Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 10/14/2011	Task #: 2011101427721502002	Request #: 20111014277215
Procedure: RNAV (RNP) Z RWY 28 R ORIG		Airport ID: KPDX	Airport: PORTLAND INTL		Reimbursable #:
City: PORTLAND	ST: OR	GPS #:		Estimated Chart Date: 09/20/2012	FICO #:
Fac ID:	Fac. Type: RNP Proc-P	Specialist: CATHERINE CHILDRESS			

Procedure Review

P1

	Rec'd	Rel'd	Full Name	Comments
Lead:	03/26/2012	07/02/2012	STEVEN SZUKALA	
QA:	07/02/2012	07/02/2012	STEVEN SZUKALA	
Liaison:	07/02/2012		K. Spurlin	P1

Procedure Comments:

Remark Type: INFORMATION

PKG 5 of 5

PORTLAND, OR; PORTLAND INTL (KPDX); RNAV (RNP) Z RWY 28L, ORIG; ENROUTE-YES; FC BY 7/24/12; PUB 9/20/12;

ATTACHED FORMS: 8260-3, 8260-10, 8260-9
8260-2(S): BATTLE GROUND VORTAC-REV 24, BYKES-ORIG, NACIY INT-REV 2, OMMSI INT-ORIG, TOLOC INT-REV 2, WIDMR-ORIG.

CONTACT: ADOLFO URRUTIA/LONNIE EVERHART-AVN-130 LEADS, 405.954.2079/405.954.4576.

APP CRS	Rwy ldg	9290
283°	THRE	31
	Apt Elev	31

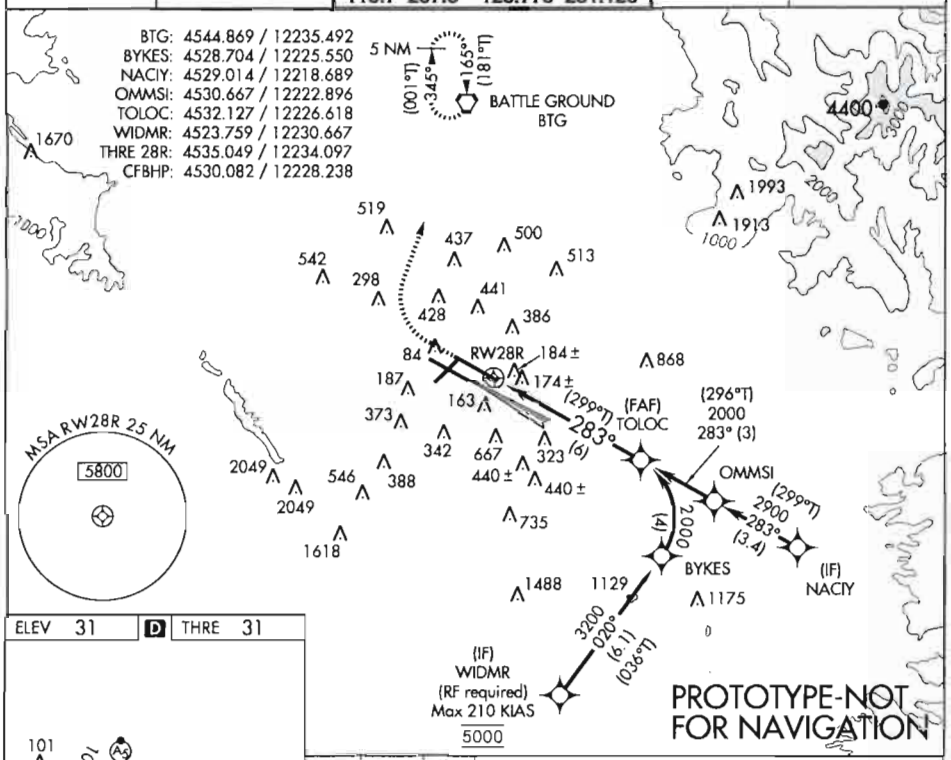
RNAV (RNP) Z RWY 28R
PORTLAND INTL (PDX)

For uncompensated Baro-VNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F). When VGSI inop, procedure NA at night. Simultaneous approach authorized with Rwy 28L. RADAR required. GPS required. Use of FD or AP providing RNAV track guidance required during simultaneous operations. For inoperative MALSR increase RNP 0.20 all Cats visibility to RVR 6000, and increase RNP 0.30 all Cats visibility to 1¼ mile.

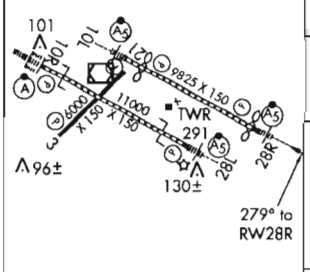
MALSR

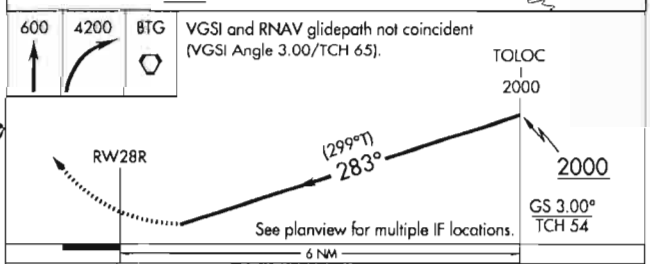
MISSED APPROACH: Climb to 600 then climbing right turn to 4200 direct BTG VORTAC and hold, continue climb-in-hold to 4200

ATIS	PORTLAND APP CON	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1



ELEV 31 | D | THRE 31





CATEGORY	A	B	C	D
RNP 0.20 DA	417/4000 386 (400-1)			
RNP 0.30 DA	471/5500 440 (500-1¼)			

AUTHORIZATION REQUIRED

REIL Rwys 3 and 21
TDZ or CL Rwy 10L-28R and 10R-28L
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

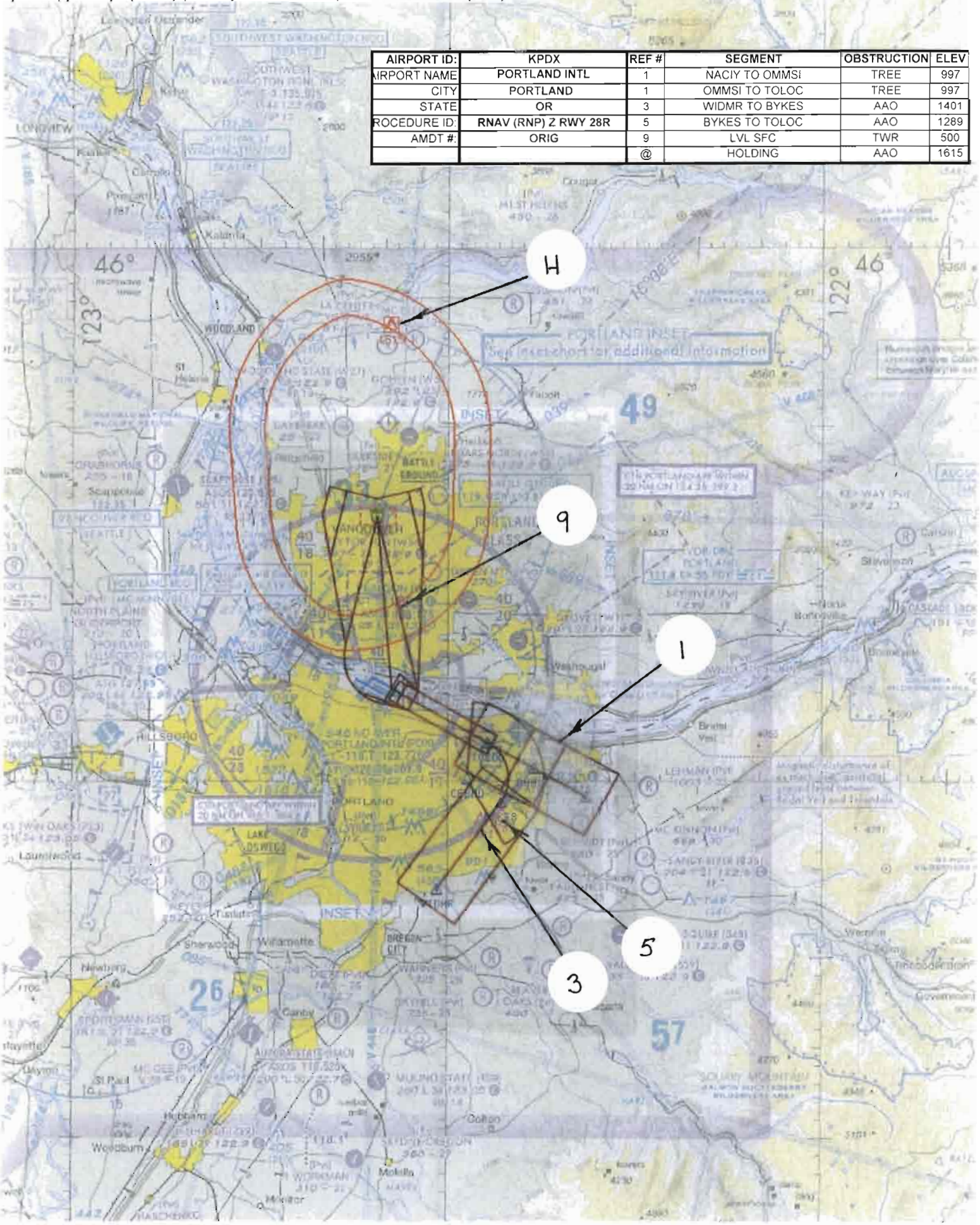
AUTOMATED AL-330 RNAV (RNP) Z RWY 28R
AUTOMATED AL-330 RNAV (RNP) Z RWY 28R

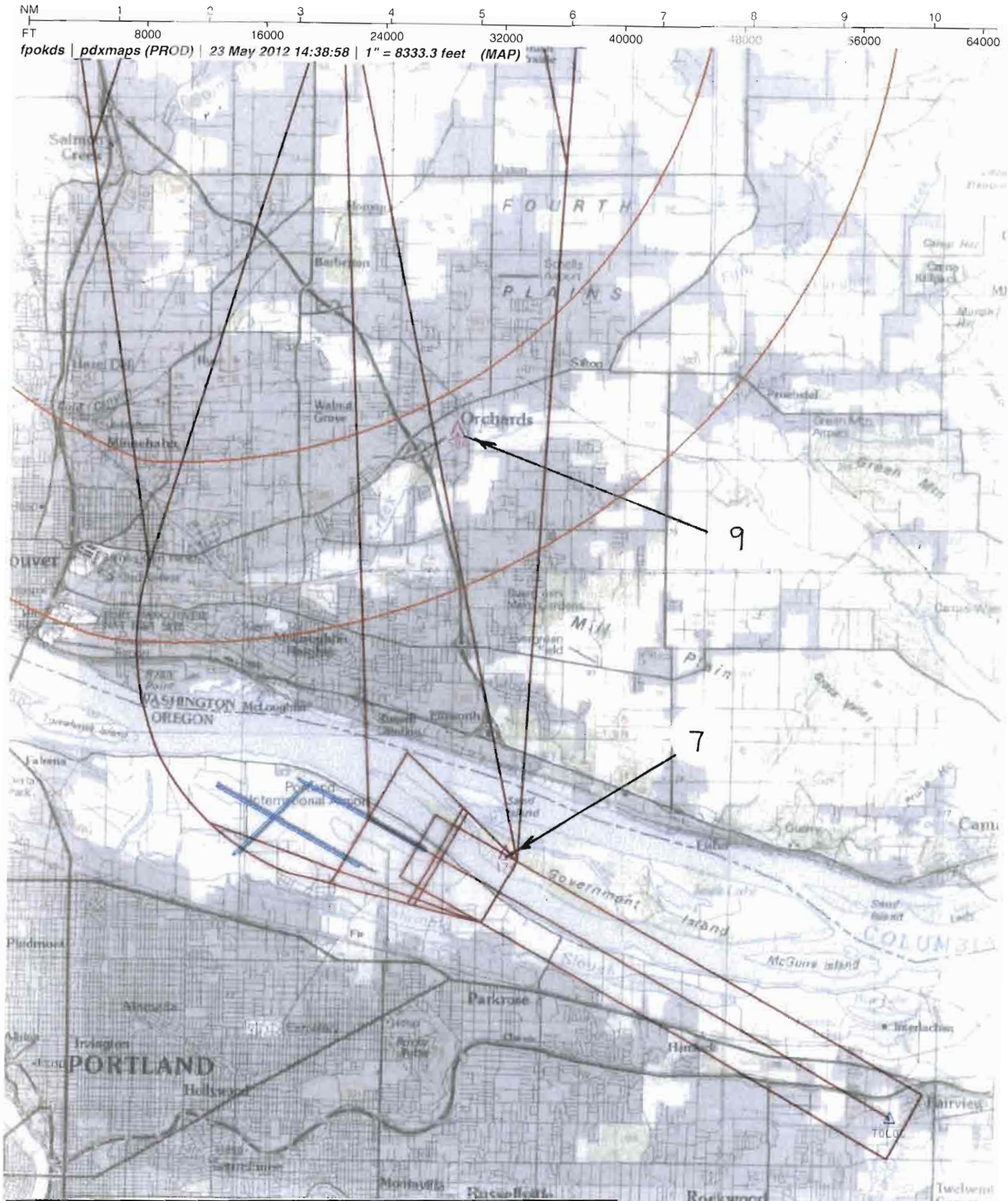
NW-1
05/23/2012
COMPILER: GJ
REVIEWER: -
DBL CHKR: -
EFF: FIG

NM	7	14	21	28	35	42	49
FT	42000	84000	126000	168000	210000	252000	294000

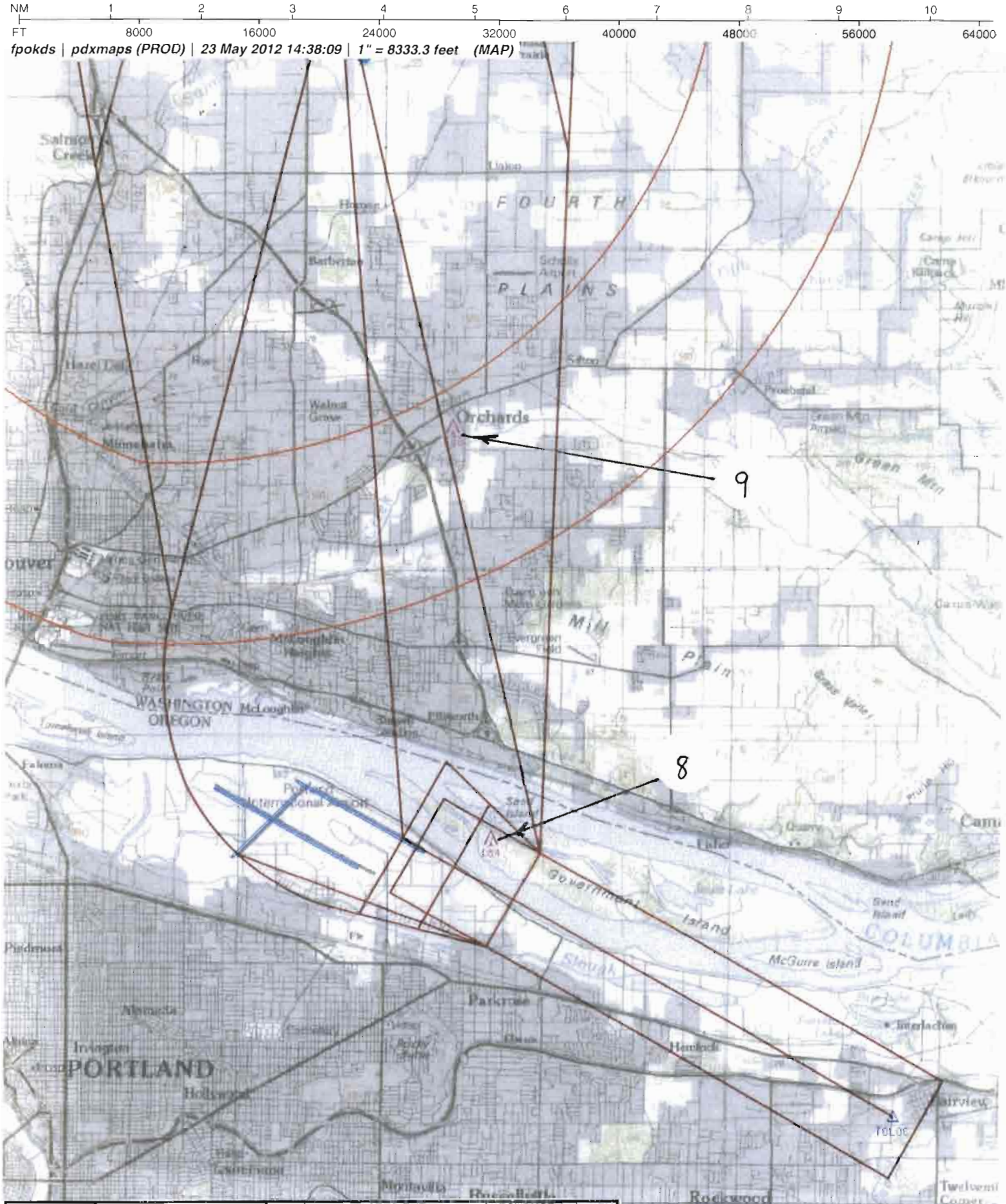
fpokds | pdxmaps (PROD) | 23 May 2012 14:28:33 | 1" = 41666.7 feet (MAP)

AIRPORT ID:	KPDX	REF #	SEGMENT	OBSTRUCTION	ELEV
IRPORT NAME	PORTLAND INTL	1	NACIY TO OMMSI	TREE	997
CITY	PORTLAND	1	OMMSI TO TOLOC	TREE	997
STATE	OR	3	WIDMR TO BYKES	AAO	1401
ROCEDURE ID:	RNAV (RNP) Z RWY 28R	5	BYKES TO TOLOC	AAO	1289
AMDT #:	ORIG	9	LVL SFC	TWR	500
		@	HOLDING	AAO	1615





AIRPORT ID:	KPDX	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	PORTLAND INTL	7	RNP 0.20 FINAL	TREE	174
CITY	PORTLAND	9	LVL SFC	TWR	500
STATE	OR				
PROCEDURE ID:	RNAV (RNP) Z RWY 28R				
AMDT #:	ORIG				



AIRPORT ID:	KPDX	REF #	SEGMENT	OBSTRUCTION	ELEV
AIRPORT NAME	PORTLAND INTL	8	RNP 0.30 FINAL	TREE	184
CITY	PORTLAND	9	LVL SFC	TWR	500
STATE	OR				
PROCEDURE ID:	RNAV (RNP) Z RWY 28R				
AMDT #:	ORIG				

US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) - STANDARD, INSTRUMENT APPROACH PROCEDURE, TITLE 14 CFR PART 97.33

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TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE
NACIY (IF)	OMMSI (TF) (FB) (RNP 1.00)	283.22 / 3.39	2900
WIDMR (IF)	BYKES (TF) (FB) (RNP 1.00)	020.05 / 6.12	3200
OMMSI	TOLOC (TF) (FB) (RNP 1.00)	283.17 / 3.00	2000
BYKES	TOLOC (RF) (FB) (RNP 1.00)	(2.34 NM RADIUS CCW (CFBHP))/3.96	2000
TOLOC (FAF)	RW28R (MAP) (TF) (FO)	283.13 / 6.01	
RW28R (MAP)	600 MSL (CA)	283.13	600
600 MSL	BTG VORTAC (DF)(FO)		4200

MISSED APPROACH

RNP: DA

CLIMB TO 600 THEN CLIMBING RIGHT TURN TO 4200 DIRECT BTG VORTAC AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4200.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT TOLOC
3. FAC: 283.13 FAF: ____ DIST FAF TO MAP: ____ THLD: ____
4. MIN. ALT: TOLOC 2000
5. DIST TO THLD FROM OM: 6.01 MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 2000 GS ALT AT: TOLOC 2000 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 54.3# 34:1 IS NOT CLEAR
8. MSA FROM: RW28R 5800

ADDITIONAL FLIGHT DATA:
HOLD N, RT, 165.00 INBOUND.
DISTANCE TO THLD FROM 386 HATH: 1.04 NM.
ROUTE TYPE: A, H
ROUTE TYPE QUALIFIER1: F
ROUTE TYPE QUALIFIER2: S
#TCH 85.1 MSL (DO NOT CHART)
CHART LOC RWY 28L
CHART MANDATORY 5000 AT WIDMR

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
AUTHORIZATION REQUIRED															
RNP 0.20 DA	417	4000	386	417	4000	386	417	4000	386	417	4000	386			
RNP 0.30 DA	471	5500	440	471	5500	440	471	5500	440	471	5500	440			

NOTES:
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C (5F) OR ABOVE 54C (130F).
CHART NOTE: WHEN VGSI INOP, PROCEDURE NA AT NIGHT.
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 28L.
CHART PLANVIEW NOTE: RADAR REQUIRED.
(SEE FORM 8260-10)

CITY AND STATE	ELEVATION: 31 THRE: 31	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 28R, ORIG	AMDT: NONE
				DATED

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

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[X]	[ ]	[X]	[X]	[X]	[X]	[X] **ZSE, PDX ATCT, AMGR, ST AERO**

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME: **CATHERINE L. CHILDRESS**	FIFO **AJV-354**	DATE: **05/15/2012**
APPROVED BY		
NAME: **DEZ SILAGYI** **MANAGER**	FIFO **AJV-354**	DATE:

CHANGES:

REASONS:

EFFECTIVE CONCURRENT WITH: KPDX ILS OR LOC RWY 28R, AMDT 15

QUALITY CHECKED

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NOTES, (CONT.):
CHART NOTE: GPS REQUIRED.
CHART PLANVIEW NOTE AT WIDMR : MAX 210 KIAS.
CHART PLANVIEW NOTE ADJACENT TO WIDMR: RF REQUIRED.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS.
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.
CHART NOTE: FOR INOPERATIVE MALSR INCREASE RNP 0.20 ALL CATS VISIBILITY TO RVR 6000, AND INCREASE RNP 0.30 ALL CATS VISIBILITY TO 1 1/4 MILE.

QUALITY CHECKED

CITY AND STATE	ELEVATION: 31 THRE: 31	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 28R, ORIG	AMDT: NONE
				DATED:

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 (RNP) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC PACKET - 424-18 - RNAV (RNP)

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

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   BYKES K10    W     N45284221W122253297                      E0160     NAR           BYKES
        SUSAEAENRT   CFBHP K10    W     N45300493W122281429                      E0160     NAR           CNF(CFBHP)
        SUSAEAENRT   NACIY K10    C     N45290082W122184132                      E0160     NAR           NACIY
        SUSAEAENRT   OMMSI K10    C     N45304003W122225374                      E0160     NAR           OMMSI
        SUSAEAENRT   TOLOC K10    C     N45320759W122263709                      E0160     NAR           TOLOC
        SUSAEAENRT   WIDMR K10    W     N45234554W122304001                      E0160     NAR           WIDMR

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KPDXK1APDX     0     110YHN45351935W122354873E016000031         1800018000C    MNAR    PORTLAND INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KPDXK1FH28RZ ANACIY 010NACIYK1EA0E  B    IF                                        18000                A FS
        SUSAP KPDXK1FH28RZ ANACIY 020OMMSIK1EA0E    010TF                                  + 02900                      A FS
        SUSAP KPDXK1FH28RZ ANACIY 030TOLOCK1EA0EE   010TF                                  + 02000                      A FS
        SUSAP KPDXK1FH28RZ AWIDMR 010WIDMRK1EA0E  B    IF                                    05000     18000210           A-FS
        SUSAP KPDXK1FH28RZ AWIDMR 020BYKESK1EA0E    010TF                                  + 03200                      A FS
        SUSAP KPDXK1FH28RZ AWIDMR 030TOLOCK1EA0EE  L010RF       0023400201    28310040    + 02000                CFBHP K1EAA FS
        SUSAP KPDXK1FH28RZ H      020TOLOCK1EA1E  F    IF                                  + 02000     18000      RW28R K1PGA FS
        SUSAP KPDXK1FH28RZ H      020TOLOCK1EA2W                                               A031A021                     FS
        SUSAP KPDXK1FH28RZ H      030RW28RK1PG0GY M 031TF                                    00085            -300          A FS
        SUSAP KPDXK1FH28RZ H      040         0  M     CA                      2831        + 00600                      A FS
        SUSAP KPDXK1FH28RZ H      050BTG  K1D 0VY      DF                                  + 04200                      A FS
        SUSAP KPDXK1FH28RZ H      060BTG  K1D 0VE  R   HM                     16500050    + 04200                      A FS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KPDXK1GRW28R   0098252830 N45350294W122340584+0000    -0013400031053554150IIIAP1

                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
```

QUALITY CHECK

CITY AND STATE	ELEVATION: 31 THRE: 31	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: **PORTLAND INTL**	**RNAV**	**RNAV (RNP) Z RWY 28R, ORIG**	AMDT: **NONE**
				DATED:

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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```
SUSAP KPDXK1SRW28RK1PG          0   18018005825                                    M
```

QUALITY 1 CHECKED

CITY AND STATE	ELEVATION: 31 THRE: 31	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 28R, ORIG	AMDT: NONE
				DATED:

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 (RNP) STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICES - **FAR PART 97.33**

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ARINC SUMMARY - 424-18 - RNAV (RNP)

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	NACIY	NACIY	010		IF		FB					
	NACIY	OMMSI	020		TF		FB	1.0			AA 02900	
	NACIY	TOLOC	030		TF		FB	1.0			AA 02000	
	WIDMR	WIDMR	010		IF		FB				AT 05000	AB 210
	WIDMR	BYKES	020		TF		FB	1.0			AA 03200	
	WIDMR	TOLOC	030		RF	L	FB	1.0		004.0	AA 02000	
		TOLOC	020	FAF	IF		FB				AA 02000	
		RW28R	030	MAP	TF		FO	0.3			AT 00085	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		283.1(299.1T)		AA 00600	
	BTG	050		DF		FO				AA 04200	
	BTG	060		HM	R	FO		165.0(181.0T)	005.0	AA 04200	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	BTG	N454452.12	W1223529.53	N4544.869	W12235.492
	BYKES	N452842.21	W1222532.97	N4528.704	W12225.550
	CFBHP	N453004.93	W1222814.29	N4530.082	W12228.238
	NACIY	N452900.82	W1221841.32	N4529.014	W12218.689
	OMMSI	N453040.03	W1222253.74	N4530.667	W12222.896
	TOLOC	N453207.59	W1222637.09	N4532.127	W12226.618
	WIDMR	N452345.54	W1223040.01	N4523.759	W12230.667
	RW28R	N453502.94	W1223405.84	N4535.049	W12234.097

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW28R	00031	54

QUALITY CHECKED 1

CITY AND STATE	ELEVATION: 31 THRE: 31	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: **PORTLAND INTL**	**RNAV**	**RNAV (RNP) Z RWY 28R, ORIG**	AMDT: **NONE**
				DATED:

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.
INTERMEDIATE	NACIY	OMMSI	1. TREE	453200.00N/1222036.00W	997 (3F)	500	AC128 AT1275	2900
(RNP 1.00)			2. TERRAIN	453200.00N/1222036.00W	922 (900)		AS1500	2400
INTERMEDIATE	WIDMR	BYKES	3. AAO	452718.00N/1222712.00W	1401 (3F)	500	AC128 AT1171	3200
(RNP 1.00)			4. TERRAIN	452718.00N/1222712.00W	1201 (1200)		AS1500	2700
INTERMEDIATE STEPDOWN	OMMSI	TOLOC	1. TREE	453200.00N/1222036.00W	997 (3F)	500	AC128 VEB106 AT269	2000
(RNP 1.00)			2. TERRAIN	453200.00N/1222036.00W	922 (900)		AS1000	1900
INTERMEDIATE STEPDOWN	BYKES	TOLOC	5. AAO	452737.21N/1222527.67W	1289 (2C)	500	AC20 VEB138	2000
(RNP 1.00)			6. TERRAIN	452909.00N/1222600.00W	896 (900)		AS1000	1900
FINAL (RNP 0.20)	TOLOC	RW28R	7. TREE (KPDXT0072)	453455.29N/1223243.33W	174 (1B)	21.71:1	AC10	417/386
FINAL (RNP 0.30)	TOLOC	RW28R	8. TREE (KPDXT0217)	453504.88N/1223256.97W	184 (1B)	21.70:1	AC10	471/440
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA / DA	BTG VORTAC				ASC		4200
			9. TOWER (53-000874)	453937.00N/1223334.00W	500 (5D)	1000	AC50	1600
ELEV:	256/310		10. TERRAIN	453654.00N/1223348.00W	338 (300)		AS1500	1800

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	

QUALITY CHECKED

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: RW28R

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	082/ 28.8	4740 (2C)	5800					

CITY AND STATE	ELEVATION: 31 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
PORTLAND, OR	PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 28R, ORIG	ANM

PART B - SUPPLEMENTAL DATA

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

4. MONITOR STATUS	PRIMARY NAVAID:	
	MONITOR POINT:	
	HRS OPTN:	CAT 1
		CAT 3
5. APPROACH & RUNWAY LIGHTING	X	ALSF-2 10R
		(S) SALS
	X	MALSR 10L, 28R, 28L
	X	HIRL 10L, 10R, 28R, 28L
	X	MIRL 21, 03
	X	REIL 21, 03
	X	TDZ 10R
	X	C/L 10L, 10R, 28R, 28L
	X	OTHER (SPECIFY) PAPI-4R 21, 10R, 28R PAPI-4L 10L, 03, 28L
6. RUNWAY MARKINGS	BASIC	
	ALL WEATHER	PIR-G 10L, 10R, 28R, 28L
	INSTRUMENT	NPI-G 21, 03
7. RUNWAY VISUAL RANGE	APPROACH	10L, 10R, 28R, 28L
	MIDFIELD	10L, 10R, 28R, 28L
	ROLL OUT	10L, 10R, 28R, 28L
8. GLIDE PATH	GP ANGLE: 3.00	ELEV RWY THRESHOLD: 30.8
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 54.3
9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD FT. FROM THRESHOLD
	X	ON CENTERLINE FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: CATHERINE L. CHILDRESS	DATE: 05/15/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-354

PART C - REMARKS:

THRESHOLD DISPLACED 535.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

SEE ATTACHED AIRSPACE LETTER.

MISSED APPROACH IAW 8260.54A, IPDS BUILD 25 DEGREES BANK ANGLE USED IN MISSED APPROACH TO ALLOW FOR MINIMUM SEGMENT LENGTH.

ACT: -15
"AVERAGE COLD TEMERATURE BASED ON STANDARD -30 ISA DEVIATION"

VEB DATA: SEE ATTACHED SPREADSHEETS.

BARO-VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F).

HIGH TERMPERATURE LIMIT VALUE DERIVED FROM AFS-400 CALCULATOR

BACK-UP ALTIMETER NOT PLUBLISHED, REDUNDANT REPORTING ON AIRPORT.

VGSI: 3.00/69.6

VEGETATION: 75 FT USED PER FPT.

VKTW: OBTAINED FROM HISTORICAL WIND DATA (MITRE)

ORDER 8260.3, VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS:

20:1 63 PRIMARY ROAD (KPDXT0151) 453503.27N/1223353.81W (16.6)

34:1 63 PRIMARY ROAD (KPDXT0151) 453503.27N/1223353.81W (27.14)
60 ROAD (KPDX0036) 453500.27N/1223348.09W (2.34)

POFZ PENETRATION: 31 SIGN (KPDXT0106) 453500.09N/1223407.28W (10.2)

RF SEGMENT	ALT	KIAS	KTAS	HAA	VKTW	TR	BA
BYKES-TOLOC	3200	210	226	3169.2	45.6	2.34	24.66

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BATTLE GROUND VORTAC **STATE:** WA **COUNTRY:** US

LATITUDE/LONGITUDE: 454452.12N/1223529.53W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	BATTLE GROUND	BTG	VORTAC	H							45000

FIX RESTRICTIONS:
MCA V468 5000 NORTHEAST BOUND
MCA V112-182-520 4700 EASTBOUND
MCA V448 9400 NORTHEAST BOUND

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	NW	BTG	VORTAC	329.16	149.16	R	1		4000	14000	4	10
2	N	BTG	VORTAC	343.83	163.83	R	1		4200	14000	5	18
3	S	BTG	VORTAC	163.00	343.00	R	1-1 1/2		4000	45000	4	29
4	N		WP	345.00	165.00	R		5	4200	14000	6	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	455430.60N/1224203.74W	1162	2A
1	310	AAO	455935.60N/1223547.85W	3155	2A
2	200	AAO	455500.00N/1223424.00W	1559	4E
2	310	AAO	455935.60N/1223547.85W	3155	2A
3	200	AAO	454703.00N/1223106.00W	837	4E
4	200	AAO	455515.00N/1223427.00W	1615	4E
4	310	AAO	455935.60N/1223547.85W	3155	2A

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	VOR/DME A	KSPB	SCAPPOOSE	OR (US)
1	TAKEOFF MINIMUMS	KSPB	SCAPPOOSE	OR (US)
1	VOR-A	KPDX	PORTLAND	OR (US)
1	TAKEOFF MINIMUMS	KVUO	VANCOUVER	WA (US)
1	TAKEOFF MINIMUMS	KPDX	PORTLAND	OR (US)
2	VOR/DME RWY 21	KPDX	PORTLAND	OR (US)
2	LDA-A	KVUO	VANCOUVER	WA (US)
2	ILS OR LOC RWY 10L	KPDX	PORTLAND	OR (US)
2	ILS OR LOC RWY 28R	KPDX	PORTLAND	OR (US)
4	RNAV (GPS) Y RWY 10L	KPDX	PORTLAND	OR (US)
4	RNAV (RNP) Z RWY 10L	KPDX	PORTLAND	OR (US)
4	RNAV (GPS) X RWY 28R	KPDX	PORTLAND	OR (US)
4	RNAV (RNP) Y RWY 28R	KPDX	PORTLAND	OR (US)
4	RNAV (RNP) Z RWY 28R	KPDX	PORTLAND	OR (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
PAT 3 REQUESTED BY PDX APP CON AND ZSE
CHART PAT 3 ENROUTE HIGH AND LOW

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	EUGENE			KEUG	EUGENE	OR (US)
DP	CANBY			KHIO	PORTLAND	OR (US)
DP	SCAPO			KHIO	PORTLAND	OR (US)
DP	HRMNS (RNAV)			KPDX	PORTLAND	OR (US)
DP	LAVAA (RNAV)			KPDX	PORTLAND	OR (US)
DP	MINNE (RNAV)			KPDX	PORTLAND	OR (US)
DP	PORTLAND			KPDX	PORTLAND	OR (US)
DP	RIVER			KPDX	PORTLAND	OR (US)
DP	TAKEOFF MINIMUMS		1	KPDX	PORTLAND	OR (US)
DP	WHAMY (RNAV)			KPDX	PORTLAND	OR (US)
DP	BLUE LAKE			KTTD	PORTLAND	OR (US)
DP	TAKEOFF MINIMUMS			KTTD	PORTLAND	OR (US)
DP	REDMOND			KRDM	REDMOND	OR (US)
DP	SALEM			KSLE	SALEM	OR (US)
DP	TAKEOFF MINIMUMS		1	KSPB	SCAPPOOSE	OR (US)
DP	TAKEOFF MINIMUMS			KKLS	KELSO	WA (US)
DP	YELM			KOLM	OLYMPIA	WA (US)
DP	KENT			KBFI	SEATTLE	WA (US)

QUALITY 1 CHECKED

DP	NEEDLE		KBFI	SEATTLE	WA (US)
DP	SEATTLE		KSEA	SEATTLE	WA (US)
DP	TAKEOFF MINIMUMS	1	KVUO	VANCOUVER	WA (US)
DP	NACHES		KYKM	YAKIMA	WA (US)
EN ROUTE	J1				(US)
EN ROUTE	J136				(US)
EN ROUTE	J15				(US)
EN ROUTE	J159				(US)
EN ROUTE	J16				(US)
EN ROUTE	J189				(US)
EN ROUTE	J67				(US)
EN ROUTE	J82				(US)
EN ROUTE	V112				(US)
EN ROUTE	V182				(US)
EN ROUTE	V23				(US)
EN ROUTE	V287				(US)
EN ROUTE	V448	3			(US)
EN ROUTE	V468				(US)
EN ROUTE	V495				(US)
EN ROUTE	V500				(US)
EN ROUTE	V520				(US)
IAP	LOC RWY 17		KUAO	AURORA	OR (US)
IAP	ILS OR LOC RWY 22		KMMV	MC MINNVILLE	OR (US)
IAP	RNAV (GPS) RWY 22		KMMV	MC MINNVILLE	OR (US)
IAP	ILS OR LOC RWY 13		KHIO	PORTLAND	OR (US)
IAP	NDB-B		KHIO	PORTLAND	OR (US)
IAP	RNAV (GPS) RWY 13		KHIO	PORTLAND	OR (US)
IAP	HI-ILS OR LOC/DME RWY 10R		KPDX	PORTLAND	OR (US)
IAP	HI-ILS OR LOC/DME RWY 28R		KPDX	PORTLAND	OR (US)
IAP	HI-TACAN RWY 10R		KPDX	PORTLAND	OR (US)
IAP	ILS OR LOC RWY 10L	2	KPDX	PORTLAND	OR (US)
IAP	ILS OR LOC RWY 28R	2	KPDX	PORTLAND	OR (US)
IAP	LOC/DME RWY 21	2	KPDX	PORTLAND	OR (US)
IAP	RNAV (GPS) X RWY 28R	4	KPDX	PORTLAND	OR (US)
IAP	RNAV (GPS) Y RWY 10L	4	KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Y RWY 28R	4	KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10L	4	KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 28R	4	KPDX	PORTLAND	OR (US)
IAP	TACAN RWY 28L		KPDX	PORTLAND	OR (US)
IAP	VOR RWY 28R	2	KPDX	PORTLAND	OR (US)
IAP	VOR-A	1	KPDX	PORTLAND	OR (US)
IAP	VOR/DME RWY 21	2	KPDX	PORTLAND	OR (US)
IAP	NDB OR GPS-A		KTTD	PORTLAND	OR (US)
IAP	LOC/DME RWY 31		KSLE	SALEM	OR (US)
IAP	LOC/DME RWY 15	1	KSPB	SCAPPOOSE	OR (US)
IAP	RNAV (GPS) RWY 15		KSPB	SCAPPOOSE	OR (US)
IAP	VOR/DME A	1	KSPB	SCAPPOOSE	OR (US)
IAP	NDB-A		KKLS	KELSO	WA (US)
IAP	LDA-A	2	KVUO	VANCOUVER	WA (US)
STAR	HELNS		KUAO	AURORA	OR (US)
STAR	HELNS		KHIO	PORTLAND	OR (US)
STAR	BONVL		KPDX	PORTLAND	OR (US)
STAR	HELNS		KPDX	PORTLAND	OR (US)
STAR	MOXEE		KPDX	PORTLAND	OR (US)
STAR	HELNS		KTTD	PORTLAND	OR (US)
STAR	OLYMPIA	3	KSEA	SEATTLE	WA (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 24 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
UPDATED FIX USE
REMOVED PAT 4, PDX VOR/DME TO BE DECOMMISONED
REMOVED FAC 2,3,4, ATC REQUEST
ADDED NEW HOLDING PATTERN 4
REMOVED PAT 5, PROCEDURES NOT DEVELOPED

DEVELOPED BY: **DATE:** 04/17/2012 **OFFICE:** AJV-354 **NAME:** CHARLES SCHNEIDER

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: WST
ARTCC: ZSE
ATC FACILITY: PDX
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BYKES **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 452842.21N/1222532.97W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 28R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-354 **NAME:** CATHERINE CHILDRESS

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: PDX APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: CFBHP **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 453004.93N/1222814.29W **TYPE:** CNF

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 28R			KPDX	PORTLAND	OR (US)

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-354 **NAME:** CATHERINE CHILDRESS

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: WST
ARTCC: ZSE
ATC FACILITY: PDX APP CON
OTHER:

QUALITY CHECKED 1

RADIO FIX AND HOLDING DATA RECORD

NAME: NACIY **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 452900.82N/1221841.32W **TYPE:** WP, RADAR, INT, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	PORTLAND	I-IAP	LOC/DME		103.04	119.04	14.07	14.10		3700	4500
2	BATTLE GROUND	BTG	VORTAC	H	122.26	143.26		19.76		3700	4500

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	E	I-IAP	LOC/DME	103.04	283.04	L	1		3700	4500	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	452818.00N/1220824.00W	2412	4E

REASON FOR NONSTANDARD HOLDING:
PAT 1 TERRAIN

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
PORTLAND (FAC 1) AND BATTLE GROUND (FAC 2) USED TO ESTABLISH FIX COORDINATES
I-IAP DME COORDINATES: 453547.95N/1223613.55W.
PAT 1 REQUIRES DME DUE TO DIVERGENCE ANGLE OF FAC 2.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI-ILS OR LOC/DME RWY 28R	1		KPDX	PORTLAND	OR (US)
IAP	ILS OR LOC RWY 28R	1, 2	1	KPDX	PORTLAND	OR (US)
IAP	RNAV (GPS) X RWY 28R			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 28R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: MILITARY IAP, IAP, CONTROLLER

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FAC 1 MAG BRG CHANGED FROM 99.04 TO 103.04, MAG VAR UPDATE FROM 20E TO 16E.
PAT 1 CRS INBOUND CHANGED FROM 279.04 TO 283.04.
REMOVED PAT 2.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 05/08/2012 **OFFICE:** AJV-354 **NAME:** CATHERINE CHILDRESS

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: WST
ARTCC: ZSE
ATC FACILITY: PDX APP CON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: OMMSI **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 453040.03N/1222253.74W **TYPE:** WP, RADAR, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	PORTLAND	I-IAP	LOC/DME		103.04	119.04	10.68	10.71		2900	4500

REMARKS:
PORTLAND (FAC 1) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI-ILS OR LOC/DME RWY 28R	1		KPDX	PORTLAND	OR (US)
IAP	ILS OR LOC RWY 28R	1		KPDX	PORTLAND	OR (US)
IAP	RNAV (GPS) X RWY 28R			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 28R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: MILITARY IAP, IAP, CONTROLLER

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 05/07/2012 **OFFICE:** AJV-354 **NAME:** CATHERINE CHILDRESS

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: PDX TRACON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: TOLOC **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 453207.59N/1222637.09W **TYPE:** WP, RADAR, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	PORTLAND	I-IAP	LOC/DME		103.04	119.04	7.68	7.71	46837	2000	4500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
PORTLAND (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-IAP DME COORDINATES: 453547.95N/1223613.55W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI-ILS OR LOC/DME RWY 28R	1		KPDX	PORTLAND	OR (US)
IAP	ILS OR LOC RWY 28R	1		KPDX	PORTLAND	OR (US)
IAP	RNAV (GPS) X RWY 28R			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 28R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: MILITARY IAP, IAP, CONTROLLER

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
FIX MOVED 593 FT EAST, NEW PFAF FORMULA.
FAC 1 CHANGED DME FROM 7.59 TO 7.68, DIST FROM FAC FROM 7.61 NM/46245 FT TO 7.71 NM/46837 FT.
ADDED REMARKS: PORTLAND (FAC 1) USED TO ESTABLISH FIX COORDINATES.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 05/07/2012 **OFFICE:** AJV-354 **NAME:** CATHERINE CHILDRESS

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: PDX TRACON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WIDMR **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 452345.54N/1223040.01W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 28L			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 28R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-354 **NAME:** CATHERINE CHILDRESS

APPROVED BY: **DATE:** **OFFICE:** AJV-354 **NAME:** DEZ SILAGYI

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: WST
ARTCC: ZSE
ATC FACILITY: PDX APP CON
OTHER:

QUALITY CHECKED

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **PORTLAND** STATE: **OR**

AIRPORT NAME: **PORTLAND INTL** ID: **KPDX**

PROCEDURE: **RNAV (RNP) Z RWY 28R** AMDT: **Orig**

DOCKET # :
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from **THLD** to 1000' point **3.68**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **1.20**
   (Enter appropriate segment , final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **299.13**
4. High Terrain in **FINAL** segment containing 1000' point **276**
5. Distance from **FAF** to 1500' point **2.13**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **INTERMEDIATE** segment at 1500' point **4.00**
7. True Course of **INTERMEDIATE** segment containing 1500' point *****
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **896**
9. Threshold Coordinates (if straight-in) ... **^453502.94N / 1223405.84W**
10. ARP Coordinates ..... **453519.35N / 1223548.73W**
11. Runway Approach End and distance furthest from ARP.....RWY **28R**
    Distance **1.32** NM
12. FAF Coordinates ..... **453207.59N / 1222637.09W**
    (Click to Select)

REMARKS: Approach/Drawing attached. *From FAF 2.34nm rad from 453004.93n/1222814.29w, 2.34nm cw to 1500' pt. Multiple Interm Segs. WIDMR trans. See graphic. ^Rwy 28R displaced 535.03'. (pg 1 of 2)

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **PORTLAND** STATE: **OR**

AIRPORT NAME: **PORTLAND INTL** ID: **KPDX**

PROCEDURE: **RNAV (RNP) Z RWY 28R** AMDT: **Orig**

DOCKET # :
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from **THLD** to 1000' point **3.68**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **1.20**
   (Enter appropriate segment , final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **299.13**
4. High Terrain in **FINAL** segment containing 1000' point **276**
5. Distance from **THLD** to 1500' point **8.01**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **INTERMEDIATE** segment at 1500' point **4.00**
7. True Course of **INTERMEDIATE** segment containing 1500' point **299.17**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **922**
9. Threshold Coordinates (if straight-in) ... **^453502.94N / 1223405.84W**
10. ARP Coordinates ..... **453519.35N / 1223548.73W**
11. Runway Approach End and distance furthest from ARP.....RWY **28R**
    Distance **1.32** NM
12. FAF Coordinates ..... **453207.59N / 1222637.09W**
    (Click to Select)

REMARKS: Approach/Drawing attached. Multiple Interm Segs. NACIY trans. See graphic. ^Rwy 28R displaced 535.03'. (pg 2 of 2)

DO NOT REMOVE FROM PACKAGE

BYKES — TOLOC VEB ADJUSTMENT 138

Intermediate Approach Segment (RNP): Subsegment #2: RF Leg: Terrain Analysis Parameters	
Vegetation Allowance:	75 ft

Intermediate Approach Segment (RNP): Subsegment #2: RF Leg: Required Obstacle Clearance	
Basic ROC:	500 ft
Precipitous Terrain Adjustment:	0 ft
RASS:	0.00 ft
ROC:	500.00 ft

Intermediate Approach Segment (RNP): Subsegment #2: RF Leg: Obstacles

#	Description	Latitude / Longitude	Horizontal Accuracy	Reported Height (MSL)	MSL Accuracy	Effective Height	Edited	Clearance	ROC	Minimum Altitude
---	AAO3	45°27'37.210" N / 122°25'27.670" W	50.00 ft	1289.00 ft	20.00 ft	1309.00 ft	No	691.05 ft	637.59 ft	1947 ft
41-000578	TOWER	45°29'06.000" N / 122°24'44.000" W	500.00 ft	619.00 ft	59.84 ft	678.84 ft	No	1321.21 ft	593.32 ft	1272 ft
KTTD0027	TREE	45°31'40.370" N / 122°24'25.820" W	40.00 ft	471.00 ft	29.84 ft	500.84 ft	No	1499.21 ft	508.47 ft	1009 ft
41-021356	TOWER	45°31'41.000" N / 122°24'26.080" W	50.00 ft	443.00 ft	29.84 ft	472.84 ft	No	1527.21 ft	508.21 ft	981 ft
KTTD0026	TREE	45°31'51.540" N / 122°24'10.130" W	40.00 ft	444.00 ft	29.84 ft	473.84 ft	No	1526.21 ft	506.69 ft	981 ft
---	aao8	45°31'04.840" N / 122°27'21.680" W	50.00 ft	459.00 ft	20.00 ft	479.00 ft	No	1521.05 ft	500.00 ft	979 ft
41-020036	TOWER	45°31'41.180" N / 122°24'25.230" W	50.00 ft	437.00 ft	29.84 ft	466.84 ft	No	1533.21 ft	508.29 ft	975 ft
41-020464	TOWER	45°31'12.210" N / 122°24'28.940" W	20.00 ft	430.00 ft	12.84 ft	442.84 ft	No	1557.21 ft	520.48 ft	963 ft
KTTD0033	TREE	45°31'47.680" N / 122°24'50.420" W	40.00 ft	429.00 ft	29.84 ft	458.84 ft	No	1541.21 ft	500.77 ft	960 ft
KTTD0034	TREE	45°31'40.430" N / 122°25'18.600" W	40.00 ft	427.00 ft	29.84 ft	456.84 ft	No	1543.21 ft	500.00 ft	957 ft

DO NOT REMOVE FROM PACKAGE

OMMS1 — TOLOC VEB ADJUSTMENT 106

Intermediate Approach Segment (RNP): Subsegment #2: TF Leg: Required Obstacle Clearance	
ROC:	500.00 ft

Intermediate Approach Segment (RNP): Subsegment #2: TF Leg: Obstacles

#	Description	Latitude / Longitude	Horizontal Accuracy	Reported Height (MSL)	MSL Accuracy	Effective Height	Edited	Clearance	ROC	Minimum Altitude
---	Terrain	45°32'00.000" N / 122°20'36.000" W	88.58 ft	921.92 ft	127.95 ft	1124.87 ft	No	875.18 ft	605.75 ft	1731 ft
---	Terrain	45°31'57.000" N / 122°20'36.000" W	88.58 ft	915.35 ft	127.95 ft	1118.31 ft	No	881.74 ft	606.69 ft	1725 ft
---	Terrain	45°32'00.000" N / 122°20'30.000" W	88.58 ft	895.67 ft	127.95 ft	1098.62 ft	No	901.43 ft	608.10 ft	1707 ft
---	Terrain	45°31'57.000" N / 122°20'30.000" W	88.58 ft	892.39 ft	127.95 ft	1095.34 ft	No	904.71 ft	609.04 ft	1704 ft
---	tree8	45°31'59.430" N / 122°20'33.710" W	50.00 ft	994.00 ft	20.00 ft	1014.00 ft	No	986.05 ft	606.58 ft	1621 ft
---	Terrain	45°29'15.000" N / 122°22'24.000" W	88.58 ft	590.55 ft	127.95 ft	918.50 ft	No	1081.55 ft	614.44 ft	1533 ft
---	Terrain	45°28'27.000" N / 122°23'03.000" W	88.58 ft	567.59 ft	127.95 ft	895.54 ft	No	1104.51 ft	614.44 ft	1510 ft
---	Terrain	45°28'30.000" N / 122°23'00.000" W	88.58 ft	567.59 ft	127.95 ft	895.54 ft	No	1104.51 ft	614.44 ft	1510 ft
---	Terrain	45°28'30.000" N / 122°23'03.000" W	88.58 ft	567.59 ft	127.95 ft	895.54 ft	No	1104.51 ft	613.53 ft	1509 ft
---	Terrain	45°29'27.000" N / 122°22'57.000" W	88.58 ft	580.71 ft	127.95 ft	908.66 ft	No	1091.39 ft	598.11 ft	1507 ft