

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (RNP) 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.

<b>AIRPORT ID</b> HRL	<b>PROCEDURE NAME</b> RNAV (RNP) Z RWY 18R	<b>ORIGINAL/AMENDMENT</b> 1	<b>CITY</b> HARLINGEN	<b>STATE</b> TX
<b>AIRPORT ELEVATION</b> 36	<b>TDZE</b> 35	<b>SUPERSEDED</b> RNAV (RNP) Z RWY 17R	<b>ORIG-B</b> 11/03/2022	<b>EPOCH YEAR</b> 2025
<b>FACILITY</b> RNAV	<b>COORDINATES OF FACILITIES</b>	<b>ACTUAL EFFECTIVE DATE</b>	<b>REQUIRED EFFECTIVE DATE</b> 07/11/2024	<b>CANCEL/SUSPEND</b>

**TERMINAL ROUTES**

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
OAKKK	IAF	ZIPIV		TF	FB	1.00	267.68	6.00	3300
MAYRR	IAF	ZIPIV		TF	FB	1.00	087.58	6.00	3300
NSCAR	IF	ELPRM		TF	FB	1.00	357.64	4.58	4000
ELPRM		EBCIL		RF	FB	1.00	(2.80 NM RADIUS CCW (CFVWM))	6.61	2100
EBCIL		CIXEN	PFAF	RF	FB	1.00	(2.80 NM RADIUS CCW (CFVWM))	2.20	1400
ZIPIV	IF	HLWLK		TF	FB	1.00	177.62	5.01	1600
HLWLK		CIXEN	PFAF	TF	FB	1.00	177.64	1.25	1400
ULOTE	IF	STDMN		TF	FB	1.00	357.64	4.58	4000
STDMN		LESEY		RF	FB	1.00	(2.80 NM RADIUS CW (CFVWK))	6.61	2100
LESEY		CIXEN	PFAF	RF	FB	1.00	(2.80 NM RADIUS CW (CFVWK))	2.20	1400
HERUM	IF	VARYU		TF	FB	1.00	206.04	3.86	1600
VARYU		CIXEN		RF	FB	1.00	(2.36 NM RADIUS CCW (CFVWH))	1.17	1400
CIXEN	PFAF	RW18R	MAP	TF	FO	0.30	177.64	4.12	
RW18R	MAP	500 MSL		CA			177.64		500
500 MSL		RELAX		DF	FO	1.00			2000

**MISSED APPROACH**

**MAP:**

RNP: DA

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 500 THEN CLIMBING LEFT TURN TO 2000 DIRECT RELAX AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**

QUALITY  
34  
CHECKED

PROFILE:

1.	PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF	(IAF)									
2.	PROFILE STARTS AT CIXEN														
3.	FAC:	177.64	PFAF:	CIXEN	DIST PFAF TO MAP:	DIST PFAF TO THLD:									
4.	MIN ALT:	CIXEN 1400													
5.	DIST TO THLD FROM PFAF:	4.12	MM:	IM:	150 HAT:	250 HAT:	0.61	GS ANT:							
6.	MIN GP INCPT:	1400	GP ALT AT PFAF:	CIXEN 1400		OM:		MM:		IM:					
7.	GP ANGLE:	3.00	34:1:	IS CLEAR	20:1:	IS CLEAR	TCH:	55.2							
8.	MSA FROM:	RW18R 2600													

PBN REQUIREMENTS NOTE:

RNP AR APCH - GPS.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -1°C OR ABOVE 54°C.  
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, PROCEDURE NA.  
CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS.  
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART NOTE: FOR INOPERATIVE ALS, INCREASE RNP 0.11 ALL CATS VISIBILITY TO RVR 4000 AND RNP 0.30 ALL CATS VISIBILITY TO RVR 4500  
CHART SPEED ICON IN PLANVIEW AT OAKKK: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT MAYRR: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT NSCAR: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT ZIPIV: MIN 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT ULOTE: MAX 210 KIAS.  
CHART SPEED ICON IN PLANVIEW AT HERUM: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD N, LT, 175.21 INBOUND.  
CHART AT OR ABOVE 5000 AT OAKKK.  
CHART AT OR ABOVE 5000 AT MAYRR.  
CHART AT OR ABOVE 4000 AT NSCAR.  
CHART AT OR ABOVE 3300 AT ZIPIV.  
CHART AT OR ABOVE 4000 AT ULOTE.  
CHART AT OR ABOVE 3000 AT HERUM.

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD

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
AUTHORIZATION REQUIRED															
RNP 0.11 DA	285	2400	250	285	2400	250	285	2400	250	285	2400	250			
RNP 0.30 DA	345	2400	310	345	2400	310	345	2400	310	345	2400	310			



**CHANGES - REASONS**

1. PROCEDURE NAME: CHANGED FROM "RNAV (RNP) Z RWY 17R" TO "RNAV (RNP) Z RWY 18R" – DUE TO MAGVAR CHANGE AND RUNWAY RENUMBERING.
2. TERMINAL ROUTES: ADDED "OAKKK TO ZPIV" AND ALL ASSOCIATIONS – PER ATC REQUEST.
3. TERMINAL ROUTES: ADDED "MAYRR TO ZPIV" AND ALL ASSOCIATIONS – PER ATC REQUEST.
4. TERMINAL ROUTES: ADDED "NSCAR TO ELPRM" AND ALL ASSOCIATIONS – PER ATC REQUEST.
5. TERMINAL ROUTES: ADDED "ELPRM TO EBCIL" AND ALL ASSOCIATIONS – PER ATC REQUEST.
6. TERMINAL ROUTES: ADDED "EBCIL TO CIXEN" AND ALL ASSOCIATIONS – PER ATC REQUEST.
7. TERMINAL ROUTES: DELETED "ZPIV TO ZUNIN" AND "ZUNIN TO CIXEN" AND ALL ASSOCIATIONS – PER ATC REQUEST.
8. TERMINAL ROUTES: ADDED "ZPIV TO HLWLK" AND ALL ASSOCIATIONS – PER ATC REQUEST.
9. TERMINAL ROUTES: ADDED "HLWLK TO CIXEN" AND ALL ASSOCIATIONS – PER ATC REQUEST.
10. TERMINAL ROUTES: ADDED "ULOTE TO STDNM" AND ALL ASSOCIATIONS – PER ATC REQUEST.
11. TERMINAL ROUTES: ADDED "STDNM TO LESEY" AND ALL ASSOCIATIONS – PER ATC REQUEST.
12. TERMINAL ROUTES: ADDED "LESEY TO CIXEN" AND ALL ASSOCIATIONS – PER ATC REQUEST.
13. TERMINAL ROUTES: CHANGED HERUM TO VARYU COURSE FROM "198.65" TO "206.04", DISTANCE FROM "5.86" TO 3.86" AND ALTITUDE FROM "1500" TO "1600" – FPT IDENTIFIED NEW LOCATIONS FOR BOTH HERUM AND VARYU.
14. TERMINAL ROUTES: CHANGED VARYU TO CIXEN RNP FROM "0.60" TO "1.00" – PER FPT CHECKLIST.
15. TERMINAL ROUTES: CHANGED VARYU TO CIXEN COURSE FROM "(3.14 NM RADIUS CCW (CFPQP))" TO "(2.36 NM RADIUS CCW (CFVWH))" – NEW TARGETS EVALUATION.
16. TERMINAL ROUTES: CHANGED VARYU TO CIXEN DISTANCE FROM "1.26" TO "1.17" AND ALTITUDE FROM "1100" TO "1400" – PER ATC REQUEST.
17. TERMINAL ROUTES: CHANGED "CIXEN TO RWY 17R" TO "CIXEN TO RWY 18R" – MAGVAR CHANGE AND RUNWAY RENUMBERING.
18. TERMINAL ROUTES: CHANGED CIXEN TO RWY 18R COURSE FROM "175.63" TO "177.64" AND DISTANCE FROM "3.17" TO "4.12" – FPT IDENTIFIED NEW LOCATION OF CIXEN(PFAF).
19. TERMINAL ROUTES: CHANGED "RWY 17R TO 500 MSL" TO "RWY 18R TO 500 MSL" AND COURSE FROM "175.63" TO "177.64" – MAGVAR CHANGE AND RUNWAY RENUMBERING AND PER ATC REQUEST.
20. PROFILE LINE 3: FAC CHANGED FROM "175.63" TO "177.64" – DUE TO RELOCATION OF CIXEN (PFAF).
21. PROFILE LINE 4: MIN ALT: CHANGED FROM "CIXEN 1100" TO "CIXEN 1400" – PER ATC REQUEST AND NEW TARGETS CALCULATION.
22. PROFILE LINE 5: DIST TO THLD FROM PFAF: CHANGED FROM "3.17" TO "4.12" – PER ATC REQUEST AND NEW TARGETS CALCULATION.
23. PROFILE LINE 5: CHANGED FROM "310 HAT: 0.80" TO "250 HAT: 0.61" – NEW TARGETS CALCULATION.
24. PROFILE LINE 6: MIN GP INCP: CHANGED FROM "1100" TO "1400" – DUE TO NEW TARGETS EVALUATION.
25. PROFILE LINE 6: GP ALT AT PFAF: CHANGED FROM "CIXEN 1100" TO "CIXEN 1400" – DUE TO NEW TARGETS EVALUATION.
26. PROFILE LINE 7: TCH: CHANGED FROM "55.4" TO "55.2" – NEW AIRNAV DATA AVAILABLE.
27. PROFILE LINE 8: MSA FROM: CHANGED FROM "RW17R 2600" TO "RW18R 2600" – MAGVAR CHANGE AND RUNWAY RENUMBERING.
28. NOTES: DELETED "CHART PLANVIEW NOTE AT HERUM: (RNP 0.60) – PER ATC REQUEST.
29. NOTES: ADDED "CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, PROCEDURE NA." - AIRPORT HAS ALTERNATE MINIMUMS APPROVED FOR OTHER PROCEDURES.
30. NOTES: UPDATED "CHART SPEED ICON IN PLANVIEW AT VARYU: MAX 235 KIAS" TO "CHART SPEED ICON IN PLANVIEW AT HERUM: MAX 210 KIAS" – PER ATC REQUEST.
31. NOTES: ADDED "CHART SPEED ICON IN PLANVIEW AT OAKKK: MAX 210 KIAS" – PER ATC REQUEST.
32. NOTES: ADDED "CHART SPEED ICON IN PLANVIEW AT MAYRR: MAX 210 KIAS" – PER ATC REQUEST.
33. NOTES: ADDED "CHART SPEED ICON IN PLANVIEW AT ULOTE: MAX 210 KIAS" - PER ATC REQUEST.
34. NOTES: ADDED "CHART SPEED ICON IN PLANVIEW AT NSCAR: MAX 210 KIAS" - PER ATC REQUEST.
35. NOTES: UPDATED "CHART NOTE: FOR INOPERATIVE ALS, INCREASE RNP 0.30 ALL CATS VISIBILITY TO RVR 4500" TO "CHART NOTE: FOR INOPERATIVE ALS, INCREASE RNP 0.11 ALL CATS VISIBILITY TO RVR 4000 AND RNP 0.30 ALL CATS VISIBILITY TO RVR 4500" - DUE TO THE ADDITION OF A NEW LINE OF MINIMA (RNP 0.11).
36. ADDITIONAL FLIGHT DATA: CHANGED FROM "HOLD N, LT, 173.21 INBOUND" TO "HOLD N, LT, 175.21 INBOUND" - NEW MAGVAR CHANGE.
36. MINIMUMS: ADDED NEW LINE OF MINIMA: RNP 0.11 DA – PER ATC REQUEST.

04/19/24: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 04/05/24.

1. NOTES: ADDED "CHART SPEED ICON IN PLANVIEW AT ZPIV: MIN 210 KIAS.
2. ADDITIONAL FLIGHT DATA: ADDED "CHART AT OR ABOVE 5000 AT OAKKK".
3. ADDITIONAL FLIGHT DATA: ADDED "CHART AT OR ABOVE 5000 AT MAYRR".
4. ADDITIONAL FLIGHT DATA: ADDED "CHART AT OR ABOVE 4000 AT NSCAR".
5. ADDITIONAL FLIGHT DATA: ADDED "CHART AT OR ABOVE 3300 AT ZPIV".
6. ADDITIONAL FLIGHT DATA: ADDED "CHART AT OR ABOVE 4000 AT ULOTE".
7. ADDITIONAL FLIGHT DATA: ADDED "CHART AT OR ABOVE 3000 AT HERUM".

04/26/24: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 04/05/24.

1. NOTES: ADDED "CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).



COORDINATED WITH:

A4A

X

ALPA

X

AOPA

X

APA

X

HAI

NBAA

X

OTHER: ZHU, VALLEY APP CON, HRL ATCT, AMGR

FLIGHT CHECKED BY

PENDING

Digitally signed by  
ERIC N SUSKI  
Apr 24, 2024

OFFICE

DATE

DEVELOPED BY

ERIC N SUSKI (WESTLEY OWENS)

Digitally signed by  
ERIC N SUSKI  
Apr 24, 2024

OFFICE

AJV-A431

DATE

01/17/2024

APPROVED BY

ERIC N SUSKI

Digitally signed by  
ERIC N SUSKI  
Apr 24, 2024

OFFICE

AJV-A431

DATE

07/11/2024

TITLE

MANAGER



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

<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>
HRL	RNAV (RNP) Z RWY 18R	1	HARLINGEN	TX	36	RNAV

## PART A: OBSTRUCTION DATA SEGMENTS

**INITIAL**

**FROM**  
OAKKK

**TO**  
ZIPIV

RNP  
1.00

DISTANCE  
6.00

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>
WINDMILL (48-176354)	262421.88N/0973941.26W	527	250	50	4D	1000				AC50 AT1723	3300
TERRAIN	262536.00N/0973842.00W	32 (0)								AS1500	1500

## COMPUTATIONS

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

## SEGMENT REMARKS:

**INITIAL**

**FROM**  
MAYRR

**TO**  
ZIPIV

RNP  
1.00

DISTANCE  
6.00

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>
WINDMILL (48-178171)	262517.79N/0974609.93W	535	250	50	4D	1000				AC50 AT1715	3300
TERRAIN	262327.00N/0974603.00W	42 (0)								AS1500	1500

## COMPUTATIONS

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

## SEGMENT REMARKS:

INTERMEDIATE

FROM

NSCAR

TO

ELPRM

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
1.00	4.58										
<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>
WINDMILL (48-178218)	261856.56N/0973416.61W	522	250	50	4D	500				AC50 AT2928	4000
TERRAIN	261515.00N/0973512.00W	39 (0)								AS1500	1500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

ELPRM

TO

EBCIL

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
1.00	6.61										
<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>
WINDMILL (48-026910)	261955.25N/0973728.32W	525	500	50	5D	500				AC50 AT1025	2100
TERRAIN	262224.00N/0973818.00W	29 (0)								AS1500	1500

COMPUTATIONS

RF SEGMENT

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

ELPRM-EBCIL

4000

210

228.73

3963.8

35.61

2.80

19.95

0

0

(CFVWM)/6.61 NM

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

EBCIL

TO

CIXEN

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	2.20				

<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>
WINDMILL (48-026910)	261955.25N/0973728.32W	525	500	50	5D	500				AC50 AT325	1400
TERRAIN	261848.00N/0974133.00W	39 (0)								AS1000	1000

COMPUTATIONS

<u>RF SEGMENT</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>
EBCIL-CIXEN	2100	210	222.25	2063.8	35.72	2.80	19.07		0			(CFVWM)/2.2 NM

SEGMENT REMARKS:

INTERMEDIATE

FROM

ZIPIV

TO

HLWLK

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	5.01				

<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>
WINDMILL (48-174952)	262235.82N/0974251.55W	533	250	50	4D	500				AC50 AT517	1600
TERRAIN	262342.00N/0974136.00W	39 (0)								AS1500	1500

COMPUTATIONS

<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>

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

HLWLK

TO

CIXEN

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	1.25				

<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>
WINDMILL (48-026910)	261955.25N/0973728.32W	525	500	50	5D	500				AC50 AT325	1400
TERRAIN	261924.00N/0974136.00W	39 (0)								AS1000	1000

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE

FROM

ULOTE

TO

STDMN

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	4.58				

<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>
TOWER (48-005372)	261301.00N/0974649.00W	1049	500	50	5D	500				AC50 AT2401	4000
TERRAIN	261748.00N/0974554.00W	62 (100)								AS1500	1600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



INTERMEDIATE: STEPDOWN

FROM

STDMN

TO

LESEY

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	6.61				

<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>
WINDMILL (48-176893)	261749.57N/0974625.41W	542	250	50	4D	500				AC50 AT1008	2100
TERRAIN	261927.00N/0974654.00W	62 (100)								AS1500	1600

COMPUTATIONS

RF SEGMENT

STDMN-LESEY

ALT

4000

KIAS

210

KTAS

228.73

HAA

3963.8

VKTW

35.02

TR

2.80

BA

19.87

DTA

0

COURSE CHANGE

0

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

(CFVWK)/6.61 NM

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

LESEY

TO

CIXEN

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	2.20				

<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>
WINDMILL (48-174946)	262225.04N/0974037.46W	526	250	50	4D	500				AC50 AT324	1400
TERRAIN	261909.00N/0974154.00W	39 (0)								AS1000	1000

COMPUTATIONS

RF SEGMENT

LESEY-CIXEN

ALT

2100

KIAS

210

KTAS

222.25

HAA

2063.8

VKTW

36.01

TR

2.80

BA

19.11

DTA

0

COURSE CHANGE

0

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

(CFVWK)/2.2 NM

SEGMENT REMARKS:

INTERMEDIATE

FROM

HERUM

TO

VARYU

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	3.86				

<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>
WINDMILL (48-026910)	261955.25N/0973728.32W	525	500	50	5D	500				AC50 AT525	1600
TERRAIN	261957.00N/0973939.00W	32 (0)								AS1500	1500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

VARYU

TO

CIXEN

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
1.00	1.17				

<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>
WINDMILL (48-026545)	261931.46N/0973845.92W	524	500	50	5D	500				AC50 AT326	1400
TERRAIN	261848.00N/0974133.00W	39 (0)								AS1000	1000

COMPUTATIONS

RF SEGMENT

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

VARYU-CIXEN

1692

210

220.9

1656.2

34.71

2.36

21.96

0

0

(CFVWH)/1.17 NM

SEGMENT REMARKS:

FINAL

FROM

CIXEN

TO

RW18R

<u>RNP</u> 0.11	<u>DISTANCE</u> 4.12	<u>PAT</u>	<u>MAP</u> DA	<u>HAT</u> 250	<u>HMAS</u>						
<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				285

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL

FROM

CIXEN

TO

RW18R

<u>RNP</u> 0.30	<u>DISTANCE</u> 4.12	<u>PAT</u>	<u>MAP</u> DA	<u>HAT</u> 310	<u>HMAS</u>						
<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>
TREE (48-178320)	261506.77N/0973915.23W	98	20	3	1A		20.34:1			AC3	345

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LEVEL SURFACE

FROM

DA

TO

RELAX

<div><div>RNP</div><div>0.11-1.00</div></div>	<div>DISTANCE</div>	<div>PAT</div>	<div>MAP</div>			<div>HAT</div>	<div>HMAS</div> <div>124</div>				
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC				2000
WINDMILL (48-174685)	261129.81N/0972956.82W	523	250	50	4D	1000					1600
TERRAIN	261115.00N/0973854.00W	78 (100)								AS1500	1600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH: LEVEL SURFACE

FROM

DA

TO

RELAX

<div><div>RNP</div><div>0.30-1.00</div></div>	<div>DISTANCE</div>	<div>PAT</div>	<div>MAP</div>			<div>HAT</div>	<div>HMAS</div> <div>184</div>				
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC				2000
WINDMILL (48-174685)	261129.81N/0972956.82W	523	250	50	4D	1000					1600
TERRAIN	261115.00N/0973854.00W	78 (100)								AS1500	1600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MSA

CENTER

RW18R

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (48-000265)	260856.80N/0974919.20W	235	10.4	1598	20	20	1C	1000			2600

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

VEGETATION HEIGHT 55 FT PER FPT  
210 KIAS MAX USED AT OAKKK / MAYRR / ULOTE / NSCAR AND HERUM PER FPT CKLST.

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZHU ARTCC, VALLEY APP CON, HRL TOWER

<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	HRL	24	HRL	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>
ASOS	PIL	24	PIL	17.06	Y	42

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME:  
KHRL 36, KPIL 19  
RA=41.8

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
			3

<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW13 - REIL, HIRL, PAPI-4L	PIR-G	
RW18L - REIL, MIRL, PAPI-4L	PIR-G	
RW18R - MALSR (PCL), HIRL, PAPI-4R	PIR-G	
RW31 - MALSR, HIRL, PAPI-4L (PCL)	PIR-G	
RW36L - HIRL	PIR-G	
RW36R - MIRL	PIR-G	

<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u>	<u>TCH</u>
3.00	34.0	55.2			3.00	71.3

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

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
-1C	+54C	-1C	+14.93C

CRITICAL TEMPERATURE REMARKS:

AVERAGE COLD TEMPERATURE DERIVED FROM 5-YEAR HISTORY (2018-2022).  
CRITICAL LOW TEMPERATURE BASED ON ACT.  
DESCENT RATE (FPM): STANDARD TEMP 955 HIGH TEMP 1260.

"VISUAL PORTION OF FINAL" PENETRATIONS

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.  
OTHER PROCEDURES AT KHRL USE AN ALTITUDE OF 2000 AT ZIPIV; 3300 USED ON THIS PROCEDURE PER FPT FOR IDEAL DESCENT.

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	2.86
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	180.64
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	0
DISTANCE FROM	FAF	TO 1500FT POINT	*@#%
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	4.00
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	*
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	0

THRESHOLD COORDINATES (IF STR-IN)	261425.38N/0973930.85W
ARP COORDINATES	261335.62N/0973919.12W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 18R DISTANCE 0.85 NM
FAF COORDINATES	261833.07N/0973927.80W
FIX NAME COORDINATES	

REMARKS

\* STRAIGHT INTERMEDIATE SEGMENT (HLWLK - CIXEN); DISTANCE 1.05 NM FROM FAF, TRUE COURSE 180.64.  
@ RF INTERMEDIATE SEGMENT (LESEY - CIXEN); DISTANCE 2.00 NM CCW FROM FAF ON 2.80 NM RADIUS FROM CFVWK.  
# RF INTERMEDIATE SEGMENT (EBCIL - CIXEN); DISTANCE 2.00 NM CW FROM FAF ON 2.80 NM RADIUS FROM CFVWM.  
% RF INTERMEDIATE SEGMENT (VARYU - CIXEN); DISTANCE 0.97 NM CW FROM FAF ON 2.36 NM RADIUS FROM CFVWH.  
  
(CFVWH): 261831.47N/0973650.17W  
(CFVWK): 261834.91N/0974235.06W  
(CFVWM): 261831.16N/0973620.54W

PART E: PREPARED BY

NAME	OFFICE	DATE	TITLE
ERIC N SUSKI (WESTLEY OWENS)	AJV-A431	01/17/2024	AERONAUTICAL INFORMATION SPECIALIST

