

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
ILS STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.29

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 ID</u> KTN/PAKT	<u>PROCEDURE NAME</u> ILS Z OR LOC Z RWY 11	<u>ORIGINAL/AMENDMENT</u> 2A	<u>CITY</u> KETCHIKAN	<u>STATE</u> AK
<u>AIRPORT ELEVATION</u> 92	<u>TDZE</u> 92	<u>SUPERSEDED</u> ILS Z OR LOC Z RWY 11	<u>ORIGINAL/AMENDMENT</u> 2	<u>DATED</u> 10/31/2024
<u>FACILITY</u> I-ECH	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>MAG VAR</u> 21E
				<u>EPOCH YEAR</u> 2010
				<u>CANCEL/SUSPEND</u>

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
ANN VOR/DME	IAF	BUBBL		TF	FB	1.00	301.09	13.00	5000
BUBBL	IF	MUSUE		TF	FB	1.00	300.90	13.04	5000
MUSUE		PUTIY		RF	FB	1.00	(3.10 NM RADIUS CW (CFMBP))	9.39	3000
PUTIY		WETOL/I-ECH 8.39 DME	PFAF	TF	FB	1.00	114.59 (I-ECH)	2.11	2400

MISSED APPROACH

MAP:

ILS: DA
LOC: I-ECH /1.40 DME

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 5100 DIRECT CMJ NDB AND ON CMJ NDB BRG 124 TO UCARU/I-ECH 6.58 DME AND ON ANN VOR/DME R-338 TO ANN VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 5100.
#MISSED APPROACH REQUIRES MINIMUM CLIMB OF 235 FEET PER NM TO 4000; IF UNABLE TO MEET CLIMB GRADIENT, SEE LOC X RWY 11.
*MISSED APPROACH REQUIRES MINIMUM CLIMB OF 305 FEET PER NM TO 4000; IF UNABLE TO MEET CLIMB GRADIENT, SEE LOC X RWY 11.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)
2.	PROFILE STARTS AT PUTIY				
3. FAC:	114.59	FAC: WETOL/I-ECH 8.39 DME	DIST FAF TO MAP:	DIST FAF TO THLD:	6.99
4. MIN ALT:	PUTIY 3000, WETOL/I-ECH 8.39 DME 2400, OYECU/I-ECH 4.80 DME 1200				
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	GS ANT:	914
6. MIN GS INCPT:	2400	GS ALT AT PFAF: WETOL/I-ECH 8.39 DME 2400	OM:	MM:	IM:
7. GS ANGLE:	3.00	34:1:	20:1:	TCH:	50.4
8. MSA FROM:	CMJ NDB 5800				

QUALITY
10
CHECKED

PBN REQUIREMENTS NOTE:

RNP APCH - GPS, RF.

EQUIPMENT REQUIREMENTS NOTES:

ADF REQUIRED.
DME REQUIRED.

NOTES:

CHART NOTE: * RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON ANN VOR/DME AIRWAY RADIALS 280 CW 309.
CHART NOTE: RWY 11 HELICOPTER VISIBILITY REDUCTION BELOW RVR 4000 NOT AUTHORIZED.
CHART PROFILE NOTE: USE I-ECH DME WHEN ON THE LOCALIZER COURSE.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE *S-ILS 11 VISIBILITY TO RVR 6000.
CHART SPEED ICON IN PLANVIEW AT MUSUE: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD NW, RT, 128.54 INBOUND.
CHART FAS OBST: 647 TREE (02-024418) 552305N/1314650W.
CHART VDP AT 4.04 DME.
DISTANCE VDP TO THLD 2.63 NM.

MINIMUMS:

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

ALTERNATE: NA ☐ ILS: STANDARD; LOC: CAT A, B, C, D 900-2, NA WHEN LOCAL WEATHER NOT AVAILABLE.

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
S-ILS 11*	312	2400	220	312	2400	220	312	2400	220	312	2400	220			
S-LOC 11#	980	4000	888	980	4000	888	980	2	888	980	2	888			

CHANGES - REASONS

1. PROFILE VIEW LINE 7 GS ANGLE: CHANGED FROM 3.05 TO 3.00 – PER ATC REQUEST AND CANCELS T-NOTAM FDC 4/6882.

02/24/25: THIS IS A CORRECTED COPY OF THEFORM APPROVED ON 01/31/25
1. ADDED REFERENCE REMARK "# TO S-LOC 11 MINIMUMS IN TYPE COLUMN AND TO THE ASSOCIATED MISSED APPROACH INSTRUCTIONS TO INDICATE A MISSED APPROACH CLIMB GRADIENT IS REQUIRED.



COORDINATED WITH:

A4A ☒ ALPA ☒ AOPA ☒ APA ☒ HAI ☐ NBAA ☒ OTHER: ZAN, KTN FSS, APRT MANAGER, REGION AWO, WFPT

FLIGHT CHECKED BY

PROCESSED IAW TECHNICAL SUPPORT GROUP (AJF-17) MEMO DATED 07/07/2021 GUIDANCE FOR PROCEDURAL CHANGES REQUIRING FLIGHT INSPECTION/VALIDATION

OFFICE

DATE

Digitally signed by
ALLAN WILL
Feb 25, 2025

DEVELOPED BY

RAYMOND JOHNSON

Digitally signed by
RAYMOND R JOHNSON
Feb 24, 2025

OFFICE

AJV-A423

DATE

11/22/2024

APPROVED BY

ALLAN WILL

OFFICE

AJV-A423

DATE

Digitally signed by
ALLAN WILL
Feb 25, 2025

TITLE
MANAGER



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

<u>AIRPORT ID</u> KTN/PAKT	<u>PROCEDURE NAME</u> ILS Z OR LOC Z RWY 11	<u>AMDT NO.</u> 2A	<u>CITY</u> KETCHIKAN	<u>STATE</u> AK	<u>AIRPORT ELEVATION</u> 92	<u>FACILITY</u> I-ECH
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PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM

ANN VOR/DME

TO

BUBBL

RNP

1.00

DISTANCE

13.00

PAT

MAP

HAT

HMAS

<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>
AAO	551155.25N/1314718.15W	2930	50	20	2C	1000				PR180 AT890	5000
TERRAIN	551200.00N/1314736.00W	2726 (2700)								AS1500	4200

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL

FROM

BUBBL

TO

MUSUE

RNP

1.00

DISTANCE

13.04

PAT

MAP

HAT

HMAS

<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>
AAO	551748.00N/1314939.00W	2281	215	8	4B	1000				PR130 AT1589	5000
TERRAIN	551748.00N/1314939.00W	2080 (2100)								AS1500	3600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

QUALITY
10
CHECKED

INTERMEDIATE

FROM

MUSUE

TO

PUTIY

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>			<u>HMAS</u>		
1.00	9.39										
<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>
AAO	553139.00N/1315951.00W	1536	215	8	4B	500				SA-366 PR90 AT1240	3000
TERRAIN	553100.00N/1315951.00W	433 (400)								AS1500	1900

COMPUTATIONS

RF SEGMENT

MUSUE-PUTIY

ALT

5000

KIAS

210

KTAS

234.00

HAA

4908.00

VKTW

57.60

TR

3.10

BA

22.00

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

(CFMBP)/9.39 NM

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

PUTIY

TO

WETOL/I-ECH 8.39 DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>			<u>HMAS</u>		
1.00	2.11										
<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>
AAO	552645.00N/1315254.00W	260	215	8	4B	500				AT1640	2400
TERRAIN	552645.00N/1315254.00W	59 (100)								AS1500	1600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: ILS

FROM

WETOL/I-ECH 8.39 DME

TO

RW11

<u>RNP</u>		<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>	<u>HMAS</u>			
		6.99		DA			220				
<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				312

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

8260.3E 3-2-2(B)1(A)2 FOR APPROACHES THAT PERMIT PRECIPITOUS TERRAIN IN THE FINAL SEGMENT, INCREASE THE HAT BY 10 PERCENT. 200-FOOT HAT INCREASES TO 220 FEET.

FINAL: LOC

FROM

WETOL/I-ECH 8.39 DME

TO

OYECU/I-ECH 4.80 DME

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
	3.59										
<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>
AAO	552357.00N/1314857.00W	729	215	8	4B	250				PR80 XL50 SA-86 DG177	1200

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LOC STEPDOWN

FROM

OYECU/I-ECH 4.80 DME

TO

I-ECH /1.40 DME

RNP	DISTANCE	PAT	MAP	HAT	HMAS
	3.40		I-ECH /1.40 DME	888	

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TREE (02-024418)	552305.30N/1314649.73W	647	20	3	1A	250				SA-30 PR32 XP81	980

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

SEGMENT TYPE: LOC FINAL
BEGINNING POINT: OYECU
END POINT: FEP
RESULTS: (PPVMAX VALUE 253 X NON-PRECISION FINAL MODIFIER 0.4 = 101.2. PR VALUE 102'), XP: PRECIPITOUS POINT VALUE (PPV) UPDATED FROM 102 TO 32. XP TO MAINTAIN MINIMUMS.

MISSED APPROACH: ILS

FROM

DA

TO

ANN VOR/DME

RNP	DISTANCE	PAT	MAP	HAT	HMAS
					123

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC	305	4000		5100
TREE	551055.46N/1313104.21W	2921	50	20	2C	1000					4000
TERRAIN	551054.00N/1313106.00W	2913 (2900)								AS1500	4400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSSED APPROACH: LOC

FROM

I-ECH /1.40 DME

TO

ANN VOR/DME

RNP	DISTANCE	PAT	MAP		HAT	HMAS					
						698					
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC	235	4000		5100
TREE	551055.46N/1313104.21W	2921	50	20	2C	1000					4000
TERRAIN	551054.00N/1313106.00W	2913 (2900)								AS1500	4400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MSA

CENTER

CMJ NDB

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	AAO	554222.40N/1311500.40W	013	26.6	4792	1000	3	6A	1000			5800

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

150 FT SHIPS USED PER WFPT.

CIRCLING NA DUE TO CMDA (ALL CATS) HIGHER THAN PFAF/FAF ALTITUDE; SEE LOC X RWY 11.

TREE HEIGHTS USED WERE OBTAINED FROM THE ALASKA STATE FORESTRY DEPARTMENT FOR SE ALASKA.

0-499' ELEVATION - 200 FT

500-999' ELEVATION - 148 FT

1000-1499' ELEVATION - 115 FT

1500-1999' ELEVATION - 82 FT

2000-2499' ELEVATION - 49 FT

2500-2999' ELEVATION - 16 FT

3000+ NO TREES



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZAN ARTCC, KTN FSS

WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
ASOS	KTN/PAKT	24	KTN/PAKT	0	Y	0
BACK-UP WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS

WX REMARKS:

NO SUITABLE BACKUP ALTIMETER SOURCE AVAILABLE.

PRIMARY NAVAID	MONITOR POINT	HRS OPERATION	CAT
I-ECH	POCC	24	1

APPROACH AND RUNWAY LIGHTING SYSTEM	RUNWAY MARKINGS	RUNWAY VISUAL RANGE
RW11 - MALSR (PCL), HIRL (PCL), PAPI-4L	PIR-G	APPROACH, ROLL OUT
RW29 - MALSR (PCL), HIRL (PCL), PAPI-4L	PIR-G	APPROACH, ROLL OUT

GLIDESLOPE ANGLE	ELEV RWY THRESHOLD	TCH	ELEV GS ANTENNA	DISTANCE FROM RWY	VGSI ANGLE	TCH
3.00	84.9	50.4	82.4	914	3.00	50.4

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

CRITICAL LOW	CRITICAL HIGH	ACT	APT ISA
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

FINAL TYPE	S-LOC 11
34:1	
594 TREE (02-026776) 552311.5600N/1314701.1100W (66.01)	516 TREE (02-026711) 552309.9300N/1314651.3800W (3.06)
PENETRATIONS REMARKS:	



HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

PENETRATIONS REMARKS:

PART C: GENERAL REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

WAIVERS AND LETTERS OF APPROVAL (LOA).
WAIVER: WAIVE USE OF CAPTURE FIX.
WAIVER: VISIBILITY LESS THAN 1 SM FOR NO FULL LENGTH TAXIWAY.
WAIVER: ILS AND LOC - USE OF CLIMB GRADIENT TO CLEAR OBSTACLES IN THE MISSED APPROACH. 305 AND 235 FT/NM TO 4000.
WAIVER
LOA: PRECIPITOUS POINT VALUE (PPV) OF 32 USED ON FINAL. (PPVMAX VALUE 78 X NON-PRECISION FINAL MODIFIER 0.4 = 31.2. PR VALUE 32')
LOA: USE OF AN RF TURN IN PROCEDURE.

NO ADDITIONAL AIRSPACE REQUIRED.

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	4.29
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.14
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	135.59
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	500
DISTANCE FROM	THLD	TO 1500FT POINT	6.19
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.55
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	135.59
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	500

THRESHOLD COORDINATES (IF STR-IN) 552141.08N/1314325.78W
ARP COORDINATES 552114.70N/1314240.40W
RUNWAY APCH END AND DIST FURTHEST FROM ARP RUNWAY 29 DISTANCE 0.62 NM
FAF COORDINATES 552639.66N/1315200.85W
FIX NAME COORDINATES

REMARKS

PART E: PREPARED BY

NAME

RAYMOND JOHNSON

OFFICE

AJV-A423

DATE

11/22/2024

TITLE

AERONAUTICAL INFORMATION SPECIALIST

