JACOBS CONSULTANCY

Briefing Material
Demand/Capacity and System Scenarios
Regional Aviation Strategic Plan

Airport Advisory Committee

RASP Subcommittee

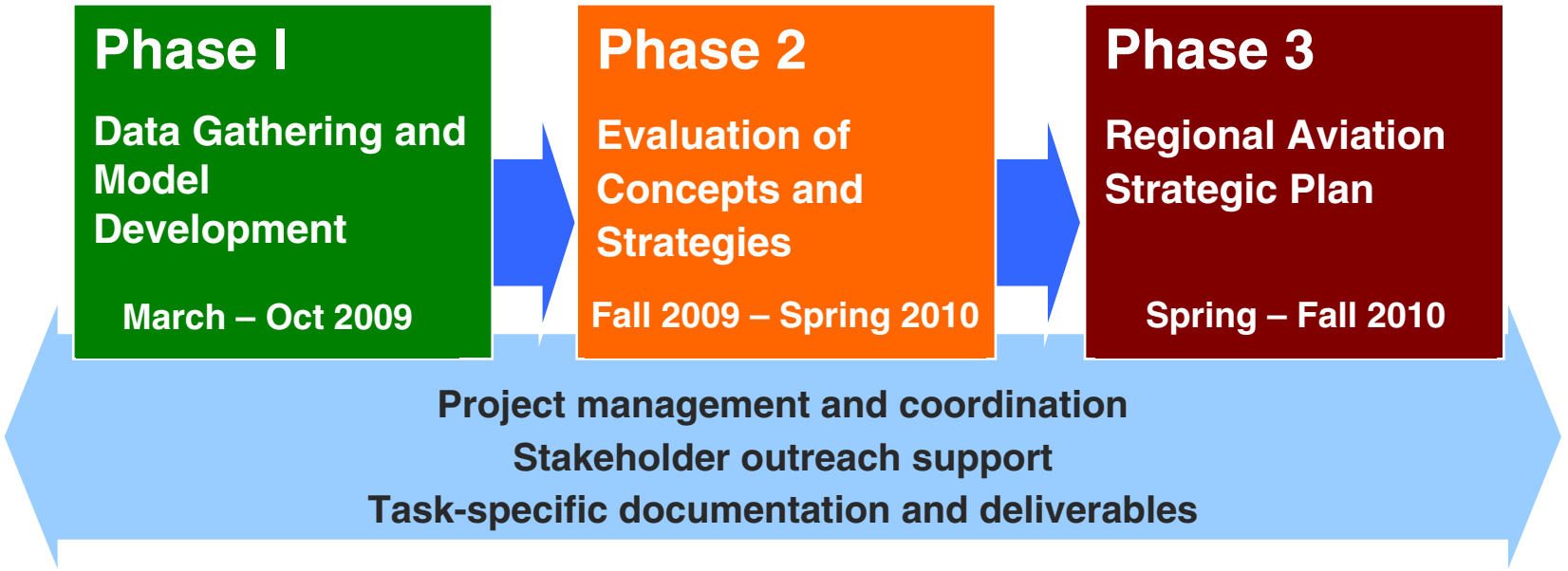
September 10, 2009

Revised Draft

Briefing Contents

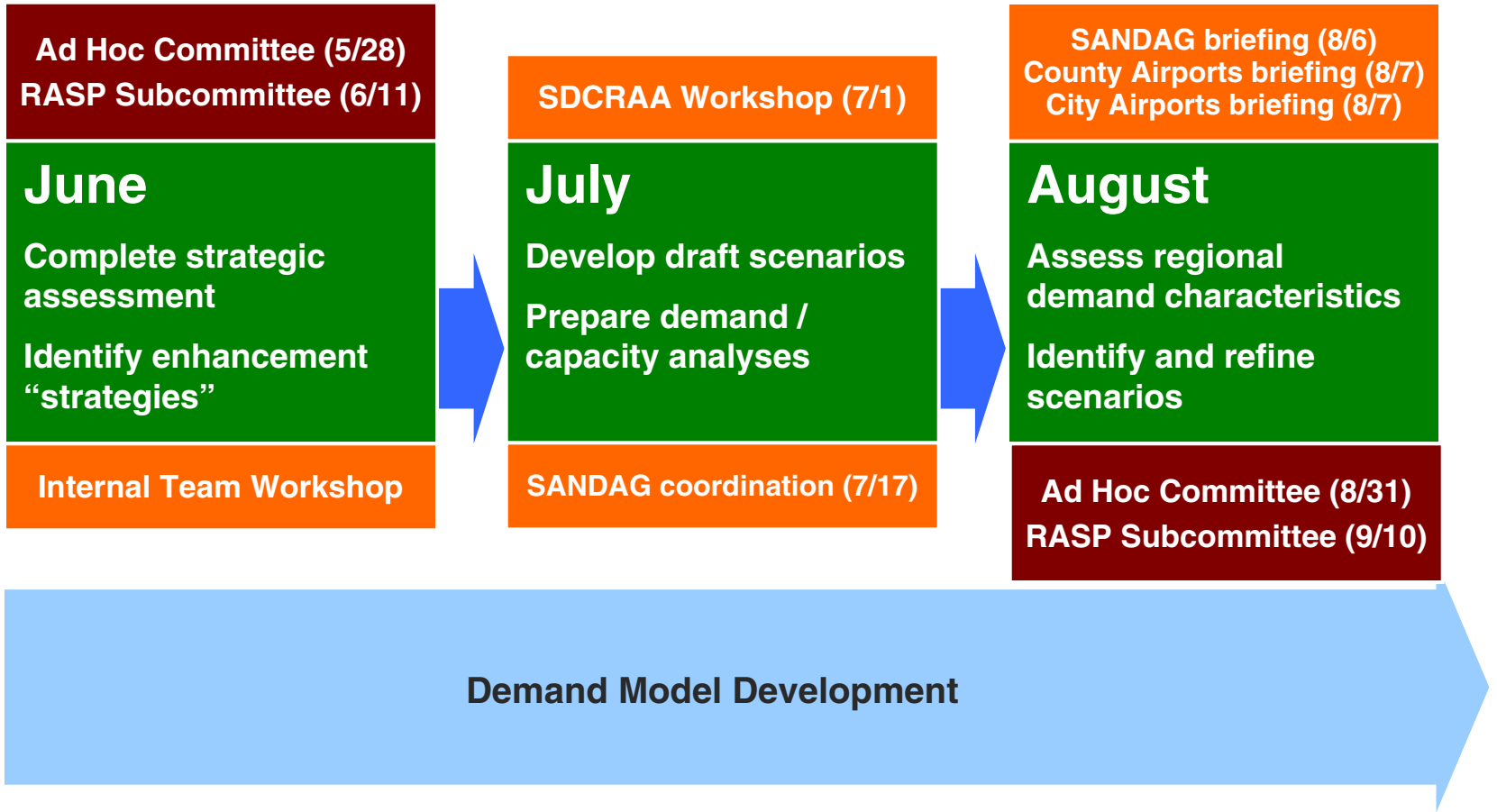
RASP Project Overview

Projected Work Plan Culminating in mid-2010



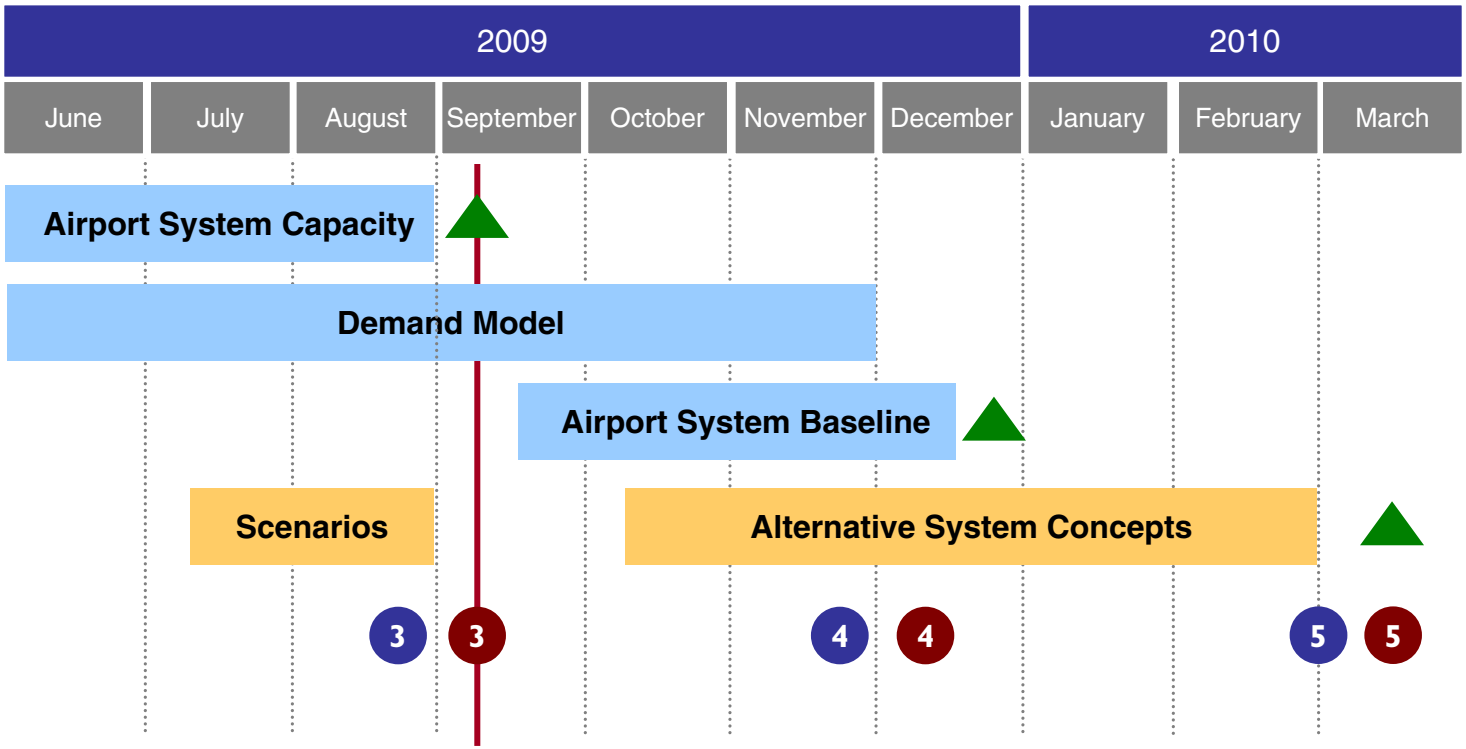
Near-term Schedule and Technical Objectives

Scenario Identification and Confirmation Process



Near-term Schedule and Work Plan

Project Is On Schedule; Phase II to Be Initiated in the Fall



SCHEDULE MILESTONES

- Ad Hoc Meeting
- RASP Subcommittee Meeting
- Task Deliverable / Working Paper

PROJECT PHASES

- Phase 1
- Phase 2

Factors Affecting Aviation and Surface Capacity

Funding, Policy, and Political Factors

- **Surface Transportation Authorization (Expires 9/30/2009)**
  - Highways and public transportation likely to receive increases when program reauthorized
  - Greenhouse Gas (GHG) emissions and energy security likely to be important criteria, offers opportunity for projects with net benefits to overall emissions
- **Aviation Transportation Authorization (Expires 9/30/2009)**
  - Airports likely to receive marginal increases in formula-based AIP funding
  - Passenger Facility Charge (PFC) increase from current ceiling of $4.50 possible (likely range $6.00 - $7.00)
  - Discretionary federal funds possible given FACT-2 and upcoming FACT-3 report
- **FAA Rates and Charges Policy**
  - FAA rule provides greater pricing flexibility for congested airports
  - Provides the Authority with enhanced ability to incentivize GA to alternate facilities
- **Economy recovery/stimulus funds**
- **FAA congestion management**
  - FAA historic inability to mandate change
  - Risk of FAA establishing slots and loss of Authority control as demand nears capacity
- **Public perceptions**
  - Strong local concerns (e.g. cargo at Brown Field)
  - NIMBY
  - Perceptions about Mexico and use of Tijuana
  - Unconventional ideas still exist (Off-shore airport, airport in the South Bay, etc.)
- **Political perceptions and "commitments"**
  - No consensus that SDIA will reach capacity
  - Sensitivities to past planning efforts, such as Site Selection
  - Local political commitments

Factors Affecting Aviation and Surface Capacity

Surface and Rail Initiatives

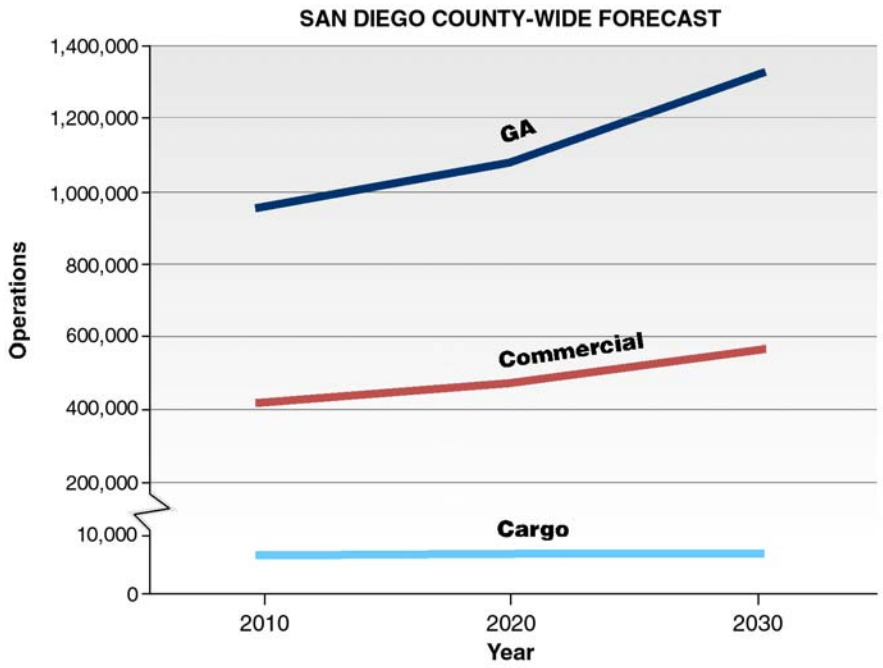
- **SANDAG *Regional Transportation Plan***
  - 2030 plan of County projects part of federal, state, and local surface transportation process
  - Scenario based, depends on policies and funding over the 2010-2030 period
  - SDIA / I-5 Connection
  - Improve access to SDIA air cargo facilities
- **California High Speed Rail (HSR)**
  - Potential for HSR to free up capacity at SDIA by alleviating some short-haul demand
  - The proportion of diverted SDIA traffic depends on the location and quality of connections in both San Diego and Los Angeles; Ontario is common to alternatives being considered
  - San Diego connection part of Phase II project, post-2020 prospects uncertain
  - Expensive, although minimal airport exposure
  - HSR Authority conducting a special study for SANDAG; considering alignments to connect to TIJ along either I-5, I-805, or SR125; report to be completed in the near-term

- **Los Angeles to San Diego (LOSSAN) rail improvements**
  - Long-range plan for the San Diego county portion of the LOSSAN rail corridor
  - Offers prospects of better SDIA access, especially for northern parts of the County

Base Case Forecast Activity

Demand Forecasts Provided to RASP Team January 2009 (Updated June 2009)

- **"Unconstrained" activity, which assumes there are no physical, regulatory, environmental, political or other impediments to aviation activity growth**
- **Assumes existing and/or approved facilities, policies, and regulations**
  - No new runways or other major facilities
  - Modest facility improvements, such as hangar and apron enhancements
- **Use of "Baseline" versus "High" scenario**
- **All airports meet FAA design standards for most general aviation aircraft; SDIA and Brown Field can also accommodate most air carrier-type aircraft; pavement strength limitations on Brown Field runway**



Source: *San Diego County Regional Aviation Strategic Plan Aviation Demand Forecasts*, Landrum & Brown, Inc., December 2008; Revised June 2009.

Base Case Projects / Improvements

Specific San Diego International Airport and Surface Improvements to be Considered

- **San Diego International assumptions**
  - Accommodation of existing user groups (corporate GA, air cargo, etc.)
  - Facility constraints “cap” activity 2020 - 2030
  - Continued congestion on Harbor Drive
  - Continued prohibition on departures 11:30 pm - 6:30 am
- **Capacity enhancements and other projects underway to serve +3M population base**
  - 10-gate addition to T-2 West and elevated curb
  - Intermodal Transit Center, rental car, and public parking on the north side
  - *Destination Lindbergh*

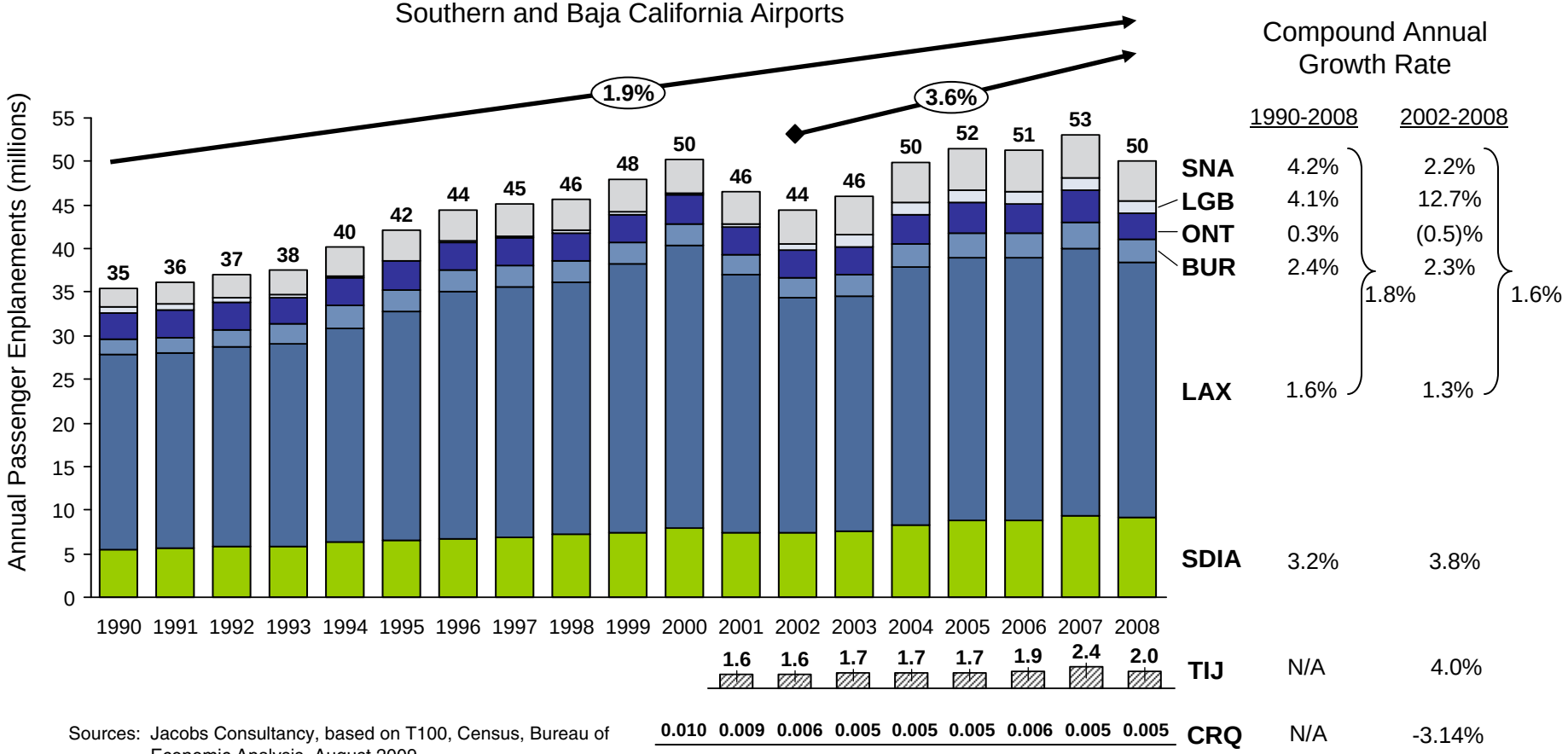
- **Planned surface improvements identified in SANDAG's Regional Transportation Plan (RTP) *currently under evaluation:***
  - HOT Lane construction on major north-south freeways including I-5, I-15, and I-805
  - HOV Facility construction on SR 52, 78, 94, and 125, including HOT Lane on SR 52
  - Roadway capacity improvements throughout the San Diego County roadway network
  - Goods movement projects including specific rail, maritime, border crossing, roadway, and SDIA truck access improvements
- **Commuter rail, bus rapid transit, and rapid bus transit improvements**
  - Upgrades to existing transit services in San Diego County including expanded route coverage, bus frequencies, and connections
  - Mid-City Rapid Bus (SDSU to Downtown)
  - Mid-Coast Light rail Transit (Old Town, UCSD, to University Towne Centre (UTC)
  - Otay Bus Rapid Transit (Otay Mesa - Downtown)
  - Sprinter Rail (Oceanside to Escondido)

Regional Aviation Demand Characteristics

SDIA Is One of the Faster Growing Airports in the Region

Annual Passenger Enplanements

Southern and Baja California Airports



Compound Annual Growth Rate

	1990-2008	2002-2008
SNA	4.2%	2.2%
LGB	4.1%	12.7%
ONT	0.3%	(0.5)%
BUR	2.4%	2.3%
	1.8%	1.6%
LAX	1.6%	1.3%
SDIA	3.2%	3.8%
TIJ	N/A	4.0%
CRQ	N/A	-3.14%

Sources: Jacobs Consultancy, based on T100, Census, Bureau of Economic Analysis, August 2009.

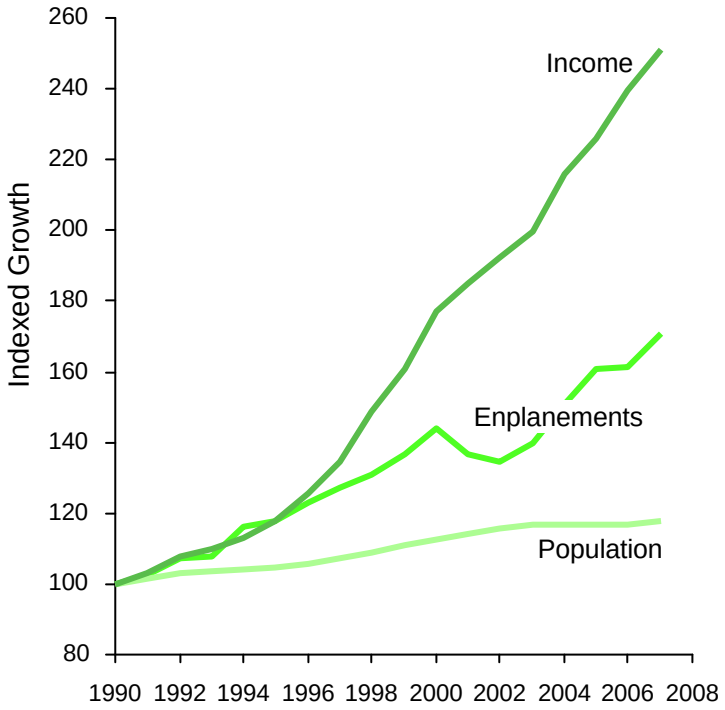
Note: TIJ data only available from 2001-2008; enplanements estimated to be 50% of total passengers.

Regional Aviation Demand Characteristics

San Diego MSA Experienced Higher Than Average Growth in Income and Aviation Activity

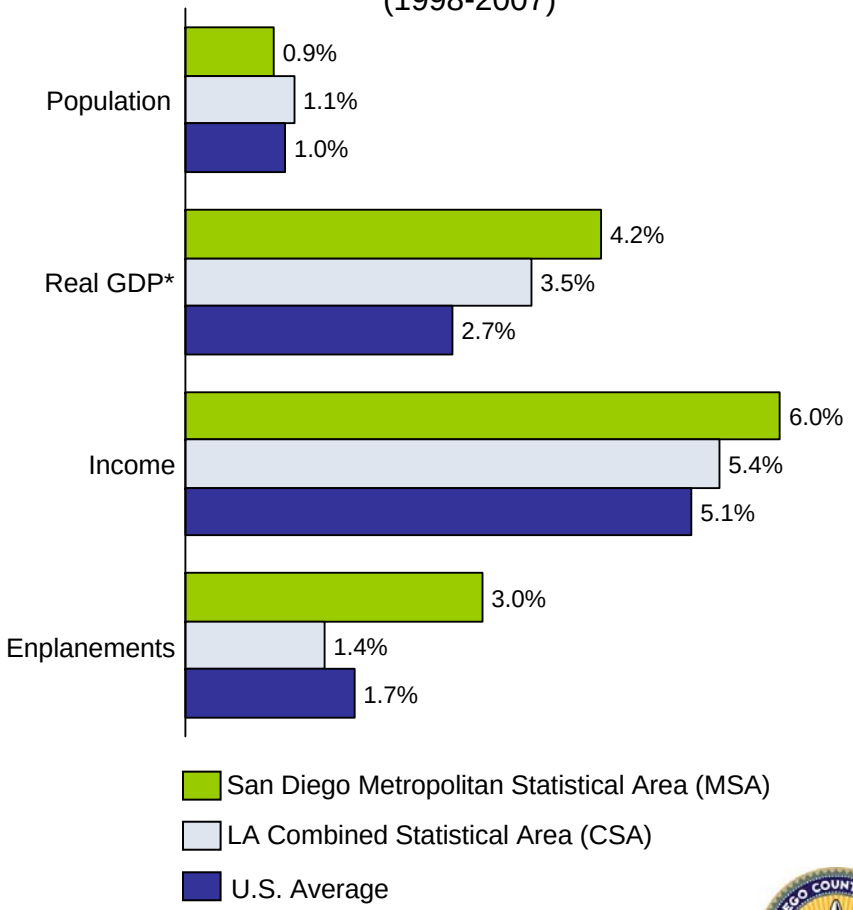
Indexed Growth

San Diego Metropolitan Statistical Area
(indexed to 1990)



Compounded Annual Growth Rate

(1998-2007)

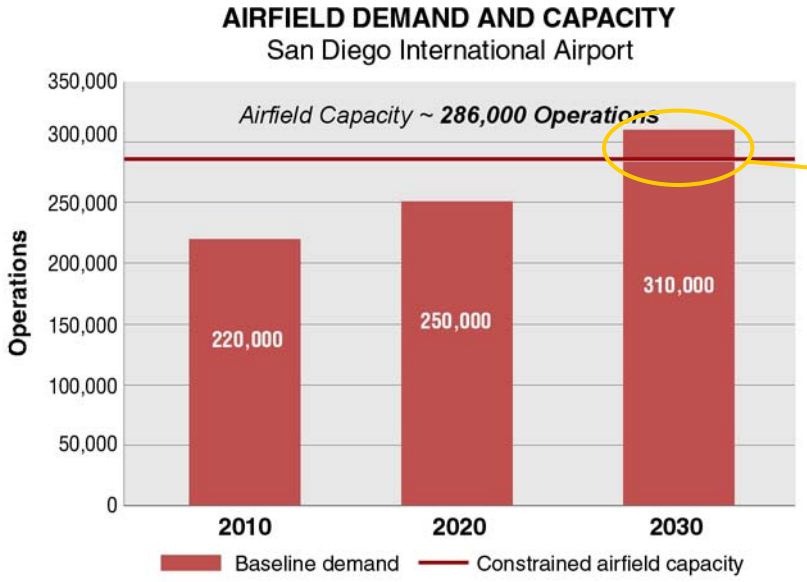


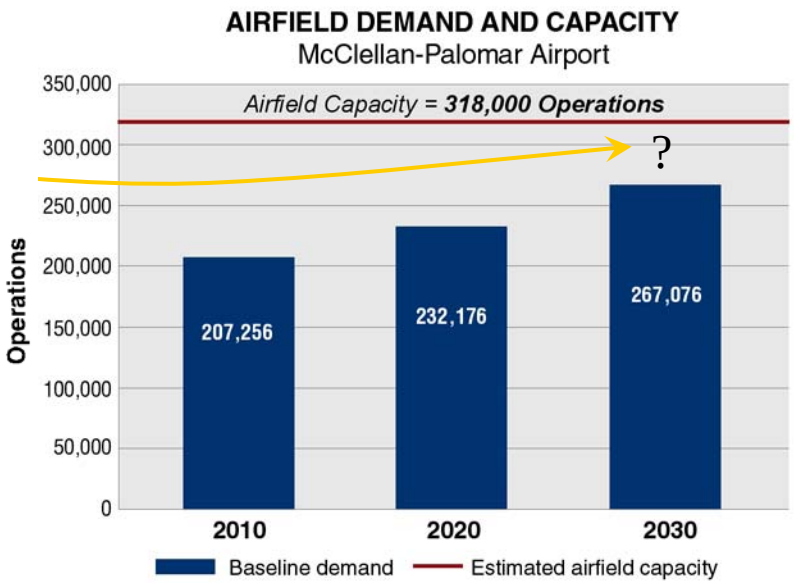
Sources: Jacobs Consultancy, based on Landrum & Brown analysis, FAA *Terminal Area Forecast*, Bureau of Economic Analysis, August 2009.

Notes: Real GDP CAGR is for 2001-2006
San Diego MSA lines to SD County boundaries

Capacity Analyses Findings

Part 139 / Commercial Service Airports (Airfield)



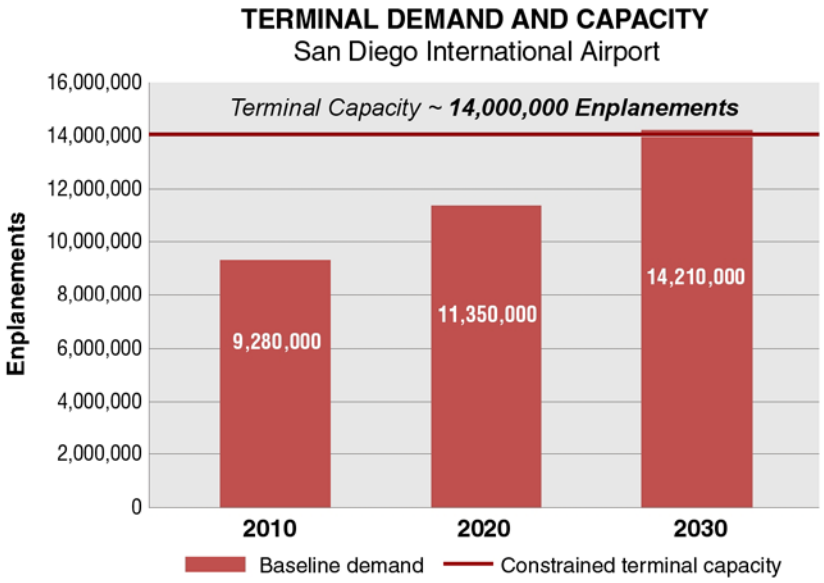


- **SDIA growth is constrained by the single-runway airfield which can support about 286,000 annual aircraft operations**
- **At 286,000 annual operations, airfield delays will prohibit further growth in operations**
- **2030 forecast demand exceeds "constrained" airfield capacity by approximately 25,000 operations**

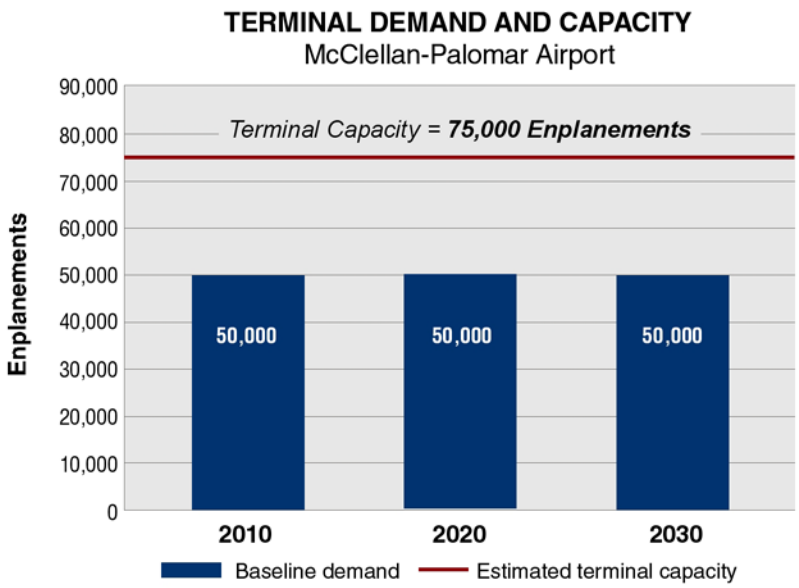
- **2030 forecast demand is less than the estimated airfield capacity by approximately 50,000 operations**
- **Unrestricted accommodation of SDIA demand not possible at McClellan-Palomar given runway length requirements**

Capacity Analyses Findings

Part 139 / Commercial Service Airports (Terminal)



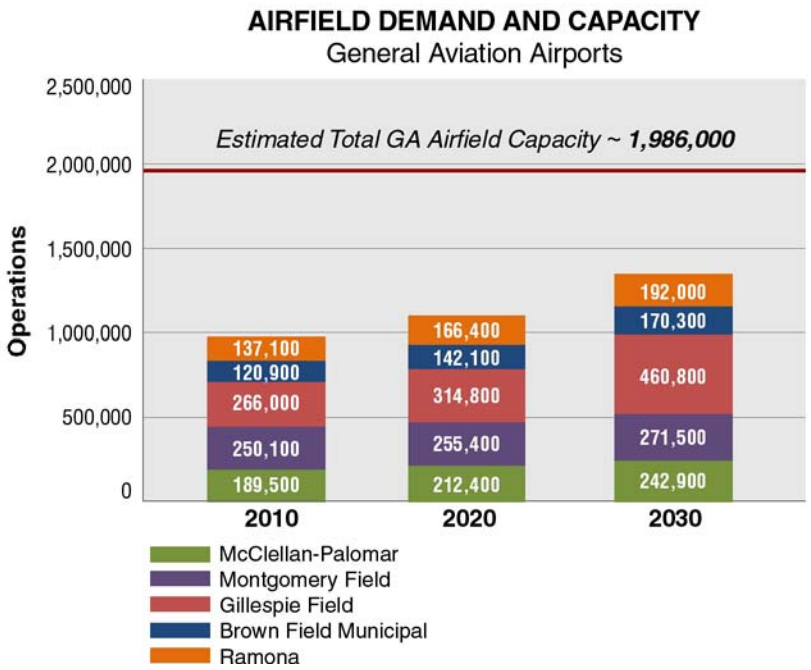
- **286,000 annual aircraft operations equates to approximately 14.2 million passenger enplanements which generally corresponds to 2030 forecast demand**
- **2030 forecast demand exceeds "constrained" terminal capacity**
- **Capacity estimation assumes 60-gate terminal facility**

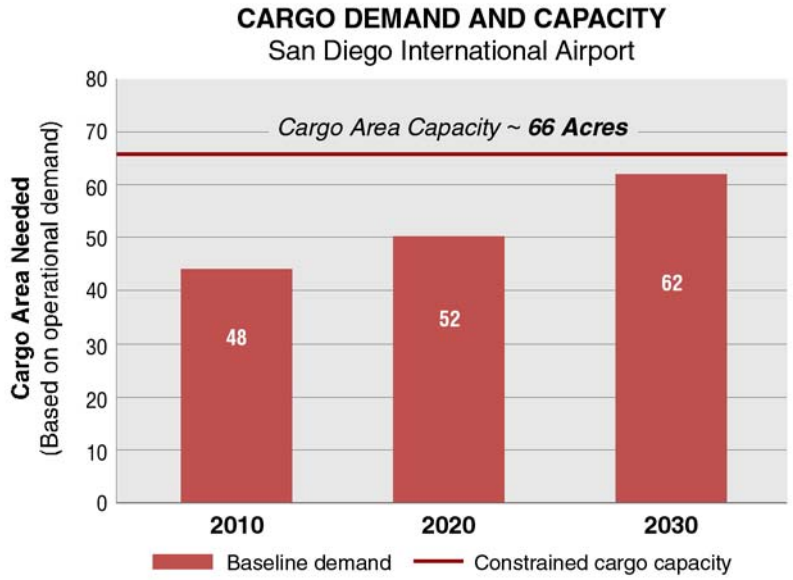


- **2030 forecast demand is below the terminal capacity by 25,000 enplanements**
- **Although McClellan-Palomar terminal facilities could be expanded to accommodate 120,000 enplanements, this would not provide enough capacity to accommodate the regional demand**

Capacity Analyses Findings

General Aviation and Air Cargo Capacity Exceeds Forecast Demand



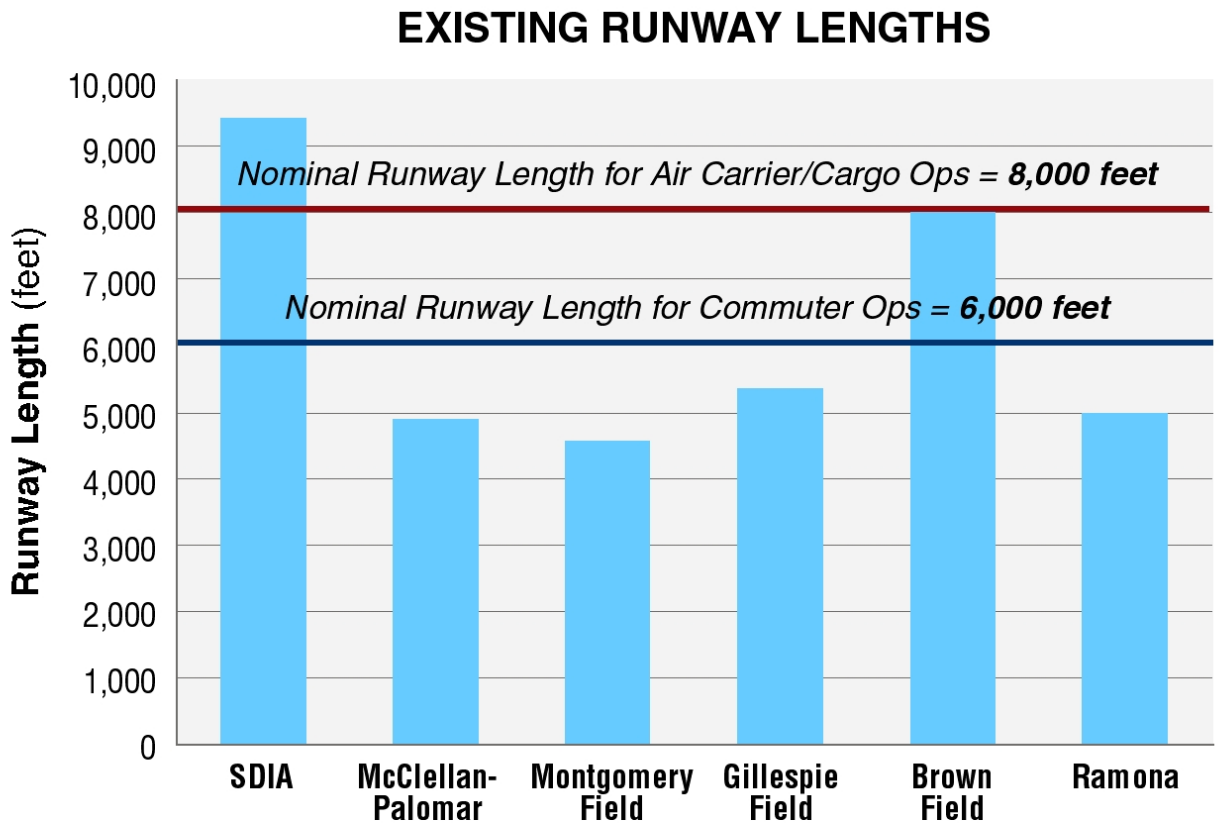


- **Combined airfield capacity at all 5 GA airports is well above forecast demand**
- **Demand will exceed capacity at Gillespie (SEE) by 10,000 operations in 2030; capacity significantly exceeds demand at all other facilities**
- **Forecast demand exceeds existing facilities, but sufficient vacant land is available for construction of additional facilities**

- **land area at SDIA is operating at 70-75% of capacity**
- **Existing cargo land area is sufficient to accommodate forecast demand**

Capacity Analyses Findings

Only Two Airport's Include Runways Capable of Accommodating the Full-Range of Commercial Activity



Note: Nominal runway length includes aircraft payload and range considerations.

Factors related to accommodating commercial service, in addition to runway length, include: runway strength, airfield design standards, fleet mix, ability to lengthen runway, political and/or community opposition, etc.

System Optimization Toolkit

Potential Change in Airport Capability and/or Capacity

- **Runway upgrade or extension**
  - Enhance runway length to accommodate larger aircraft types or serve more distant markets
  - Enhance runway capability (FAA design criteria, pavement strength, etc.) to accommodate larger / heavier aircraft types
- **Passenger terminal development**
  - Enhance terminal facilities to accommodate higher levels of passenger demand
  - Construct new passenger terminal facilities to accommodate commercial activity (w/ Part139)
- **Cargo facility development**
  - Enhance cargo facilities to accommodate higher levels of cargo demand
  - Construct new cargo facilities to accommodate cargo activity
- **GA facility development**
  - Construct additional GA facilities to accommodate additional based and/or itinerant demand
  - Upgrade GA facilities (enhance apron pavement strengths, high-end fixed base operator, etc.) to attract and accommodate more advanced users
- **NAVAIDS / NextGen technologies**
  - NextGen could increase VFR capacity by 20% and IFR over 40%
  - Capacity gains achieved through reduced separation buffers and reduced runway occupancy times
  - Relatively cost effective enhancements
- **On-airport access improvements**
  - Enhance access roadways and parking facilities to accommodate higher levels of passenger, employee, and cargo demand
  - Construct new roadways and parking facilities to accommodate intended users and development programs

System Optimization Toolkit

Potential Change in Airport's Market Served (FAR Part 139 Certification)

- **Construct facilities and implement operating policies as specified under FAR Part 139 to accommodate commercial passenger or cargo activity**
- **Multiple considerations**
  - Facility construction to meet FAA design standards
  - Policy and operational requirements (i.e., security)
  - Operations and maintenance (O&M) costs
- **Cost to meet FAA airport design standards vary substantially**
  - Montgomery and Gillespie would need improvement to accommodate regional jets
  - Brown Field has design standards in place, but runway would need to be strengthened
  - Montgomery has appropriate runway and taxiway separation, but may require relocation of other facilities
- **Community and political opposition are key factors**

Rough Order of Magnitude Part 139 Cost Estimate	
General facility construction ($ millions)	
Security equipment	$3.5
ARFF facilities and equipment	$5.0
Operational improvements	$0.5
Total	$9.0
Airport layout and design standards	$10-20
Staffing, O&M costs ($ millions/annually)	$1.0

System Optimization Toolkit

Potential Federal, State and/or Local Aviation Initiatives

- **Congestion management (*locally* initiated) – promote efficient runway use by optimized pricing (depending on goals)**
- **Alter rates/charges by user type**
  - New FAA policy explicitly permits blended landing fee (per operation and weight-based fee)
  - Better pricing could encourage more flights in larger aircraft and greater passenger throughput
  - Requires airfield cost-allocation study and consultation with users
- **Induce traffic to other airports**
  - Lower fees at alternatives to SDIA
  - Facility improvements at alternative airports to attract GA and possibly commuter traffic
  - Lack of a consolidated airport authority hinders an integrated pricing and facility strategy
- **Slot control (*Federal* management)**
  - FAA placed "cap" on operations across all airport activity in case of severe delays (in future)
  - Freezes existing operations "in place", then places USDOT/FAA at the center of managing airport operations
  - Preferable to use local congestion management tools to optimize capacity to meet demand
- **Possible Enhancement of Tijuana Airport for U.S.-based travelers**
  - Public-private partnership for a cross-border terminal offers possibility of better access to Tijuana Airport
  - Customs, security and ease of landside connections will be important criteria for success
  - Surface transportation access would need to be carefully examined

System Optimization Toolkit

Potential Changes to Surface Infrastructure

- **Improve access (link) between airports and regional surface system**
  - Enhance capacity via traffic control signals, turn lanes, road widening, etc.
  - Constraints – available ROW, environmental approvals, affected communities/neighborhoods
  - Costs vary based on extent of improvement
- **Enhance the regional system**
  - Improve access via multimodal regional system infrastructure improvements
  - LOSSAN Rail, Transit First, San Diego BRT, High Speed Rail, Corridor System Mgt Plans
  - Constraints – community support, funding, prioritization or projects and programming, etc.
- **Improve transit services including expanded route coverage, frequencies, and connections**

- **Remote terminals / "HOV" lanes**
  - Express bus service between airport and remotely located passenger terminal/station or parking facility (Van Nuys FlyAway, Logan Express, SFO Marin Airporter)
  - Potential: parking at McClellan-Palomar bus to SDIA; park at Brown Field bus to Tijuana
  - Financial subsidies may be required

Other Regional Examples

LAX Flyaway station

Logan Express

Commercial Passenger Optimization Scenario

Includes Four Sub-scenarios for Passengers

- **Scenario 1 – Lindbergh-focused scenario**
  - Maximum build-out of SDIA focused solely on air carrier passenger service
  - Prioritize passenger levels of service; enhance air service options/markets; enhance surface access
  - Implementation via pricing, Authority policy, and focused facility construction
- **Scenario 2 – Maximum utilization of other commercial service capable airport(s)**
  - Incentivize regional jets and other capable air carrier aircraft to operate from McClellan-Palomar
  - Implementation via incentives, pricing, and new/enhanced facilities at McClellan-Palomar
  - Could include implementation of another FAR Part 139 airport in the region
- **Scenario 3 – Maximum utilization of other system airports**
  - Incentivize air carrier, air cargo, and corporate GA to operate from surrounding airports preserving SDIA capacity for air carrier service
  - Implementation via new/enhanced facilities at existing GA airports
- **Scenario 4 – Increased utilization of Tijuana**
  - Facilitate use of Tijuana International Airport or implementation of cross boarder terminal
  - Implementation via incentives, SDIA- or Tijuana-based pricing, new/enhanced terminal facilities at Tijuana
  - Requires improved border access / crossings; FAA and numerous other Federal approvals; and resolution of U.S. / Mexican ownership/operation issues

General Aviation Optimization Scenarios

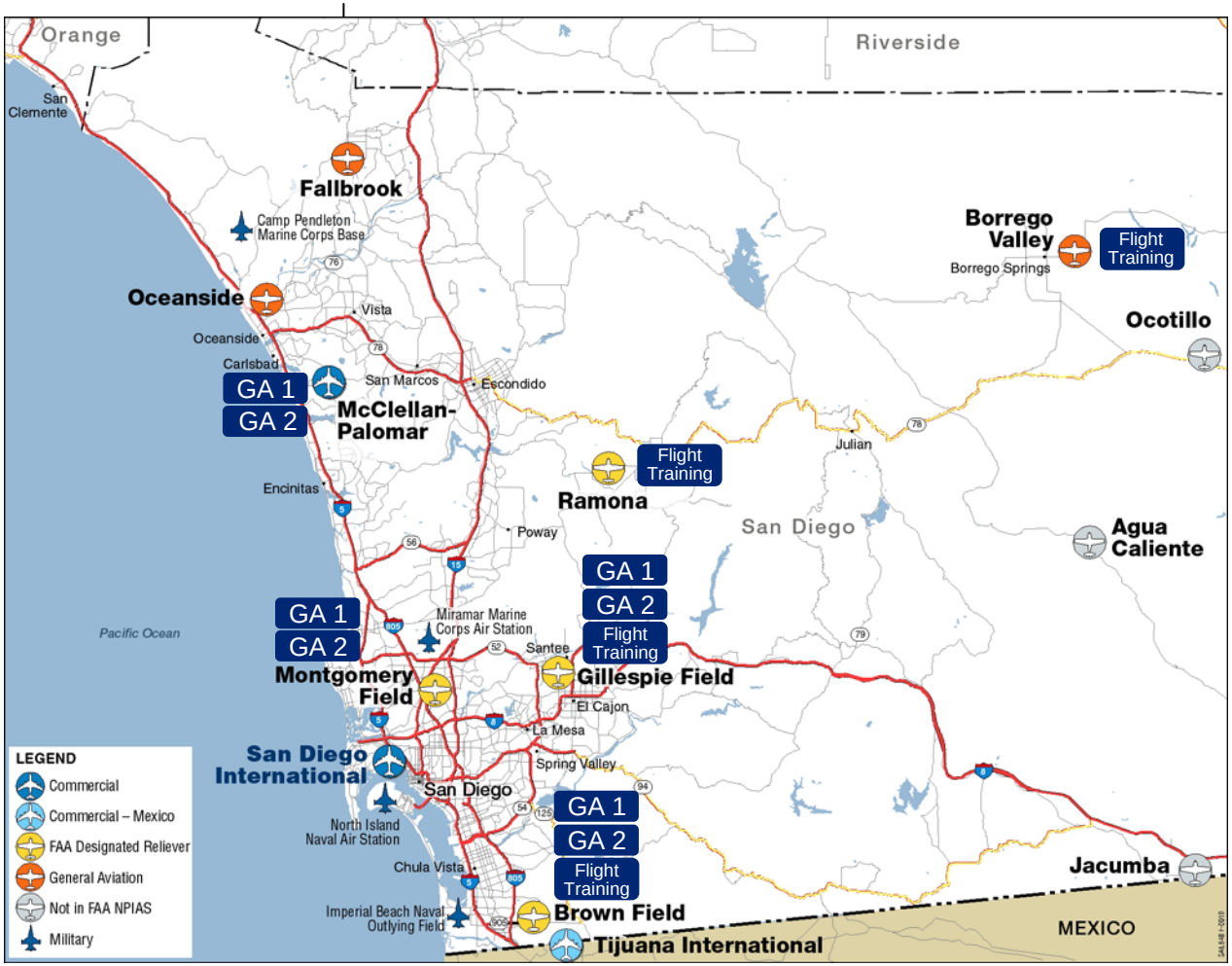
Focus is to Free Up Capacity at SDIA and Optimize Existing Assets

GA 1 SDIA corporate GA accommodated at ***single nearby reliever*** facility

GA 2 SDIA corporate GA accommodated at ***multiple outlying airports***

Flight Training Flight training accommodated at ***multiple outlying*** facilities; Brown and Ramona best options given facilities, available capacity, available land, and geographic location

Notes: Gillespie has runway length and approach restrictions; Montgomery has runway length restrictions; geographic and airspace complications restrict flight training options.



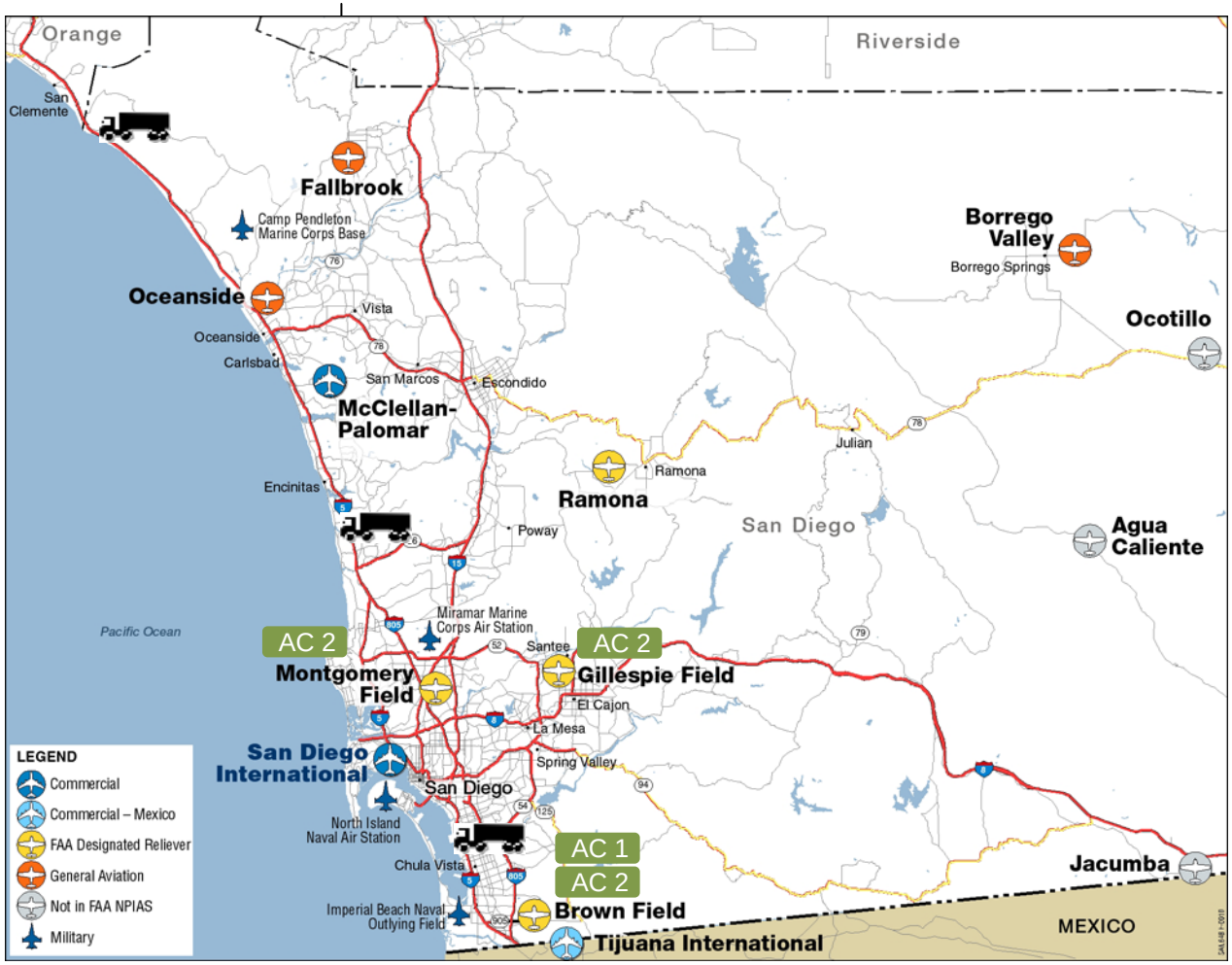
Air Cargo Optimization Scenarios

Primary Focus is Freeing Capacity at SDIA

AC 1 SDIA-based air cargo accommodated at a single ***alternative facility*** (Brown Field only existing capable facility; Montgomery and Gillespie have constraints to runway expansion)

AC 2 SDIA-based cargo accommodated at ***multiple outlying airports***

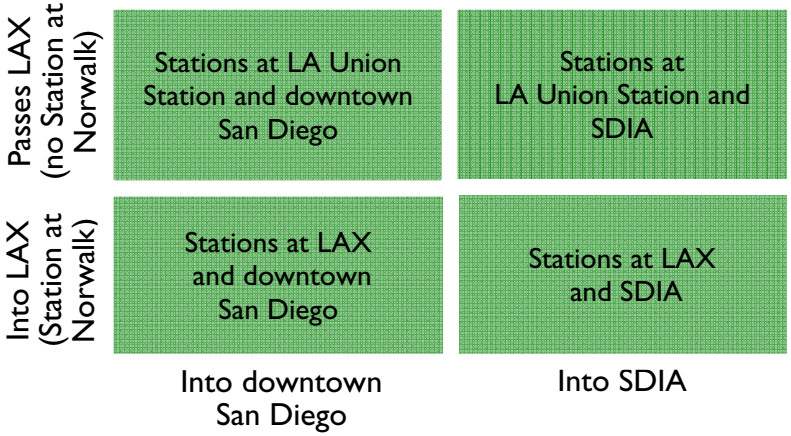
No air cargo movement at County airports; all air cargo trucked into and out of the region [LA, Mexico, other]



Surface and HSR Optimization Scenarios

Further Definition Requires Coordination with SANDAG (Ongoing)

- **California HSR – Integration of HSR and Southern California airports could create short-haul and connecting options depending on final design**
- **Draft EIS assessing stations at Ontario Airport, Downtown Los Angeles, and Downtown San Diego**
- **Final EIS not initiated; additional station combinations under consideration**
- **Combination of stations that would most impact the RASP:**



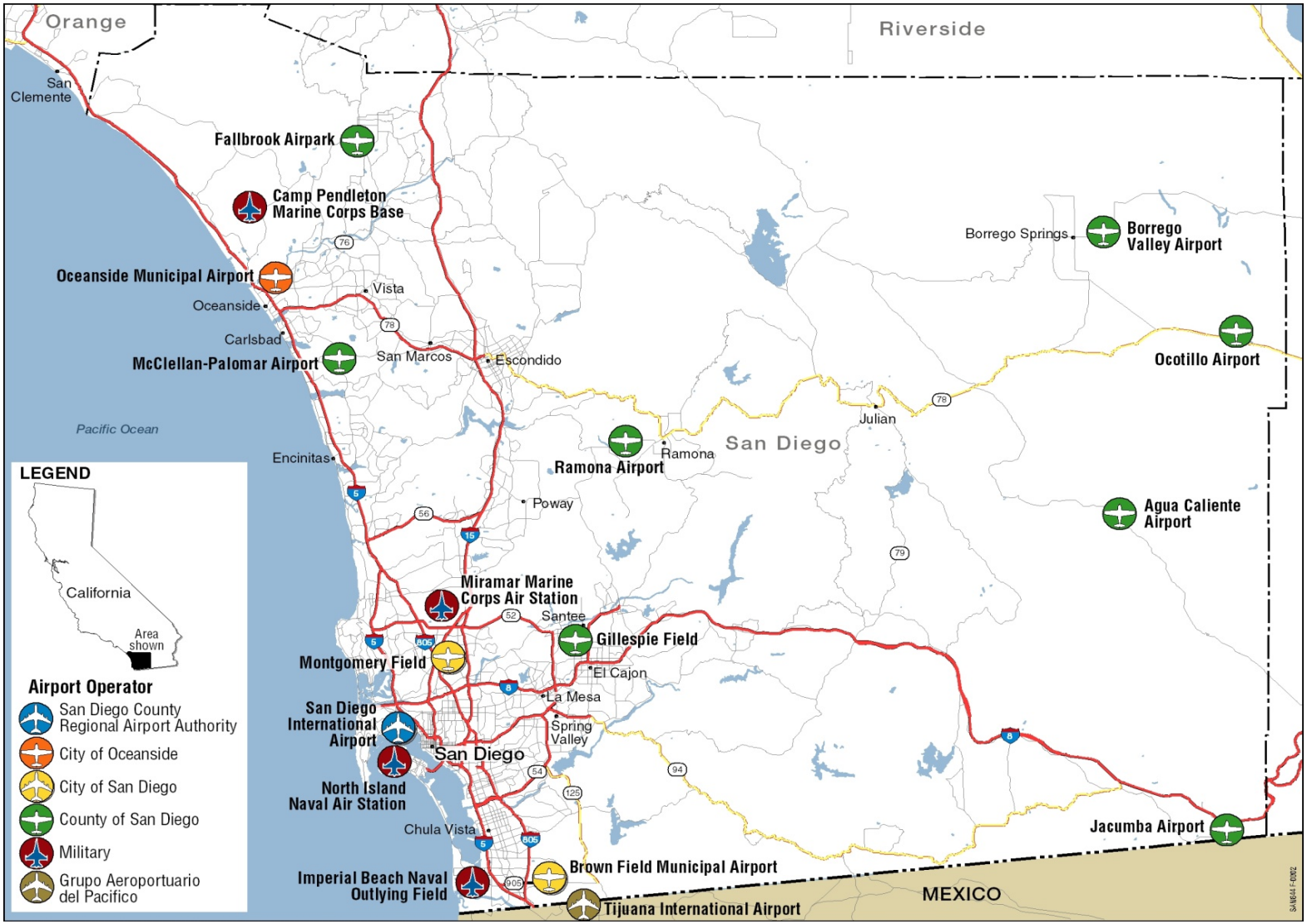
Note: Station at Norwalk will provide smooth connection to LAX

- **Surface scenarios driven by SANDAG 2030 Regional Transportation Plan (RTP) funding**

Revenue Constrained	Expected Revenue	Unconstrained Revenue
$18 billion on all projects	$32 billion on all projects	$45 billion on all projects
$12 billion on Highway	$23 billion on Highway	$35 billion on Highway
$6 billion on Transit	$9 billion on Transit	$10 billion on Transit

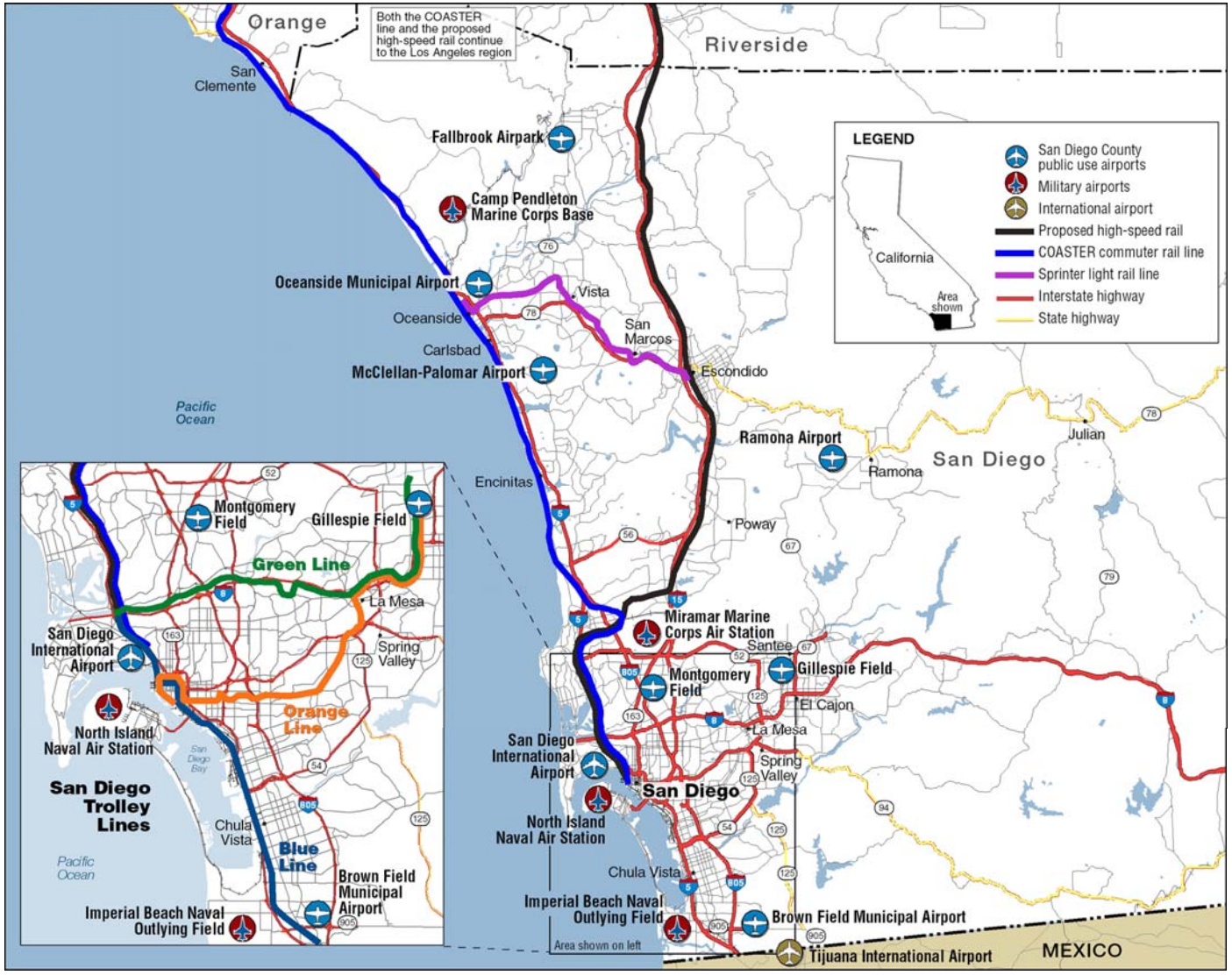
Appendix – Supplemental Information

Study Area – Airports in San Diego County



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

Study Area – Ground Transportation Network



Source: *2030 San Diego Regional Transportation Plan: Pathways to the Future*, SANDAG, 2007.

Baseline Facilities and Operations Data

	San Diego International (SAN)			McClellan-Palomar (CRQ)			Montgomery Field (MYF)			Brown Field Municipal (SDM)			Gillespie Field (SEE)			Ramona (RNM)		
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	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
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
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 356 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.		
Airport Facilities																		
FAA NPIAS Designation	Large Hub Primary Commercial			Non-Hub Primary Commercial			Reliever			Reliever			Reliever			Reliever		
California Aviation System Plan Designation	Primary Commercial Hub			Primary Commercial Non-Hub			Metropolitan GA			Regional GA			Regional GA			Regional GA		
Total Airport Acreage	661			487			456			880			775			378		
FAA Airport Reference Code	D-V			B-II			B-II			D-IV			B-II			B-II		
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)		
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		

	Tijuana-Rodriguez (TIJ)		
Airport Activity Statistics			
	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)
Annual Enplanements	2.3 Million	4.4 Million	6.9 Million
Annual Operations	56,200	Approx. 70,000	--
Regional Forecast Facility Improvement and Operational Assumptions	Not Included in the regional forecast		
Airport Facilities			
FAA NPIAS Designation	N/A		
California Aviation System Plan Designation	N/A		
Total Airport Acreage	1,112		
FAA Airport Reference Code	ICAO 4E		
Runway Data	9/27 - 9,711 10/28 - 8,200 CLOSED		
Instrument Approach	Runway 9: ILS		

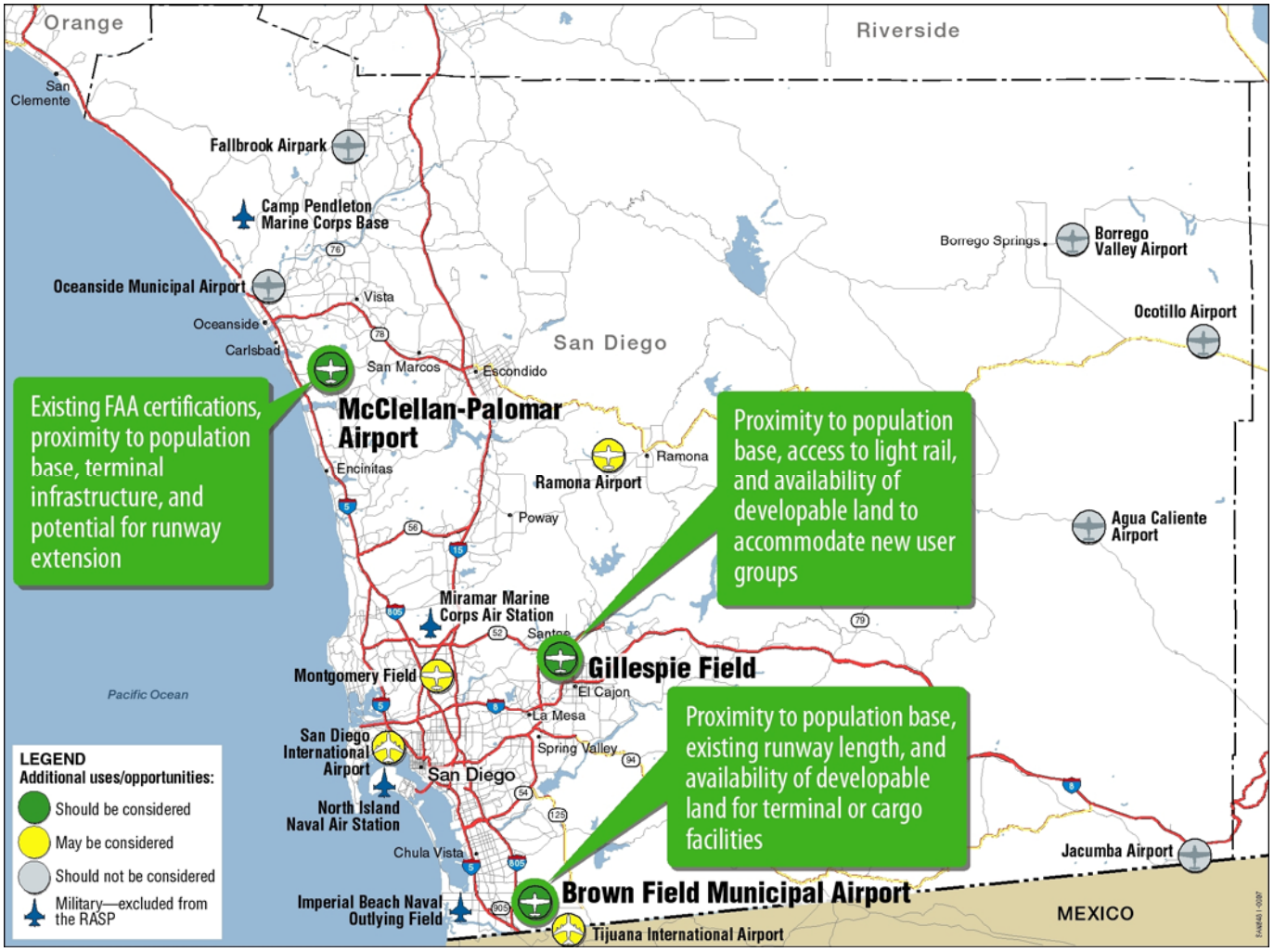
	Oceanside Municipal (OKB)			Fallbrook Community (L18)			Borrego Valley (L08)			Ocotillo (L90)			Agua Caliente (L54)			Jacumba (L78)		
Airport Activity Statistics																		
	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	Historical 2007	Forecast 2030 (Baseline)	Forecast 2030 (High)	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 Findings

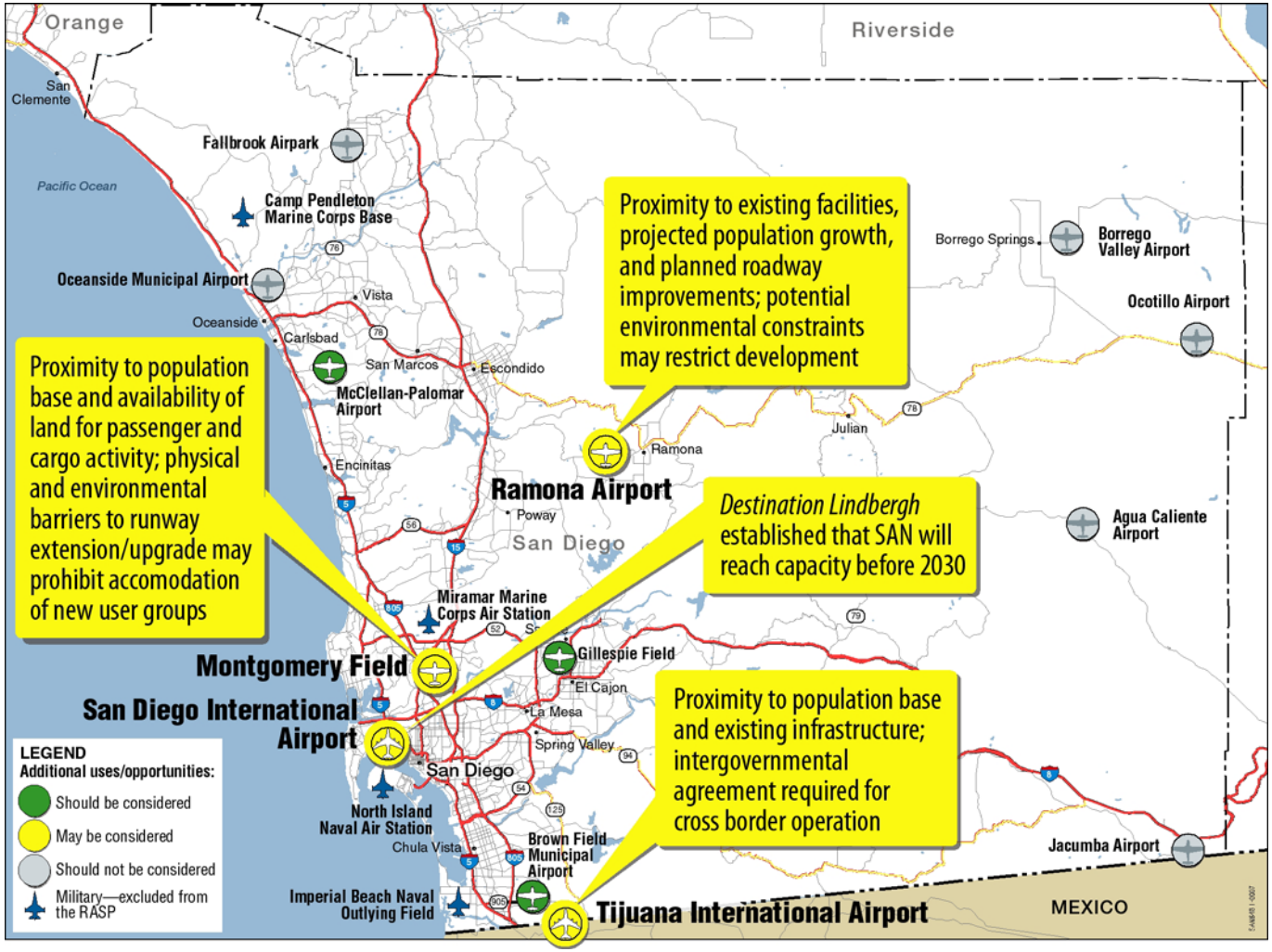
Airports That <u>Should be</u> Considered For Additional Uses/Opportunities



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

Strategic Assessment Findings

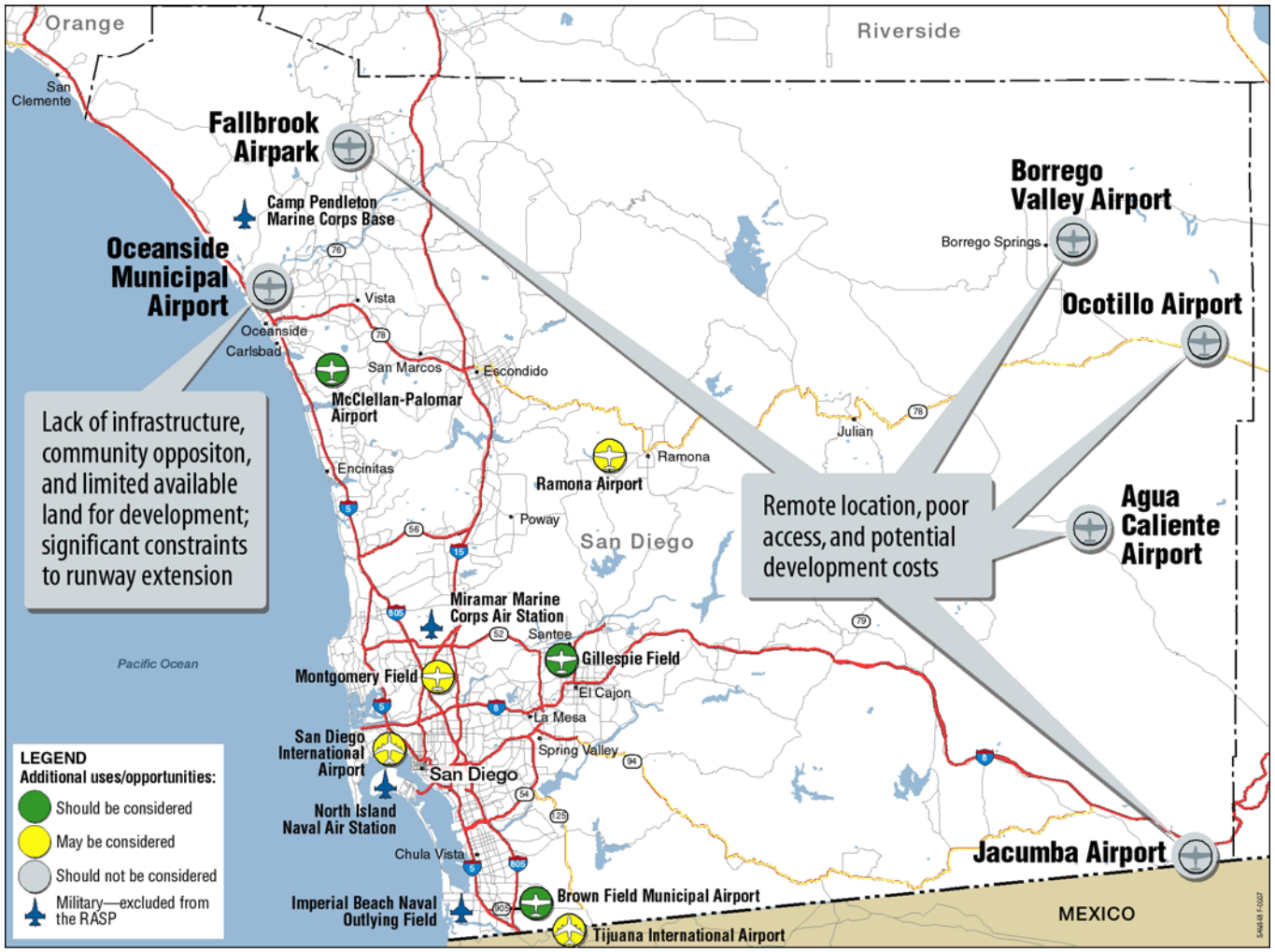
Airports That <u>May Be</u> Considered For Additional Uses/Opportunities



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.

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 26R: 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/opportunties 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