

**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>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>	
LIVINGSTON COUNTY SPENCER J HARDY	KOZW	RNAV (GPS) RWY 13	2B	HOWELL	MI	
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
962	962	RNAV (GPS) RWY 13	2A	04/02/2015	5W	1990
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL/SUSPEND</u>		
RNAV			ROUTINE			

**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>
FNT VORTAC		PIPTY		TF	FB	1.00	249.73	18.79	3000
PIPTY	IAF	HUCCY	NOPT	TF	FB	1.00	203.27	6.00	3000
WEPPY	IAF	HUCCY	NOPT	TF	FB	1.00	061.14	5.29	3000
HUCCY	IF/IAF	DURGY		TF	FB	1.00	132.22	5.60	2500
DURGY	FAF	JIVEX/2.10 NM TO RW13		TF	FB	0.30	132.29	2.58	
JIVEX/2.10 NM TO RW13		RW13	MAP	TF	FO	0.30	132.29	2.10	
RW13	MAP	1162 MSL		CA			132.29		
1162 MSL		BROVI		DF	FO	1.00			2800

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW13

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 2800 DIRECT BROVI AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT      SIDE OF COURSE      OUTBOUND      FT WITHIN      MILES OF (IAF)

2. HOLD NW HUCCY, RT, 132.22 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 132.29      FAF: DURG      DIST FAF TO MAP: 4.68      DIST FAF TO THLD: 4.68

4. MIN ALT: HUCCY 3000, DURG 2500, JIVEX/2.10 NM TO RW13 1660\*

5. DIST TO THLD FROM OM:      MM:      IM:      150 HAT:      200 HAT: 0.48      GS ANT:      MM:      IM:

6. MIN GP INCPT: 2500      GP ALT AT FAF : DURG 2500      OM:      MM:      IM:

7. GP ANGLE: 3.00      34:1: IS CLEAR      20:1: IS CLEAR      TCH: 47.7

8. MSA FROM: RW13 3100

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -16°C OR ABOVE 37°C.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT FNT VORTAC ON V450 EASTBOUND.  
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 3/4 SM.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 0.91 NM TO RW13\*  
\*LNAV ONLY  
WAAS CHANNEL #69601  
REFERENCE PATH ID: W13A  
CHART FAS OBST: 1036 TREE 423810N/0835917W.  
HOLD SE, RT, 312.48 INBOUND  
LTP HAE: 260.1 M

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
LPV DA	1162	1/2	200	1162	1/2	200	1162	1/2	200	1162	1/2	200			
LNAV/VNAV DA	1212	1/2	250	1212	1/2	250	1212	1/2	250	1212	1/2	250			
LNAV MDA	1300	1/2	338	1300	1/2	338	1300	1/2	338	1300	1/2	338			
CIRCLING	1400	1	438	1420	1	458	1420	1 1/2	458	1520	2	558			



**CHANGES - REASONS**

1. DELETED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED PBN REQUIREMENTS NOTE: RNP APCH - 8260.19H, 8-6-8.
2. REMOVED ALL CHART NOTES REFERRING TO BACK-UP ALTIMETER SETTING - MOVED TO FORM 8260-9 FOR CONTINGENCY USE.
3. REMOVED FAHRENHEIT VALUES FROM UNCOMPENSATED BARO-VNAV NOTE - NO LONGER REQUIRED.
4. DELETED FEEDER ROUTE FROM JACKSON (JXN) VOR/DME TO WEPPY (IAF) - JXN VOR/DME BEING DECOMMISSIONED.
5. DELETED PLANVIEW NOTE ASSOCIATED WITH JXN VOR/DME - JXN VOR/DME BEING DECOMMISSIONED.
6. CHANGED PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVALS ON FNT VORTAC AIRWAY RADIALS 234 CW 286" TO "PROCEDURE NA FOR ARRIVALS AT FNT VORTAC ON V450 EASTBOUND"
- UPDATED RADIALS IN EXCESS OF 90 DEGREES TO INBOUND RADIAL.
7. ADDED 20:1 IS CLEAR TO LINE 7 - 8260.19H, 8-6-7G.
8. DELETED NOTE: @ NA WHEN LOCAL WEATHER NOT AVAILABLE - LOCAL WEATHER ON WMSCR.
9. ADDED MAXIMUM HOLDING ALTITUDE "6000" TO H-I-L - NEW REPORTS FORMAT NOW ADDS MAX HOLDING ALTITUDE AT H-I-L.
10. INCORPORATED CHANGES FROM AMDT 2A - 8260.19H, 8-3-4C.
11. CHANGED INOPERATIVE MALSR NOTE TO "FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 3/4 SM - 8260.19H, 8-6-11, O(H)(3)(D).

PDF EDIT 8/22/19: JAMES LAFFERTY, REMOVED THE STATEMENT "ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED".

9/25/19: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 9/11/19.

1. ADDED TO LINE 5 OF THE -3 FORM; 200 HAT: 0.48.

**COORDINATED WITH:**

**A4A** ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** DET APP CON, ZOB, ARPT MGR

**FLIGHT CHECKED BY**

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, OCTOBER 3, 2018, SUBJECT:  
FLIGHT INSPECTION REVIEW NOT REQUIRED

**OFFICE**

*Digitally signed by*

**DATE**

**DAVID TEFFETELLER**

Oct 01, 2019

**DEVELOPED BY**

JAMES LAFFERTY

*Digitally signed by*

**DAVID TEFFETELLER**

Oct 01, 2019

**OFFICE**

AJV-A433

**DATE**

08/21/2019

**APPROVED BY**

GEORGE DAVIS

*Digitally signed by*

**DAVID TEFFETELLER**

Oct 01, 2019

**OFFICE**

AJV-A430

**DATE**

**TITLE**

MANAGER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KOZW
RUNWAY	RW13
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W13A
LTP/FTP LATITUDE	423800.9300N
LTP/FTP LONGITUDE	0835922.4900W
LTP/FTP ELLIPSOIDAL HEIGHT	+02601
FPAP LATITUDE	423706.8500N
FPAP LONGITUDE	0835746.5600W
THRESHOLD CROSSING HEIGHT (TCH)	00047.7
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	96.25
LENGTH OFFSET	1224
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	54A1A101

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K5
LTP ORTHOMETRIC HEIGHT	+02932
FPAP ORTHOMETRIC HEIGHT	+02932



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

<u>AIRPORT</u> LIVINGSTON COUNTY SPENCER J HARDY	<u>AIRPORT ID</u> KOZW	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 13	<u>AMDT NO.</u> 2B	<u>CITY</u> HOWELL	<u>STATE</u> MI	<u>AIRPORT ELEVATION</u> 962	<u>FACILITY</u> RNAV
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PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

<u>FROM</u> FNT VORTAC	<u>TO</u> PIPTY
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<u>RNP</u>	<u>DISTANCE</u> 18.79	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<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>
1.TOWER (26-003122)	425428.54N/0835009.93W	1190	500	50	4D	1000				AT810	3000
2.TERRAIN	424927.00N/0840603.00W	909 (900)								AS1500	2400

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>
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SEGMENT REMARKS:

INITIAL

<u>FROM</u> PIPTY	<u>TO</u> HUCCY
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<u>RNP</u>	<u>DISTANCE</u> 6.00	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<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>
5.TOWER (26-001234)	424946.00N/0841037.00W	1175	500	50	5D	1000				AT825	3000
6.TERRAIN	424445.00N/0840915.00W	952 (1000)								AS1500	2500

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>
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SEGMENT REMARKS:



INITIAL

FROM

WEPPY

TO

HUCCY

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	5.29											
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
7.TOWER (26-000076)	424103.00N/0841752.00W		1170	500	50	5D	1000				AT830	3000
8.TERRAIN	424248.00N/0841333.00W		958 (1000)								AS1500	2500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: LNAV

FROM

HUCCY (IF/IAF)

TO

DURGY

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	5.60											
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
9.AAO	424218.00N/0840427.00W		1175	164	98	4E	500				AC98	1800
10.TERRAIN	424218.00N/0840427.00W		975 (1000)								AS1500	2500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LPV

FROM

DURGY

TO

RW13

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	4.68		DA									
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				1162

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LNAV/VNAV

FROM

DURGY

TO

RW13

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	4.68		DA									
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
11.THLD	423800.93N/0835922.49W		962	20	3	1A		PDA				1212

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LNAV

FROM

DURGY

TO

JIVEX/2.10 NM TO RW13

<u>RNP</u>	<u>DISTANCE</u> 2.58	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<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>
12.AAO	424109.46N/0840310.02W		1149	50	20	2C	250				RA78 DG183	1660

COMPUTATIONS

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

FINAL: LNAV STEPDOWN

FROM

JIVEX/2.10 NM TO RW13

TO

RW13

<u>RNP</u>	<u>DISTANCE</u> 2.10	<u>PAT</u>	<u>MAP</u> RW13	<u>HAT</u> 338			<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>
13.TREE (KOZWA001)	423810.31N/0835917.05W		1036	20	3	1A	250					1300

COMPUTATIONS

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





HOLD-IN-LIEU OF PT

FROM

HUCCY

TO

P-5

RNP	DISTANCE	PAT P-5	MAP	HAT			HMAS				
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
14.TOWER (26-000400)	424445.87N/0841514.94W	1260	20	50	1D	1000				AT740	3000
15.TERRAIN	424612.00N/0841757.00W	998 (1000)								AS1500	2500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH : LPV

FROM

DA

TO

BROVI

RNP	DISTANCE	PAT	MAP	HAT			HMAS 997				
OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC				2800
16.TOWER (26-001556)	423410.00N/0835007.00W	1290	20	3	5D	1000					2300
17.TERRAIN	423215.00N/0834833.00W	1077 (1100)								AS1500	2600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH : LNAV/VNAV

FROM

DA

TO

BROVI

RNP	DISTANCE	PAT	MAP	HAT			HMAS 1051					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				2800
16.TOWER (26-001556)	423410.00N/0835007.00W		1290	20	3	5D	1000					2300
17.TERRAIN	423215.00N/0834833.00W		1077 (1100)								AS1500	2600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH : LNAV

FROM

RW13

TO

BROVI

RNP	DISTANCE	PAT	MAP	HAT			HMAS 1200					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				2800
16.TOWER (26-001556)	423410.00N/0835007.00W		1290	20	3	5D	1000					2300
17.TERRAIN	423215.00N/0834833.00W		1077 (1100)								AS1500	2600

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

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
18.TOWER (26-003020)	423708.85N/0835658.20W	1.30	438	1100	50	20	2C	300			1400
CATEGORY B											
18.TOWER (26-003020)	423708.85N/0835658.20W	1.50	458	1100	50	20	2C	300		HAA	1420
CATEGORY C											
18.TOWER (26-003020)	423708.85N/0835658.20W	1.70	458	1100	50	20	2C	300		HAA	1420
CATEGORY D											
18.TOWER (26-003020)	423708.85N/0835658.20W	2.30	558	1100	50	20	2C	300		HAA	1520

**CIRCLING REMARKS:**  
OLD CIRCLING CRITERIA DIMENSIONS USED FOR PROCEDURE DEVELOPMENT.

MSA

CENTER

RW13

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TWR (26-000991)	422225.60N/0840410.22W	198	16.0	2045	20	3	1A	1000			3100

**MSA REMARKS:**

**NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:**



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

ZOB ARTCC, DET APP CON, LAN FSS

<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>
AWOS	KOZW	24	KOZW	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	KFNT	24	KFNT	22.75	Y	78

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME KPZW 962, KFNT 782 RA = 77.5.

<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>
RW13 - MALSR (PCL), HIRL (PCL), PAPI-4L		PIR-G	
RW31 - HIRL (PCL), REIL (PCL), PAPI-4L		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	962	47.7			3.00	47.0

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>
-16C	+37C	-16C	+13.1C

CRITICAL TEMPERATURE REMARKS:

AVERAGE COLD TEMPERATURE DERIVED FROM STANDARD -30C ISA DEVIATION. CRITICAL LOW TEMPERATURE BASED ON ACT. DESCENT RATE (FPM): STANDARD TEMP 968 HIGH TEMP 1277.

"VISUAL PORTION OF FINAL" PENETRATIONS

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

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



AIRPORT	AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
LIVINGSTON COUNTY SPENCER J HARDY	KOZW	RNAV (GPS) RWY 13	2B	HOWELL	MI	962	RNAV
<b>PART C: GENERAL REMARKS:</b>  PRECIPITOUS TERRAIN EVALUATION COMPLETED.  TAA NOT DEVELOPED AT ATC REQUEST.  CONTINGENCY REMOTE ALTIMETER NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE FLINT ALTIMETER SETTING AND INCREASE LPV DA TO 1240, LNAV/VNAV DA TO 1290, AND ALL MDA 80 FEET. INCREASE LNAV CATS C AND D VISIBILITY 1/4 SM. ALTERNATE MINIMUMS NA.  CONTINGENCY REMOTE ALTIMETER NOTE: BARO-VNAV AND VDP NA WHEN USING FLINT ALTIMETER SETTING.  100' TREE USED PER FPT.  OBST #1 4D AC ASSIGNED PER STATE ID.							

QUALITY

18

CHECKED

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<u>AIRPORT</u> LIVINGSTON COUNTY SPENCER J HARDY	<u>AIRPORT ID</u> KOZW	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 13	<u>AMDT NO.</u> 2B	<u>CITY</u> HOWELL	<u>STATE</u> MI	<u>AIRPORT ELEVATION</u> 962	<u>FACILITY</u> RNAV
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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	3.11
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	127.29
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	949
DISTANCE FROM	THLD	TO 1500FT POINT	4.86
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	2.13
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	127.29
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	949

THRESHOLD  
COORDINATES  
(IF STR-IN)

423800.93N/0835922.49W

ARP COORDINATES

423745.94N/0835855.90W

RUNWAY APCH END  
AND DIST FURTHEST  
FROM ARP

RUNWAY 31 DISTANCE 0.41 NM

FAF  
COORDINATES

424051.22N/0840425.10W

FIX NAME  
COORDINATES

REMARKS

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<u>AIRPORT</u> LIVINGSTON COUNTY SPENCER J HARDY	<u>AIRPORT ID</u> KOZW	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 13	<u>AMDT NO.</u> 2B	<u>CITY</u> HOWELL	<u>STATE</u> MI	<u>AIRPORT ELEVATION</u> 962	<u>FACILITY</u> RNAV
PART E: PREPARED BY							
<u>NAME</u> JAMES LAFFERTY			<u>OFFICE</u> AJV-A433	<u>DATE</u> 08/21/2019	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST		

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