

US DEPARTMENT of TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet. MSL. Altitudes are minimum altitudes unless otherwise indicated.
 Distances are in nautical miles (NM). Graphic depiction attached.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
RAIDR RNAV	THREE	RAIDR.RAIDR3	TWO	Oct 27, 2005	Oct 17, 2013

TRANSITION ROUTES:

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Mag Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
MUSTANG	FMG.RAIDR3	FMG VORTAC	FMG VORTAC						
			ILA VORTAC	242.73	113.83	11600	11600		
			STIKM WP	208.37	43.50	10800	6300		
ROSEBURG	RBG.RAIDR3	RBG VOR/DME	RBG VOR/DME						
			OTTOO WP	155.62	112.73	FL250	10200		
			WADRO WP	161.94	74.49	17000	10800		
			STIKM WP	162.02	93.75	10800	10300		
RED BLUFF	RBL.RAIDR3	RBL VORTAC	RBL VORTAC						
			STIKM WP	177.73	95.81	10800	6600		

ARRIVAL ROUTE DESCRIPTION:

MUSTANG TRANSITION (FMG.RAIDR3)
 RED BLUFF TRANSITION (RBL.RAIDR3)
 ROSEBURG TRANSITION (RBG.RAIDR3)

From over STIKM WP on track 157.69/30.33 NM to RAIDR (MEA 5000), then on track 157.16/10.75 NM to cross SAU VORTAC at or above 5000. Expect radar vectors to final approach course.

PROCEDURAL DATA NOTES:

NOTE: RADAR REQUIRED.

NOTE: RNAV 1.

NOTE: DME/DME/IRU OR GPS REQUIRED.

NOTE: After SAU VORTAC expect radar vectors to final approach course.

CHART AT RAIDR WP: For Oakland Rwy 30 expect to cross at 7,000'. For Oakland Rwy 12 expect to cross at 5000'.

FIXES AND/OR HOLDING PATTERNS:

Chart Holding at STIKM WP: (HOLD N, LT, 157.69 INBOUND, 7 MILE LEGS)

Chart Holding at RAIDR WP: (HOLD NW, LT, 157.16 INBOUND, 5 MILE LEGS)

COMMUNICATIONS:

US DEPARTMENT of TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
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Distances are in nautical miles (NM). Graphic depiction attached.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
RAIDR RNAV	THREE	RAIDR.RAIDR3	TWO	Oct 27, 2005	Oct 17, 2013

Oakland Center 125.85
NORCAL APP CON 120.9/323.2
Oakland Tower 127.2/256.9
Oakland ATIS 133.775
Hayward Tower* 120.2
Hayward ATIS 126.7

AIRPORTS SERVED:

Metropolitan Oakland Intl, Oakland, CA Hayward Executive , Hayward, CA

LOST COMMUNICATIONS PROCEDURE:

Depart SAU VORTAC and proceed direct to COMMO INT.

REMARKS:

MAGVAR CHANGE AT KOAK FROM 16E 1995 TO 14E 2015. FACILITY MAGVARS REMAIN UNCHANGED.

ADDITIONAL FLIGHT DATA:

CHART NOTE: FOR NON-GPS EQUIPPED AIRCRAFT ON THE RBL TRANSITION (RBL.RAIDR3), RBL VORTAC MUST BE OPERATIONAL.
DME/DME ASSESSMENT: SAT (RNP 2.0)
REFERENCE MAGNETIC VARIATION = KOAK 14E/2015

US DEPARTMENT of TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

STAR (DATA RECORD)

Arrival Name RAIDR3 RNAV	Number 3	STAR Computer Code RAIDR.RAIDR3		Superseded Number 2		Dated Oct 27, 2005	Effective Date Oct 17, 2013		
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
En Route Transition									
FMG VORTAC	393152.55N / 1193921.86W	Y		IF					FMG.RAIDR3
ILA VORTAC	390416.14N / 1220138.08W	Y	FB	TF	256.73	113.83			
STIKM WP	383200.00N / 1223900.00W	Y	FB	TF	222.37	43.50			
En Route Transition									
RBG VOR/DME	431056.72N / 1232108.06W	Y		IF					RBG.RAIDR3
OTTOO WP	411958.00N / 1225410.00W	Y	FB	TF	169.62	112.73			
WADRO WP	400536.96N / 1224717.94W	Y	FB	TF	175.94	74.49			
STIKM WP	383200.00N / 1223900.00W	Y	FB	TF	176.02	93.75			
En Route Transition									
RBL VORTAC	400556.08N / 1221410.86W	Y		IF					RBL.RAIDR3
STIKM WP	383200.00N / 1223900.00W	Y	FB	TF	191.73	95.81			
Common Route									
STIKM WP	383200.00N / 1223900.00W	Y		IF					RAIDR.RAIDR3
RAIDR WP	380157.00N / 1223327.00W	Y	FB	TF	171.69	30.33			
SAU VORTAC	375119.20N / 1223121.91W	Y	FB	TF	171.16	10.75	AT/ABOVE 5000		



STAR (Data Record)

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QUALITY
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**US Department of Transportation
Federal Aviation Administration****STAR (Data Record)**

SUSAP KHWDK2GRW10L 0031071049 N37394491W122073814+0300 -0024000028000032075V
SUSAP KHWDK2GRW10R 0056941049 N37393935W122073845+0400 -0023600029081625150V
SUSAP KHWDK2GRW28L 0056942849 N37391866W122065313-0400 -0017200050067635150RIHWD0
SUSAP KHWDK2GRW28R 0031072849 N37392962W122070463-0300 -0021200037000044075V

QUALITY
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(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RAIDR RNAV	THREE	RAIDR.RAIDR3	TWO	10/27/2005	17 Oct 2013

**US Department of Transportation
Federal Aviation Administration**
STAR (Data Record)

ARINC SUMMARY - 424-18 - STAR

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
	FMG	FMG	010		IF		FB					
	FMG	ILA	020		TF		FB	1.0				
	FMG	STIKM	030		TF		FB	1.0				
	RBG	RBG	010		IF		FB					
	RBG	OTTOO	020		TF		FB	1.0				
	RBG	WADRO	030		TF		FB	1.0				
	RBG	STIKM	040		TF		FB	1.0				
	RBL	RBL	010		IF		FB					
	RBL	STIKM	020		TF		FB	1.0				
	ALL	STIKM	010		IF		FB					
	ALL	RAIDR	020		TF		FB	1.0				
	ALL	SAU	030		TF		FB	1.0			AA 05000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	FMG	N393152.55	W1193921.86	N3931.876	W11939.364
	ILA	N390416.14	W1220138.08	N3904.269	W12201.635
	RBG	N431056.72	W1232108.06	N4310.945	W12321.134
	RBL	N400556.08	W1221410.86	N4005.935	W12214.181
	SAU	N375119.20	W1223121.91	N3751.320	W12231.365
	OTTOO	N411958.00	W1225410.00	N4119.967	W12254.167
	RAIDR	N380157.00	W1223327.00	N3801.950	W12233.450
	STIKM	N383200.00	W1223900.00	N3832.000	W12239.000
	WADRO	N400536.96	W1224717.94	N4005.616	W12247.299
	RW10L	N373944.91	W1220738.14	N3739.749	W12207.636
	RW10R	N373939.35	W1220738.45	N3739.656	W12207.641
	RW28L	N373918.66	W1220653.13	N3739.311	W12206.886
	RW28R	N373929.62	W1220704.63	N3739.494	W12207.077

RUNWAY DATA	RWY	THRESHOLD	TCH
		ELEVATION	
	RW10L	00028	32
	RW10R	00029	25
	RW28L	00050	35
	RW28R	00037	44

QUALITY
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(11)
Arrival Name
RAIDR RNAV

(12)
Number
THREE

(13)
STAR Computer Code
RAIDR.RAIDR3

(14)
Superseded Nr.
TWO

(15)
Dated
10/27/2005

(16)
Effective Date
17 Oct 2013

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SUSAP KOAKK2GRW10L	0054580982	N37434969W122131985+0000	-0030800006000049150R
SUSAP KOAKK2GRW10R	0062130982	N37434335W122133325+0000	-0030000008000050150R
SUSAP KOAKK2GRW12	0105201160	N37431222W122143161+0000	-0029900009000055150IIAAZ1
SUSAP KOAKK2GRW15	0033761504	N37442505W122132211+0100	-0032000002000050075D
SUSAP KOAKK2GRW28L	0062132782	N37432018W122122163+0000	-0029900008000055150R
SUSAP KOAKK2GRW28R	0054582782	N37432932W122121693+0000	-0030700006000057150IIIOAK1
SUSAP KOAKK2GRW30	0105202960	N37420537W122125132+0000	-0029900009000055150IIINB3
SUSAP KOAKK2GRW33	0033763304	N37435290W122131083-0100	-0031200004000050075D

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ARINC SUMMARY - 424-18 - STAR

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	FMG	FMG	010		IF		FB					
	FMG	ILA	020		TF		FB	1.0				
	FMG	STIKM	030		TF		FB	1.0				
	RBG	RBG	010		IF		FB					
	RBG	OTTOO	020		TF		FB	1.0				
	RBG	WADRO	030		TF		FB	1.0				
	RBG	STIKM	040		TF		FB	1.0				
	RBL	RBL	010		IF		FB					
	RBL	STIKM	020		TF		FB	1.0				
	ALL	STIKM	010		IF		FB					
	ALL	RAIDR	020		TF		FB	1.0				
	ALL	SAU	030		TF		FB	1.0			AA 05000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	FMG	N393152.55	W1193921.86	N3931.876	W11939.364
	ILA	N390416.14	W1220138.08	N3904.269	W12201.635
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	SAU	N375119.20	W1223121.91	N3751.320	W12231.365
	OTTOO	N411958.00	W1225410.00	N4119.967	W12254.167
	RAIDR	N380157.00	W1223327.00	N3801.950	W12233.450
	STIKM	N383200.00	W1223900.00	N3832.000	W12239.000
	WADRO	N400536.96	W1224717.94	N4005.616	W12247.299
	RW10L	N374349.69	W1221319.85	N3743.828	W12213.331
	RW10R	N374343.35	W1221333.25	N3743.723	W12213.554
	RW12	N374312.22	W1221431.61	N3743.204	W12214.527
	RW15	N374425.05	W1221322.11	N3744.418	W12213.369
	RW28L	N374320.18	W1221221.63	N3743.336	W12212.361
	RW28R	N374329.32	W1221216.93	N3743.489	W12212.282
	RW30	N374205.37	W1221251.32	N3742.090	W12212.855
	RW33	N374352.90	W1221310.83	N3743.882	W12213.181

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW10L	00006	49
RW10R	00008	50

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RW12	00009	55
RW15	00002	50
RW28L	00008	55
RW28R	00006	57
RW30	00009	55
RW33	00004	50

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