

RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33						Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.									
TERMINAL ROUTES										MISSED APPROACH					
FROM		TO		COURSE AND DISTANCE			ALTITUDE		LPV: DA LNAV/VNAV: DA LNAV: RW28L CLIMB TO 4000 DIRECT SOYOK AND ON TRACK 285.20 TO SAU VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000. ADDITIONAL FLIGHT DATA: HOLD NE, RT, 217.21 INBOUND. CHART FAS OBST: 168 ANT 374225N/1220952W CHART: 174 ANT 374213N/1220826W DISTANCE TO THLD FROM 200 HAT: 0.45 NM. CHART VDP AT 1.07 NM TO RW28L* *LNAV ONLY. WAAS CHANNEL # 72700 REFERENCE PATH ID: W28A CHART MANDATORY 5300 AT CYMBL. CHART CIRCLING ICON CHART MANDATORY 5000 AT BBUBB. LTP HAE: -29.9 M						
BBUBB (IAF)		JUPAP (FB)		237.75 / 5.80			3700								
CYMBL (IAF)		JUPAP (FB)		294.38 / 6.71			3700								
JUPAP (IF)		HEDER (FB)		278.32 / 4.37			2800								
HEDER		VODSY (FB)		278.27 / 2.83			1900								
VODSY (FAF)		TENIE/3.20 NM TO RW28L (FB)		278.24 / 2.57											
TENIE/3.20 NM TO RW28L (SEE FORM 8260-10)		RW28L (MAP) (FO)		278.24 / 3.20											
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF) 2. PROFILE STARTS AT JUPAP 3. FAC: 278.24 FAF: VODSY DIST FAF TO MAP: 5.77 THLD: 5.77 4. MIN. ALT: JUPAP 3700, HEDER 2800, VODSY 1900, TENIE/3.20 NM TO RW28L 1080* 5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____ 6. MIN GS INCPT: 1900 GS ALT AT: VODSY 1900 OM: _____ MM: _____ IM: _____ 7. GS ANGLE: 3.00 TCH: 55.0 34:1 IS CLEAR 8. MSA FROM: RW28L 5100										MAG VAR: 14E EPOCH YEAR: 2015					
MINIMUMS															
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT							ALTERNATE: N A		STANDARD @						
CATEGORY =====>		A		B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA
LPV DA	209	4000	200	209	4000	200	209	4000	200	209	4000	200			
LNAV/VNAV DA	387	1 1/4	378	387	1 1/4	378	387	1 1/4	378	387	1 1/4	378			
LNAV MDA	420	5500	411	420	5500	411	420	6000	411	420	6000	411			
CIRCLING	560	1	551	560	1	551	660	1 3/4	651	1400	3	1391			
NOTES: CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 0C (32F) OR ABOVE 54C (130F). @ CAT D 1400-3 CHART NOTE: DME/DME RNP-0.3 NA. CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).															
CITY AND STATE OAKLAND, CA		ELEVATION: 9 TDZE: 9 AIRPORT NAME: METROPOLITAN OAKLAND INTL			FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) Y RWY 28L, AMDT 4A 15 SEPTEMBER 2016					SUP: AMDT: 4 DATED 04/30/2015			

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
RW28L (MAP)	209 MSL	278.24	
209 MSL	SOYOK (FB)		
SOYOK	SAU VOR/DME (FO)	285.20 / 14.06	4000

CITY AND STATE
OAKLAND, CA

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FACILITY
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RNAV (GPS) Y RWY 28L, AMDT 4A
15 SEPTEMBER 2016

SUP: **QUALITY
24
CHECKED**
AMDT: 4
DATED: 04/30/2015

**RNAV STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICE - FAR PART 97.33**

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FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KOAK
RUNWAY	RW28L
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W28A
LTP/FTP LATITUDE	374320.1780N
LTP/FTP LONGITUDE	1221221.6340W
LTP/FTP ELLIPSOIDAL HEIGHT	-00299
FPAP LATITUDE	374353.8270N
FPAP LONGITUDE	1221405.6455W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0856
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER

2D19683A

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+00025
FPAP ORTHOMETRIC HEIGHT	+00025

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OAKLAND, CA

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U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICES - TITLE 14 CFR PART 97.33

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ARINC SUMMARY - KOAK

ROUTES

TRANSITION	WPT SEQ	WPT NAME	LEG TYPE	FB/FO	RNP	MAG CRS	REC NAV	ANGLE	TURN DIR	CENTER FIX	TURN RADIUS	ALTITUDE DESCRIPTION & VALUE	SPEED LIMIT DESCRIPTION & VALUE	WPT DESCRIPTION CODE
BBUBB	010	BBUBB	IF	FB										E A
BBUBB	020	JUPAP	TF	FB	1.0	237.8						AA 03700		EE B
CYMBL	010	CYMBL	IF	FB										E A
CYMBL	020	JUPAP	TF	FB	1.0	294.4						AA 03700		EE B
	010	JUPAP	IF	FB								AA 03700		E I
	011	HEDER	TF	FB	1.0	278.3						AA 02800		E
	020	VODSY	TF	FB	1.0	278.3				RW28L		AA 01900		E F
	021	TENIE	TF	FB	0.3	278.2		3.00				AA 01080 GS 01082		E S
	030	RW28L	TF	FO	0.3	278.2		3.00				AT 00063		GY M
	040		CA	FB		278.2						AA 00209		M
	050	SOYOK	DF	FB										E
	060	SAU	TF	FO	1.0	285.2						AA 04000		VY
	070	SAU	HM	FO		217.2			R			AA 04000		VE

POINTS

POINT NAME	LATITUDE	LONGITUDE
SAU	N375119.20	W1223121.91
BBUBB	N374014.58	W1215018.49
CYMBL	N373415.17	W1215037.07
HEDER	N374004.87	W1220219.93
JUPAP	N373825.28	W1215714.44
SOYOK	N374428.12	W1221551.78
TENIE	N374207.58	W1220837.59
VODSY	N374109.24	W1220537.89

RUNWAYS

RUNWAY	THRESHOLD LATITUDE	THRESHOLD LONGITUDE	THRESHOLD ELEVATION	PROCEDURE TCH
RW28L	N374320.18	W1221221.63	00008	55.0

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