

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
 Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT</u> WARREN "BUD" WOODS PALMER MUNI	<u>AIRPORT ID</u> PAAQ	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 10	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> PALMER	<u>STATE</u> AK
<u>AIRPORT ELEVATION</u> 249	<u>TDZE</u> 233	<u>SUPERSEDED</u> RNAV (GPS) RWY 9	<u>ORIGINAL/AMENDMENT</u> 1C	<u>DATED</u> 02/01/2018	<u>MAG VAR</u> 16E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
BGQ VORTAC		INICE		TF	FB	2.00	059.56	6.50	3400
INICE	IAF	LEYIT		TF	FB	1.00	059.42	6.83	3300
LEYIT	IF	FAPUN		TF	FB	1.00	067.06	6.12	2300
FAPUN	FAF	RIGAE/3.22 NM TO RW10		TF	FB	0.30	097.13	3.14	
RIGAE/3.22 NM TO RW10		RW10	MAP	TF	FO	0.30	097.13	3.22	
RW10	MAP	649 MSL		CA			093.13		649
649 MSL		INICE		DF	FO	1.00			3600

MISSED APPROACH

MAP:
 LP: RW10
 LNAV: RW10

MISSED APPROACH INSTRUCTIONS:
 (DO NOT EXCEED 185 KIAS UNTIL INICE) CLIMBING RIGHT TURN TO 3600 DIRECT INICE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. PROFILE STARTS AT LEYIT
3. FAC:

097.13

FAF: FAPUN

DIST FAF TO MAP: 6.36

DIST FAF TO THLD: 6.36
4. MIN ALT: LEYIT 3300, FAPUN 2300, RIGAE/3.22 NM TO RW10 1300
5. DIST TO THLD FROM OM:

MM:

IM:

150 HAT:

GS ANT:
6. MIN GP INCPT:

GP ALT AT FAF :

OM:

MM:

IM:
7. GP ANGLE:

34:1: IS NOT CLEAR

20:1: IS NOT CLEAR

TCH:
8. MSA FROM: RW10 10000

PBN REQUIREMENTS NOTES:

RNP APCH

NOTES:

CHART NOTE: CIRCLING NA NE OF RWY 16-28.
CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: RWY 10 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON BGQ VORTAC AIRWAY RADIALS 336 CW 054.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
FAPUN TO RW10: 3.00/40.
WAAS CHANNEL #40425
REFERENCE PATH ID: W10A
CHART FAS OBST: 503 TREE 613634N/1491023W, 538 TREE 613703N/1490939W.
HOLD SW, RT, 059.42 INBOUND
LTP HAE: 81.8 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT C, D 1100-3

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LP MDA	760	1	527	760	1	527	760	1 1/2	527	760	1 1/2	527			
LNAV MDA	820	1	587	820	1	587	820	1 5/8	587	820	1 5/8	587			
CIRCLING	860	1	611	940	1	691	1300	3	1051	1300	3	1051			



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK

CHANGES - REASONS

- AIRPORT NAME CHANGED FROM PALMER BUDDY WOODS MUNI TO WARREN "BUD" WOODS PALMER MUNI. - BROUGHT OVER FROM PREVIOUS P-NOTAM AMENDMENT.
- TDZE CHANGE FROM 227 TO 233. - NEW AIRNAV DATA.
- RUNWAY AND PROCEDURE NAME CHANGED FROM RWY 9 TO RWY 10. - AIRPORT MAGVAR UPDATE, OLD 20E/2010, NEW 16E/2020
- ADDED 4 DEGREES TO ALL TERMINAL ROUTES. - MAGVAR UPDATE.
- LEYIT TO FAPUN CHANGED FROM 062.94 TO 67.06. - PFAF LOCATION CHANGED WITH NEW PFAF FORMULA.
- FAC CHANGED FROM 093.13 TO 097.13. - MAGVAR UPDATE.
- DIST FAF TO MAP CHANGED FROM 5.89 TO 6.36. DIST FAF TO THLD CHANGED FROM 6.39 TO 6.36. - NEW PFAF FORMULA, MAP FIX LOCATION MOVED FOR OPTIMUM STRAIGHT IN ALIGNMENT.
- MISSED HOLDING CHANGED FROM 3400 TO 3600. - IFP CHECKLIST REQUEST.
- ADDED (DO NOT EXCEED 185 KIAS UNTIL INICE) TO MISSED APPROACH. - CHARTED IAW 8260.19 8-6-6 (D).
- ADDED 20:1 NOT CLEAR. - IAW 8260.19 8-6-7 I (3), UPDATED PENETRATING OBS IN SIAP.
- REMOVED CHART NOTE: DME/DME RNP-0.3 NA, ADDED PBN EQUIPMENT REQUIREMENTS NOTES: RNP APCH. - IAW 8260.19 CH 8.
- SDF DISTANCE AND MINIMUM ALTITUDE CHANGED FROM 2.70 NM/1280 TO 3.22 NM/1300 - OPTIMUM STRAIGHT-IN ALIGNMENT AND HIGHER CAT C/D CIRCLING MDA.
- REMOVED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WASILLA ALTIMETER SETTING: INCREASE ALL MDAS 60 FEET AND INCREASE LP AND LNAV CAT C AND D VISIBILITY 1/8 SM. - PLACED ON 8260-9 FOR CONTINGENCY PURPOSES.
- RWY 9, 27 CHANGED TO 10, 28 IN CIRCLING RESTRICTION AND HELICOPTER VISIBILITY NOTE. - MAGVAR UPDATE, RUNWAY NUMBER CHANGE.
- ADDED CHART CIRCLING ICON. - ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.
- REFERENCE PATH ID CHANGED FROM W09A TO W10A. RUNWAY NUMBER CHANGED.
- CHART FAS OBST: 559 TREE 613642N/1491031W, CHANGED TO CHART FAS OBST: 503 TREE 613634N/1491023W. - NEW CONTROLLING OBS.
- 559 TREE 613656N/1490949W, CHANGED TO 538 TREE 613703N/1490939W. - REVISED MAP STUDY.
- REMOVED FAC CROSSES RWY C/L EXTENDED 3038 FT FROM THLD. - MAP MOVED TO LINE UP ON FINAL FOR OPTIMUM STRAIGHT IN ALIGNMENT.
- MISSED HOLDING INBOUND COURSE CHANGED FROM 55.42 TO 059.42. - MAGVAR UPDATE.
- ALT MINS CHANGED FROM CAT D 800-2 1/4 TO CAT C, D 1100-3. - NEW MINIMUMS.
- REMOVED NA WHEN LOCAL WEATHER NOT AVAILABLE NOTE. - BOTH WX SERVICES ON SERVICE-A.
- LP MINS CHANGED FROM LP MDA 820/1/587, 820/1/587, 820/1 3/4/587, 820/1 3/4/587, TO LP MDA 760/1/527, 760/1/527, 760/1 1/2/527, 760/1 1/2/527. - NEW CONTROLLING OBS.
- LNAV CAT C/D VISIBILITY CHANGED FROM 1 3/4 TO 1 5/8. - VISIBILITY TABLE 3-3-1 VALUES.
- CIRCLING MINS CHANGED FROM CIRCLING 880/1/631, 940/1/691, 940/2/691, 960/2 1/4/711, TO CIRCLING 860/1/611, 940/1/691, 1300/3/1051, 1300/3/1051. - NEW CIRCLING RADII USED.
- CRC REMAINDER CHANGED FROM 89019428 TO FDCE99BD. NEW AIRPORT DATA, UPDATED FPAP, LTP.

PDF EDITS:

- MOVE 538 TREE 613703N/1490939W TO CHART FAS OBST IN ADDITIONAL FLIGHT DATA.



COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZAN, ANC APP CON, ATA

FLIGHT CHECKED BY

OFFICE

DATE

DEVELOPED BY

Digitally signed by

LEO PALMER

LEO PALMER

Jun 04, 2018

OFFICE

AJV-5421

DATE

04/05/2018

APPROVED BY

JULIE MORGAN

OFFICE

AJV-5420

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	PAAQ
RUNWAY	RW10
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W10A
LTP/FTP LATITUDE	613541.9550N
LTP/FTP LONGITUDE	1490602.3005W
LTP/FTP ELLIPSOIDAL HEIGHT	+00818
FPAP LATITUDE	613506.7710N
FPAP LONGITUDE	1490311.0925W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1648
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0

CRC REMAINDER	FDCE99BD
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ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	PA
LTP ORTHOMETRIC HEIGHT	+00711
FPAP ORTHOMETRIC HEIGHT	+00711



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

AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM TO
BGQ VORTAC INICE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	6.50											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
1.AAO	613712.00N/1494512.00W		558	250	125	4E	1000				AT1842	3400
2.TERRAIN	613703.00N/1494600.00W		355 (400)								AS1500	1900

COMPUTATIONS

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

SEGMENT
REMARKS:

INITIAL TO
FROM LEYIT
INICE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	6.83											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
3.AAO	613930.00N/1493024.00W		834	250	50	4D	1000				AT1326 PR120	3300
4.TERRAIN	613924.00N/1493142.00W		555 (600)								AS1500	2100

COMPUTATIONS

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

SEGMENT
REMARKS:



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV

INTERMEDIATE

FROM

LEYIT

TO

FAPUN

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	6.12											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
5.AAO	613942.00N/1492718.00W		857	250	125	4E	500				AC98 AT645 PR200	2300
6.TERRAIN	613942.00N/1492718.00W		657 (700)								AC1500	2200

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

REMARKS:

FINAL: LP

FROM

FAPUN

TO

RIGAE/3.22 NM TO RW10

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	3.14											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
7.TOWER (02-000189)	613712.00N/1491522.00W		715	20	125	1E	250				AC125 RA45 XL20 DG145	1300

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

REMARKS:



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV

FINAL: LP STEPDOWN

FROM

RIGAE/3.22 NM TO RW10

TO

RW10

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	3.22		RW10	527								
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
8.TREE (02-221931)	613634.22N/1491022.84W		503	20	3	1A	250					760

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT
REMARKS:

FINAL: LNAV

FROM

FAPUN

TO

RIGAE/3.22 NM TO RW10

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	3.14											
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
7.TOWER (02-000189)	613712.00N/1491522.00W		715	20	125	1E	250				AC125 DG145 XL20 RA45	1300

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT
REMARKS:



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV

FINAL: LNAV STEPDOWN

FROM

RIGAE/3.22 NM TO RW10

TO

RW10

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	3.22		RW10	587								
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
9.TREE (02-223538)	613703.23N/1490938.79W		538	20	3	1A	250				MA20	820

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

REMARKS:

MISSED APPROACH : LP

FROM

RW10

TO

INICE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
							660					
<u>OBSTRUCTION</u>	<u>COORDINATES</u>		<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
								ASC				3600
10.TREE	613245.29N/1490308.51W		981	50	20	2C	1000					2000
11.TERRAIN	613245.29N/1490308.51W		881 (900)								AS1500	2400

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

REMARKS:



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV

MISSED APPROACH : LNAV

FROM
RW10

TO
INICE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>				<u>HMAS</u>			
								720			
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
10.TREE	613245.29N/1490308.51W	981	50	20	2C		ASC				3600
10.TREE	613245.29N/1490308.51W	981	50	20	2C	1000					2000
11.TERRAIN	613245.29N/1490308.51W	881 (900)								AS1500	2400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT

REMARKS:

CIRCLING
 ☐ ALL CATS
 ☒ CAT A
 ☒ CAT B
 ☒ CAT C
 ☒ CAT D
 ☐ CAT E
 ☐ NOT AUTHORIZED

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>RADIUS</u>	<u>HAA</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
CATEGORY A											
12.TREE (02-224026)	613711.12N/1490647.59W	1.30	611	544	20	10	1B	300			860
CATEGORY B											
13.TOWER (02-023418)	613725.79N/1490702.83W	1.81	691	630	20	3	1A	300			940
CATEGORY C											
10.TREE	613245.29N/1490308.51W	2.85	1051	981	50	20	2C	300			1300
CATEGORY D											
14.AAO	613436.22N/1485718.93W	3.73	1051	1000	50	20	2C	300			1300

CIRCLING REMARKS:



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV

MSA

<u>CENTER</u>	<u>RADIUS</u>
RW10	25

<u>SECTOR</u>	<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>BEARING</u>	<u>DISTANCE</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
360-360	AAO	613351.00N/1480836.00W	077	28.0	8839	250	50	4D	1000		AT100	10000

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

100' FT VEGETATION USED PER IFP CHECKLIST

LPV AND LNAV/VNAV NOT DEVELOPED DUE TO LACK OF SURVEY AND TERRAIN EAST OF THE AIRPORT REQUIRING INTERMEDIATE OFFSET MORE THAN 15 DEGREES PER 8260.54A PARA 2.9.1.

TAA NOT DEVELOPED PER IFP CHECKLIST.

CIRCLING RESTRICTION NE DUE TO TERRAIN.

FOR CONTINGENCY PURPOSES ONLY:

-CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WASILLA ALTIMETER SETTING: INCREASE ALL MDAS 60 FEET AND INCREASE LP AND LNAV CAT C AND D VISIBILITY 1/8 SM.

MISSED APPROACH DESIGNED USING 25 DEGREE BANK ANGLE DUE TO RISING TERRAIN EAST/SOUTHEAST OF THE AIRPORT.

INTERMEDIATE SEGMENT OFFSET 30 DEGREES FROM FINAL DUE TO TERRAIN.

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZAN ARTCC, ENA FSS, ANC APP CON

<u>WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>
ASOS	PAAQ	24	PAAQ	0	Y	0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>
AWOS-3P	PAWS	24	PAWS	13.026	Y	45

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME

PAAQ 249, PAWS 354

RA = 44.72

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>		<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW10 - MIRL (PCL), PAPI-2L (PCL)		BSC-F	
RW16 - MIRL (PCL), REIL (PCL), PAPI-4L (PCL)		BSC-F	

QUALITY
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CHECKED

APPROACH AND RUNWAY LIGHTING SYSTEM	RUNWAY MARKINGS	RUNWAY VISUAL RANGE
RW28 - MIRL (PCL), PAPI-2L (PCL)	BSC-F	
RW34 - MIRL (PCL), REIL (PCL), PAPI-4L (PCL)	BSC-F	

GLIDESLOPE ANGLE	ELEV RWY THRESHOLD	TCH	ELEV GS ANTENNA	DISTANCE FROM RWY	VGSI ANGLE	TCH
					3.00	26.5

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD

ON CENTERLINE

☐

☐

FT FROM THRESHOLD

FT FROM CENTERLINE

DISPLACED THRESHOLD DISTANCE

CRITICAL TEMPERATURES

CRITICAL LOW	CRITICAL HIGH	ACT	APT ISA
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

Final Type	CIRCLING RWY 16		
20:1			
315 TREE (02-235018) 613611.54N/1490510.88W (67.81)		306 TREE (02-234726) 613612.93N/1490511.36W (51.74)	
313 TREE (02-224640) 613618.23N/1490510.05W (31.84)		310 TREE (02-224643) 613618.38N/1490509.03W (28.09)	
289 TREE (02-223318) 613615.08N/1490511.02W (23.83)		290 TREE (02-222163) 613615.95N/1490510.26W (20.42)	
304 TREE (02-224850) 613619.21N/1490510.65W (17.86)		271 TREE (02-234776) 613613.71N/1490511.79W (12.78)	
327 TREE (02-221518) 613625.40N/1490522.05W (9.35)		288 TREE (02-224642) 613618.31N/1490510.43W (6.43)	
331 TREE (02-250282) 613627.02N/1490523.60W (5.11)		299 TREE (02-222534) 613620.74N/1490510.24W (5.09)	
325 TREE (02-222309) 613625.88N/1490520.45W (4.92)		329 TREE (02-222328) 613626.71N/1490523.30W (4.68)	
277 TREE (02-222173) 613616.53N/1490511.00W (4.47)		323 TREE (02-249884) 613625.71N/1490506.97W (3.88)	
329 TREE (02-222338) 613626.90N/1490506.54W (3.84)		324 TREE (02-222624) 613626.27N/1490519.29W (1.95)	
344 TREE (02-224926) 613630.21N/1490520.59W (1.93)		338 TREE (02-223519) 613629.05N/1490522.70W (1.81)	
291 TREE (02-223975) 613620.16N/1490511.69W (0.03)			
Final Type	CIRCLING RWY 16		
34:1			
N/A			



AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV
Final Type	CIRCLING RWY 16L						
20:1							
323 TREE (02-230177) 613609.40N/1490508.91W (12.18)				322 TREE (02-235010) 613610.96N/1490509.43W (3.26)			
305 TREE (02-228184) 613608.11N/1490509.52W (0.73)							
Final Type	CIRCLING RWY 16L						
34:1							
N/A							
Final Type	CIRCLING RWY 28						
20:1							
284 TREE (02-226792) 613527.20N/1490438.31W (30.94)				281 TREE (02-226324) 613527.44N/1490438.65W (29.18)			
270 TREE (02-227246) 613526.21N/1490438.68W (15.77)				266 TREE (02-230768) 613526.35N/1490437.34W (9.08)			
273 TREE (02-228574) 613524.93N/1490435.31W (8.71)				281 TREE (02-234983) 613522.48N/1490432.71W (6.01)			
238 TREE (02-229885) 613524.76N/1490447.97W (1.50)							
Final Type	CIRCLING RWY 28						
34:1							
N/A							
Final Type	CIRCLING RWY 34						
20:1							
277 TREE (02-224652) 613504.17N/1490519.23W (10.13)				277 TREE (02-223371) 613503.92N/1490518.55W (8.86)			
Final Type	CIRCLING RWY 34						
34:1							
N/A							
Final Type	CIRCLING RWY 34L						
20:1							
234 TREE (02-234851) 613535.81N/1490518.25W (2.80)							
Final Type	CIRCLING RWY 34L						
34:1							
N/A							
Final Type	LP, LNAV						
20:1							



<u>AIRPORT</u>		<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI		PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV
297 TREE (02-228576) 613547.35N/1490614.64W (35.35)				307 TREE (02-234731) 613543.90N/1490625.72W (27.66)				
315 TREE (02-224806) 613545.06N/1490628.95W (26.15)				300 TREE (02-234781) 613543.58N/1490627.25W (17.90)				
257 TREE (02-226794) 613541.92N/1490610.94W (14.47)				258 TREE (02-226796) 613542.66N/1490610.94W (13.99)				
287 TREE (02-235029) 613544.15N/1490623.17W (12.82)				284 TREE (02-235028) 613543.90N/1490622.98W (10.74)				
309 TREE (02-225206) 613545.45N/1490633.79W (8.61)				248 TREE (02-230158) 613544.86N/1490607.16W (7.97)				
300 TREE (02-223634) 613544.51N/1490631.28W (7.08)				311 TREE (02-224400) 613544.83N/1490635.99W (6.97)				
253 TREE (02-226802) 613543.94N/1490610.99W (6.31)				245 TREE (02-226322) 613541.54N/1490609.83W (5.70)				
308 TREE (02-221394) 613544.92N/1490635.30W (5.32)				242 TREE (02-228570) 613541.42N/1490608.82W (5.19)				
283 TREE (02-234648) 613545.90N/1490623.30W (5.02)				238 VEGETATION (02-229875) 613544.13N/1490604.95W (4.35)				
268 TREE (02-226336) 613547.44N/1490615.76W (3.68)				300 TREE (02-223627) 613548.64N/1490629.33W (3.12)				
293 TREE (02-253411) 613545.47N/1490629.62W (1.84)				241 TREE (02-230162) 613544.18N/1490607.55W (1.47)				
248 TREE (02-229622) 613541.71N/1490613.19W (0.90)								
Final Type	LP, LNAV							
34:1								
302 TREE (02-252678) 613550.04N/1490630.59W (27.96)				307 TREE (02-223696) 613547.84N/1490637.97W (25.91)				
283 TREE (02-253032) 613546.82N/1490625.39W (19.56)				298 TREE (02-224650) 613547.23N/1490636.95W (18.96)				
296 TREE (02-221697) 613550.19N/1490633.99W (17.34)				296 TREE (02-224653) 613546.16N/1490637.83W (17.08)				
279 TREE (02-234774) 613544.79N/1490626.60W (16.37)				298 TREE (02-223372) 613550.58N/1490636.73W (15.29)				
289 TREE (02-222172) 613550.57N/1490630.57W (14.36)				291 TREE (02-221391) 613550.13N/1490632.87W (13.87)				
292 TREE (02-224647) 613546.76N/1490636.70W (13.84)				290 TREE (02-224648) 613546.02N/1490636.99W (12.34)				
286 TREE (02-222459) 613549.49N/1490631.56W (11.34)				285 TREE (02-222168) 613551.49N/1490629.76W (10.33)				
291 TREE (02-224649) 613550.40N/1490635.44W (10.19)				260 TREE (02-225865) 613546.81N/1490615.27W (9.80)				
260 TREE (02-225867) 613547.27N/1490615.22W (9.32)				265 TREE (02-235026) 613544.10N/1490622.76W (8.21)				
277 TREE (02-223319) 613547.04N/1490629.46W (7.98)				268 TREE (02-234645) 613546.87N/1490622.84W (7.83)				
266 TREE (02-235031) 613546.32N/1490622.94W (6.35)				276 TREE (02-223625) 613547.72N/1490629.66W (5.91)				
276 POLE (02-252680) 613549.50N/1490629.15W (4.48)				267 TREE (02-252687) 613547.06N/1490624.50W (4.44)				
245 TREE (02-226326) 613545.22N/1490609.59W (4.10)				249 TREE (02-229890) 613544.22N/1490613.89W (3.66)				
258 TREE (02-253406) 613543.87N/1490621.56W (3.05)				265 TREE (02-234708) 613547.53N/1490623.74W (2.87)				
246 VEGETATION (02-229895) 613542.13N/1490614.47W (2.37)				243 VEGETATION (02-230766) 613542.24N/1490612.32W (2.05)				
279 ANTENNA (02-221386) 613551.32N/1490631.77W (1.90)				241 VEGETATION (02-230598) 613541.72N/1490611.51W (1.72)				

QUALITY

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<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV
250 TREE (02-226343) 613542.94N/1490617.49W (1.47)				242 VEGETATION (02-253038) 613541.64N/1490612.55W (1.46)			
276 CATENARY (02-222170) 613551.04N/1490630.15W (1.35)				300 TREE (02-252681) 613554.66N/1490645.33W (1.24)			
255 TREE (02-235008) 613543.56N/1490621.22W (0.86)				244 TREE (02-229631) 613542.98N/1490613.64W (0.45)			
248 TREE (02-229896) 613546.24N/1490613.78W (0.42)				269 TREE (02-223320) 613546.60N/1490629.73W (0.14)			

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or
5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PART C: GENERAL REMARKS:

VDP NOT ESTABLISHED - 20:1 PENETRATIONS.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
PDF EDITS:
- REMOVE LP MISSED PENETRATION FROM MISSED APPROACH SEGMENT OF 8260-9.
- ADD THRESHOLD COORDINATES (613541.96N/1490602.30W) TO AIRSPACE LETTER, PROCEDURE IS STRIGHT-IN.
ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV

PART D: AIRSPACE

DOCKET #

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

DISTANCE FROM	THLD	TO 1000FT POINT	3.85
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	113.13
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	500
DISTANCE FROM	THLD	TO 1500FT POINT	5.76
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.76
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	113.13
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	500

THRESHOLD
COORDINATES
(IF STR-IN)

613541.96N/1490602.30W

ARP COORDINATES

613541.70N/1490519.40W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 16 DISTANCE 0.55 NM

FAF
COORDINATES

613812.06N/1491817.22W

FIX NAME
COORDINATES

IF LEYIT: 613728.42N/1493101.39W, IAF INICE: 613546.33N/1494451.82W

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED.



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
WARREN "BUD" WOODS PALMER MUNI	PAAQ	RNAV (GPS) RWY 10	2	PALMER	AK	249	RNAV

PART E: PREPARED BY

<u>NAME</u>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
LEO PALMER	AJV-5421	04/05/2018	AERONAUTICAL INFORMATION SPECIALIST

