

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29**

Bearings, headings, courses, tracks 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 feet RVR.

<u>AIRPORT ID</u> OAK	<u>PROCEDURE NAME</u> ILS OR LOC RWY 30 ILS RWY 30 (SA CAT I) ILS RWY 30 (CAT II) ILS RWY 30 (CAT III)	<u>ORIGINAL/AMENDMENT</u> 32	<u>CITY</u> OAKLAND	<u>STATE</u> CA		
<u>AIRPORT ELEVATION</u> 9	<u>TDZE</u> 9	<u>SUPERSEDED</u> ILS OR LOC RWY 30 ILS RWY 30 (SA CAT I) ILS RWY 30 (CAT II) ILS RWY 30 (CAT III)	<u>ORIGINAL/AMENDMENT</u> 31	<u>DATED</u> 12/07/2017	<u>MAG VAR</u> 14E	<u>EPOCH YEAR</u> 2015
<u>FACILITY</u> I-INB	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
FFIST	IAF	PRFCT		TF	FB	1.00	251.21	6.28	6000
MYSHN	IAF	MYCAF		TF	FB	1.00	264.42	6.01	5000
MYCAF		FRNNY		TF	FB	1.00	264.35	4.82	4400
FRNNY		WUVON/I-INB 10.50 DME/RADAR		TF	FB	1.00	296.11	5.11	2700
PRFCT		PARBB		TF	FB	1.00	256.47	6.05	4500
PARBB		ZOLUM		TF	FB	1.00	254.16	3.54	3500
ZOLUM		WUVON/I-INB 10.50 DME/RADAR		TF	FB	1.00	264.04	3.00	2700
WUVON/I-INB 10.50 DME/RADAR	IF	MITOE/I-INB 8.29 DME/RADAR					296.01 (I-INB)	2.21	2000

MISSED APPROACH

MAP:

ILS: DA
LOC: 6.08 NM AFTER MITOE/I-INB 8.29 DME/RADAR OR AT I-INB 2.21 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 600 THEN CLIMBING LEFT TURN TO 4000 ON HEADING 260 AND ON SAU VOR/DME R-110 TO SAU VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4000.

ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):

CLIMB TO 4000 THEN RIGHT TURN DIRECT OAK VOR/DME AND HOLD NW, RT, 120.00 INBOUND.

QUALITY
37
CHECKED

PROFILE:

1.	PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)				
2.	PROFILE STARTS AT WUVON/I-INB 10.50 DME/RADAR									
3.	FAC:	296.01	FAF:	MITOE/I-INB 8.29 DME/RADAR	DIST FAF TO MAP:	6.08	DIST FAF TO THLD:	6.08		
4.	MIN ALT:	WUVON/I-INB 10.50 DME/RADAR 2700, MITOE/I-INB 8.29 DME/RADAR 2000								
5.	DIST TO THLD FROM OM:		MM:		IM:		100 HAT:	858.00	150 HAT:	1811
6.	MIN GS INCPT:	2000	GS ALT AT PFAF:	MITOE/I-INB 8.29 DME/RADAR 2000			OM:		GS ANT:	1051
7.	GS ANGLE:	3.00	34:1:		20:1:		TCH:	55.0	IM:	
8.	MSA FROM:	OAK VOR/DME 170-350 3800, 350-170 5100								

PBN REQUIREMENTS NOTE:

RNP APCH-GPS. FROM FFIST OR MYSHN.

EQUIPMENT REQUIREMENTS NOTES:

DME OR RADAR REQUIRED.

NOTES:

SA CAT I ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 30: CAT A, B, C, D, RA 150, RVR 1400, HAT 150, DA 159 MSL
CAT II ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 30: CAT A, B, C, D, RA 100, RVR 1200, HAT 100, DA 109 MSL
CAT III ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 30: CAT A, B, C, D, RVR 600
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CAT II RVR 1000 CHART NOTE: RVR 1000 AUTHORIZED WITH SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF AUTOLAND OR HUD TO TOUCHDOWN.
SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL.
CAT II/III AND SA CAT I CHART NOTE: MISSED APPROACH REQUIRES MINIMUM CLIMB OF 213 FT PER NM TO 1540, IF UNABLE TO MEET CLIMB GRADIENT, SEE ILS OR LOC RWY 30.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC-30 CAT C AND D VISIBILITY TO 1 3/8 SM.
CHART SPEED ICON IN PLANVIEW AT FFIST: MAX 200 KIAS.
CHART SPEED ICON IN PLANVIEW AT WUVON: MAX 200 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD NE, RT, 215.21 INBOUND.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD NW OAK VOR/DME, RT, 120.00 INBOUND.
CHART FAS OBST: 238 POLE (06-306363) 373758N/1220751W.
CHART VDP AT 3.53 DME.
DISTANCE VDP TO THLD 1.32 NM.
CHART IN PLANVIEW: OAK VOR/DME.
CHART AT OR BELOW 9000 AND AT OR ABOVE 7000 AT FFIST.
CHART AT OR ABOVE 6200 AT MYSHN.
CHART MANDATORY 4500 AT PARBB.
CHART CIRCLING ICON.



MINIMUMS:
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ ILS: STANDARD; LOC: STANDARD - CAT D 1400-3

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
S-ILS 30	209	1800	200	209	1800	200	209	1800	200	209	1800	200			
S-LOC 30	500	2400	491	500	2400	491	500	5000	491	500	5000	491			
CIRCLING	560	1	551	560	1	551	660	1 3/4	651	1400	3	1391			

CHANGES - REASONS

1. ADDED RNAV INITIAL SEGMENTS FFIST-PRFCT-PARBB AND MYSHN-MYCAF-FRNNY WITH ALL ASSOCIATED DATA - SEGMENTS ADDED TO CONNECT TO UPDATED EMZOH AND OAKES STARS.
2. UPDATED ALL INSTANCES OF DME DISTANCE FOR IF WUVON FROM 10.46 TO 10.50, PFAF MITOE FROM 8.25 TO 8.29 AND MAP FROM 2.17 TO 2.21 - I-INB DME ANTENNA RELOCATED IN 2017.
3. PROFILE LINE 5: CHANGED DIST FROM THLD 100 HAT FROM 859 TO 858 AND 150 HAT FROM 1813 TO 1811 - NEW TARGETS BUILD PROVIDED SLIGHT ADJUSTMENT.
4. MOVED 'DME OR RADAR REQUIRED' FROM NOTES TO EQUIPMENT REQUIREMENT NOTES - PER 8260.19J PARA. 8-6-9.
5. CHANGED PLANVIEW NOTE 'RNAV 1-GPS OR RADAR REQUIRED' TO 'RNP APCH - GPS. FROM FFIST OR MYSHN.' AND MOVED TO PBN REQUIREMENTS NOTES - PER 8260.19J PARA. 8-6-8D(5)(A)1.
6. ADDED NOTE 'FOR INOPERATIVE ALS, INCREASE S-LOC-30 CAT C AND D VISIBILITY TO 1 3/8 SM' - PER 8260.3F TABLE 3-3-1 AND INOPERATIVE COMPONENTS OR VISUAL AIDS TABLE.
7. ILS SA CAT I AND ILS CAT II/III: CHANGED NOTE 'MISSED APPROACH REQUIRES MINIMUM CLIMB OF 240 FEET PER NM TO 2700, IF UNABLE TO MEET CLIMB GRADIENT, SEE ILS OR LOC RWY 30' TO 'MISSED APPROACH REQUIRES MINIMUM CLIMB OF 213 FEET PER NM TO 1540, IF UNABLE TO MEET CLIMB GRADIENT, SEE ILS OR LOC RWY 30' - NEW TARGETS BUILD ALLOWED FOR LOWERING CLIMB GRADIENT REQUIREMENT AND CLIMB GRADIENT TERMINATION ALTITUDE.
8. CHANGED NOTE 'SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL AND USE OF HUD TO DH' TO 'SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL - PER 8260.19J PARA. 8-6-12M(1).
9. CHANGED FAS OBST FROM FAS OBST: 239 AAO 373904N/1220700W TO 238 POLE (06-306363) 373758N/1220751W - PREVIOUS AAO LOCATED IN KHWD AAO EXEMPT AREA.
10. REMOVED 7:1 EXCLUDED OBSTRUCTION 254 AAO 373836.44N/1220605.79W - NO BENEFIT PROVIDED.
11. RELOCATED VDP FROM DIST TO THLD 1.31 TO 1.32 AND FROM I-INB 3.48 DME TO I-INB 3.53 DME - SLIGHT ADJUSTMENT FROM NEW TARGETS BUILD AND I-INB DME ANTENNA RELOCATED IN 2017.
12. REMOVED PROFILE NOTE '*LOC ONLY' AND ASSOCIATED ASTERISK FROM VDP AT I-INB 3.48 DME - NO LONGER REQUIRED BY CRITERIA.
13. ADDED MAX 200 KIAS SPEED RESTRICTION AT IF WUVON/I-INB 10.46 DME/RADAR - REQUESTED TO ATC/FPT TO ACCOMMODATE SHORT INTERMEDIATE SEGMENT.
14. REMOVED ILS ALTERNATE MINIMUMS CAT C 700-2, CAT D 1400-3 - NO LONGER APPLY.

01/23/25: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 12/18/24.
1. CHANGED NOTE 'CHART SPEED ICON IN PLANVIEW AT FFIST: MAX 210 KIAS' TO 'CHART SPEED ICON IN PLANVIEW AT FFIST: MAX 200 KIAS' - REQUESTED BY ATC/FPT.



STATE
CA

OTHER: ZOA, NORCAL APP CON, ATCT, AMGR

04/22/2025

12/18/2024

MANAGER

FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

<u>AIRPORT ID</u> OAK	<u>PROCEDURE NAME</u> ILS OR LOC RWY 30 ILS RWY 30 (SA CAT I) ILS RWY 30 (CAT II) ILS RWY 30 (CAT III)	<u>AMDT NO.</u> 32	<u>CITY</u> OAKLAND	<u>STATE</u> CA	<u>AIRPORT ELEVATION</u> 9	<u>FACILITY</u> I-INB
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PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

<u>FROM</u> FFIST	<u>TO</u> PRFCT
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<u>RNP</u> 1.00	<u>DISTANCE</u> 6.28	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
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<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	373503.00N/1213951.00W	2300	215	8	4B	1000				PR220 AT2480	6000
TERRAIN	373448.00N/1214351.00W	1988 (2000)								AS1500	3500

COMPUTATIONS

<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>
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SEGMENT REMARKS:

INITIAL

<u>FROM</u> MYSHN	<u>TO</u> MYCAF
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<u>RNP</u> 1.00	<u>DISTANCE</u> 6.01	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
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<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	373200.00N/1214536.00W	3216	215	8	4B	1000				PR310 AT474	5000
TERRAIN	373136.00N/1214636.00W	2549 (2500)								AS1500	4000

COMPUTATIONS

<u>ALT</u>	<u>KIAS</u>	<u>KTAS</u>	<u>HAA</u>	<u>VKTW</u>	<u>TR</u>	<u>BA</u>	<u>DTA</u>	<u>COURSE CHANGE</u>	<u>DVEB</u>	<u>VEB OCS</u>	<u>RF CENTER FIX/DISTANCE</u>
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SEGMENT REMARKS:

QUALITY
37
CHECKED

INITIAL: STEPDOWN

FROM

MYCAF

TO

FRNNY

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	4.82										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	373054.00N/1215303.00W	2497	215	8	4B	1000				PR210 AT693	4400
TERRAIN	373136.00N/1215412.00W	1227 (1200)								AS1500	2700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM

FRNNY

TO

WUVON/I-INB 10.50 DME/RADAR

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	5.11										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	373542.00N/1215903.00W	1247	215	8	4B	1000				PR90 AT363	2700
TERRAIN	373542.00N/1215903.00W	1046 (1000)								AS1500	2500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM

PRFCT

TO

PARBB

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	6.05										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	373712.00N/1215521.00W	2379	215	8	4B	1000				PR200 AT921	4500
TERRAIN	373712.00N/1215521.00W	2178 (2200)								AS1500	3700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM

PARBB

TO

ZOLUM

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	3.54										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	373721.00N/1215530.00W	2343	215	8	4B	1000				PR150	3500
TERRAIN	373736.00N/1215742.00W	1840 (1800)								AS1500	3300

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM

ZOLUM

TO

WUVON/I-INB 10.50 DME/RADAR

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	3.00										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	373751.00N/1215948.00W	1552	215	8	4B	1000				AT148	2700
TERRAIN	373827.00N/1220209.00W	935 (900)								AS1500	2400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE

FROM

WUVON/I-INB 10.50 DME/RADAR

TO

MITOE/I-INB 8.29 DME/RADAR

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
	2.21										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
AAO	373927.00N/1220115.00W	1342	215	8	4B	500					1900
TERRAIN	373951.00N/1220142.00W	1036 (1000)								AS1000	2000

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

AIRPORT ID
OAK

PROCEDURE NAME
ILS OR LOC RWY 30
ILS RWY 30 (SA CAT I)
ILS RWY 30 (CAT II)
ILS RWY 30 (CAT III)

AMDT NO.
32

CITY
OAKLAND

STATE
CA

AIRPORT ELEVATION
9

FACILITY
I-INB

FINAL: ILS

FROM

MITOE/I-INB 8.29 DME/RADAR

TO

RW30

RNP

DISTANCE
6.08

PAT

MAP
DA

HAT
200

HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				209

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: ILS CAT II

FROM

MITOE/I-INB 8.29 DME/RADAR

TO

RW30

RNP

DISTANCE
6.08

PAT

MAP
DA

HAT
100

HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				109

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



AIRPORT ID
OAK

PROCEDURE NAME
ILS OR LOC RWY 30
ILS RWY 30 (SA CAT I)
ILS RWY 30 (CAT II)
ILS RWY 30 (CAT III)

AMDT NO.
32

CITY
OAKLAND

STATE
CA

AIRPORT ELEVATION
9

FACILITY
I-INB

FINAL: ILS SA CAT I

FROM
MITOE/I-INB 8.29 DME/RADAR

TO
RW30

RNP

DISTANCE
6.08

PAT

MAP
DA

HAT
150

HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				159

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LOC

FROM
MITOE/I-INB 8.29 DME/RADAR

TO
6.08 NM AFTER MITOE/I-INB 8.29 DME/RADAR OR AT I-INB 2.21 DME

RNP

DISTANCE
6.08

PAT

MAP
6.08 NM AFTER MITOE/I-INB
8.29 DME/RADAR OR AT I-
INB 2.21 DME

HAT
491

HMAS

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
POLE (06-306363)	373757.75N/1220751.06W	238	20	10	1B	250				XL4	500

COMPUTATIONS

ALT KIAS KTAS HAA VKTW TR BA DTA COURSE CHANGE DVEB VEB OCS RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH: ILS

FROM

DA

TO

SAU VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
41											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				4000
TOWER (06-000120)	374519.32N/1222709.83W	1811	20	50	1D	1000					2900
TERRAIN	375103.00N/1222957.00W	1115 (1100)								AS1500	2600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: ILS CAT II

FROM

DA

TO

SAU VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
8											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (06-000120)	374519.32N/1222709.83W	1811	20	50	1D		ASC	213	1540		4000
TOWER (06-000120)	374519.32N/1222709.83W	1811	20	50	1D	1000					2900
TERRAIN	375103.00N/1222957.00W	1115 (1100)								AS1500	2600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH: ILS SA CAT I

FROM

DA

TO

SAU VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
8											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (06-000120)	374519.32N/1222709.83W	1811	20	50	1D		ASC	213	1540		4000
TOWER (06-000120)	374519.32N/1222709.83W	1811	20	50	1D	1000					2900
TERRAIN	375103.00N/1222957.00W	1115 (1100)								AS1500	2600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LOC

FROM

6.08 NM AFTER MITOE/I-INB 8.29 DME/RADAR OR AT I-INB 2.21 DME

TO

SAU VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u> 246				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				4000
TOWER (06-000120)	374519.32N/1222709.83W	1811	20	50	1D	1000					2900
TERRAIN	375103.00N/1222957.00W	1115 (1100)								AS1500	2600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH ALTERNATE: ILS

FROM

DA

TO

OAK VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
41											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				4000
AAO	375527.00N/1223551.00W	2776	215	8	4B	1000					3800
TERRAIN	375527.00N/1223551.00W	2775 (2800)								AS1000	3800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH ALTERNATE: ILS CAT II

FROM

DA

TO

OAK VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
8											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				4000
AAO	375527.00N/1223551.00W	2776	215	8	4B	1000					3800
TERRAIN	375527.00N/1223551.00W	2775 (2800)								AS1000	3800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH ALTERNATE: ILS SA CAT I

FROM

DA

TO

OAK VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>	<u>HMAS</u> 8				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				4000
AAO	375527.00N/1223551.00W	2776	215	8	4B	1000					3800
TERRAIN	375527.00N/1223551.00W	2775 (2800)								AS1000	3800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH ALTERNATE: LOC

FROM

6.08 NM AFTER MITOE/I-INB 8.29 DME/RADAR OR AT I-INB 2.21 DME

TO

OAK VOR/DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
246											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				4000
AAO	375527.00N/1223551.00W	2776	215	8	4B	1000					3800
TERRAIN	375527.00N/1223551.00W	2775 (2800)								AS1000	3800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☒ CAT C

☒ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
ATCT (06-021928)	374310.07N/1221319.06W	1.30	551	257	20	3	1A	300			560
CATEGORY B											
ATCT (06-021928)	374310.07N/1221319.06W	1.81	551	257	20	3	1A	300			560
CATEGORY C											
TREE	374657.00N/1221148.00W	2.84	651	354	215	8	4B	300			660
CATEGORY D											
AAO	374706.00N/1221009.00W	3.73	1391	1031	215	8	4B	300		XP69	1400

CIRCLING REMARKS:
XP: TO MAINTAIN CURRENT CMDA/HAA.

MSA

CENTER
OAK VOR/DME

RADIUS
25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
170-350	AAO	375527.00N/1223551.00W	287	21.4	2776	215	8	4B	1000			3800
350-170	AAO	375254.00N/1215454.00W	040	17.4	4036	215	8	4B	1000			5100

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:
VEGETATION 81' PER FPT. SHIP MAST HEIGHT 208' OUTSIDE 5 NM FROM AIRPORT CENTER.

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

OAK TOWER, NORCAL APP CON

<u>WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>WMSCR</u>	<u>ADJUSTMENTS</u>
ASOS	OAK	24	OAK	0.60	Y	0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>WMSCR</u>	<u>ADJUSTMENTS</u>

WX REMARKS:

24-HOUR ATC TOWER HAS REDUNDANT WEATHER SOURCES, BACK-UP ALTIMETER NOT REQUIRED.

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
I-INB	OAK ATCT	24	1

<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW15 - MIRL	BSC-G	
RW33 - MIRL	BSC-G	
RW10L - HIRL, PAPI-4R	NPI-G	ROLL OUT
RW10R - HIRL, REIL, PAPI-4L	NPI-G	
RW12 - MALSR, C/LINE, HIRL, PAPI-4R	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW28L - HIRL, PAPI-4R	PIR-G	
RW28R - MALSR, HIRL, PAPI-4L	PIR-G	APPROACH
RW30 - ALSF-2, C/LINE, TDZ, HIRL, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT

<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u>	<u>TCH</u>
3.00	9.0	55.0	4.1	1051	3.00	70.7

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE	114
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE		

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

FINAL TYPE	CIRCLING RWY 30
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AIRPORT ID
OAK

PROCEDURE NAME
ILS OR LOC RWY 30
ILS RWY 30 (SA CAT I)
ILS RWY 30 (CAT II)
ILS RWY 30 (CAT III)

AMDT NO.
32

CITY
OAKLAND

STATE
CA

AIRPORT ELEVATION
9

FACILITY
I-INB

20:1	
11 LIGHTING (06-088343) 374205.1100N/1221250.1400W (1.78)	11 LIGHTING (06-088342) 374204.7500N/1221250.5200W (1.78)
11 LIGHTING (06-135867) 374204.4800N/1221250.8000W (1.76)	11 LIGHTING (06-088339) 374204.8200N/1221250.4400W (1.76)
11 LIGHTING (06-088340) 374204.8000N/1221250.4600W (1.76)	11 LIGHTING (06-135865) 374205.1400N/1221250.1000W (1.75)
11 LIGHTING (06-088341) 374204.7700N/1221250.4900W (1.75)	11 LIGHTING (06-088344) 374204.5200N/1221250.7500W (1.74)
FINAL TYPE	ILS, LOCALIZER
20:1	
11 LIGHTING (06-088343) 374205.1100N/1221250.1400W (1.78)	11 LIGHTING (06-088342) 374204.7500N/1221250.5200W (1.78)
11 LIGHTING (06-135867) 374204.4800N/1221250.8000W (1.76)	11 LIGHTING (06-088339) 374204.8200N/1221250.4400W (1.76)
11 LIGHTING (06-088340) 374204.8000N/1221250.4600W (1.76)	11 LIGHTING (06-135865) 374205.1400N/1221250.1000W (1.75)
11 LIGHTING (06-088341) 374204.7700N/1221250.4900W (1.75)	11 LIGHTING (06-088344) 374204.5200N/1221250.7500W (1.74)
FINAL TYPE	ILS, LOCALIZER
34:1	
10 LIGHTING (06-107151) 374204.6700N/1221250.2700W (0.26)	
<u>PENETRATIONS REMARKS:</u>	
THE 20:1 AND 34:1 PENETRATIONS LISTED ABOVE ARE REILS AND CAN BE DISREGARDED PER 8260.3F PARA. 3-3-2C(5). THEY ARE LISTED HERE FOR INFORMATIONAL PURPOSES ONLY.	

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	2.94
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	0.86
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	310.01
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	0
DISTANCE FROM	THLD	TO 1500FT POINT	5.08
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.32
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	310.01
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	0

THRESHOLD COORDINATES (IF STR-IN)	374206.10N/1221252.42W
ARP COORDINATES	374316.54N/1221316.14W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 30 DISTANCE 1.23 NM
FAF COORDINATES	373811.16N/1220700.68W
FIX NAME COORDINATES	

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED.
THLD DISPLACED 114FT, ACTUAL COORDINATES: 374205.38N/1221251.33W

PART E: PREPARED BY

<u>NAME</u>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
RALPH DUMAR	AJV-A422	12/18/2024	AERONAUTICAL INFORMATION SPECIALIST

