Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: IAP	Date Open: 10/14/2011	Task #: 2011101427721501002	Request #: 20111014277215
Procedure: RNAV (RNP) Z RWY 10 R ORIG		Airport ID: KPDX	Airport: PORTLAND INTL		Reimbursable #:
City: PORTLAND	ST: OR	GPS #:		Estimated Chart Date: 09/20/2012	FICO #: 1088664
Fac ID: PDX	Fac. Type: RNP Proc-P	Specialist: CHARLES SCHNEIDER			

PI

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	03/26/2012	06/19/2012	STEVEN SZUKALA	
QA:	06/19/2012	06/19/2012	STEVEN SZUKALA	
Liaison:	06/19/2012		K. Spurlin	MAGVAR - REPLACEMENT 7/17/12

MAG VAR

Procedure Comments:

Remark Type: INFORMATION

PKG 2 of 2

PORTLAND, OR PORTLAND INTL (KPDX) RNAV (RNP) Z RWY 10R, ORIG (RNP) ENROUTE-YES FC BY: 7/24/12 PUB 9.20.12
ATTACHED FORMS: 8260-3; 8260-10; 8260-9; 8260-2(S): CATUL, ORIG; CFFVT, ORIG; CFFVS, ORIG; CIZZL, ORIG; DAYSS, ORIG; MIVUE, ORIG; MULES-INT, REV 11; MYCRO, ORIG; POWLZ-INT, REV 1; SAUVI-INT, REV 6; SCAPO-INT, REV 14; TOWWN, ORIG; VOODU, ORIG.
REPLACMENT 7/17/12: -3, -10
CONTACT: ADOLFO URRUTIA/LONNIE EVERHART-AVN-130 LEADS, 405.954.2079/405.954.4576.

APP CRS	Rwy ldg	11000
103°	THRE	23
	Apt Elev	31

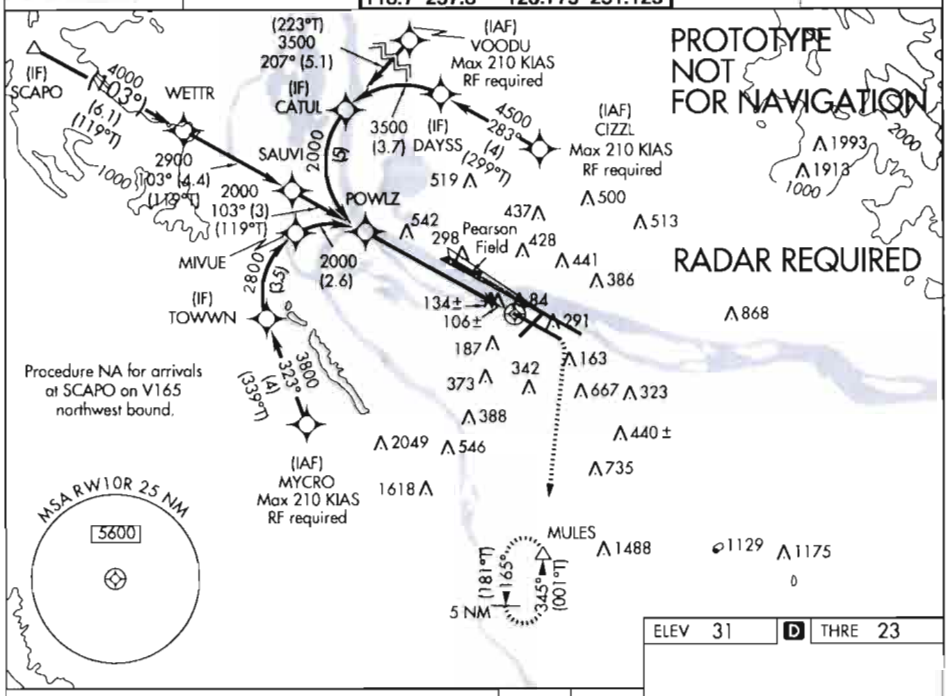
RNAV (RNP) Z RWY 10R
PORTLAND INTL (PDX)

GPS required. For inoperative ALSF, increase RNP 0.10 all Cats visibility to RVR 5000 and 0.30 all Cats visibility to 1⅜ miles. For uncompensated Baro-VNAV systems, procedure NA below -15°C (5°F) or above 54°C (130°F). Simultaneous approach authorized with Rwy 10L. Use of FD or AP providing track guidance required for simultaneous operations.

ALSF-2

MISSED APPROACH: CLIMB TO 440 THEN CLIMBING right turn to 5000 direct MULES and hold, continue climb-in-hold to 5000.

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

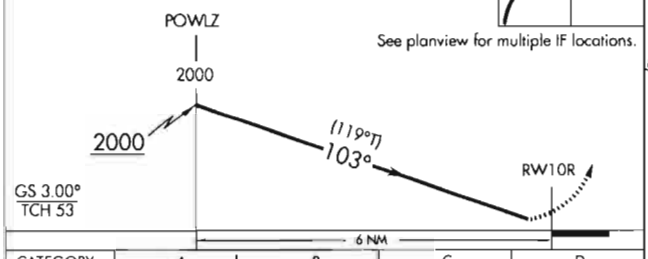


ELEV 31	D	THRE 23

VGSI and RNAV glidepath not coincident (VGSI Angle 3.00/TCH 71).

5000 MULES

See planview for multiple IF locations.



103° to RW10R

CATUL: 4542.931N/12245.822W
CIZZL: 4541.534N/12236.011W
DAYSS: 4543.478N/12240.987W
MIVUE: 4538.587N/12248.382W
MULES: 4527.175N/12235.931W
MYCRO: 4531.802N/12247.824W
POWLZ: 4538.635N/12244.821W
SAUVI: 4540.083N/12248.562W
SCAPO: 4545.122N/12301.680W
TOWWN: 4535.552N/12249.868W
VOODU: 4546.714N/12240.847W
WETTR: 4542.205N/12254.060W
RW10R: 4535.709N/12237.288W

CATEGORY	A	B	C	D
RNP 0.10 DA	346/32 323 (400-⅝)			
RNP 0.30 DA	448/50 425 (500-1)			

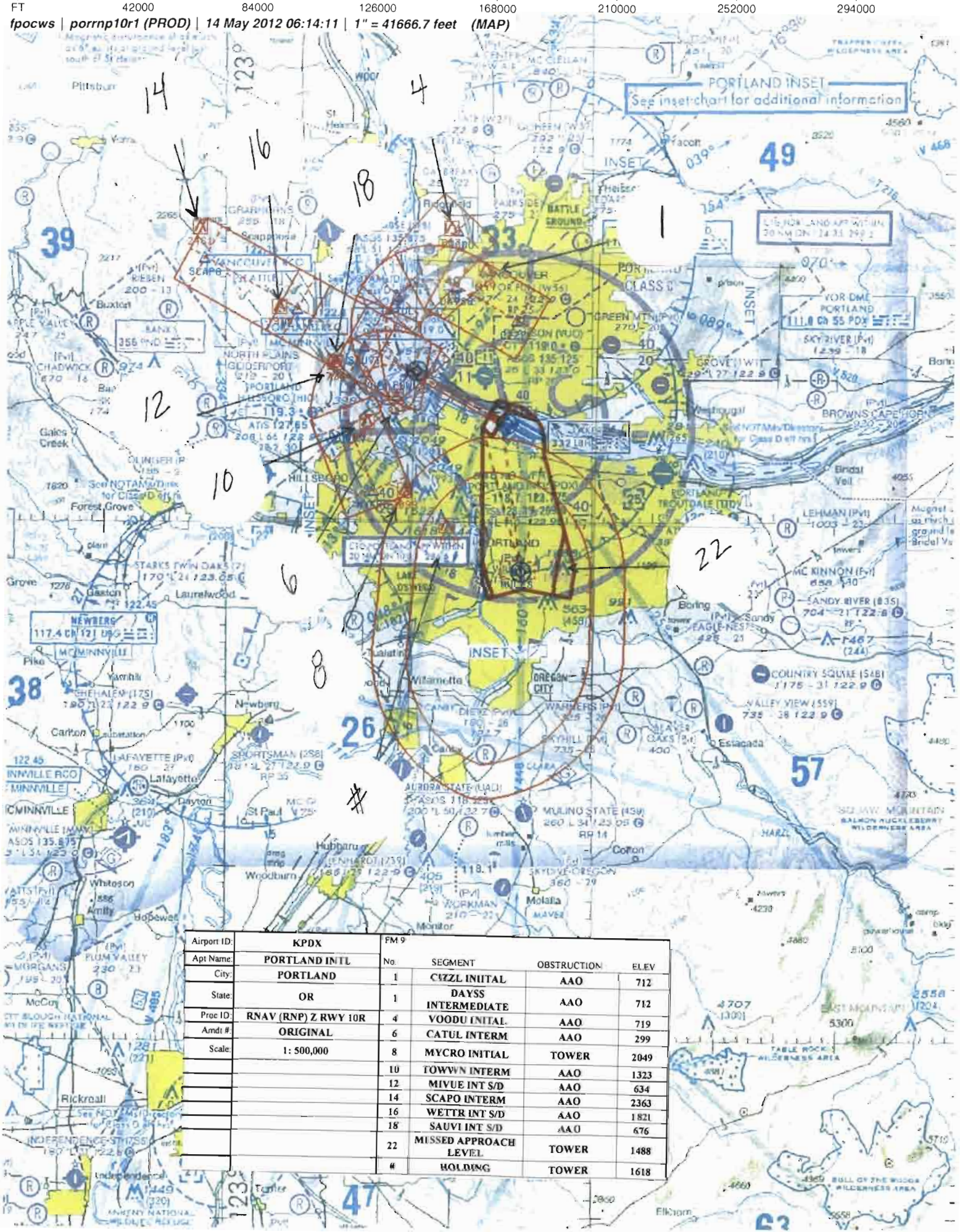
AUTHORIZATION REQUIRED

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

NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

fpocws | porrnp10r1 (PROD) | 14 May 2012 06:14:11 | 1" = 41666.7 feet (MAP)



Airport ID:	KPDX
Apt Name:	PORTLAND INTL
City:	PORTLAND
State:	OR
Proc ID:	RNAV (RNP) Z RWY 10R
Amdt #:	ORIGINAL
Scale:	1: 500,000

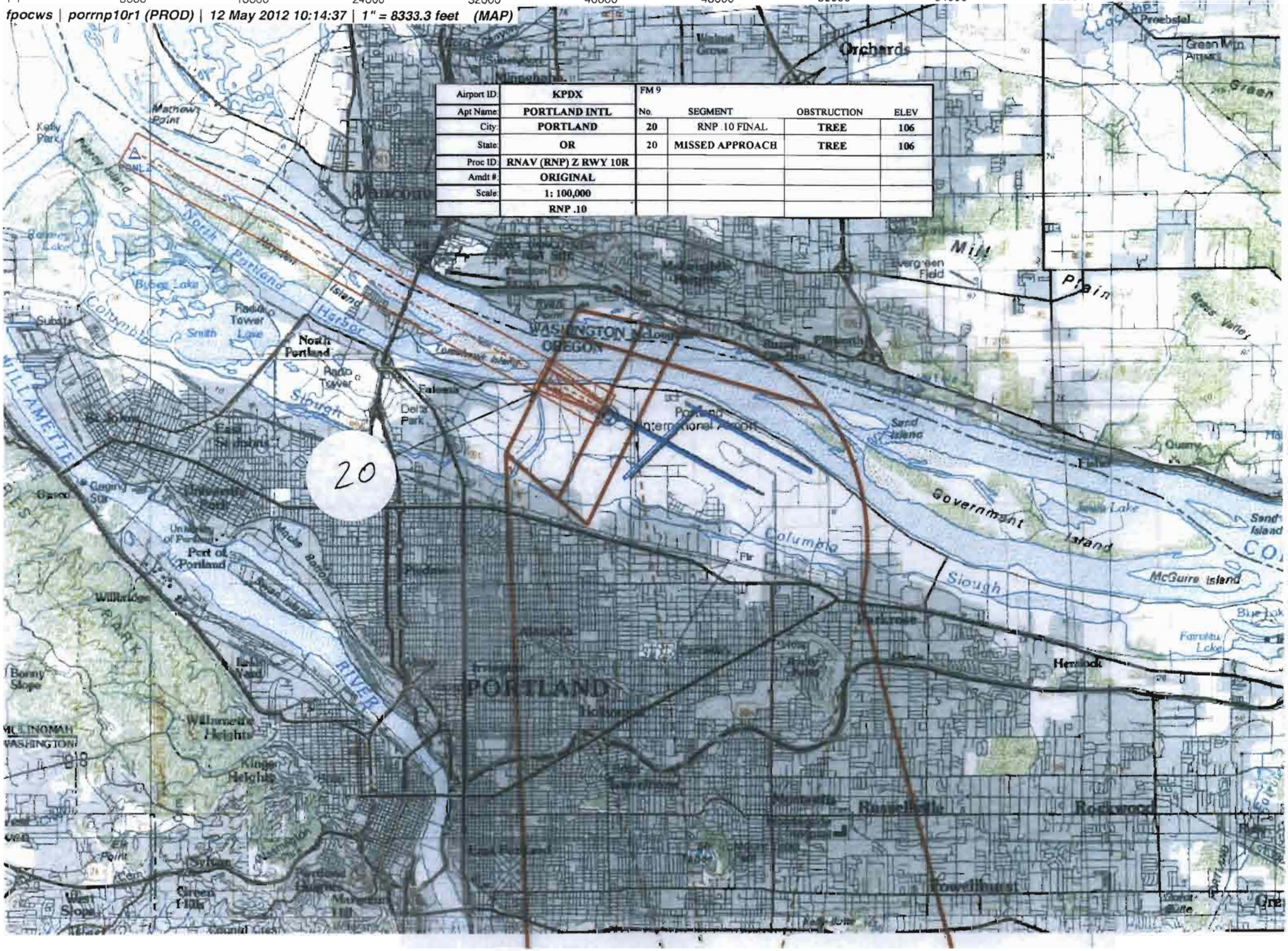
FM 9

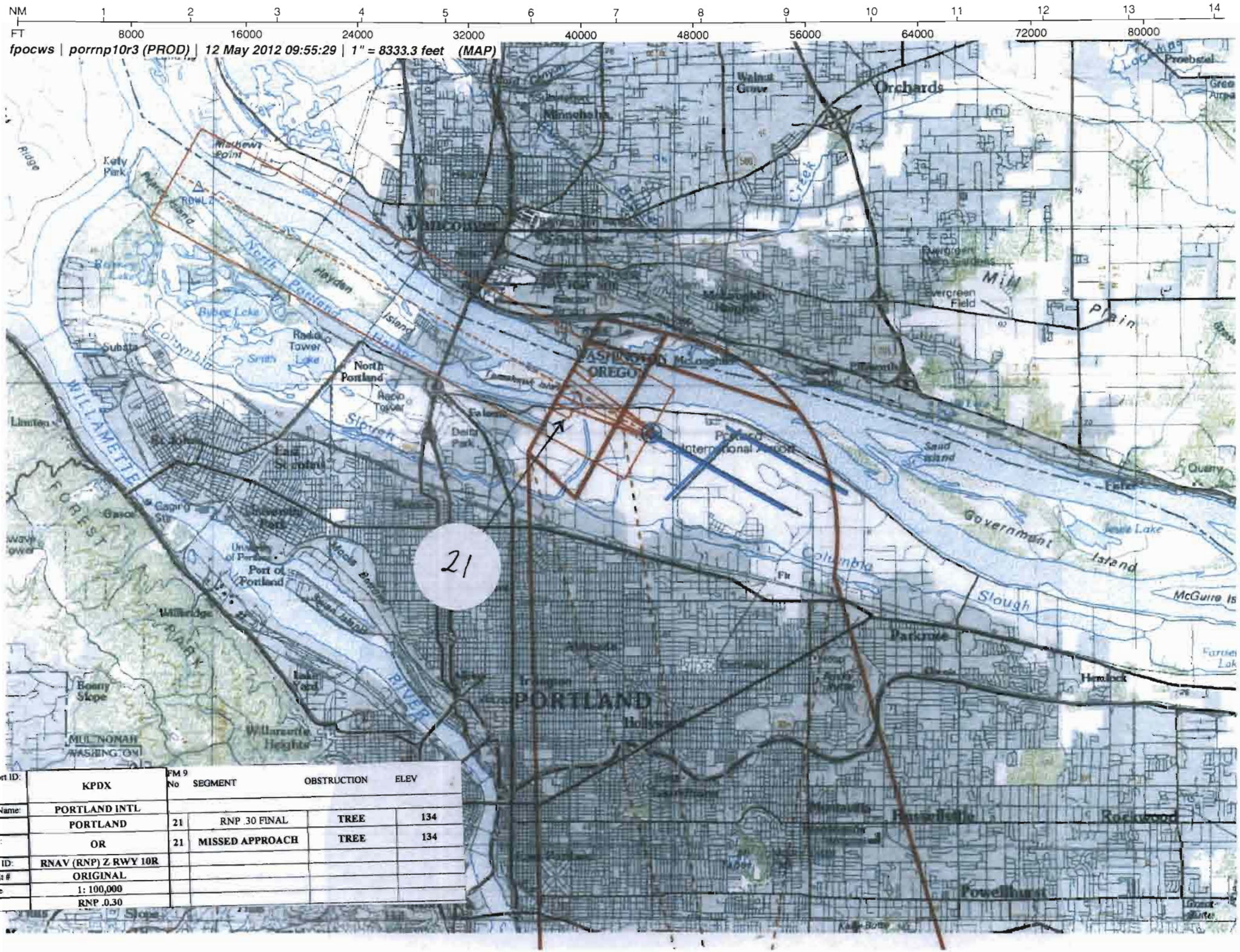
No.	SEGMENT	OBSTRUCTION	ELEV
1	CIZZL INITAL	AAO	712
1	DAYSS INTERMEDIATE	AAO	712
4	VOODU INITAL	AAO	719
6	CATUL INTERM	AAO	299
8	MYCRO INITIAL	TOWER	2049
10	TOWWN INTERM	AAO	1323
12	MIVUE INT S/D	AAO	634
14	SCAPO INTERM	AAO	2363
16	WETTR INT S/D	AAO	1821
18	SAUVI INT S/D	AAO	676
22	MISSED APPROACH LEVEL	TOWER	1488
#	HOLDING	TOWER	1618

NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fpocws | porrnp10r1 (PROD) | 12 May 2012 10:14:37 | 1" = 8333.3 feet (MAP)


Orchards
Mount Hood
Mathews Point
Kelly Park
North Portland Harbor
Columbia Slough
Radio Tower
Smith Lake
Bybee Lake
North Portland
WASHINGTON
OREGON
Portland International Airport
Sand Island
Government Island
Columbia Slough
McGuire Island
Mill Plain
Evergreen Field
Green Mtn Airport
Probstel
Walnut Grove
Minnehaha
Delta Park
Portland
Hayden Island
Sauvie Island
Quarry
Port of Portland
University of Portland
Willbridge
Bonny Slope
Wilkes
Parkrose
Hazelwood
Rossmere
Rockwood
Powellhurst
Wilkes
Wilkes
Wilkes



		FM 9 No	SEGMENT	OBSTRUCTION	ELEV
Airport ID:	KPDX				
Apt Name:	PORTLAND INTL				
City:	PORTLAND	21	RNP .30 FINAL	TREE	134
State:	OR	21	MISSED APPROACH	TREE	134
Proc ID:	RNAV (RNP) Z RWY 10R				
Amdt #	ORIGINAL				
Scale	1: 100,000				
	RNP .0.30				

US DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RNAV (RNP) - 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
CIZZL (IAF)	DAYSS (TF) (FB) (RNP 1.00)	283.18 / 3.99	4500
DAYSS (IF)	CATUL (RF) (FB) (RNP 1.00)	(2.77 NM RADIUS CCW (CFFVT))/3.70	3500
VOODU (IAF)	CATUL (TF) (FB) (RNP 1.00)	206.66 / 5.14	3500
CATUL (IF)	POWLZ (RF) (FB) (RNP 1.00)	(2.77 NM RADIUS CCW (CFFVT))/5.01	2000
MYCRO (IAF)	TOWWN (TF) (FB) (RNP 1.00)	323.06 / 4.02	3800
(SEE FORM 8260-10)			

MISSED APPROACH

RNP: DA

CLIMB TO 440 THEN CLIMBING RIGHT TURN TO 5000 DIRECT MULES AND HOLD, CONTINUE CLIMB-IN-HOLD TO 5000.

1. PT ____ SIDE OF COURSE ____ OUTBOUND ____ FT WITHIN ____ MILES OF ____ (IAF)
2. PROFILE STARTS AT POWLZ
3. FAC: 102.92 FAF: ____ DIST FAF TO MAP: ____ THLD: ____
4. MIN. ALT: POWLZ 2000
5. DIST TO THLD FROM OM: 6.04 MM: ____ IM: ____ 150 HAT: ____ 100 HAT: ____ GS ANT: ____
6. MIN GS INCPT: 2000 GS ALT AT: POWLZ 2000 OM: ____ MM: ____ IM: ____
7. GS ANGLE: 3.00 TCH: 53.0 34:1 IS CLEAR
8. MSA FROM: RW10R 5600

ADDITIONAL FLIGHT DATA:
HOLD S, LT, 345.00 INBOUND.
CHART FAS OBST: 106 TREE 453600N/1223807W
CHART FAS OBST: 134 TREE 453602N/1223829W
DISTANCE TO THLD FROM 323 HATH: 0.85 NM.
ROUTE TYPE: A,H
ROUTE TYPE QUALIFIER1: F
ROUTE TYPE QUALIFIER2: S
#TCH 75.7 MSL (DO NOT CHART)
CHART KVUO IN PLANVIEW
CHART LOC RWY 10L
CHART AT/ABOVE 5000 AT CIZZL
CHART MANDATORY 5000 AT MYCRO
CHART MANDATORY 5000 AT VOODU

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 0.10 DA	346	3200	323	346	3200	323	346	3200	323	346	3200	323			
RNP 0.30 DA	448	5000	425	448	5000	425	448	5000	425	448	5000	425			

NOTES:
CHART NOTE: GPS REQUIRED.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
CHART NOTE: FOR INOPERATIVE ALSF, INCREASE RNP 0.10 ALL CATS VISIBILITY TO RVR 5000 AND 0.30 ALL CATS VISIBILITY TO 1 3/8 MILES
(SEE FORM 8260-10)

QUALITY CHECKED 4

CITY AND STATE	ELEVATION: 31 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 10R, 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, ARPT MGR, ST AERO**

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME: **CHARLIE SCHNEIDER**	FIFO **AJV-354**	DATE: **04/17/2012**
APPROVED BY		
NAME: **DEZ SILAGYI** **MANAGER**	FIFO **AJV-354**	DATE:

CHANGES:

ORIGINAL PROCEDURE

REASONS:

FPT REQUEST

CONCURRENT WITH KPDX ILS OR LOC RWY 10R AMDT 34B

6/12/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/17/12.
1. ADDITIONAL FLIGHT DATA ADDED ALTITUDES: AT/ABOVE 5000 AT CIZZL, 5000 AT MYCRO, AND 5000 AT VOODU.
2. ADDITONAL FLIGHT DATA: #TCH 83.8 CHANGED TO 75.7 MSL
3. REMOVE DIST FAF TO MAP ON LINE 3.

QUALITY CHECKED 4

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TERMINAL ROUTES, (CONT.):

FROM	TO	COURSE AND DISTANCE	ALTITUDE
TOWWN (IF)	MIVUE (RF) (FB) (RNP 1.00)	(2.50 NM RADIUS CW (CFFVS)/3.48	2800
MIVUE	POWLZ (RF) (FB) (RNP 1.00)	(2.50 NM RADIUS CW (CFFVS)/2.62	2000
SCAPO (IF)	WETTR (TF) (FB) (RNP 1.00)	102.62 / 6.08	4000
WETTR	SAUVI (TF) (FB) (RNP 1.00)	102.81 / 4.40	2900
SAUVI	POWLZ (TF) (FB) (RNP 1.00)	102.88 / 3.00	2000
POWLZ (FAF)	RW10R (MAP) (TF) (FO)	102.92 / 6.04	
RW10R (MAP)	440 MSL (CA)	102.92	440
440 MSL	MULES (DF) (FO)		5000

NOTES, (CONT.):
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.
CHART PLANVIEW NOTE: RADAR REQUIRED
CHART PLANVIEW NOTE AT CIZZL, VOODU, AND MYCRO: MAX 210 KIAS
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -15C (5F) OR ABOVE 54C (130F)
CHART PLANVIEW NOTE ADJACENT TO CIZZL IAF: RF REQUIRED
CHART PLANVIEW NOTE ADJACENT TO MYCRO IAF: RF REQUIRED
CHART PLANVIEW NOTE ADJACENT TO VOODU IAF: RF REQUIRED
CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED WITH RWY 10L
CHART NOTE: USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT SCAPO ON V165 NORTHWEST BOUND

4

CITY AND STATE	ELEVATION: 31 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 10R, 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
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CATUL K10    W     N45425587W122454929                      E0161     NAR           CATUL
        SUSAEAENRT   CFFVS K10    W     N45362679W122463257                      E0161     NAR           CNF(CFFVS)
        SUSAEAENRT   CFFVT K10    W     N45410350W122425460                      E0161     NAR           CNF(CFFVT)
        SUSAEAENRT   CIZZL K10    W     N45413202W122360067                      E0161     NAR           CIZZL
        SUSAEAENRT   DAYSS K10    W     N45432867W122405923                      E0161     NAR           DAYSS
        SUSAEAENRT   MIVUE K10    W     N45383522W122482294                      E0161     NAR           MIVUE
        SUSAEAENRT   MULES K10    C   L N45271051W122355586                      E0160     NAR           MULES
        SUSAEAENRT   MYCRO K10    W     N45314813W122474943                      E0161     NAR           MYCRO
        SUSAEAENRT   POWLZ K10    C     N45383807W122444924                      E0161     NAR           POWLZ
        SUSAEAENRT   SAUVI K10    C     N45400496W122483371                      E0161     NAR           SAUVI
        SUSAEAENRT   SCAPO K10    C   L N45450734W123014081                      E0162     NAR           SCAPO
        SUSAEAENRT   TOWWN K10    W     N45353312W122495206                      E0161     NAR           TOWWN
        SUSAEAENRT   VOODU K10    W     N45464284W122405082                      E0161     NAR           VOODU
        SUSAEAENRT   WETTR K10    W     N45421229W122540357                      E0161     NAR           WETTR

                 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 KPDXK1FH10RZ ACIZZL 010CIZZLK1EA0E  A    IF                                  + 05000     18000210              A-FS
        SUSAP KPDXK1FH10RZ ACIZZL 020DAYSSK1EA0E  B 010TF                                  + 04500                           A FS
        SUSAP KPDXK1FH10RZ ACIZZL 030CATULK1EA0E   L010RF       0027702832    20670037     + 03500                CFFVT K1EAA FS
        SUSAP KPDXK1FH10RZ ACIZZL 040POWLZK1EA0EE  L010RF       0027702067    10290050     + 02000                CFFVT K1EAA FS
        SUSAP KPDXK1FH10RZ AMYCRO 010MYCROK1EA0E  A    IF                                    05000     18000210              A-FS
        SUSAP KPDXK1FH10RZ AMYCRO 020TOWWNK1EA0E  B 010TF                                  + 03800                           A FS
        SUSAP KPDXK1FH10RZ AMYCRO 030MIVUEK1EA0E   R010RF       0025003231    04290035     + 02800                CFFVS K1EAA FS
        SUSAP KPDXK1FH10RZ AMYCRO 040POWLZK1EA0EE  R010RF       0025000429    10290026     + 02000                CFFVS K1EAA FS
        SUSAP KPDXK1FH10RZ ASCAPO 010SCAPOK1EA0E  B    IF                                              18000              A FS
        SUSAP KPDXK1FH10RZ ASCAPO 020WETTRK1EA0E    010TF                                  + 04000                           A FS
        SUSAP KPDXK1FH10RZ ASCAPO 030SAUVIK1EA0E    010TF                                  + 02900                           A FS
        SUSAP KPDXK1FH10RZ ASCAPO 040POWLZK1EA0EE   010TF                                  + 02000                           A FS
        SUSAP KPDXK1FH10RZ AVOODU 010VOODUK1EA0E  A    IF                                    05000     18000210              A-FS
        SUSAP KPDXK1FH10RZ AVOODU 020CATULK1EA0E  B 010TF                                  + 03500                           A FS
        SUSAP KPDXK1FH10RZ AVOODU 030POWLZK1EA0EE  L010RF       0027702067    10290050     + 02000                CFFVT K1EAA FS
        SUSAP KPDXK1FH10RZ H      020POWLZK1EA1E  F    IF                                  + 02000     18000      RW10R K1PGA FS
        SUSAP KPDXK1FH10RZ H      020POWLZK1EA2W                                                A031A011                      FS
        SUSAP KPDXK1FH10RZ H      030RW10RK1PG0GY M 031TF                                    00076            -300          A FS
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 31 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: **PORTLAND INTL**	**RNAV**	**RNAV (RNP) Z RWY 10R, 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 KPDXK1FH10RZ H      040         0  M     CA                    1029        + 00440                          A FS
        SUSAP KPDXK1FH10RZ H      050MULESK1EA0EY      DF                                + 05000                          A FS
        SUSAP KPDXK1FH10RZ H      060MULESK1EA0EE  L   HM                    34500050    + 05000                          A FS
```

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KPDXK1GRW10R   0110001030 N45354253W122371730+0000    -0015800023000053150IIPDX3
```

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
MSA     123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KPDXK1SRW10RK1PG                0   18018005625                                                                    M
```

QUALITY CHECKED

CITY AND STATE	ELEVATION: 31 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 10R, 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
	CIZZL	CIZZL	010	IAF	IF		FB				AA 05000	AB 210
	CIZZL	DAYSS	020		TF		FB	1.0			AA 04500	
	CIZZL	CATUL	030		RF	L	FB	1.0		003.7	AA 03500	
	CIZZL	POWLZ	040		RF	L	FB	1.0		005.0	AA 02000	
	MYCRO	MYCRO	010	IAF	IF		FB				AT 05000	AB 210
	MYCRO	TOWWN	020		TF		FB	1.0			AA 03800	
	MYCRO	MIVUE	030		RF	R	FB	1.0		003.5	AA 02800	
	MYCRO	POWLZ	040		RF	R	FB	1.0		002.6	AA 02000	
	SCAPO	SCAPO	010		IF		FB					
	SCAPO	WETTR	020		TF		FB	1.0			AA 04000	
	SCAPO	SAUVI	030		TF		FB	1.0			AA 02900	
	SCAPO	POWLZ	040		TF		FB	1.0			AA 02000	
	VOODU	VOODU	010	IAF	IF		FB				AT 05000	AB 210
	VOODU	CATUL	020		TF		FB	1.0			AA 03500	
	VOODU	POWLZ	030		RF	L	FB	1.0		005.0	AA 02000	
		POWLZ	020	FAF	IF		FB				AA 02000	
		RW10R	030	MAP	TF		FO	0.3			AT 00076	

MISSED APPROACH	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		040		CA		FB		102.9(118.9T)		AA 00440	
	MULES	050		DF		FO				AA 05000	
	MULES	060		HM	L	FO		345.0(001.0T)	005.0	AA 05000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	CATUL	N454255.87	W1224549.29	N4542.931	W12245.822
	CFFVS	N453626.79	W1224632.57	N4536.447	W12246.543
	CFFVT	N454103.50	W1224254.60	N4541.058	W12242.910
	CIZZL	N454132.02	W1223600.67	N4541.534	W12236.011
	DAYSS	N454328.67	W1224059.23	N4543.478	W12240.987
	MIVUE	N453835.22	W1224822.94	N4538.587	W12248.382
	MULES	N452710.51	W1223555.86	N4527.175	W12235.931
	MYCRO	N453148.13	W1224749.43	N4531.802	W12247.824
	POWLZ	N453838.07	W1224449.24	N4538.635	W12244.821
	SAUVI	N454004.96	W1224833.71	N4540.083	W12248.562
	SCAPO	N454507.34	W1230140.81	N4545.122	W12301.680
	TOWWN	N453533.12	W1224952.06	N4535.552	W12249.868
	VOODU	N454642.84	W1224050.82	N4546.714	W12240.847
	WETTR	N454212.29	W1225403.57	N4542.205	W12254.060
	RW10R	N453542.53	W1223717.30	N4535.709	W12237.288

QUALITY CHECKED

CITY AND STATE	ELEVATION: 31	THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: **PORTLAND INTL**		**RNAV**	**RNAV (RNP) Z RWY 10R, 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:

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.

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW10R	00023	53

QUALITY CHECKED

CITY AND STATE	ELEVATION: 31 THRE: 23	FACILITY IDENTIFIER:	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE:	SUP:
PORTLAND, OR	AIRPORT NAME: PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 10R, 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.
INITIAL	CIZZL	DAYSS	1. AAO	454403.00N/1223836.00W	712 (4E)	1000	AC98 AT2690	4500
(RNP 1.00)			2. TERRAIN	454403.00N/1223836.00W	512 (500)		AS1500	2000
INTERMEDIATE	DAYSS	CATUL	1. AAO	454403.00N/1223836.00W	712 (4E)	500	AC98 AT2190	3500
(RNP 1.00)			3. TERRAIN	454454.00N/1224109.00W	368 (400)		AS1500	1900
INITIAL	VOODU	CATUL	4. AAO	454624.00N/1224124.00W	719 (4E)	1000	AC98 AT1683	3500
(RNP 1.00)			5. TERRAIN	454624.00N/1224124.00W	519 (500)		AS1500	2000
INTERMEDIATE	CATUL	POWLZ	6. AAO	453645.00N/1224554.00W	299 (4E)	500	AC98 AT1103	2000
(RNP 1.00)			7. TERRAIN	454127.00N/1224421.00W	96 (100)		AS1500	1600
INITIAL	MYCRO	TOWWN	8. TOWER (41-000395)	453121.42N/1224511.35W	2049 (5D)	1000	AC50 AT701	3800
(RNP 1.00)			9. TERRAIN	453251.00N/1224557.00W	1277 (1300)		AS1500	2800
INTERMEDIATE	TOWWN	MIVUE	10. AAO	453518.00N/1224818.00W	1323 (4E)	500	AC98 AT879	2800
(RNP 1.00)			11. TERRAIN	453551.00N/1224857.00W	1123 (1100)		AS1500	2600
INTERMEDIATE:	MIVUE	POWLZ	12. AAO	453842.00N/1225051.00W	634 (4E)	500	AC98 AT658 VEB110	2000
STEPDOWN			13. TERRAIN	453915.00N/1224615.00W	83 (100)		AS1500	1600
(RNP 1.00)								
2. PROCEDURE TURN	NA							
3. MISSED APPROACH MAP:	DA / DA	MULES				ASC		5000
			22. TOWER (41-000042)	452710.00N/1223249.00W	1488 (4D)	1000	AC50	2600
ELEV:	185/287		23. TERRAIN	452716.00N/1223305.77W	1099 (1100)		AS1500	2600

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: **RW10R**

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	AAO	044/ 18.5	4600 (6C)	5600					4

CITY AND STATE	ELEVATION: 31 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
PORTLAND, OR	PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 10R, 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
				DISTANCE: 0
		F A A		HOURS REMOTE OPERATION:
SATISFACTORY ON:		A / C		0
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	
	HRS OPTN: 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: 22.7
	DISTANCE FROM RWY:	ELEV GP ANTENNA:
		THRESHOLD CROSSING HEIGHT: 53.0
9. FINAL APPROACH COURSE AIMING	X	RUNWAY THRESHOLD FT. FROM THRESHOLD
	X	ON CENTERLINE FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: CHARLIE SCHNEIDER	DATE: 04/17/2012
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-354

PART C - REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

SEE ATTACHED AIRSPACE LETTER.

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

ACT: -15, HISTORICAL WEATHER NOT AVAILABLE
"AVERAGE COLD TEMPERATURE BASED ON STANDARD -30C ISA DEVIATION"
DELTA ISA LOW: -29.9384

VEB ROC APPLIED/USED.
VEB DATA: SEE ATTACHED SPREADSHEETS.

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

VGSI DATA: 3.00/71.0

VEGETATION HEIGHTS PROVIDED BY I-TEN PHOTOGRAMMETRY DIVISION THROUGH PORT OF PORTLAND AND FPT.
WASHINGTON SIDE OF THE COLUMBIA RIVER: 85 FT.
OREGON SIDE OF THE COLUMBIA RIVER: 75 FT.
GOVERNMENT ISLAND: 130 FT

KPDX ASOS 24HRS

RF SEGMENT RADIUS/BANK ANGLE COMPUTATIONS:

SEGMENT	ALT	KIAS	KTAS	HAA	VKTW*	TR	BA
MIVUE-POWLZ	2800	210	221.76	2769.2	51.0	2.50	23.47
TOWWN-MIVUE	3800	210	225.96	3769.2	51.0	2.50	24.11
CATUL-POWLZ	3500	210	224.70	3469.2	51.0	2.77	21.82
DAYSS-CATUL	4500	210	228.90	4469.2	51.0	2.77	22.42

*VKTW: OBTAINED FROM HISTORICAL WIND DATA (MITRE)

MAX SPEED ALL PROCEDURE SEGMENTS - 210 KIAS

USED THE PBN MEMO 10/3/11 FOR UP TO 25 DEGREES OF BANK FOR RF LEG TURNS

QUALITY CHECKED 4

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	SCAPO	WETTR	14. AAO	454627.00N/1230203.00W	2363 (4E)	500	AC98 AT1039	4000
(RNP 1.00)			15. TERRAIN	454654.00N/1230018.00W	2107 (2100)		AS1500	3600
INTERMEDIATE:	WETTR	SAUVI	16. AAO	454154.00N/1225530.00W	1821 (4E)	500	AC98 AT481	2900
STEPDOWN			17. TERRAIN	454057.00N/1225454.00W	1588 (1600)		AS1000	2600
(RNP 1.00)								
INTERMEDIATE:	SAUVI	POWLZ	18. AAO	453842.00N/1225057.00W	676 (4E)	500	AC98 AT607 VEB119	2000
STEPDOWN			19. TERRAIN	453818.00N/1224954.00W	174 (200)		AS1500	1700
(RNP 1.00)								
FINAL: RNP 0.10	POWLZ	RW10R	20. TREE (KPDX0049)	453559.88N/1223807.30W	106 (1A)	21.73:1	AC3 MA44	346/323
FINAL: RNP 0.30	POWLZ	RW10R	21. TREE (KPDXT0165)	453602.44N/1223829.37W	134 (1B)	21.69:1	AC10 MA33	448/425
MISSED APPROACH	DA	RW10R	20. TREE (KPDX0049)	453559.88N/1223807.30W	106 (1A)	ASC	AC3	
(RNP 0.10-1.00)		(40:1)						
MISSED APPROACH	DA	RW10R	21. TREE (KPDXT0165)	453602.44N/1223829.37W	134 (1B)	ASC	AC10	
(RNP 0.30-1.00)		(40:1)						
MISSED APPROACH	RW10R	MULES				ASC		
(RNP 0.10-1.00)		(40:1)						
MISSED APPROACH	RW10R	MULES				ASC		
(RNP 0.30-1.00)		(40:1)						
3. MISSED APPROACH MAP:								
ELEV:								

4. CIRCLING AREA	DISTANCE		HT. ABV. ARPT.		
CATEGORY A	1.3 NM	REQUIRED	350	ACTUAL	
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		FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
PORTLAND, OR	ELEVATION: 31 AIRPORT NAME: PORTLAND INTL	RNAV	RNAV (RNP) Z RWY 10R, ORIG	ANM

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE	3. ALTIMETER SETTING
SATISFACTORY ON:	N W S / F A A / A / C — OTHER:	SOURCE:
		DISTANCE:
		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:

RADIO FIX AND HOLDING DATA RECORD

NAME: CATUL **STATE:** WA **COUNTRY:** US

LATITUDE/LONGITUDE: 454255.87N/1224549.29W **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 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: CFFVT **STATE:** WA **COUNTRY:** US

LATITUDE/LONGITUDE: 454103.50N/1224254.60W **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 10R			KPDX	PORTLAND	OR (US)

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: CFFVS **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 453626.79N/1224632.57W **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 10R			KPDX	PORTLAND	OR (US)

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: CIZZL **STATE:** WA **COUNTRY:** US

LATITUDE/LONGITUDE: 454132.02N/1223600.67W **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 10L			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: DAYSS **STATE:** WA **COUNTRY:** US

LATITUDE/LONGITUDE: 454328.67N/1224059.23W **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 10L			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: MIVUE **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 453835.22N/1224822.94W **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 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: MULES **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 452710.51N/1223555.86W **TYPE:** WP, 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	BATTLE GROUND	BTG	VORTAC	H	160.00	181.00	17.70	17.70		5000	17500
2	NEWBERG	UBG	VOR/DME	H	048.40	069.40		17.11		5000	17500

FIX RESTRICTIONS:
SPECIAL (SPECIAL) COPTER GPS 098, K7OR5, PORTLAND, OR

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	S	BTG	VORTAC	160.00	340.00	L	1		5000	8000	6	9
2	S		WP	165.00	345.00	L		5	5000	8000	6	9

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (41-000041)	453057.00N/1224403.00W	2049	4E
1	265	TOWER (41-000041)	453057.00N/1224403.00W	2049	4E
1	310	TOWER (41-000041)	453057.00N/1224403.00W	2049	4E
2	200	TOWER (41-000566)	452920.00N/1224147.00W	1618	5D
2	265	TOWER (41-000040)	453120.00N/1224450.00W	2049	1D
2	310	TOWER (41-000040)	453120.00N/1224450.00W	2049	1D

REASON FOR NONSTANDARD HOLDING:
PAT 1 ATC REQUEST
PAT 2 ATC REQUEST

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	HI-ILS OR LOC RWY 10R	KPDX	PORTLAND	OR (US)
1	ILS OR LOC RWY 10R	KPDX	PORTLAND	OR (US)
2	RNAV (GPS) Y RWY 10R	KPDX	PORTLAND	OR (US)
2	RNAV (RNP) Z RWY 10R	KPDX	PORTLAND	OR (US)

REMARKS:
BATTLE GROUND (FAC 1) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
265K PATTERN EVALUATED FOR MILITARY AIRCRAFT.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V448	1, 2				(US)
IAP	(SPECIAL) COPTER GPS 098			K7OR5	PORTLAND	OR (US)
IAP	RNAV (GPS) RWY 31			KHIO	PORTLAND	OR (US)
IAP	HI-ILS OR LOC RWY 10R	1, 2	1	KPDX	PORTLAND	OR (US)
IAP	ILS OR LOC RWY 10R	1, 2	1	KPDX	PORTLAND	OR (US)
IAP	ILS RWY 10R (CAT II)	1, 2	1	KPDX	PORTLAND	OR (US)
IAP	ILS RWY 10R (CAT III)	1, 2	1	KPDX	PORTLAND	OR (US)
IAP	ILS RWY 10R (SA CAT I)	1, 2	1	KPDX	PORTLAND	OR (US)
IAP	RNAV (GPS) Y RWY 10R		2	KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R		2	KPDX	PORTLAND	OR (US)
IAP	VOR/DME A	1		KSPB	SCAPPOOSE	OR (US)

REQUIRED CHARTING: MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 11 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
UPDATED FIX USE
RAISED FAC 1 AND 2 MRA RAISED FROM 4000 TO 5000 (AIRWAY MEA)
ADDED HOLDING PAT 2
RAISED PAT 1 HOLDING PATTERN TO 5000

DEVELOPED BY:	**DATE:** 04/12/2012	**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:

RADIO FIX AND HOLDING DATA RECORD

NAME: MYCRO **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 453148.13N/1224749.43W **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 10L			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: POWLZ **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 453838.07N/1224449.24W **TYPE:** WP, 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-PDX	LOC/DME		283.01	299.01	8.05	8.07	49035	2000	4500
2	BATTLE GROUND	BTG	VORTAC	H	205.41	226.41	9.04	9.04		2000	4500

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

REMARKS:
PORTLAND (FAC 1) USED TO ESTABLISH FIX COORDINATES
ILS DME: 453446.74N-1223445.23W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI ILS OR LOC/DME RWY 10R	1, 2		KPDX	PORTLAND	OR (US)
IAP	ILS RWY 10R (SA CAT I)	1		KPDX	PORTLAND	OR (US)
IAP	ILS OR LOC RWY 10R	1		KPDX	PORTLAND	OR (US)
IAP	ILS RWY 10R (CAT II/III)	1		KPDX	PORTLAND	OR (US)
IAP	RNAV (GPS) Y RWY 10R			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
UPDATED FIX USE.
CHARTED MILITARY IAP
ADDED WP TO FIX TYPE

DEVELOPED BY: **DATE:** 08/22/2011 **OFFICE:** AJV-354 **NAME:** ANDREW FIELDS

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: SAUVI **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 454004.96N/1224833.71W **TYPE:** WP, 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-PDX	LOC/DME		283.01	299.01	11.05	11.07		2900	4500

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

REMARKS:
ILS DME: 453446.74N/1223445.23W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	HI ILS OR LOC DME RWY 10R	1		KPDX	PORTLAND	OR (US)
IAP	RNAV (GPS) Y RWY 10R			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: MILITARY IAP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
ADDED HI-ILS OR LOC/DME RWY 10R
ADDED FAC 1
ADDED REMARKS, ILS DME
ADDED CHARTING MILITARY IAP
ADDED DME FROM TYPE

DEVELOPED BY: **DATE:** 04/19/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: SCAPO **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 454507.34N/1230140.81W **TYPE:** WP, 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-PDX	LOC/DME		283.01	299.01	21.53	21.55		4000	9000
2	NEWBERG	UBG	VOR/DME	H	334.00	355.00	24.03	24.03		4000	17500
3	BATTLE GROUND	BTG	VORTAC	H	249.95	270.95		18.34		4000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-PDX	LOC/DME	R-283	22	4000	9000

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	UBG	VOR/DME	334.00	154.00	R	1		4000	14000	5	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	454708.90N/1230610.70W	2465	6C
1	265	AAO	454708.90N/1230610.70W	2465	6C

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.
CAT E AIRCRAFT LIMITED TO 265 KTS (PAT 1).

REMARKS:
PORTLAND (FAC 1) AND NEWBERG (FAC 2) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	SCAPO	1, 2, 3		KHIO	PORTLAND	OR (US)
EN ROUTE	V165	1, 2, 3				(US)
IAP	ILS OR LOC RWY 10R	1, 2, 3	1	KPDX	PORTLAND	OR (US)
IAP	ILS OR LOC RWY 28L			KPDX	PORTLAND	OR (US)
IAP	ILS RWY 10R (CAT II)	1, 2, 3	1	KPDX	PORTLAND	OR (US)
IAP	ILS RWY 10R (CAT III)	1, 2, 3	1	KPDX	PORTLAND	OR (US)
IAP	ILS RWY 10R (SA CAT I)	1, 2, 3	1	KPDX	PORTLAND	OR (US)
IAP	LOC/DME RWY 21 (ALT MA)		1	KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: DP, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 14 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
UPDATED FIX USE
REMOVED FAC 1 FROM HISTORY TO ACTIVE STATUS
ADDED WP TO FIX TYPE
REMOVED FAC 4 AND PAT 2, PDX VOR/DME TO BE DECOMMISONED

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: TOWWN **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 453533.12N/1224952.06W **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 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: VOODU **STATE:** WA **COUNTRY:** US

LATITUDE/LONGITUDE: 454642.84N/1224050.82W **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 10L			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/10/2012 **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:

RADIO FIX AND HOLDING DATA RECORD

NAME: WETTR **STATE:** OR **COUNTRY:** US

LATITUDE/LONGITUDE: 454212.29N/1225403.57W **TYPE:** WP

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

HOLDING: **HOLDING TYPE OF ACTION:** CANCEL

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) Y RWY 10R			KPDX	PORTLAND	OR (US)
IAP	RNAV (RNP) Z RWY 10R			KPDX	PORTLAND	OR (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
REMOVED PAT 1, REMOVED BY ATC REQUEST
UPDATED FIX USE

DEVELOPED BY: **DATE:** 04/19/2012 **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:

TERMINAL AIRSPACE DATA REQUIREMENTS

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

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

PROCEDURE: **RNAV (RNP) Z RWY 10R** 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 **3.21**
   (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 **118.92**
4. High Terrain in **FINAL** segment containing 1000' point **102**
5. Distance from **THLD** to 1500' point **11.46**
   (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 **118.81**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **1588**
9. Threshold Coordinates (if straight-in) ... **453542.53N** / **1223717.30W**
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 ..... **453838.07N** / **1224449.24W**
    (Click to Select)

REMARKS: Approach/Drawing attached.

DO NOT REMOVE FROM PACKAGE

KPDX RNP RWY 10R
RIGHT DW TRANSITION
INTERMEDIATE S/D TO PFAF SEGMENT

M YCKO TRANS

PFAF

Min Intermediate Segment Alt (a):	
LTP MSL Elevation (b):	
TCH:	
Glidepath Angle (Θ):	
Distance from LTP to PFAF (D):	0.00
	0.00 NM
LTP/FTP Latitude:	
LTP/FTP Longitude:	
True RWY Bearing/True Course:	
PFAF Latitude:	000° 00' 00.00"
PFAF Longitude:	000° 00' 00.00"

Latitude/Longitude valid for straight segment only

VEB

Intermediate Segment Altitude:	2000
LTP Elevation:	22.7
Glidepath Angle:	3
TCH:	53
RNP Value:	0.30
Δ ISA:	-29.9384

Straight In Segment

(*Wingspan =<262*) **LTP to Origin:**	3,837.81'
(*Wingspan =<136*) **LTP to Origin:**	3,620.90'
OCS Slope Ratio:	21.69 : 1

RF Turn Segment | Bank angle:	
(*Wingspan =<262*) **LTP to Origin:**	NA
(*Wingspan =<136*) **LTP to Origin:**	NA
OCS Slope Ratio:	NA

Version 24

VEB

Glidepath Angle:	3.00°	
Max Glidepath Angle:	3.50°	
PFAF Elevation:	2000	
LTP Elevation:	22.7	
ACT:	-15.00°C	
Min Glidepath Angle	2.75°	
NA Below	-15.00°C	5.00°F
NA Above	49.24°C	120.63°F

Intermediate Segment VEB ROC

Glidepath Angle	3.00°
LTP MSL Elevation	22.70
TCH (ft)	53.00
OCS Slope	21.69
OCS Origin Distance (ft) *(measured along-track from LTP)*	3,837.81
Obstacle Distance (ft) *(measured along-track from LTP)*	58,662.59
VEB ROC *(at obstacle)*	**610**
Glidepath MSL altitude at Obstacle	3,232.54
OCS MSL altitude at Obstacle	2,622.38

DO NOT REMOVE FROM PACKAGE

KPDX RNP RWY 10R
CIZZL/VOODU LEFT DW TRANSITION
INTERMEDIATE S/D TO PFAF SEGMENT

PFAF

Min Intermediate Segment Alt (a):	
LTP MSL Elevation (b):	
TCH:	
Glidepath Angle (Θ):	
Distance from LTP to PFAF (D):	0.00
	0.00 NM
LTP/FTP Latitude:	
LTP/FTP Longitude:	
True RWY Bearing/True Course:	
PFAF Latitude:	000° 00' 00.00"
PFAF Longitude:	000° 00' 00.00"

Latitude/Longitude valid for straight segment only

VEB

Intermediate Segment Altitude:	2000
LTP Elevation:	22.7
Glidepath Angle:	3
TCH:	53
RNP Value:	0.30
Δ ISA:	-29.9385

Straight in Segment

(*Wingspan =<262*) LTP to Origin:	3,837.81'
(*Wingspan =<136*) LTP to Origin:	3,620.90'
OCS Slope Ratio:	21.69 : 1

RF Turn Segment | Bank angle:	
(*Wingspan =<262*) LTP to Origin:	NA
(*Wingspan =<136*) LTP to Origin:	NA
OCS Slope Ratio:	NA

Version 24

VEB

Glidepath Angle:	3.00°	
Max Glidepath Angle:	3.50°	
PFAF Elevation:	2000	
LTP Elevation:	22.7	
ACT:	-15.00°C	
Min Glidepath Angle	2.75°	
NA Below	-15.00°C	5.00°F
NA Above	49.24°C	120.63°F

Intermediate Segment VEB ROC

Glidepath Angle	3.00°
LTP MSL Elevation	22.70
TCH (ft)	53.00
OCS Slope	21.69
OCS Origin Distance (ft) *(measured along-track from LTP)*	3,837.81
Obstacle Distance (ft) *(measured along-track from LTP)*	35,370.82
VEB ROC *(at obstacle)*	**459**
Glidepath MSL altitude at Obstacle	1,959.38
OCS MSL altitude at Obstacle	1,500.33

DO NOT REMOVE FROM PACKAGE

KPDX RNP RWY 10R
SCAPOTRANSITION
INTERMEDIATE S/D TO PFAF SEGMENT

PFAF

Min Intermediate Segment Alt (a):	
LTP MSL Elevation (b):	
TCH:	
Glidepath Angle (Θ):	
Distance from LTP to PFAF (D):	0.00
	0.00 NM
LTP/FTP Latitude:	
LTP/FTP Longitude:	
True RWY Bearing/True Course:	
PFAF Latitude:	000° 00' 00.00"
PFAF Longitude:	000° 00' 00.00"

Latitude/Longitude valid for straight segment only

VEB

Intermediate Segment Altitude:	2000
LTP Elevation:	22.7
Glidepath Angle:	3
TCH:	53
RNP Value:	0.30
Δ ISA:	-29.9384

Straight In Segment

(*Wingspan =<262*) **LTP to Origin:**	3,837.81'
(*Wingspan =<136*) **LTP to Origin:**	3,620.90'
OCS Slope Ratio:	21.69 : 1

RF Turn Segment | Bank angle:

(*Wingspan =<262*) **LTP to Origin:**	NA
(*Wingspan =<136*) **LTP to Origin:**	NA
OCS Slope Ratio:	NA

VEB

Glidepath Angle:	3.00°	
Max Glidepath Angle:	3.50°	
PFAF Elevation:	2000	
LTP Elevation:	22.7	
ACT:	-15.00°C	
Min Glidepath Angle	2.75°	
NA Below	-15.00°C	5.00°F
NA Above	49.24°C	120.63°F

Intermediate Segment VEB ROC

Glidepath Angle	3.00°
LTP MSL Elevation	22.70
TCH (ft)	53.00
OCS Slope	21.69
OCS Origin Distance (ft) *(measured along-track from LTP)*	3,837.81
Obstacle Distance (ft) *(measured along-track from LTP)*	59,960.11
VEB ROC *(at obstacle)*	**619**
Glidepath MSL altitude at Obstacle	3,304.23
OCS MSL altitude at Obstacle	2,685.65