

**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 ID</u> KFNL	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> FORT COLLINS/LOVELAND	<u>STATE</u> CO		
<u>AIRPORT ELEVATION</u> 5020	<u>TDZE</u> 5020	<u>SUPERSEDED</u> RNAV (GPS) RWY 33	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 03/29/2018	<u>MAG VAR</u> 9E	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 24 MARCH 2022	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

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>
GLL VOR/DME		IMOMY		TF	FO	1.00	221.17	22.30	7600
HYGEN	IAF	IMOMY	NOPT	TF	FB	1.00	050.86	13.64	7600
CEDUK	IAF	IMOMY	NOPT	TF	FB	1.00	259.90	25.32	7600
DVV VORTAC	IAF	IMOMY	NOPT	TF	FB	1.00	319.07	26.19	7600
IMOMY	IF/IAF	CONRY		TF	FB	1.00	331.49	5.72	6800
CONRY	FAF	JUDET/1.72 NM TO RW33		TF	FB	0.30	331.47	3.70	
JUDET/1.72 NM TO RW33		RW33	MAP	TF	FO	0.30	331.47	1.72	
RW33	MAP	5600 MSL		CA			331.47		5600
5600 MSL		LPORT		DF	FO	1.00			7400

MISSED APPROACH

MAP:

LPV: DA
LNAV/VNAV: DA
LNAV: RW33

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 5600, THEN CLIMBING RIGHT TURN TO 7400 DIRECT LPORT AND HOLD. WHEN AUTHORIZED BY ATC, CONTINUE CLIMB-IN-HOLD TO 8000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD SE IMOMY, RT, 331.49 INBOUND, 7600 FT. IN LIEU OF PT (IAF), MAX 14000.

3. FAF: 331.47FAF: CONRYDIST FAF TO MAP: 5.43DIST FAF TO THLD: 5.43

4. MIN ALT:IMOMY 7600, CONRY 6800, JUDET/1.72 NM TO RW33 5620

5. DIST TO THLD FROM FAF: 5.43MM:IM:150 HAT:200 HAT: 0.47GS ANT:

6. MIN GP INCPT: 6800GP ALT AT PFAF : CONRY 6800OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 50.7

8. MSA FROM: RW33 14700

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: CIRCLING RWY 24 NA AT NIGHT.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -24°C OR ABOVE 54°C.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT HYGEN ON V220 WESTBOUND AND V85 NORTHWEST BOUND, ARRIVAL ON GLL VOR/DME AIRWAY RADIALS 136 CW 301 AND ARRIVAL ON DVV VORTAC AIRWAY RADIALS 257 CW 314.
CHART NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBLITY TO 7/8 SM AND LNAV VISIBILITY CAT C/D TO 1 SM.

ADDITIONAL FLIGHT DATA:

CHART VDP AT 0.96 NM TO RW33.
HOLD N, LT, 183.26 INBOUND.
CHART FAS OBST: 5125 ANTENNA (08-081046) 402619N/1045951W.
5270 AAO 402103N/1045915W.
WAAS CHANNEL # 97511
REFERENCE PATH ID: W33A
CHART CIRCLING ICON.
LTP HAE: 1513.4 M

MINIMUMS:

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

ALTERNATE: NA ☐ NA WHEN LOCAL WEATHER NOT AVAILABLE.; STANDARD - CAT D 800-2 1/4

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	5220	1/2	200	5220	1/2	200	5220	1/2	200	5220	1/2	200			
LNAV/VNAV DA	5329	1/2	309	5329	1/2	309	5329	1/2	309	5329	1/2	309			
LNAV MDA	5380	1/2	360	5380	1/2	360	5380	5/8	360	5380	5/8	360			
CIRCLING	5480	1	460	5520	1	500	5520	1 1/2	500	5700	2 1/4	680			



CHANGES - REASONS

1. INCORPORATED CHANGES FROM P-NOTAM AMDTS 1A AND 1B.
2. AIRPORT AND TDZE CHANGED FROM 5016/5016 TO 5020/5020 - UPDATED AIRNAV DATA.
3. TERMINAL ROUTES: CHANGED "IMOMY TO CONRY" DISTANCE FROM "6.02" TO "5.72" - FAF CONRY MOVED TO ALIGN WITH ILS OR LOC RWY 33.
4. TERMINAL ROUTES: CHANGED SEGMENT FROM "CONRY TO RW33/DIST 5.13" TO "CONRY TO JUDET/DIST 3.70" AND "JUDET TO RWY33/1.72" - NEW FAF LOCATION; ADDED SDF TO LOWER MINS.
5. MISSED APPROACH INSTRUCTIONS: CHANGED FROM "CLIMB TO 5600 THEN CLIMBING RIGHT TURN TO 7400 DIRECT LPORT AND HOLD. WHEN AUTHORIZED BY ATC, CONTINUE CLIMB-IN-HOLD TO 8000" TO "CLIMB TO 5600, THEN CLIMBING RIGHT TURN TO 7400 DIRECT LPORT AND HOLD. WHEN AUTHORIZED BY ATC, CONTINUE CLIMB-IN-HOLD TO 8000" - CORRECTED PUNCTUATION.
6. PROFILE LINE 2: ADDED MAX HOLDING 14000 - IAW 8260.19I 8-6-7B(2).
7. PROFILE LINE 3: UPDATED DIST FAF TO MAP AND DIST FAF TO THLD FROM "5.13" TO "5.43" - NEW FAF LOCATION TO MATCH ILS.
8. PROFILE LINE 4: CHANGED MIN ALT FROM "CONRY 6700" TO "CONRY 6800" AND ADDED "JUDET 5620" - NEW FAF LOCATION TO MATCH ILS; ADDED SDF.
9. PROFILE LINE 5: ADDED DIST TO THLD FROM FAF: 5.43 - IAW 8260.19I 8-6-7 E.
10. PROFILE LINE 6: CHANGED MIN GP INCPT FROM "6700" TO "6800" AND GP ALT AT FAF FROM "CONRY 6700" TO "CONRY 6800" - NEW FAF LOCATION TO MATCH ILS.
11. PROFILE LINE 7: ADDED "20:1 IS CLEAR" - IAW 8260.19I 8-6-7 G.
12. NOTES: REMOVED CHART NOTES "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE DENVER INTL ALTIMETER SETTING AND INCREASE ALL DA 148 FT AND ALL MDA 160 FT; INCREASE LPV ALL CATS VISIBILITY 1/4 MILE, LNAV/VNAV ALL CATS VISIBILITY 5/8 MILE, LNAV AND CIRCLING CATS C/D VISIBILITY 1/2 MILE" - UPDATED AND MOVED TO GENERAL REMARKS AS CONTINGENCY NOTE; PRIMARY ALTIMETER SOURCE ON WMSCR.
13. NOTES: REMOVED "CHART NOTE: DME/DME RNP-0.3 NA" ADDED PBN REQUIREMENTS NOTE: "RNP APCH - GPS" - IAW 8260.19I 8-6-8 B.
14. NOTES: UPDATED CHART NOTE FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -24C (-11F) OR ABOVE 48C (119F)." TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -24C OR ABOVE 54C" - IAW 8260.19I 8-6-11 O(2)(G).
15. NOTES: UPDATED CHART NOTE FROM "FOR INOPERATIVE ALS WHEN USING DENVER INTL ALTIMETER SETTING, INCREASE LPV ALL CATS VISIBILITY TO 1 1/8 MILE" TO "FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO 7/8 SM AND LNAV VISIBILITY CAT C/D TO 1 SM" - NEW SURVEY, NEW MINS.
16. NOTES: UPDATED CHART NOTE FROM "CIRCLING TO RWY 06-24 NA AT NIGHT" TO "CIRCLING RWY 24 NA AT NIGHT" - NVG SURVEY DATA YIELDS NO PENETRATIONS AND ANALYSIS OF SATELLITE IMAGERY SHOWS NO VEGETATION/TREES WITHIN RWY 6 CIRCLING VISUAL AREA, IAW 8260.19I 8-6-11 O(2)(G).
17. ADDITIONAL FLIGHT DATA: CHANGED NOTES "CHART FAS OBST: 5129 TREE 402540N/1045920W" AND "FAS OBST: 5209 AAO 402216N/1045850W" TO "CHART FAS OBST: 5125 ANTENNA (08-081046) 402619N/1045951W" - NEW FAF LOCATION, RELOCATED 7:1 AREA AND NEW MAP STUDY.
18. ADDITIONAL FLIGHT DATA: UPDATED 7:1 DOCUMENTED OBSTACLE FROM "5296 AAO 402048N/1045954W" TO "5270 AAO 402103N/1045915W." - UPDATED OBSTACLE EVALUATION.
19. ADDITIONAL FLIGHT DATA: UPDATED CHART VDP AT FROM "1.23 NM TO RW33." TO "0.96 NM TO RW33." - LNAV MINIMUMS UPDATED.
20. ADDITIONAL FLIGHT DATA: UPDATED LTP HAE FROM "1512 M" TO "1513.4M" - IAW 8260.19I APPENDIX K (I), UPDATED AIRNAV DATA.
21. ADDITIONAL FLIGHT DATA: REMOVED *LNAV ONLY - NO LONGER REQUIRED.
22. ALTERNATE MINIMUMS: UPDATED FROM "CAT D 800-2 1/2" TO "CAT D 800-2 1/4" - UPDATED EVALUATION/MINIMUMS.
23. MINIMUMS: UPDATED LPV DA FROM "5216" TO "5220" - IAW 8260.19I 8-6-11 I, UPDATED TOUCHDOWN ZONE ELEVATION.
24. MINIMUMS: UPDATED LNAV/VNAV DA/HAT FROM "5430/414" TO "5329/309" - UPDATED SURVEY, NEW CONTROLLING OBSTACLE.
25. MINIMUMS: UPDATED LNAV MDA/HAT FROM "5460/444" TO "5380/360" - ADDED STEPDOWN FIX, UPDATED OBSTACLE EVALUATION.
26. MINIMUMS: UPDATED CIRCLING MDA/HAS FROM: CAT A "5500/484," CATS B AND C "5580/564" AND D "5760/744" TO CAT A "5480/460" AND CATS B AND C "5520/500," CAT D "5700/680," "5580/564" - UPDATED SURVEY, NEW CONTROLLING OBSTACLE.
27. MINIMUMS: UPDATED LNAV VISIBILITY CATS C AND D FROM "7/8" TO "5/8" - IAW 8260.3E TABLE 3-3-7; UPDATED MINS.
28. MINIMUMS: UPDATED CIRCLING VISIBILITY CAT D FROM "2 1/2" TO "2 1/4" - IAW 8260.3E TABLE 3-3-7; UPDATED MINS.
29. DATA FIELD: UPDATED PFAP LAT/LONG FROM "402749.0960N/1050104.9680W" TO "402749.0830N/1050104.9270W" - FAS DATA UPDATED.
30. DATA FIELD: CRC REMAINDER CHANGED FROM "FC255C4A" TO "3572F0B4" - FPAF CHANGED, FAS DATA UPDATED.

COORDINATED WITH:AAA ☒ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: ZDV ARTCC, DEN TRACON, AMGR**FLIGHT CHECKED BY**

JEFFREY ECKMAN

Digitally signed by
JASON KRETSCHMER
Jan 07, 2022**OFFICE**

FPO

DATE

01/06/2022

DEVELOPED BY

JOHN BORDY (JUDITH TUTTLE)

Digitally signed by
JASON KRETSCHMER

Dec 16, 2021

OFFICE

AJV-A422

DATE

09/14/2021

APPROVED BY

MARLON ROBINSON

Digitally signed by
JASON KRETSCHMER

Dec 16, 2021

OFFICE

AJV-A420

DATE**TITLE**
MANAGERQUALITY
21
CHECKED

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KFNL
RUNWAY	RW33
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W33A
LTP/FTP LATITUDE	402625.0670N
LTP/FTP LONGITUDE	1050025.8515W
LTP/FTP ELLIPSOIDAL HEIGHT	+15134
FPAP LATITUDE	402749.0830N
FPAP LONGITUDE	1050104.9270W
THRESHOLD CROSSING HEIGHT (TCH)	00050.7
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0160
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0
CRC REMAINDER	3572F0B4

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+15302
FPAP ORTHOMETRIC HEIGHT	+15302

