Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 01/17/2012	Task #: 2012011725094201001	Request #: 20120117250942
Procedure: RNAV (GPS) RWY 13 AMDT 1A		Airport ID: KHIO	Airport: PORTLAND-HILLSBORO		Reimbursable #:
City: PORTLAND	ST: OR	GPS #:		Estimated Chart Date: 11/15/2012	FICO #:
Fac ID: HIO	Fac. Type: Proc-S	Specialist: VICTOR BOONE			

P2

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	01/23/2012	07/27/2012	LONNIE EVERHART	REQUEST TABLETOP REVIEW FROM FLIGHT CHECK
QA:	07/27/2012	07/30/2012	RICHELLE ADDINGTON	
Liaison:	07/30/2012		K. Spurlin	P2 - REQUEST TABLE TOP

Procedure Comments:

Remark Type: INFORMATION

PKG 2 of 2

PORTLAND, OR PORTLAND-HILLSBORO (KHIO) RNAV (GPS) RWY 13, AMDT 1A ENROUTE-NO FC BY 10/2/12 PUB 11/15/12

ATTACHED FORMS: 8260-3, 8260-9, 8260-10.

REQUEST TABLETOP REVIEW FROM FLIGHT CHECK

CONTACT: ADOLFO URRUTIA/LONNIE EVERHART, AJV-354 LEADS, 405.954.2079/4576.

Current Chart

PORTLAND, OREGON

AL-5063 (FAA)

12096

WAAS CH 69502 W12A	APP CRS 127°	Rwy ldg 6600 TDZE 203 Apt Elev 208

RNAV (GPS) RWY 13

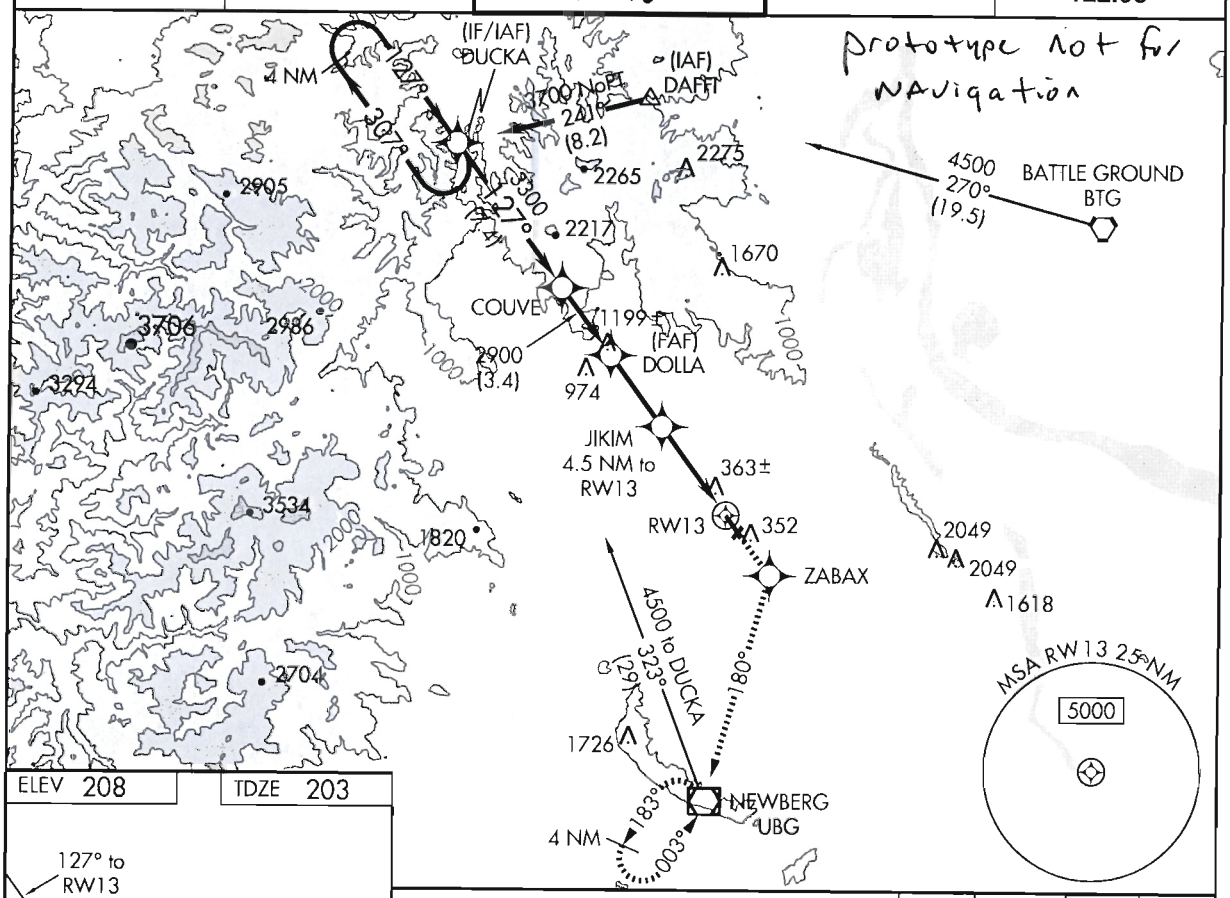
PORTLAND-HILLSBORO (HIO)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP- 0.3 NA. When local altimeter setting not received, use Portland Intl altimeter setting and increase all DA and MDA 60 feet, increase LNAV/VNAV all Cats and LNAV Cat C and D visibility ¼ mile. For inoperative MALSR when using Portland Intl altimeter setting, increase LPV all Cats visibility to RVR 5000, LNAV/VNAV all Cats visibility and LNAV Cat D visibility to RVR 6000. VDP and Baro-VNAV NA when using Portland Intl altimeter setting.

MALSR

MISSED APPROACH: Climb to 3000 direct ZABAX and on track 180° to UBG VOR/DME and hold.

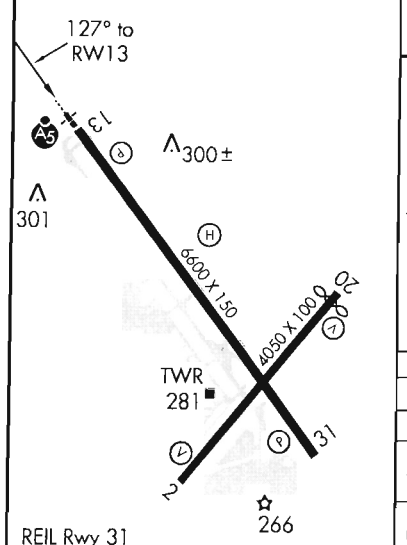
ATIS	PORTLAND APP CON	HILLSBORO TOWER*	GND CON	UNICOM
127.65	126.0 284.6	119.3 (CTAF) 239.3	121.7	122.95



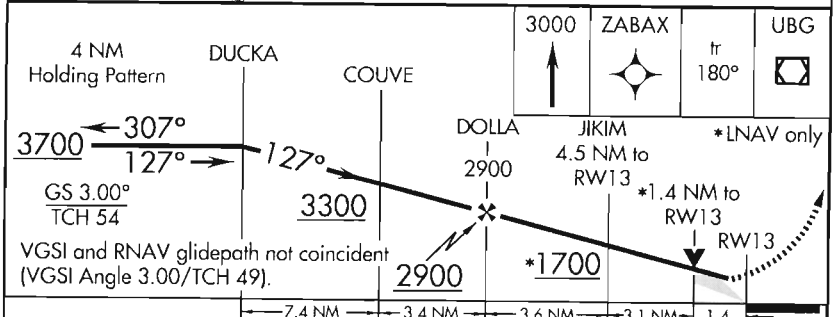
NW-1, 31 MAY 2012 to 28 JUN 2012

NW-1, 31 MAY 2012 to 28 JUN 2012

ELEV 208 | TDZE 203



REIL Rwy 31
HIRL Rwy 13-31
MIRL Rwy 2-20



CATEGORY	A	B	C	D
LPV DA	403/24 200 (200-½)			
LNAV/VNAV DA	650/50 447 (500-1)			
LNAV MDA	680/24 477 (500-½)		680/40 477 (500-¾)	680/50 477 (500-1)
CIRCLING	680-1 472 (500-1)		680-1½ 472 (500-1½)	760-2 552 (600-2)

PORTLAND, OREGON

Amdt 1 03JUN10

FIG

45°32'N-122°57'W

PORTLAND-HILLSBORO (HIO)

RNAV (GPS) RWY 13

US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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

FROM	TO	COURSE AND DISTANCE	ALTITUDE
UBG VOR/DME	DUCKA (FO)	322.82 / 29.00	4500
BTG VORTAC	DAFFI (FB)	269.68 / 19.47	4500
DAFFI (IAF)	DUCKA (NOPT) (FB)	240.87 / 8.16	3700
DUCKA (IF/IAF)	COUVE (FB)	127.38 / 7.41	3300
COUVE	DOLLA (FB)	127.45 / 3.43	2900
DOLLA (FAF)	JIKIM/4.50 NM TO RW13 (FB)	127.49 / 3.63	
(SEE FORM 8260-10)			

MISSED APPROACH

LPV: DA
LNAV/VNAV: DA
LNAV: RW13

CLIMB TO 3000 DIRECT ZABAX AND ON TRACK 179.77 TO UBG VOR/DME AND HOLD.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. HOLD NW DUCKA, RT, 127.38 INBOUND, 3700 FT. IN LIEU OF PT (IAF)
3. FAC: 127.49 FAF: DOLLA DIST FAF TO MAP: 8.13 THLD: 8.13
4. MIN. ALT: DUCKA 3700, COUVE 3300, DOLLA 2900, JIKIM/4.50 NM TO RW13 1700*
5. DIST TO THLD FROM OM: ____ MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 2900 GS ALT AT: DOLLA 2900 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 54.0 34:1 IS CLEAR
8. MSA FROM: RW13 5000

ADDITIONAL FLIGHT DATA:
HOLD S, LT, 003.00 INBOUND.
CHART FAS OBST: 363 TREE 453353N/1225811W
FAS OBST: 429 AAO 453628N/1225954W
569 AAO 453727N/1230018W.
1199 AAO 453945N/1230439W.
DISTANCE TO THLD FROM 200 HAT: 0.47 NM.
CHART VDP AT 1.35 MILES TO RW13*
*LNAV ONLY.
WAAS CHANNEL # 69502
REFERENCE PATH ID: W13A
LTP HAE: 38.1 M

MAG VAR: 16E EPOCH YEAR: 2010

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	403	2400	200	403	2400	200	403	2400	200	403	2400	200			
LNAV/VNAV DA	650	5000	447	650	5000	447	650	5000	447	650	5000	447			
LNAV MDA	680	2400	477	680	2400	477	680	4000	477	680	5000	477			
CIRCLING	680	1	472	680	1	472	680	1 1/2	472	760	2	552			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F).
CHART NOTE: DME/DME RNP-0.3 NA.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE PORTLAND INTL ALTIMETER SETTING AND (SEE FORM 8260-10)

@ NA WHEN LOCAL WEATHER NOT AVAILABLE.

QUALITY CHECKED

CITY AND STATE	ELEVATION: 208 TDZE: 203 AIRPORT NAME:	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP: RNAV (GPS) RWY 12
PORTLAND, OR	PORTLAND-HILLSBORO	RNAV	RNAV (GPS) RWY 13, AMDT 1A	AMDT: 1
				DATED 06/03/2010

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[ ] YES [X] NO		**ROUTINE**

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[ ]	[ ]	[X]	[ ]	[X]	[X]	[X] **ZSE, PDX APP CON, AMGR**

FLIGHT CHECKED BY		
NAME: **SCOTT ANDREW THOMPSON**	FIFO **AVN-200**	DATE: **03/31/2010**
DEVELOPED BY		
NAME: **VICTOR BOONE**	FIFO **AJV-354**	DATE: **07/16/2012**
APPROVED BY		
NAME: **DEZ SILAGYI** **MANAGER**	FIFO **AJV-354**	DATE:

CHANGES:

1. CHANGED PROCEDURE NAME FROM RNAV (GPS) RWY 12 TO RWY 13.
2. CHANGED ALL REFERENCES FROM RWY 12 TO RWY 13 AND UPDATED ARINC CODING.
3. CHANGED UNCOMPENSATED BARO-VNAV SYSTEMS NOTE FROM ABOVE 49C (120F) TO ABOVE 54C (130F).
4. UPDATE FAS DATA SHEET FPAP COORDINATES.

REASONS:

1, 2. RUNWAY NUMBERING CHANGED FROM RWY 12 TO RWY 13.
3. PER MEMO DTD 30 MAY 2012.
4. AFS MEMO DTD 1/18/2011.

QUALITY 4 CHECKED

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 aiport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
JIKIM/4.50 NM TO RW13	RW13 (MAP) (FO)	127.49 / 4.50	
RW13 (MAP)	403 MSL	127.49	
403 MSL	ZABAX (FB)		
ZABAX	UBG VOR/DME (FO)	179.77 / 9.66	3000

NOTES, (CONT.):
INCREASE ALL DA AND MDA 60 FEET, INCREASE LNAV/VNAV ALL CATS AND LNAV CAT C AND D VISIBILITY 1/4 MILE.
CHART NOTE: FOR INOPERATIVE MALSR WHEN USING PORTLAND INTL ALTIMETER SETTING, INCREASE LPV ALL CATS VISIBILITY TO RVR 5000, LNAV/VNAV ALL CATS VISIBILITY AND LNAV CAT D VISIBILITY TO RVR 6000.

CHART NOTE: VDP AND BARO-VNAV NA WHEN USING PORTLAND INTL ALTIMETER SETTING.

QUALITY CHECKED

CITY AND STATE	ELEVATION: 208 TDZE: 203	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP: RNAV (GPS) RWY 12
PORTLAND, OR	AIRPORT NAME: PORTLAND-HILLSBORO	RNAV	RNAV (GPS) RWY 13, AMDT 1A	AMDT: 1
				DATED: 06/03/2010

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

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 aiport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KHIO
RUNWAY	RW13
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W13A
LTP/FTP LATITUDE	453258.5865N
LTP/FTP LONGITUDE	1225734.2205W
LTP/FTP ELLIPSOIDAL HEIGHT	+00381
FPAP LATITUDE	453146.9100N
FPAP LONGITUDE	1225618.9500W
THRESHOLD CROSSING HEIGHT (TCH)	00054.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0736
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	1D0E4489

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K1
LTP ORTHOMETRIC HEIGHT	+00609
FPAP ORTHOMETRIC HEIGHT	+00609

QUALITY CHECKED

CITY AND STATE	ELEVATION: 208 TDZE: 203	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP: RNAV (GPS) RWY 12
PORTLAND, OR	AIRPORT NAME: PORTLAND-HILLSBORO	RNAV	RNAV (GPS) RWY 13, AMDT 1A	AMDT: 1
				DATED: 06/03/2010

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

REASONS:

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

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ARINC PACKET - 424-18 - RNAV (GPS)

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        BTG   K1011660VTHW N45445212W122352953    N45445163W122353227E0210002532     NARBATTLE GROUND
        SUSAD        UBG   K1011740VDHA N45211162W122584137    N45211162W122584137E0210014402     NARNEWBERG

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   COUVE K10    C     N45421595W123072178                      E0161     NAR           COUVE
        SUSAEAENRT   DAFFI K10    C   L N45500458W123021826                      E0162     NAR           DAFFI
        SUSAEAENRT   DOLLA K10    C     N45393056W123042699                      E0161     NAR           DOLLA
        SUSAEAENRT   DUCKA K10    C     N45481275W123134009                      E0162     NAR           DUCKA
        SUSAEAENRT   JIKIM K10    C     N45363572W123012262                      E0161     NAR           JIKIM
        SUSAEAENRT   ZABAX K10    W     N45302960W122545786                      E0160     NAR           ZABAX

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KHIOK1AHIO     0     066YHN45322620W122570070E016000208         1800018000C    MNAR    PORTLAND-HILLSBORO

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KHIOK1FR13   ABTG   010BTG  K1D 0V       IF                                                18000                A JS
        SUSAP KHIOK1FR13   ABTG   020DAFFIK1EA0E  A 020TF                    26970195    + 04500                              A JS
        SUSAP KHIOK1FR13   ABTG   030DUCKAK1EA0EE B 010TF                    24090082    + 03700                              A JS
        SUSAP KHIOK1FR13   ADAFFI 010DAFFIK1EA0E  A    IF                                                18000                A JS
        SUSAP KHIOK1FR13   ADAFFI 020DUCKAK1EA0EE B 010TF                    24090082    + 03700                              A JS
        SUSAP KHIOK1FR13   AUBG   010UBG  K1D 0V       IF                                                18000                A JS
        SUSAP KHIOK1FR13   AUBG   020DUCKAK1EA0EY   020TF                    32280290    + 04500                              A JS
        SUSAP KHIOK1FR13   AUBG   030DUCKAK1EA0EE AR   HF                    12740040    + 03700                              A JS
        SUSAP KHIOK1FR13   R      010DUCKAK1EA0E  I    IF                                + 03700     18000                    A JS
        SUSAP KHIOK1FR13   R      011COUVEK1EA0E S  051TF                    12740074    + 03300                              A JS
        SUSAP KHIOK1FR13   R      020DOLLAK1EA1E  F 051TF                    12750034    + 02900                  RW13  K1PGA JS
        SUSAP KHIOK1FR13   R      020DOLLAK1EA2WALPV       ALNAV/VNAV ALNAV                                                     JS
        SUSAP KHIOK1FR13   R      021JIKIMK1EA0E S  031TF                    12750036    V 0170001706        -300            A JS
        SUSAP KHIOK1FR13   R      030RW13 K1PG0GY M 031TF                    12750045      00254             -300            A JS
        SUSAP KHIOK1FR13   R      040         0  M     CA                    1275        + 00403                              A JS
        SUSAP KHIOK1FR13   R      050ZABAXK1EA0E       DF                                                                      A JS
        SUSAP KHIOK1FR13   R      060UBG  K1D 0VY   010TF                    1798        + 03000                              A JS
        SUSAP KHIOK1FR13   R      070UBG  K1D 0VE  L   HM                    00300040    + 03000                              A JS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 208 TDZE: 203	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP: RNAV (GPS) RWY 12
PORTLAND, OR	AIRPORT NAME: PORTLAND-HILLSBORO	RNAV	RNAV (GPS) RWY 13, AMDT 1A	AMDT: 1
				DATED: 06/03/2010

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER ☐ (specify) _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

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```
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KHIOK1GRW13    0066001276 N45325859W122573422+0000    +0038100200000054150I

                 1         2         3         4         5         6         7         8         9         0         1         2         3
PP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KHIOK1PR13   RW13 001 0000W13A0N4532585865W12257342205+003810300N4531469100W122561895001067507360005 40F4003501D0E4489
        SUSAP KHIOK1PR13   RW13 002E      +00609+00609LPV       69502

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KHIOK1SRW13 K1PG               0   18018005025                                                                          M
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 208 TDZE: 203	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP: RNAV (GPS) RWY 12
PORTLAND, OR	AIRPORT NAME: PORTLAND-HILLSBORO	RNAV	RNAV (GPS) RWY 13, AMDT 1A	AMDT: 1
				DATED: 06/03/2010

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC SUMMARY - 424-18 - RNAV (GPS)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	BTG	BTG	010		IF		FB					
	BTG	DAFFI	020	IAF	TF		FB	2.0	269.7(285.7T)	019.5	AA 04500	
	BTG	DUCKA	030		TF		FB	1.0	240.9(256.9T)	008.2	AA 03700	
	DAFFI	DAFFI	010	IAF	IF		FB					
	DAFFI	DUCKA	020		TF		FB	1.0	240.9(256.9T)	008.2	AA 03700	
	UBG	UBG	010		IF		FB					
	UBG	DUCKA	020		TF		FO	2.0	322.8(338.8T)	029.0	AA 04500	
	UBG	DUCKA	030	IAF	HF	R	FO		127.4(143.4T)	004.0	AA 03700	
		DUCKA	010	FACF	IF		FB				AA 03700	
		COUVE	011	SDF	TF		FB	0.5	127.4(143.4T)	007.4	AA 03300	
		DOLLA	020	FAF	TF		FB	0.5	127.5(143.5T)	003.4	AA 02900	
		JIKIM	021	SDF	TF		FB	0.3	127.5(143.5T)	003.6	AA 01700 GS 01706	
		RW13	030	MAP	TF		FO	0.3	127.5(143.5T)	004.5	AT 00254	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		127.5(143.5T)		AA 00403	
	ZABAX	050		DF		FB					
	UBG	060		TF		FO	1.0	179.8(195.8T)		AA 03000	
	UBG	070		HM	L	FO		003.0(019.0T)	004.0	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	BTG	N454452.12	W1223529.53	N4544.869	W12235.492
	UBG	N452111.62	W1225841.37	N4521.194	W12258.690
	COUVE	N454215.95	W1230721.78	N4542.266	W12307.363
	DAFFI	N455004.58	W1230218.26	N4550.076	W12302.304
	DOLLA	N453930.56	W1230426.99	N4539.509	W12304.450
	DUCKA	N454812.75	W1231340.09	N4548.213	W12313.668
	JIKIM	N453635.72	W1230122.62	N4536.595	W12301.377
	ZABAX	N453029.60	W1225457.86	N4530.493	W12254.964
	RW13	N453258.59	W1225734.22	N4532.977	W12257.570

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW13	00200	54

QUALITY CHECKED

CITY AND STATE	ELEVATION: 208 TDZE: 203	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP: RNAV (GPS) RWY 12
PORTLAND, OR	AIRPORT NAME: **PORTLAND-HILLSBORO**	**RNAV**	**RNAV (GPS) RWY 13, AMDT 1A**	AMDT: **1**
				DATED: **06/03/2010**

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	NFPG	DATE:
APPROVED BY		
NAME:	NFPG	DATE:

CHANGES:

REASONS:

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FEEDER	UBG VOR/DME	DUCKA	1. AAO	454425.30N/1230748.00W	2417 (6A)	2000		4500
			2. TERRAIN	454425.30N/1230748.00W	2217 (2200)		AS1500	3700
FEEDER	BTG VORTAC	DAFFI	3. AAO	455130.00N/1230203.00W	2392 (4E)	2000	AT108	4500
			4. TERRAIN	455130.00N/1230203.00W	2192 (2200)		AS1500	3700
INITIAL	DAFFI	DUCKA	5. AAO	454708.90N/1230610.70W	2465 (6A)	1000	AT235	3700
			6. TERRAIN	454708.90N/1230610.70W	2265 (2300)		AS1000	3300
INTERMEDIATE	DUCKA (IF/IAF)	COUVE	1. AAO	454425.30N/1230748.00W	2417 (6A)	500	AT383	3300
			2. TERRAIN	454425.30N/1230748.00W	2217 (2200)		AS1000	3200
INTERMEDIATE:	COUVE	DOLLA	7. AAO	454300.00N/1230609.00W	2080 (4E)	500	DG222 AC98	2900
STEPDOWN			8. TERRAIN	454251.00N/1230609.00W	1821 (1800)		AS1000	2800
FINAL: LPV	DOLLA	RW13				ASC		403/200
FINAL: LNAV/VNAV	DOLLA	RW13	9. TREE (KHIO0051)	453352.81N/1225811.36W	363 (1A)	23.4:1		650/447
FINAL: LNAV	DOLLA	JIKIM/4.50 NM TO	10. AAO	453842.46N/1230412.21W	902 (2A)	250	DG381 XL107 RA60	1700
		RW13					RA60 DG381 XL107	1700
2. HOLD-IN-LIEU-OF-PT	DUCKA	P-5	12. AAO	455232.50N/1232342.50W	2693 (6A)	1000		3700
			13. TERRAIN	455232.50N/1232342.50W	2493 (2500)		AS1000	3500
3. MISSED APPROACH — MAP:	DA / DA / RW13	UBG VOR/DME				ASC		3600
			14. AAO	452112.00N/1225839.00W	1805 (4E)	1000		2900
ELEV:	234/364/430		15. TERRAIN	452112.00N/1225839.00W	1605 (1600)		AS1000	2600

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL								
CATEGORY A	1.3 NM	350	472	9. TREE (KHIO0051)	453352.81N/1225811.36W	363 (1A)	300		680
CATEGORY B	1.5 NM	450	472	9. TREE (KHIO0051)	453352.81N/1225811.36W	363 (1A)	300		680
CATEGORY C	1.7 NM	450	472	9. TREE (KHIO0051)	453352.81N/1225811.36W	363 (1A)	300		680
CATEGORY D	2.3 NM	550	552	9. TREE (KHIO0051)	453352.81N/1225811.36W	363 (1A)	300	HAA	760
CATEGORY E	4.5 NM	550							

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW13

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	270/ 25.6	3906 (6C)	5000					

QUALITY CHECKED 9

CITY AND STATE	ELEVATION: 208 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
PORTLAND, OR	PORTLAND-HILLSBORO	RNAV	RNAV (GPS) RWY 13, AMDT 1A	ANM

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE			3. ALTIMETER SETTING
ZSE ARTCC PDX APP CON HIO TOWER		N W S	OTHER: ATIS	SOURCE: KHIO / KPDX
		F A A		DISTANCE: 0 / 15.17
		A / C		HOURS REMOTE OPERATION:
SATISFACTORY ON:				
X V H F X U H F H F	LOCATION: KHIO			ADJUSTMENT: 0 / 60

4. MONITOR STATUS	PRIMARY NAVAID:		
	MONITOR POINT:		
	HRS OPTN:	CAT 1	
		CAT 3	
5. APPROACH & RUNWAY LIGHTING		ALS	
		(S) SALS	
	X	MALSR 13 (PCL)	
	X	HIRL 31, 13	
	X	MIRL 02, 20	
	X	REIL 31	
		TDZ	
		C/LINE	
	X	OTHER (SPECIFY) PAPI-4L 31, 13 VASI-4L 02, 20	
6. RUNWAY MARKINGS	BASIC	BSC-F 02, 20	
	ALL WEATHER	PIR-G 13	
	INSTRUMENT	NPI-G 31	
7. RUNWAY VISUAL RANGE	APPROACH	13	
	MIDFIELD		
	ROLL OUT		
8. GLIDE PATH	GP ANGLE: 3.00		ELEV RWY THRESHOLD: 199.9
	DISTANCE FROM RWY:		ELEV GP ANTENNA:
			THRESHOLD CROSSING HEIGHT: 54.0
9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD	FT. FROM THRESHOLD
	X	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: VICTOR BOONE	DATE: 07/16/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-354

PART C - REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

TERPS PARAGRAPH 289 APPLIED TO 1199 AAO
453944.84N-1230439.10W
RASS PRESSURE PATTERNS SAME
KHIO 208, KPDX 31
RA=59.91
KHIO ASOS IS ON SERVICE A.
KPDX ASOS IS ON SERVICE A.
ISA DEVIATION -30
VGSI DATA 3.00/49.0

NO ADDITIONAL AIRSPACE REQUIRED.

LPV INNER/OUTER SLOPE: 34:1
LNAV/VNAV INNER SLOPE 23.4:1
LNAV/VNAV OUTER SLOPE 34:1

ALL PROCEDURE SEGMENTS OVERLIE 700' AGL FLOOR CLASS E AIRSPACE.

TERPS, VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS:
20:1 (RWY 2)
311 TREE (KHIOL027) 453141.92N-1225727.03W (2.07)

FPO NOTIFIED OF 20:1 PENETRATION, PER FPO NIGHT OPERATIONS WILL NOT BE RESTRICTED ON THIS PROCEDURE PENDING AIRPORT NOTIFICATION OF VISUAL SURFACE PENETRATION.

TAA NOT DEVELOPED PER ATC REQUEST.

INTERMEDIATE CONTROLLING OBSTACLE THE SAME FOR ALL FINAL TYPES.

CLIMB IN HOLD ALTITUDE OF 3600 FOR MISSED APPROACH TO ACCOMODATE MEA.

OBST #9 LOCATED 42' INTO LNAV FINAL SECONDARY AREA.

QUALITY CHECKED

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FINAL: LNAV STEPDOWN	**JIKIM/4.50 NM TO RW13**	**RW13**	**11. AAO**	**453627.67N/1225953.65W**	**429 (2C)**	**250**	**SA-2**	**680**

3. MISSED APPROACH		
	MAP:	
	ELEV:	

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL
CATEGORY A	1.3 NM	350	
CATEGORY B	1.5 NM	450	
CATEGORY C	1.7 NM	450	
CATEGORY D	2.3 NM	550	
CATEGORY E	4.5 NM	550	

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID:

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A

CITY AND STATE	ELEVATION: 208 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
PORTLAND, OR	**PORTLAND-HILLSBORO**	**RNAV**	**RNAV (GPS) RWY 13, AMDT 1A**	**ANM**

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:			2. WEATHER SERVICE			3. ALTIMETER SETTING
SATISFACTORY ON:				N W S	OTHER:	SOURCE:
				F A A		DISTANCE:
				A / C		HOURS REMOTE OPERATION:
V H F	U H F	H F	LOCATION:			ADJUSTMENT:

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		CAT 3

5. APPROACH & RUNWAY LIGHTING		**ALS**
		(S) SALS
		MALS
		HIRL
		MIRL
		REIL
		TDZ
		C/LINE
		OTHER (SPECIFY)

6. RUNWAY MARKINGS	BASIC
	ALL WEATHER
	INSTRUMENT
7. RUNWAY VISUAL RANGE	APPROACH
	MIDFIELD
	ROLL OUT

8. GLIDE PATH	GP ANGLE:	ELEV RWY THRESHOLD:
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT:

9. FINAL APPROACH COURSE AIMING		RUNWAY THRESHOLD	FT. FROM THRESHOLD
		ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS:

PART D - PREPARED BY:	DATE:
TITLE:	OFFICE:

PART C - REMARKS:

QUALITY CHECKED