

**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><b>AIRPORT ID</b></u> S25	<u><b>PROCEDURE NAME</b></u> RNAV (GPS) RWY 12	<u><b>ORIGINAL/AMENDMENT</b></u> 1	<u><b>CITY</b></u> WATFORD CITY	<u><b>STATE</b></u> ND		
<u><b>AIRPORT ELEVATION</b></u> 2135	<u><b>TDZE</b></u> 2114	<u><b>SUPERSEDED</b></u> RNAV (GPS) RWY 12	<u><b>ORIGINAL/AMENDMENT</b></u> ORIG-D	<u><b>DATED</b></u> 07/16/2020	<u><b>MAG VAR</b></u> 7E	<u><b>EPOCH YEAR</b></u> 2025
<u><b>FACILITY</b></u> RNAV	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u>	<u><b>REQUIRED EFFECTIVE DATE</b></u> 10/07/2021	<u><b>CANCEL/SUSPEND</b></u>		

**TERMINAL ROUTES**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>LEG TYPE</b></u>	<u><b>FO/FB</b></u>	<u><b>RNP</b></u>	<u><b>COURSE</b></u>	<u><b>DISTANCE</b></u>	<u><b>ALTITUDE</b></u>
ALOPE		HOOPR		TF	FB	1.00	073.97	18.20	4500
HOOPR	IAF	GERHE	NOPT	TF	FB	1.00	039.60	7.00	4500
SAKIE	IAF	GERHE	NOPT	TF	FB	1.00	199.27	11.86	4500
GERHE	IF/IAF	WILSN		TF	FB	1.00	115.54	5.27	4100
WILSN	FAF	WATLI/2.67 NM TO RW12		TF	FB	0.30	115.63	3.58	
WATLI/2.67 NM TO RW12		RW12	MAP	TF	FO	0.30	115.63	2.67	
RW12	MAP	2364 MSL		CA			115.63		
2364 MSL		CIPGO		DF	FO	1.00			4300

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV: RW12

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 4300 DIRECT CIPGO AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD NW GERHE, RT, 115.54 INBOUND, 4500 FT. IN LIEU OF PT (IF/IAF), MAX 6000.

3. FAC: 115.63FAF: WILSNDIST FAF TO MAP: 6.25DIST FAF TO THLD: 6.25

4. MIN ALT: GERHE 4500, WILSN 4100, WATLI/2.67 NM TO RW12 2960

5. DIST TO THLD FROM OM:MM:IM:150 HAT:250 HAT: 0.80GS ANT:

6. MIN GP INCPT: 4100GP ALT AT PFAF : WILSN 4100OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 40.0

8. MSA FROM: RW12 4700

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT ALOPE ON V545 SOUTHWEST BOUND AND ARRIVALS AT SAKIE ON V71 NORTHWEST BOUND..  
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WILLISTON ALTIMETER SETTING AND INCREASE LPV DA TO 2474 FEET; INCREASE ALL MDAS 120 FEET AND LNAV VISIBILITY CAT C/D 3/8 SM, AND CIRCLING VISIBILITY CAT C/D 1/2 SM.

ADDITIONAL FLIGHT DATA:

HOLD SE, RT, 295.90 INBOUND.  
CHART FAS OBST: 2379 TOWER (38-000340) 474816N/1031729W.  
2580 AAO 475040N/1032347W.  
CHART VDP AT 1.67 NM TO RW12.  
WAAS CHANNEL # 70717  
REFERENCE PATH ID: W12A  
CHART CIRCLING ICON.  
LTP HAE: 612.8 M

MINIMUMS:

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

ALTERNATE: NA ☒

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	2364	1	250	2364	1	250	2364	1	250	2364	1	250			
LNAV MDA	2640	1	526	2640	1	526	2640	1 1/2	526	2640	1 1/2	526			
CIRCLING	2700	1	565	2760	1	625	2760	1 3/4	625	2960	2 3/4	825			



**CHANGES - REASONS**

1. UPDATED AIRPORT MAGVAR FROM "EPOCH 2010 9E" TO "EPOCH 2025 7E". - REQUEST OF FPT TO RETAIN RWY NUMBERING.
2. UPDATED AIRPORT ELEVATION AND TDZE FROM "2111/2090" TO "2135/2114". - NEW SURVEY,
3. REMOVED FEEDER HASOS TO HOOPR. - FPT REQUEST.
4. ADDED FEEDER ALOPE TO HOOPR, COURSE 074.02, DISTANCE 18.18 AND ALTITUDE 4500. - FPT REQUESTED.
5. UPDATED HOOPR TO GERHE COURSE, DISTANCE AND ALTITUDE FROM "035.54/5.00/4100" TO "039.60/7.00/4500". - NEW FIX LOCATION FOR HOOPR AND GERHE.
6. REMOVED IAF LEG FORBI TO GERHE. - FPT REQUEST.
7. ADDED IAF LEG SAKIE TO GERHE, COURSE 199.30, DISTANCE 11.78 AND ALTITUDE 4500. - FPT REQUESTED.
8. UPDATED GERHE TO WILSN COURSE AND DISTANCE FROM "125.60/6.34" TO "115.54/5.27". - NEW FIX LOCATIONS.
9. ADDED WILSN TO WATLI/2.67 NM TO RW12 COURSE 115.63 AND DISTANCE 3.58. - ADDED LNAV LINE OF MINIMA.
10. ADDED WATLI/2.67 NM TO RW12 TO RW12 COURSE 115.63 AND DISTANCE 2.67. - ADDED LNAV LINE OF MINIMA.
11. UPDATED CA ALTITUDE FROM "2424 MSL" TO "2364 MSL" AND COURSE FROM "125.68" TO "115.63" - NEW EVALUATION.
12. UPDATED MISSED APPROACH INSTRUCTIONS FROM "CLIMB TO 4200 DIRECT CIPGO AND HOLD." TO "CLIMB TO 4300 DIRECT CIPGO AND HOLD." - FPT REQUESTED HIGHER HOLDING ALTITUDE.
13. PROFILE LINE 2: UPDATED HOLDING INFORMATION FROM "HOLD NW GERHE, RT, 125.60 INBOUND, 4100 FT. IN LIEU OF PT (IAF), MAX 6000." TO "HOLD NW GERHE, RT, 122.54 INBOUND, 4500 FT. IN LIEU OF PT (IAF), MAX 6000." - FPT REQUESTED NEW INBOUND COURSE AND HIGHER HOLDING ALTITUDE.
14. PROFILE LINE 3: UPDATED FAC FROM "125.68" TO "115.63" AND ADDED DIST PFAF TO MAP: 6.25 AND DIST PFAF TO THLD: 6.25. - NEW EVALUATION AND LNAV LINE MINIMA ADDED.
15. PROFILE LINE 4: UPDATED FROM "GERHE 4100, WILSN 4100" TO "GERHE 4500, WILSN 4100, WATLI/2.67 NM TO RW12 2960" - NEW REQUESTED ALTITUDE FOR GERHE AND ADDED SDF FOR THE LNAV.
16. PROFILE LINE 5: REMOVED DIST TO THLD FROM PFAF: 4.66 AND UPDATED HAT FROM "334 HAT: 0.76" TO "250 HAT: 0.80". - ADDED LNAV LINE MINIMA AND NEW CONTROLLING OBSTACLE FOR LPV.
17. PROFILE LINE 7: UPDATED GP ANGLE FROM "4.00" TO "3.00" AND 20:1 FROM "IS NOT CLEAR" TO "IS CLEAR". - NEW EVALUATION WITH LOWER GPA AND NEW SURVEY.
18. UPDATED PBN REQUIREMENT NOTE: FROM "RNP APCH" TO "RNP APCH - GPS". IAW 8260.19I 8-6-8 B (2).
19. ADDED CHART PLANVIEW NOTE PROCEDURE NA FOR ARRIVALS AT ALOPE ON V545 SOUTHWEST BOUND AND ARRIVALS AT SAKIE NORTHWEST BOUND. - TURN EXCEEDS 120 DEGREES.
20. REMOVED CHART NOTE: PROCEDURE NA AT NIGHT. - NEW EVALUATION AND SURVEY.
21. UPDATED CHART NOTE FOR HELICOPTER VISIBILITY FROM "CHART NOTE: RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED." TO "CHART NOTE: RWY 12 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED." - 20:1 IS CLEAR.
22. REMOVED CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}). - GLIDEPATH AND TCH NOW MEET CRITERIA.
23. UPDATED CHART NOTE: FROM "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WILLISTON BASIN INTL ALTIMETER SETTING AND INCREASE DA TO 2537 FEET AND INCREASE ALL VISIBILITIES 3/8 SM." TO "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE WILLISTON ALTIMETER SETTING AND INCREASE LPV DA TO 2474 FEET; INCREASE ALL MDAS 120 FEET AND LNAV VISIBILITY CAT C/D 3/8 SM, AND CIRCLING VISIBILITY CAT C/D 1/2 SM." - NEW EVALUATION.
24. ADDITIONAL FLIGHT DATA: UPDATED FROM "HOLD SE, RT, 305.89 INBOUND." TO "HOLD SE, RT, 302.89 INBOUND." - RUNWAY CONSTRUCTION, NEW SURVEY DATA AND NEW FIX LOCATIONS.
25. ADDITIONAL FLIGHT DATA: ADDED "CHART FAS OBST: 2379 TOWER (38-000340) 474816N/1031729W." - LNAV LINE MINIMA ADDED.
26. ADDITIONAL FLIGHT DATA: ADDED "2580 AAO 475040N/1032347W." - NEW EVALUATION.
27. ADDITIONAL FLIGHT DATA: ADDED "CHART VDP AT 1.67 NM TO RW12\*." - LNAV LINE OF MINIMA ADDED ALONG WITH NEW EVALUATION AND SURVEY.
28. ADDITIONAL FLIGHT DATA: ADDED "CHART CIRCLING ICON" - NEW CIRCLING CRITERIA HAS BEEN APPLIED.
29. ADDITIONAL FLIGHT DATA: UPDATED LTP HAE FROM "609.8 M" TO "612.8 M". - NEW SURVEY.
30. DECREASED LPV DA/HAT FOR CAT A/B FROM "2424/334" TO "2364/250 FOR CAT A-D" - NEW CONTROLLING OBSTACLE AND EVALUATION.
31. ADDED LNAV LINE MINIMA MDA/HAT 2640/526 AND VISIBILITY FOR CAT A/B 1 SM AND CAT C/D 1 1/2 SM. - FPT REQUESTED NPA ADDED TO PROCEDURE.
32. ADDED CIRCLING LINE MINIMA CMDA/HAA CAT A 2700/565, CAT B/C 2760/625 AND CAT D 2960/825. VISIBILITY CAT A/B 1 SM, CAT C 1 3/4 SM AND CAT D 2 3/4 SM. - FPT REQUESTED CIRCLING TO BE ADDED TO PROCEDURE.
33. CHANGED FAS DATA LTP/FTP LATITUDE FROM "474759.8030N" TO "474746.6690N" - NEW SURVEY DATA.
34. CHANGED FAS DATA LTP/FTP LONGITUDE FROM "1031536.2125W" TO "1031525.0830W" - NEW SURVEY DATA.
35. CHANGED FAS DATA ELLIPSOIDAL HEIGHT FROM "+06098" TO "+06128" - NEW SURVEY DATA.
36. CHANGED FAS DATA FPAP LATITUDE FROM "474657.1200N" TO "474658.5155N" - NEW SURVEY DATA.
37. CHANGED FAS DATA FPAP LONGITUDE FROM "1031402.3700W" TO "1031333.9335W" - NEW SURVEY DATA.
38. CHANGED FAS DATA GLIDEPATH ANGLE (GPA) FROM "04.00" TO "03.00" - NEW REQUESTED GPA.
39. CHANGED FAS DATA LENGTH OFFSET FROM "1408" TO "1072" - NEW EVALUATION.
40. CHANGED FAS DATA LTP/FPAP ORTHOMETRIC HEIGHT FROM "+06276" TO "+06306" - NEW SURVEY DATA.
41. CRC REMAINDER CHANGED FROM "B7CE5FA1" TO "A70EBEE3" - UPDATED FAS DATA BLOCK INFORMATION.



COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZLC, AMGR

FLIGHT CHECKED BY  
PENDING

*Digitally signed by*  
**DONALD H LANIER**  
Jun 02, 2021

OFFICE  
FICO

DATE

DEVELOPED BY  
DONALD H. LANIER (CHRISTOPHER SCHONES)

*Digitally signed by*  
**DONALD H LANIER**  
Jun 02, 2021

OFFICE  
AJV-A431

DATE  
04/23/2021

APPROVED BY  
LONNIE EVERHART

*Digitally signed by*  
**DONALD H LANIER**  
Jun 02, 2021

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	S25
RUNWAY	RW12
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W12A
LTP/FTP LATITUDE	474746.6690N
LTP/FTP LONGITUDE	1031525.0830W
LTP/FTP ELLIPSOIDAL HEIGHT	+06128
FPAP LATITUDE	474658.5155N
FPAP LONGITUDE	1031333.9335W
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	1072
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	A70EBEE3

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+06306
FPAP ORTHOMETRIC HEIGHT	+06306



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

<u>AIRPORT ID</u> S25	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 12	<u>AMDT NO.</u> 1	<u>CITY</u> WATFORD CITY	<u>STATE</u> ND	<u>AIRPORT ELEVATION</u> 2135	<u>FACILITY</u> RNAV
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PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM ALOPE TO HOOPR

<u>RNP</u>	<u>DISTANCE</u> 18.20	<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>
												AAO	474733.00N/1035251.00W	2599	164	98	4E	1000				AT901	4500
												TERRAIN	474733.00N/1035251.00W	2398 (2400)								AS1500	3900

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL

FROM HOOPR TO GERHE

<u>RNP</u>	<u>DISTANCE</u> 7.00	<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>
												TOWER (38-000673)	475119.00N/1032824.00W	2699	250	50	4D	1000				AT801	4500
												TERRAIN	475018.00N/1033412.00W	2362 (2400)								AS1500	3900

COMPUTATIONS

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

SEGMENT REMARKS:



INITIAL

FROM

SAKIE

TO

GERHE

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	11.86											
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TOWER (38-000163)	475442.91N/1032711.69W		2726	50	20	2C	1000				AT774	4500
TERRAIN	480509.00N/1032409.00W		2473 (2500)								AS1500	4000

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: LNAV

FROM

GERHE (IF/IAF)

TO

WILSN

<u>RNP</u>	<u>DISTANCE</u> 5.27	<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>
TOWER (38-000163)	475442.91N/1032711.69W		2726	50	20	2C	500				AT874	4100
TERRAIN	475436.00N/1032703.00W		2450 (2500)								AS1500	4000

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LPV

FROM

WILSN

TO

RW12

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	6.25		DA		250							
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TREE (38-036659)	474753.50N/1031548.79W		2123	20	3	1A		34.00:1				2364

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

FROM

WILSN

TO

WATLI/2.67 NM TO RW12

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	3.58											
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
AAO	475013.96N/1032210.91W		2560	50	20	2C	250				RA120 XL13	2960

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

WATLI/2.67 NM TO RW12

TO

RW12

<u>RNP</u>	<u>DISTANCE</u> 2.67	<u>PAT</u>	<u>MAP</u> RW12	<u>HAT</u> 526			<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>
TOWER (38-000340)	474815.80N/1031729.07W		2379	20	3	1A	250					2640

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

GERHE

TO

P-6

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u> P-6	<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>
TOWER (38-000163)	475442.91N/1032711.69W	2726	50	20	2C	1000				AT774	4500
TERRAIN	475436.00N/1032703.00W	2450 (2500)								AS1500	4000

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



MISSED APPROACH : LPV

FROM

DA

TO

CIPGO

RNP	DISTANCE	PAT	MAP	HAT			HMAS 2157					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				4300
AAO	474554.00N/1030539.00W		2700	164	98	4E	1000					3700
TERRAIN	474554.00N/1030539.00W		2500 (2500)								AS1500	4000

COMPUTATIONS

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

MISSED APPROACH : LNAV

FROM

RW12

TO

CIPGO

RNP	DISTANCE	PAT	MAP	HAT			HMAS 2540					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				4300
AAO	474554.00N/1030539.00W		2700	164	98	4E	1000					3700
TERRAIN	474554.00N/1030539.00W		2500 (2500)								AS1500	4000

COMPUTATIONS

ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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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											
TRANSMISSION_LINE (38-034031)	474633.15N/1031419.24W	1.33	565	2381	20	3	1A	300			2700
CATEGORY B											
TREE	474546.82N/1031400.98W	1.88	625	2458	50	20	2C	300			2760
CATEGORY C											
TREE	474546.82N/1031400.98W	2.97	625	2458	50	20	2C	300			2760
CATEGORY D											
AAO	474331.53N/1031400.04W	3.88	825	2650	50	20	2C	300			2960

CIRCLING REMARKS:

MSA

CENTER  
RW12

RADIUS  
25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (38-000392)	472652.40N/1025515.30W	140	25.0	3629	500	125	5E	1000			4700

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH  
ZLC ARTCC, GFK FSS

<u>WX SERVICE</u> AWOS-3	<u>LOCATION</u> KS25	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KS25	<u>DISTANCE</u> 0	<u>SERVICE-A</u> N	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u> ASOS	<u>LOCATION</u> KXWA	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KXWA	<u>DISTANCE</u> 34.225	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 110

WX REMARKS:  
PRESSURE PATTERN THE SAME.  
KS25 2135, KXWA 2343  
RA=109.7

<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>
RW12 - MIRL (PCL), PAPI-2L (PCL)		NPI-F	
RW30 - MIRL (PCL), PAPI-2L (PCL)		NPI-F	

<u>GLIDESLOPE ANGLE</u> 3.00	<u>ELEV RWY THRESHOLD</u> 2068.8	<u>TCH</u> 40.0	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 38.3
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE	1050
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>
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CRITICAL TEMPERATURE REMARKS:



"VISUAL PORTION OF FINAL" PENETRATIONS

Final Type	LPV AND LNAV		
34:1			
2122 TREE (38-024854) 474756.21N/1031545.26W (9.63)		2123 TREE (38-036659) 474753.50N/1031548.79W (9.03)	
2121 POLE (38-030947) 474756.09N/1031545.63W (8.19)			

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.

50 FT TREE HEIGHT USED PER CEN FPT.

ORDER 8260.3 CHAPTER 2 APPLIED TO 2580 AAO 475039.83N/1032346.96W.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



<div>AIRPORT ID</div> <div>S25</div>	<div>PROCEDURE NAME</div> <div>RNAV (GPS) RWY 12</div>	<div>AMDT NO.</div> <div>1</div>	<div>CITY</div> <div>WATFORD CITY</div>	<div>STATE</div> <div>ND</div>	<div>AIRPORT ELEVATION</div> <div>2135</div>	<div>FACILITY</div> <div>RNAV</div>
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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	4.05
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	122.63
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	2400
DISTANCE FROM	THLD	TO 1500FT POINT	5.85
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.76
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	122.63
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	2400

THRESHOLD  
COORDINATES  
(IF STR-IN)

474746.67N/1031525.08W

ARP COORDINATES

474734.80N/1031457.67W

RUNWAY APCH END  
AND DIST FURTHEST  
FROM ARP

RUNWAY 12 DISTANCE 0.54 NM

FAF  
COORDINATES

475109.08N/1032313.67W

FIX NAME  
COORDINATES

REMARKS

THLD DISPLACED 1050FT, ACTUAL COORDINATES: 474752.27N/1031538.02W.

QUALITY

19

CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

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PART E: PREPARED BY

<u>NAME</u> DONALD H. LANIER (CHRISTOPHER SCHONES)	<u>OFFICE</u> AJV-A431	<u>DATE</u> 04/23/2021	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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