

Master Plan Forecast - Oakland International Airport

Summary 17.2 MAP flight schedule* (with Southwest Airlines B737-800s changed to B737-700s)

Aircraft Type	Number of Arrivals & Depts.	Avg. Seats (In & Out)	Avg. Seats per Aircraft
A319/320	54	7,780	144
B737-Series	380	51,380	135
B757-Series	8	1,460	183
B747-Series	2	872	436
Regional Jets	24	1,360	57
Total	468	62,862	134

August 2004	430	57,949	135
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*See 2003 Supplemental Environmental Impact Report (SEIR) for Airport Development Program (ADP). 17.2 MAP was the FAA TAF forecast for 2010 at the time the SEIR was prepared.

TABLE A: Daily flights (17.2 MAP flight schedule)

Aircraft Type	Airline A	Airline B	Airline C	Airline D	Airline E	Airline F	Airline G	Airline H	Airline I	Southwest	Total
A319/320	0	0	24	0	0	10	2	0	18	0	54
B737-Series	8	58	0	4	8	14	0	0	6	282	380
B757-Series	2	0	0	0	0	0	0	2	4	0	8
B747-Series	0	0	0	0	0	0	0	2	0	0	2
Regional Jets	0	8	0	0	8	0	0	0	8	0	24
Total	10	66	24	4	16	24	2	4	36	282	468

TABLE B: Average number of seats per aircraft (17.2 MAP flight schedule)

Aircraft Type	Airline A	Airline B	Airline D	Airline E	Airline F	Airline G	Airline H	Airline I	Southwest
A319/320			156		139.6	150		130	
B737-Series	142	131.6	124	154	134	186	436	124	135.7
B757-Series	180			50				182	
Regional Jets		70						50	

TABLE C (TABLE A x TABLE B): Number of Seats (17.2 MAP flight schedule)

Aircraft Type	Airline A	Airline B	Airline C	Airline D	Airline E	Airline F	Airline G	Airline H	Airline I	Southwest	Total
A319/320	0	0	3,744	0	0	1,396	300	0	2,340	0	7,780
B737-Series	1,136	7,632	0	496	1,232	1,876	0	0	744	38,274	51,390
B757-Series	360	0	0	0	0	0	0	372	728	0	1,460
B747-Series	0	0	0	0	0	0	0	872	0	0	872
Regional Jets	0	560	0	0	400	0	0	400	0	0	1,360
Total	1,496	8,192	3,744	496	1,632	3,272	300	1,244	4,212	38,274	62,862

1) Put 18.0 MAP ADPM and AAD passengers on 17.2 MAP flight schedule, compute load factor

Load Factor, ADPM	Computed	Recent Avg.
Load Factor, AAD	92.5%	80.0%
	81.0%	73.2%

Target Load Factor on ADPM = 80%

2) Calculate required number of seats for 18.0 MAP ADPM passengers (80% Load Factor)

- 70,059 total seats required before seats for through passengers
- 7,197 new seats required before seats for through passengers
- 2,242 total seats required for through passengers
- 9,439 new seats required (above 17.2 MAP flight schedule) for 18 MAP ADPM

LINE A
LINE B
LINE C
LINE D

3) Distribute required new seats to airlines by market share

TABLE D: 17.2 MAP Flight Schedule Market Share (Estimated)

Airline	Market Share (based on seats)	Through Market Share
Airline A	2.3%	
Airline B	12.8%	23.0%
Airline C	5.9%	
Airline D	0.8%	
Airline E	2.6%	
Airline F	5.1%	
Airline G	0.5%	
Airline H	2.0%	
Airline I	6.6%	
Southwest Airlines	61.4%	77.0%
Total	100.0%	100.0%

TABLE E: New Seats Required by Airline (over 17.2 MAP Flight Schedule)

Airline	New Seats (X) (TABLE D x LINE B)	Through Seats (Y) (TABLE D x LINE C)	Total New Seats (X+Y)
Airline A	169	0	169
Airline B	924	516	1,440
Airline C	423	0	423
Airline D	56	0	56
Airline E	184	0	184
Airline F	369	0	369
Airline G	34	0	34
Airline H	140	0	140
Airline I	475	0	475
Southwest Airlines	4,422	1,726	6,148
Total	7,197	2,242	9,439

4) Add aircraft to fleet by airline to realize seat goals from Step 3

TABLE F: Added flights (to go from 17.2 MAP to 18 MAP flight schedule on ADPM)

Aircraft Type	Airline A	Airline B	Airline C	Airline D	Airline E	Airline F	Airline G	Airline H	Airline I	Southwest	Total
A319/320	0	0	4	0	0	0	0	0	2	0	6
B737-Series	0	10	0	0	0	2	0	0	2	46	60
B757-Series	0	0	0	0	0	0	0	0	0	0	0
B747-Series	0	0	0	0	0	0	0	0	0	0	0
Regional Jets	0	2	0	0	4	0	0	0	2	0	8
Total	0	12	4	0	4	2	0	0	6	46	74

TABLE G (TABLE B x TABLE F, with some modifications): Actual seats added

Aircraft Type	Airline A	Airline B	Airline C	Airline D	Airline E	Airline F	Airline G	Airline H	Airline I	Southwest	Total
Seats Added Goal	169	1,440	423	56	184	369	34	140	475	6,148	9,439
A319/320	0	0	624	0	0	0	0	0	276	0	900
B737-Series	0	1,272	0	0	0	268	0	0	240	6,302	8,082
B757-Series	0	0	0	0	0	0	0	0	0	0	0
B747-Series	0	0	0	0	0	0	0	0	0	0	0
Regional Jets	0	140	0	0	200	0	0	0	100	0	440
Total seats added	0	1,412	624	0	200	268	0	0	616	6,302	9,422

5) Summarize 18 MAP ADPM flight schedule

TABLE H (TABLE A+TABLE F): Daily flights (18 MAP ADPM flight schedule)

Aircraft Type	Airline A	Airline B	Airline C	Airline D	Airline E	Airline F	Airline G	Airline H	Airline I	Southwest	Total
A319/320	0	0	28	0	0	10	2	0	20	0	60
B737-Series	8	68	0	4	8	16	0	0	8	328	440
B757-Series	2	0	0	0	0	0	0	2	4	0	8
B747-Series	0	0	0	0	0	0	0	2	0	0	2
Regional Jets	0	10	0	0	12	0	0	0	10	0	32
Total	10	78	28	4	20	26	2	4	42	328	542

TABLE I (TABLE C+TABLE G): Number of seats (18 MAP ADPM flight schedule)

Aircraft Type	Airline A	Airline B	Airline C	Airline D	Airline E	Airline F	Airline G	Airline H	Airline I	Southwest	Total
A319/320	0	0	4,368	0	0	1,396	300	0	2,616	0	8,680
B737-Series	1,136	8,904	0	496	1,232	2,144	0	0	984	44,576	59,472
B757-Series	360	0	0	0	0	0	0	372	728	0	1,460
B747-Series	0	0	0	0	0	0	0	872	0	0	872
Regional Jets	0	700	0	0	600	0	0	500	0	0	1,800
Total	1,496	9,604	4,368	496	1,832	3,540	300	1,244	4,828	44,576	72,284

Actual Load Factor: 80.02%

Master Plan Forecast - Oakland International Airport

Total Cargo Volume (Freight and Mail)	2010	2025
Approximate Year	888,186	1,507,549
Cargo, Annual Tonnage (AT)	0.9	1.5
Million Annual Tons (MAT)	74,016	125,629
August (Avg. Month, 8.3% of AT)	3,416	5,798
Average Annual Day (AAD) Tons		

August (Avg. Month)/Annual Tonnage (AT) 8.3%

Summary 2000 (0.8 MAT) air cargo AAD flight schedule

Aircraft Type	Number of Arrivals & Departures	Number of Landings
A310-Series	-	-
A300-Series	20	10
B767-Series	16	8
B747-Series	2	1
B727-Series	20	10
DC-10	24	12
MD-11	6	3
Large Turbo Prop	2	1
Small Jet	4	2
Small Single Engine	8	4
Small Turbo Prop	34	17
Small Twin Engine	28	14
Total	164	82

TABLE A: SEIR 2000 daily cargo flights (0.8 MAT schedule) *

Aircraft Type	Carrier A	Carrier B	Carrier C	Carrier D	Carrier E	Carrier F	Carrier G	Ameriflight	FedEx	Total	South Field	North Field
A310-Series	-	-	-	-	2	-	-	-	18	-	-	-
A300-Series	-	4	-	-	-	-	12	-	-	20	20	-
B767-Series	-	-	-	-	-	-	2	-	-	16	16	-
B747-Series	-	-	-	-	4	-	-	-	-	2	2	-
B727-Series	-	-	-	-	-	-	-	-	16	20	20	-
DC-10	-	-	-	-	-	-	-	-	24	24	24	-
MD-11	-	-	-	-	-	-	-	-	6	6	6	-
Large Turbo Prop	-	-	-	2	-	-	-	-	-	2	2	-
Small Jet	-	-	-	-	-	-	-	4	-	4	2	2
Small Single Engine	-	-	-	-	-	-	-	8	-	8	-	8
Small Turbo Prop	4	-	-	-	-	12	-	18	-	34	11	23
Small Twin Engine	-	-	10	-	-	-	-	18	-	28	2	26
Total	4	4	10	2	6	12	14	48	64	164	105	59

*See 2003 Supplemental Environmental Impact Report (SEIR) for Airport Development Program (ADP). 0.8 MAT was used as the current (i.e., 2000) Air Cargo activity level for the SEIR.

TABLE B METHODOLOGY: Twin engine piston and small turbo prop flights reduced 10% from Table A to address reduction in North Field activity from 2000 to 2003. 2010 SEIR fleet mix assumed for South Field.**TABLE B: Year 2003 daily cargo flights (0.7 MAT flight schedule) ****

Aircraft Type	Carrier A	Carrier B	Carrier C	Carrier D	Carrier E	Carrier F	Carrier G	Ameriflight	FedEx	Total	South Field	North Field
A310-Series	-	-	-	-	2	-	-	-	2	-	2	-
A300-Series	-	2	-	-	-	-	12	-	18	-	20	-
B767-Series	-	-	-	-	-	-	2	-	-	14	14	-
B747-Series	-	-	-	-	4	-	-	-	-	2	2	-
B727-Series	-	-	-	-	-	-	-	-	14	18	18	-
DC-10	-	-	-	-	-	-	-	-	14	14	14	-
MD-11	-	-	-	-	-	-	-	-	16	16	16	-
Large Turbo Prop	-	-	-	2	-	-	-	-	-	2	2	-
Small Jet	-	-	-	-	-	-	-	4	-	4	2	2
Small Single Engine	-	-	-	-	-	-	-	8	-	8	-	8
Small Turbo Prop	4	-	-	-	-	10	-	18	-	32	10	22
Small Twin Engine	-	-	10	-	-	-	-	14	-	24	2	22
Total	4	2	10	2	6	10	14	44	64	156	102	54

** FedEx assumed to use 2010 SEIR fleet mix (based on Table C, below). Reduction of small turbo prop and small twin engine flights to address observed reduction in North Field flights.

TABLE C: 2010 SEIR daily cargo flights (1.4 MAT schedule) ***

Aircraft Type	Carrier A	Carrier B	Carrier C	Carrier D	Carrier E	Carrier F	Carrier G	Ameriflight	FedEx	Total	South Field	North Field
A310-Series	-	-	-	-	2	-	-	-	10	-	10	-
A300-Series	-	2	-	-	-	-	12	-	22	-	24	-
B767-Series	-	-	-	-	-	-	2	-	-	14	14	-
B747-Series	-	-	-	-	2	-	-	-	-	2	2	-
B727-Series	-	-	-	-	-	-	-	-	4	6	6	-
DC-10	-	-	-	-	-	-	-	-	8	8	8	-
MD-11	-	-	-	-	-	-	-	-	20	20	20	-
Large Turbo Prop	-	-	-	2	-	-	-	-	-	2	2	-
Small Jet	-	-	-	-	-	-	-	4	-	4	2	2
Small Single Engine	-	-	-	-	-	-	-	8	-	8	-	8
Small Turbo Prop	6	-	-	-	-	16	-	18	-	40	15	25
Small Twin Engine	-	-	10	-	-	-	-	32	-	42	1	41
Total	6	2	10	2	4	16	14	62	64	180	104	76

***See 2003 Supplemental Environmental Impact Report (SEIR) for Airport Development Program (ADP).

TABLE D METHODOLOGY: North Field flights interpolated between 0.7 MAT (Table B) and 1.4 MAT (Table C) to approximate 0.9 MAT cargo activity. South Field flights unchanged from Table C; 2010 SEIR fleet mix anticipated to accommodate 0.9 MAT activity.**TABLE D: Year 2010 Master Plan daily cargo flights (0.9 MAT flight schedule) ******

Aircraft Type	Carrier A	Carrier B	Carrier C	Carrier D	Carrier E	Carrier F	Carrier G	Ameriflight	FedEx	Total	South Field	North Field
A310-Series	-	-	-	-	2	-	-	-	10	-	10	-
A300-Series	-	2	-	-	-	-	12	-	22	-	24	-
B767-Series	-	-	-	-	-	-	2	-	-	14	14	-
B747-Series	-	-	-	-	2	-	-	-	-	2	2	-
B727-Series	-	-	-	-	-	-	-	-	4	6	6	-
DC-10	-	-	-	-	-	-	-	-	8	8	8	-
MD-11	-	-	-	-	-	-	-	-	20	20	20	-
Large Turbo Prop	-	-	-	2	-	-	-	-	-	2	2	-
Small Jet	-	-	-	-	-	-	-	4	-	4	2	2
Small Single Engine	-	-	-	-	-	-	-	8	-	8	-	8
Small Turbo Prop	4	-	-	-	-	14	-	18	-	36	12	24
Small Twin Engine	-	-	10	-	-	-	-	20	-	30	2	28
Total	4	2	10	2	4	14	14	50	64	164	102	62

**** FedEx assumed to use 2010 SEIR fleet mix. Small turbo prop and small twin engine flights adjusted from previous schedule.

Summary air cargo AAD flight schedules

Aircraft Type	South Field			North Field		
	SEIR 2000 (0.8 MAT)	Current 2003 (0.7 MAT)	SEIR 2010 (1.4 MAT)	SEIR 2000 (0.8 MAT)	Current 2003 (0.7 MAT)	SEIR 2010 (1.4 MAT)
A310-Series	-	2	10	-	-	MP 2010 (0.9 MAT)
A300-Series	20	20	24	-	-	-
B767-Series	16	14	14	-	-	-
B747-Series	2	2	2	-	-	-
B727-Series	20	18	6	-	-	-
DC-10	24	14	8	-	-	-
MD-11	6	16	20	-	-	-
Large Turbo Prop	2	2	2	-	-	-
Small Jet	-	2	2	-	-	2
Small Single Engine	-	-	-	8	8	8
Small Turbo Prop	11	10	15	12	23	25
Small Twin Engine	2	2	1	2	26	41
Total	105	102	104	102	54	76

Master Plan Forecast - Oakland International Airport

1) Summarize historic annual general aviation operations data (North and South Fields)**TABLE A:** Number of general aviation operations by aircraft type

Aircraft Type	2000*	2001	2002	2003	Oct. 2003 - Sept. 2004 (X)
Helicopter	15,173	2,300	3,032	3,802	2,704
Jet	20,214	13,827	14,709	16,185	16,574
Piston**	216,594	122,170	118,937	111,975	103,542
Turboprop	6,348	6,290	6,510	6,894	5,822
Total	258,329	144,587	143,188	138,856	128,642

*From 2003 Supplemental Environmental Impact Report (SEIR) for Airport Development Program (ADP).

**Includes touch and go's (50% ±), blimps, and gliders.

2) Estimate annual growth rate and general aviation operations in 2010**TABLE B:** Projected annual growth rate

Aircraft Type	Proposed Rate* (Y)
Helicopter**	1%
Jet	3%
Piston	-1%
Turboprop	0%

*Estimated based on recent trends at OAK and industrywide projections.

**Proposed rate of annual growth after Silver State Helicopters starts operation in mid-2005.

TABLE C: Estimated general aviation operations in 2010

Aircraft Type	2010
Helicopter*	35,507
Jet	19,937
Piston	97,238
Turboprop	5,822
Total	158,504

Formula: $X*(1+Y)^{6.25}$

*Adjusted for Silver State Helicopters new operations scheduled to start in mid-2005.

3) Compute average annual day (AAD) operations**TABLE D:** Estimated AAD general aviation operations in 2010

Aircraft Type	2010
Helicopter	97
Jet	55
Piston*	266
Turboprop	16
Total	434

Formula: TABLE C / 365

*50% ± touch and go's.

4) Adjust SEIR 2000 flight schedule to achieve 2010 master plan general aviation flight schedule**TABLE E:** Estimated AAD general aviation operations in 2010

Aircraft Type	2000 SEIR	2010 MP*	Required Adjustment
Helicopter	42	97	55
Jet	52	55	3
Piston**	594	266	(328)
Turboprop	16	16	0
Total	704	434	(270)

*MP = master plan (from Table D).

**50% ± touch and go's.

Master Plan Forecast - Oakland International Airport

1) Summarize gate requirements from August 19, 2004, meeting.

MAP Approx. Year Aug. (Pk. Month) Passengers Daily Departures (Total Flights/2)	18	20	30	LINE A
	2010	2012	2025	
	1,737,457	1,957,903	2,895,761	
	271	299	n/a	
Avg. Daily Departures per Gate				
	6.0	46	50	n/a
	6.5	42	46	n/a
Avg. Daily Departures per Gate				
	6.0	37,771	39,158	n/a
	6.5	41,368	42,563	n/a

2) Determine approximate gate requirements for 30 MAP (range).

Assumed August Passengers per Gate: 40,000
 Approx. Total Gate Requirements: 72
 Total Gate Requirements (planning range): 65 to 75
 Increase from 2010/2012 Gate Requirements: 15 to 25

LINE B
 LINE A / LINE B

3) How much area per gate is required for planning?

Airport	Gates in 43 Acres ⁽¹⁾	Acres per Gate ⁽²⁾
	(X)	((43+15)/X)
Oakland International	28	2.1
Reagan Washington National	23	2.5
General Mitchell International	35	1.7
McCarran International	22	2.6
Chicago Midway	34	1.7

} Use 2.2 acres per gate
 for master planning
 (LINE C)

(1) Source: Site Re-Use Study, United Airlines Maintenance Center, Ricondo & Associates, June 2003
 (2) Includes 15-acre allowance for landside facilities (including curbside and parking garage)

Factors influencing acres per gate calculation:

- Aircraft fleet mix (gate "size")
- Aircraft movement area requirements (e.g., taxilanes)
- Terminal configuration
- Access roadway requirements and alignment
- Remote aircraft parking requirements

3) Calculate approximate area required for 15 to 25 additional gates (30 MAP).

Approx. area required (planning range):

33 to 55 acres

LINE C x 15 (and 25)

Master Plan Forecast - Oakland International Airport

1) Summarize existing inventory of based general aviation aircraft**TABLE A:** Inventory of based general aviation aircraft (Dec. 2004)

	Hangar	Tie-Down	Total (A)
Helicopter	3	3	6
Jet	28	1	29
Piston	139	89	228
Turboprop	5	9	14
Total	175	102	277

2) Estimate based general aviation aircraft demand in 2010 and 2025**TABLE B1:** 2010 based general aviation aircraft demand

	Hangar	Tie-Down	Total (B)	Net New* (X) (B - A)	% Growth* [(B/A) - 1]%	Comment
Helicopter	3	11	14	8	133%	8 new helicopters for Silver State Helicopters
Jet	36	0	36	7	24%	Based on corporate jet fleet forecast by Rolls-Royce
Piston	256	64	320	92	40%	Based on existing waiting list for hangars at OAK
Turboprop	14	0	14	0	0%	No growth anticipated
Total	309	75	384	107	39%	

TABLE B2: 2025 based general aviation aircraft demand

	Hangar	Tie-Down	Total (C)	Net New* (Y) (C - A)	% Growth* [(C/A) - 1]%	Comment
Helicopter	3	11	14	8	133%	No change from 2010 (Table B1)
Jet	58	0	58	29	100%	Based on corporate jet fleet forecast by Rolls-Royce
Piston	256	64	320	92	40%	No change from 2010 (Table B1)
Turboprop	14	0	14	0	0%	No change from 2010 (Table B1)
Total	331	75	406	129	47%	

*Compared to existing (Dec. 2004) based aircraft inventory (Table A).

3) Estimate based general aviation aircraft area requirements in 2010 and 2025**TABLE C:** Estimated area requirements (acres/aircraft)

	Low (L)	High (H)
Jet/Turboprop*	0.47	1.00
Piston/Helicopter*	0.09	0.15

Source: Based on existing area per aircraft calculations for OAK

* Jet and turboprop aircraft are similar in size and therefore have similar area per aircraft requirements. Piston and helicopter aircraft are similar in size and therefore have similar area per aircraft requirements.

TABLE D: Estimated area requirements for based general aviation aircraft (acres)

	Existing (2004)	Net New (compared to existing)				Total (Existing + Net New)		
		2010		2025		2010		
		Low (X x L)	High (X x H)	Low (Y x L)	High (Y x H)	Low	High	
Jet/Turboprop*	44	3	7	14	29	51	58	73
Piston/Helicopter*	21	9	15	9	15	36	30	36
Total	65	12	22	23	44	87	88	109

* Jet and turboprop aircraft are similar in size and therefore have similar area per aircraft requirements. Piston and helicopter aircraft are similar in size and therefore have similar area per aircraft requirements.

Potential New North Field - South Field Taxiways
Master Plan Analysis - Oakland International Airport

1) Determine taxi distances (assume existing transient aircraft parking locations)

TABLE A: Taxi distances (feet)

Taxi Route to Runway 29 ⁽²⁾ Existing (Taxiway B or 0)	Distance (feet) ⁽¹⁾ from		
	KaiserAir	Business Jet Center	Weighted Avg. Location ⁽³⁾
Taxiway 1 (T1)	15,860	13,489	15,267
Taxiway 2 (T2)	17,590	20,147	18,229
Taxiway 3 (T3)	14,337	16,621	14,908
Taxiway 4 (T4)	13,927	13,274	13,764
	15,854	18,321	16,471

- (1) Source: Measured from aerial basemaps in AutoCAD
(2) Assumes West Plan departures and existing noise abatement procedures
(3) Assumes 75% of transient jet traffic will use KaiserAir and 25% will use Business Jet Center

TABLE B: Taxi distances in statute miles [TABLE A / 5,280]

Taxi Route to Runway 29 Existing (Taxiway B or 0)	Distance (statute miles) from		
	KaiserAir	Business Jet Center	Weighted Avg. Location
Taxiway 1 (T1)	3.0	2.6	2.9
Taxiway 2 (T2)	3.3	3.8	3.5
Taxiway 3 (T3)	2.7	3.1	2.8
Taxiway 4 (T4)	2.6	2.5	2.6
	3.0	3.5	3.1

2) Convert distances to time

Assumed taxi speed (from simulation model)	16 knots (nautical miles per hour) 18.4 statute miles per hour 0.3 statute miles per minute [X]
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TABLE C: Approximate taxi times [TABLE B / X]

Taxi Route to Runway 29 Existing (Taxiway B or 0)	Approx. time (min.:sec.)* from		
	KaiserAir	Business Jet Center	Weighted Avg. Location
Taxiway 1 (T1)	09:47	08:19	09:25
Taxiway 2 (T2)	10:51	12:26	11:15
Taxiway 3 (T3)	08:51	10:15	09:12
Taxiway 4 (T4)	08:36	08:12	08:30
	09:47	11:18	10:10

*Excludes delay crossing runways and holding for bypass traffic

3) Compare taxiway alternatives

TABLE D: Change in taxi times compared to existing [from Table C: (new taxi time - existing taxi time)]

Taxi Route to Runway 29 Existing (Taxiway B or 0)	Change in time from existing (sec.)* from		
	KaiserAir	Business Jet Center	Weighted Avg. Location
Taxiway 1 (T1)	0	0	0
Taxiway 2 (T2)	64	247	110
Taxiway 3 (T3)	-56	116	-13
Taxiway 4 (T4)	-71	-7	-55
	0	179	45

*A positive number represents an increase in taxi time compared to existing, and a negative number represents a decrease in taxi time compared to existing

TABLE E: Percent change in taxi times compared to existing [from Table C: (new taxi time / existing taxi time) - 1]

Taxi Route to Runway 29 Existing (Taxiway B or 0)	Percent change in time from existing* from		
	KaiserAir	Business Jet Center	Weighted Avg. Location
Taxiway 1 (T1)	0	0	0
Taxiway 2 (T2)	10.9%	49.5%	19.5%
Taxiway 3 (T3)	-9.5%	23.2%	-2.3%
Taxiway 4 (T4)	-12.1%	-1.4%	-9.7%
	0.0%	35.9%	8.0%

*A positive percentage represents an increase in taxi time compared to existing, and a negative percentage represents a decrease in taxi time compared to existing

4) Discussion of analysis

- The analysis focuses on transient jets because they are the least familiar with noise abatement procedures
- Taxiway 3 (T3) provides the most taxi time savings for jets to/from both KaiserAir and Business Jet Center
- With Taxiway 3 (T3), jets would save about approx. 10% on taxi time or just under 1 min. on average
- Any new North Field-South Field taxiway unlikely to reduce taxi times enough to preclude North Field jet departures*

*A new taxiway parallel to Taxiway B is likely required south of Taxiway B2 if a new terminal is constructed in this vicinity. This taxiway minimizes head-to-head taxi events on existing Taxiway B.

REMAIN OVERNIGHT (RON) AIRCRAFT PARKING CALCULATION RECORD

Remain Overnight (RON) Aircraft Parking (Passenger Airlines Only)
Master Plan Analysis - Oakland International Airport

1) Summarize existing and near-term future RON aircraft parking conditions and planning factors

As of February 2005:

23 aircraft gates [X]

Available remote RON aircraft parking:

26.0 acres (measured from aerial basemaps in AutoCAD) [Y]
1.1 acres per gate (approx.) [Y / X]

Required remote RON aircraft parking with 70% of aircraft gates used for RON aircraft parking (30% of aircraft gates vacant late at night)

21.0 acres (in use on a typical night) [Z]
0.9 acres per gate (approx.) [Z / X = E1]

Required remote RON aircraft parking with 90% of aircraft gates used for RON aircraft parking (10% of aircraft gates vacant late at night)

18.1 acres [W]
0.8 acres per gate (approx.) [W / X = E2]

After Terminal 2 extension is complete:

29 aircraft gates [A]

Available remote RON aircraft parking:

33.4 acres [B]
1.2 acres per gate (approx.) [B / A]

Required remote RON aircraft parking with 70% of aircraft gates used for RON aircraft parking (30% of aircraft gates vacant late at night)

26.4 acres* [A x E1]

Required remote RON aircraft parking with 90% of aircraft gates used for RON aircraft parking (10% of aircraft gates vacant late at night)

22.8 acres* [A x E2]

*Assumes existing gate to remote RON aircraft parking area ratio remains constant (given percent of gates used for RON aircraft parking)

Future required remote RON aircraft parking*:

0.5 acres per gate** [F]

*Based on a planning factor for McCarran (Las Vegas) International Airport (a large hub, west coast airport with a large number of Southwest Airlines operations)

**Assumes gate to remote RON aircraft parking area ratio will decrease in the future as OAK airline passenger operations and gate availability increase (and departures per gate per day decrease)

2) Compute range of future remote RON aircraft parking requirements, 2010 to 2012

Total Gates ⁽¹⁾ [G]	Total Remote RON Aircraft Parking Requirements (acres)		
	Low ⁽²⁾ [G x F]	Medium ⁽³⁾ [G x E2]	High ⁽⁴⁾ [G x E1]
46	23.3	36.1	41.9
50	25.3	39.3	45.6

(1) Range in number of gates (46 to 50) from previous master plan analyses

(2) Assumes the gate to remote RON aircraft parking area ratio will decrease in the future

(3) Assumes existing gate to remote RON aircraft parking area ratio with 10% of gates not used for RON aircraft parking

(4) Assumes existing gate to remote RON aircraft parking area ratio with 30% of gates not used for RON aircraft parking

3) Compute range of future remote RON aircraft parking requirements, 2025

Total Gates ⁽¹⁾ [G]	Total Remote RON Aircraft Parking Requirements (acres)		
	Low ⁽²⁾ [G x F]	Medium ⁽³⁾ [G x E2]	High ⁽⁴⁾ [G x E1]
65	32.9	51.1	59.2
75	37.9	58.9	68.3

(1) Range in number of gates (65 to 75) from previous master plan analyses

(2) Assumes the gate to remote RON aircraft parking area ratio will decrease in the future

(3) Assumes existing gate to remote RON aircraft parking area ratio with 10% of gates not used for RON aircraft parking

(4) Assumes existing gate to remote RON aircraft parking area ratio with 30% of gates not used for RON aircraft parking