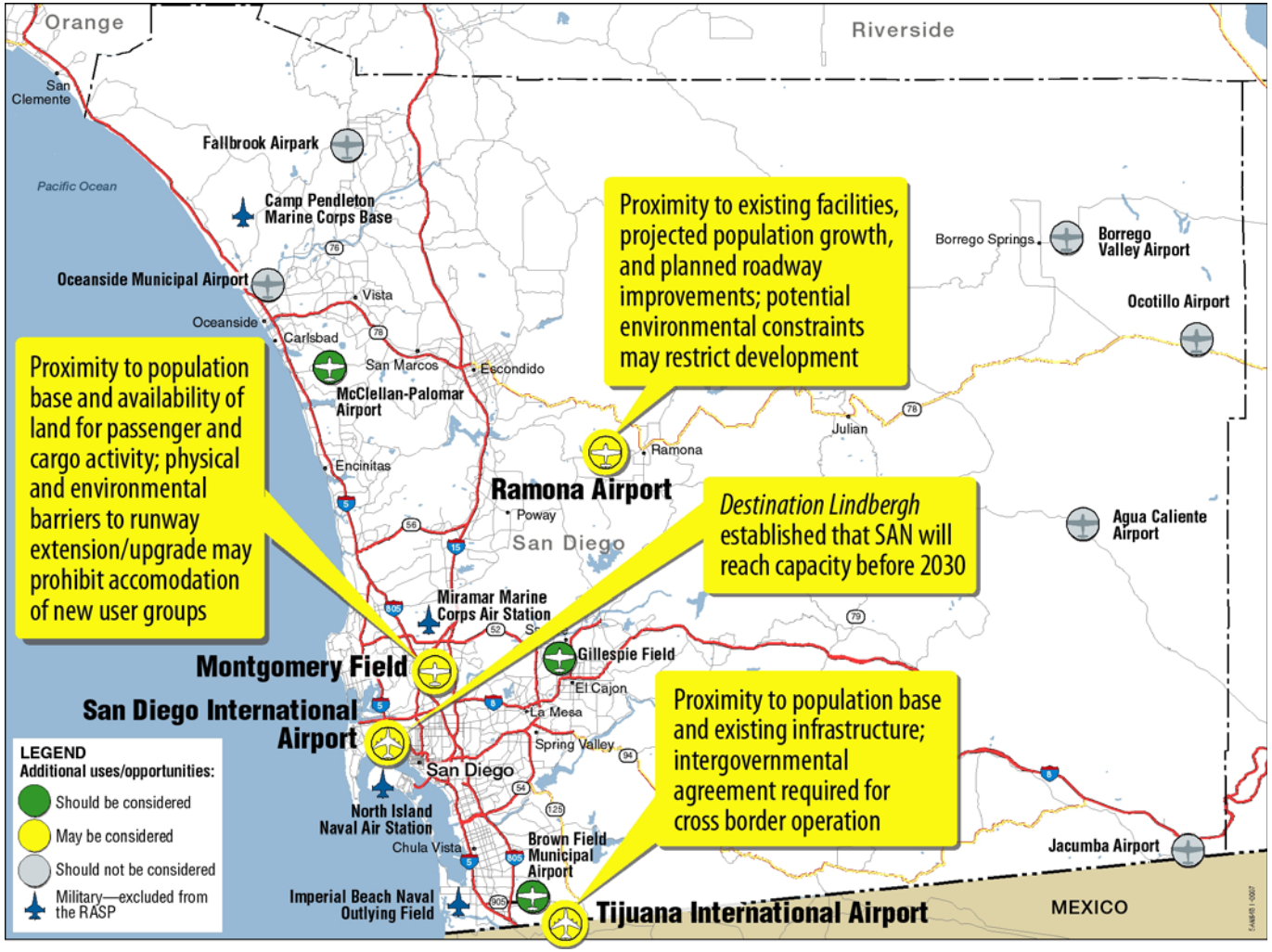
Airports That <u>Should be</u> Considered For Additional Uses/Opportunities



Note: Tijuana International Airport not located in San Diego County.

Strategic Assessment Findings

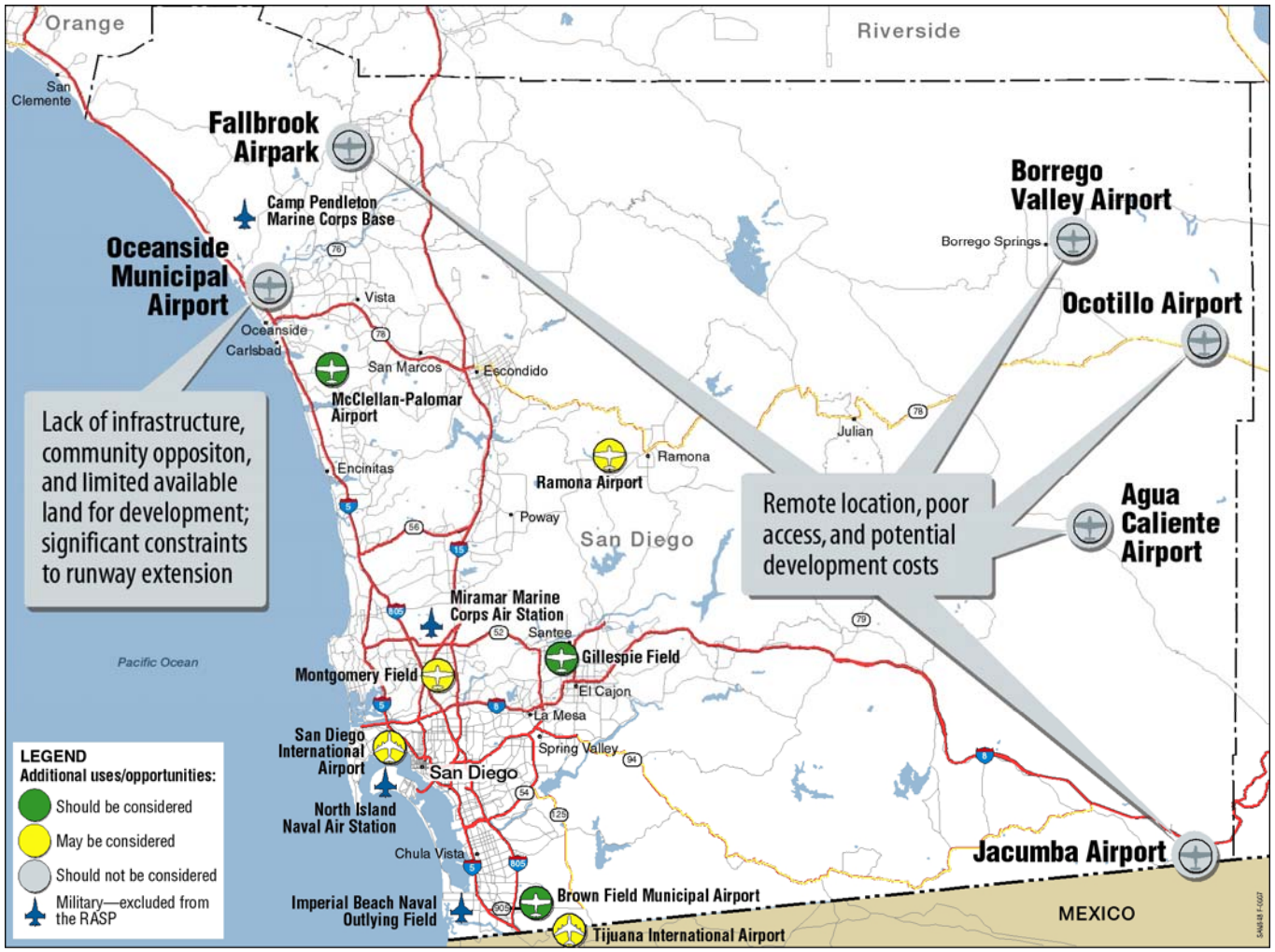
Airports That <u>May Be</u> Considered For Additional Uses/Opportunities



Note: Tijuana International Airport not located in San Diego County.

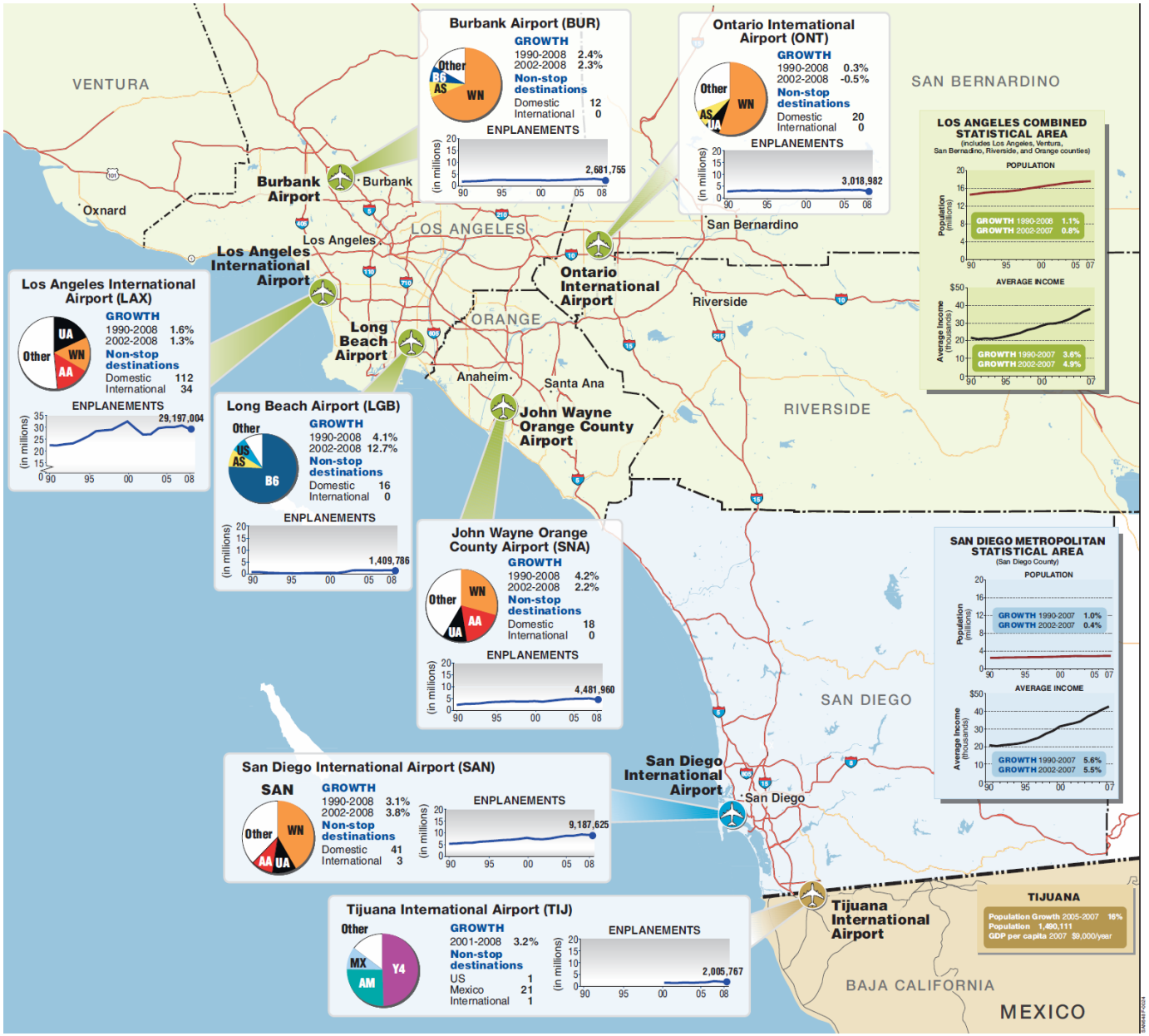
Strategic Assessment Findings

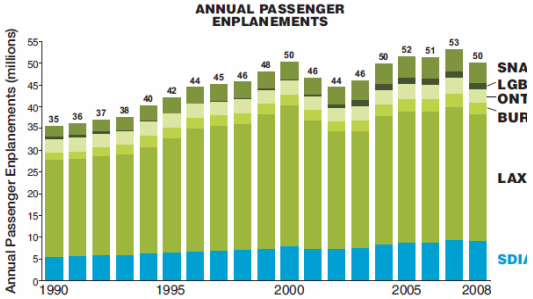
Airports That <u>Should Not be</u> Considered For Additional Uses/Opportunities

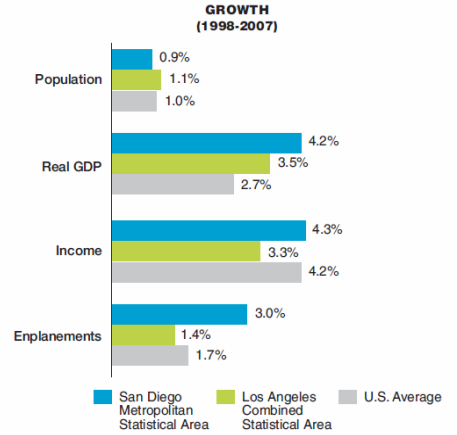


Note: Tijuana International Airport not located in San Diego County.

Historic Region-wide Aviation Demand







Airlines:

AA	American Air	WN	Southwest
AM	Aeromexico	UA	United Air
AS	Alaska Air	US	US Airways
B6	JetBlue	Y4	Volaris
MX	Mexicana		

Notes: Airports with fewer than 1 million annual enplanements are not listed.
GROWTH = Compound Annual Growth Rate.
US airports airline market share is based on seat capacity in 2008.
Tijuana International Airport airline market share is based on seat capacity 2009 to date.
All airports nonstop destinations are from Quarter 1 2009.
Income figures are real (1999) dollars.

Sources: Jacobs Consultancy, based on T100, census, Bureau of Economic Analysis, Cross Border Terminal Study, August 2009.

AVIATION TRAFFIC AND DEMOGRAPHICS
SOUTHERN CALIFORNIA/BAJA CALIFORNIA REGION

San Diego County Regional Airport Authority

JACOBS CONSULTANCY