

**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.

AIRPORT ID DEN	PROCEDURE NAME RNAV (RNP) Z RWY 16L	ORIGINAL/AMENDMENT 1	CITY DENVER	STATE CO
AIRPORT ELEVATION 5434	TDZE 5357	SUPERSEDED RNAV (RNP) Z RWY 16L	DATED 02/01/2018	MAG VAR 8E
FACILITY RNAV	COORDINATES OF FACILITIES	ACTUAL EFFECTIVE DATE	REQUIRED EFFECTIVE DATE ROUTINE	EPOCH YEAR 2015
				CANCEL/SUSPEND

TERMINAL ROUTES

FROM	FIX TYPE	TO	FIX TYPE	LEG TYPE	FO/FB	RNP	COURSE	DISTANCE	ALTITUDE
JEEPR	IAF	JOBOB		TF	FB	1.00	172.51	2.73	10000
JOBOB	IF	LEETS	PFAF	TF	FB	1.00	172.51	10.86	7000
LEETS	PFAF	RW16L	MAP	TF	FO	0.30	172.51	5.01	
RW16L	MAP	5617 MSL		CA			172.51		
5617 MSL		SUGOY		DF	FB	1.00			
SUGOY		SIGNE		TF	FO	1.00	202.34	21.53	10000

MISSED APPROACH

MAP:

RNP: DA

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 10000 DIRECT SUGOY AND ON TRACK 202.34 TO SIGNE AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- PROFILE STARTS AT LEETS
- FAC: 172.51 PFAF: LEETS DIST FAF TO MAP: DIST FAF TO THLD:
- MIN ALT: LEETS 7000
- DIST TO THLD FROM PFAF: 5.01 MM: IM: 150 HAT: 260 HAT: 0.66 GS ANT: MM: IM:
- MIN GP INCPT: 7000 GP ALT AT PFAF: LEETS 7000 OM: MM: IM:
- GP ANGLE: 3.00 34:1: IS CLEAR 20:1: IS CLEAR TCH: 55.6
- MSA FROM: RW16L 10200



PBN REQUIREMENTS NOTE:

RNP AR APCH - GPS. AUTHORIZATION REQUIRED.

NOTES:

CHART NOTE: SIMULTANEOUS APPROACH AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -26°C OR ABOVE 54°C.
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).
CHART NOTE: FOR INOPERATIVE ALS, INCREASE RNP 0.10 ALL CATS VISIBILITY TO RVR 4000 AND RNP 0.30 ALL CATS VISIBILITY TO RVR 5000.
CHART SPEED ICON IN PLANVIEW AT JEEPR: MAX 210 KIAS.

ADDITIONAL FLIGHT DATA:

HOLD N, RT, 202.00 INBOUND.
CHART AT OR ABOVE 10000 AT JEEPR.

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 0.10 DA	5617	2400	260	5617	2400	260	5617	2400	260	5617	2400	260			
RNP 0.30 DA	5683	2600	326	5683	2600	326	5683	2600	326	5683	2600	326			



CHANGES - REASONS

1. ADDED INITIAL SEGMENT JEEPR-JOBBOB TO TERMINAL ROUTES - REQUESTED BY ATC/FPT TO MATCH GROUND TRACK OF ILS OR LOC RWY 16L.
2. PFAF LEETS MOVED NORTH 86 FT - MATCHES ILS OR LOC RWY 16L PFAF LOCATION USING SAME FIX.
3. CHANGED LENGTH OF INTERMEDIATE SEGMENT FROM 10.87 TO 10.86 AND FINAL SEGMENT FROM 4.99 TO 5.01 IN TERMINAL ROUTES - PFAF LEETS MOVED 86 FT NORTH.
4. REPLACED MISSED APPROACH FROM "CLIMB TO 5900 THEN CLIMBING RIGHT TURN TO 10000 DIRECT BINBE AND HOLD, CONTINUE CLIMB-IN-HOLD TO 10000" WITH "CLIMB TO 10000 DIRECT SUGOY AND ON TRACK 202.34 TO SIGNE AND HOLD." WITH CHANGES REFLECTED IN TERMINAL ROUTES - REQUESTED BY ATC/FPT TO MEET TRIPLE WIDELY SPACED SIMULTANEOUS INDEPENDENT PARALLEL INSTRUMENT APPROACH (SIPIA) OPERATIONS CRITERIA.
5. PROFILE LINE 5: ADDED DIST TO 260 HAT: 0.66 NM - PREVIOUSLY OMITTED, PER 8260.19J PARA. 8-6-7E(3).
6. PROFILE LINE 7: ADDED 20:1 IS CLEAR AND CHANGED TCH FROM 60.1 TO NEW DESIGN TCH 55.6 - PER 8260.19J PARA. 8-6-7G(3). TCH CHANGE TO MATCH ILS OR LOC RWY 16L DESIGN TCH AND TO MAINTAIN 3 DEGREE GLIDEPATH.
7. ADDED PBN REQUIREMENTS NOTE "RNP AR APCH - GPS. AUTHORIZATION REQUIRED." - PER 8260.19J PARA. 8-6-8D(4)(A) AND (5)(B)1.
8. REMOVED PLANVIEW NOTE "RADAR REQUIRED" - NOT REQUIRED FOR RNP APPROACHES.
9. REMOVED NOTE "GPS REQUIRED" - REPLACED WITH PBN REQUIREMENTS NOTE.
10. CHANGED PROFILE NOTE FROM "VGS1 AND ILS GLIDEPATH NOT COINCIDENT" TO "VGS1 AND RNAV GLIDEPATH NOT COINCIDENT (VGS1 ANGLE {ANGLE}/TCH {FEET})" - PER 8260.19J PARA.8-6-10M(1).
11. CHANGED NOTE "FOR INOPERATIVE MALSR, INCREASE RNP 0.10 ALL CATS VISIBILITY TO RVR 4000 AND RNP 0.30 ALL CATS VISIBILITY TO RVR 5000" TO "FOR INOPERATIVE ALS, RNP 0.10 ALL CATS VISIBILITY TO RVR 4000 AND RNP 0.30 ALL CATS VISIBILITY TO RVR 5000" - PER 8260.19J PARA. 8-6-12O(3)(D).
12. CHANGED NOTE FROM 'FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -25°C (-13°F) OR ABOVE 10°C (50°F).' TO 'FOR UNCOMPENSATED BARO-VNAV SYSTEMS, PROCEDURE NA BELOW -26°C OR ABOVE 54°C' - NEW FIVE YEAR WEATHER HISTORY ACT CALCULATION AND FORMAT PER PER 8260.19J PARA. 8-6-10R.
13. REMOVED "CHART PLANVIEW NOTE: RADAR REQUIRED" FROM ADDITIONAL FLIGHT DATA - REDUNDANT AND NO LONGER REQUIRED.
14. REMOVED ALL ROUTE TYPE ENTRIES AND #TCH 5410.0 MSL (DO NOT CHART) FROM ADDITIONAL FLIGHT DATA - NO LONGER REQUIRED BY CRITERIA.
15. CHANGED HOLDING INFORMATION FROM "HOLD E, RT, 257.46 INBOUND" TO "HOLD N, RT, 202.00 INBOUND" IN ADDITIONAL FLIGHT DATA - MISSED CLEARANCE LIMIT CHANGED FROM BINBE TO SIGNE.
16. ADDED "CHART AT OR ABOVE 10000 AT JEEPR" TO ADDITIONAL FLIGHT DATA AND "CHART SPEED ICON IN PLANVIEW AT JEEPR: MAX 210 KIAS" TO NOTES - JEEPR IS FIRST FIX IN PROFILE VIEW.
17. RNP 0.10 MINIMUMS: CHANGED DA FROM 5610 TO 5617 - ORIG-A (THRE TO TDZE CONVERSION) P-NOTAM CHANGED MINIMUMS ON CHART BUT NEVER UPDATED IN SIAP.
18. RNP 0.30 MINIMUMS: CHANGED DA FROM 5676 TO 5683 - ORIG-A (THRE TO TDZE CONVERSION) P-NOTAM CHANGED MINIMUMS ON CHART BUT NEVER UPDATED IN SIAP.
19. RNP 0.30 MINIMUMS: REDUCED VISIBILITY FROM RVR 3200 TO RVR 2600 - PER 8260.3G TABLE 3-3-1.
20. REMOVED NOTE "USE OF FD OR AP PROVIDING RNAV TRACK GUIDANCE REQUIRED DURING SIMULTANEOUS OPERATIONS" - NOTE NO LONGER IN CRITERIA AND NOT REQUIRED.

COORDINATED WITH:

A4A
 ALPA
 AOPA
 APA
 HAI
 NBAA

OTHER: ZDV, DEN ATCT, DEN APP CON, CO AERO, ARPT MGR

FLIGHT CHECKED BY

NATHAN J CHOTT

Digitally signed by

RAKE MCGRAW

Jan 15, 2026

OFFICE

AJF

DATE

12/18/2025

DEVELOPED BY

RALPH DUMAR

Digitally signed by

RAKE MCGRAW

Jan 15, 2026

OFFICE

AJV-A4

DATE

07/17/2025

APPROVED BY

BEV L BORDY

Digitally signed by

RAKE MCGRAW

Jan 15, 2026

OFFICE

AJV-A4

DATE

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>
DEN	RNAV (RNP) Z RWY 16L	1	DENVER	CO	5434	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM JEEPR **TO** JOBOB

RNP 1.00 DISTANCE 2.73 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	401254.00N/1044330.00W	5273	215	8	4B	1000				AT3719 AC8	10000
TERRAIN	401203.00N/1044333.00W	5065 (5100)								AS1500	6600

COMPUTATIONS

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

SEGMENT REMARKS:

INTERMEDIATE

FROM JOBOB **TO** LEETS

RNP 1.00 DISTANCE 10.86 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	395748.00N/1043942.00W	5456	215	8	4B	500				AT1036 AC8	7000
TERRAIN	395857.00N/1043857.00W	5229 (5200)								AS1500	6700

COMPUTATIONS

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

SEGMENT REMARKS:



AIRPORT ID
DEN

PROCEDURE NAME
RNAV (RNP) Z RWY 16L

AMDT NO.
1

CITY
DENVER

STATE
CO

AIRPORT ELEVATION
5434

FACILITY
RNAV

FINAL
FROM
LEETS **TO**
RW16L

RNP **DISTANCE** **PAT** **MAP** **HAT** **HMAS**
0.10 5.01 DA 260

<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			XP10	5617

COMPUTATIONS

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

SEGMENT REMARKS:

XP: TO MAINTAIN CURRENT DA

FINAL
FROM
LEETS **TO**
RW16L

RNP **DISTANCE** **PAT** **MAP** **HAT** **HMAS**
0.30 5.01 DA 326

<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>
POLE (08-022328)	395440.37N/1044041.43W	5395	20	3	1A		21.80:1			AC3 XP1	5683

COMPUTATIONS

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

SEGMENT REMARKS:

XP: TO MAINTAIN CURRENT DA



AIRPORT ID
DEN

PROCEDURE NAME
RNAV (RNP) Z RWY 16L

AMDT NO.
1

CITY
DENVER

STATE
CO

AIRPORT ELEVATION
5434

FACILITY
RNAV

MISSED APPROACH: LEVEL SURFACE

FROM
DA **TO**
SIGNE

RNP 0.10-1.00 **DISTANCE** **PAT** **MAP** **HAT** **HMAS**
5456

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC				10000
AAO	392900.00N/1045527.00W	6779	215	8	4B	1000					7800
TERRAIN	392933.00N/1045412.00W	6414 (6400)								AS1500	7900

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**
SIGNE

RNP 0.30 **DISTANCE** **PAT** **MAP** **HAT** **HMAS**
5522

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
							ASC				10000
AAO	392900.00N/1045527.00W	6779	215	8	4B	1000					7800
TERRAIN	392933.00N/1045412.00W	6414 (6400)								AS1500	7900

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



AIRPORT ID
DEN

PROCEDURE NAME
RNAV (RNP) Z RWY 16L

AMDT NO.
1

CITY
DENVER

STATE
CO

AIRPORT ELEVATION
5434

FACILITY
RNAV

MSA

CENTER
RW16L

RADIUS
25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	AAO	395330.00N/1051851.00W	262	29.0	9128	215	8	4B	1000			10200

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

MAXIMUM VEGETATION HEIGHT 50 FT WITHIN 20,000 FT PER FPT.

RADAR REQUIRED NOTE PER ATC REQUEST



AIRPORT ID
DEN

PROCEDURE NAME
RNAV (RNP) Z RWY 16L

AMDT NO.
1

CITY
DENVER

STATE
CO

AIRPORT ELEVATION
5434

FACILITY
RNAV

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

DEN APP CON, ZDV ARTCC, DEN TOWER

WX SERVICE ASOS	LOCATION DEN	HRS OPERATION 24	ALTIMETER SOURCE DEN	DISTANCE	WMSCR Y	ADJUSTMENTS 0
---------------------------	------------------------	----------------------------	--------------------------------	-----------------	-------------------	-------------------------

BACK-UP WX SERVICE	LOCATION	HRS OPERATION	ALTIMETER SOURCE	DISTANCE	WMSCR	ADJUSTMENTS
---------------------------	-----------------	----------------------	-------------------------	-----------------	--------------	--------------------

WX REMARKS:

24-HOUR ATC TOWER HAS REDUNDANT WEATHER SOURCES, BACK-UP ALTIMETER NOT REQUIRED.

PRIMARY NAVAID	MONITOR POINT	HRS OPERATION	CAT
-----------------------	----------------------	----------------------	------------

APPROACH AND RUNWAY LIGHTING SYSTEM	RUNWAY MARKINGS	RUNWAY VISUAL RANGE
RW07 - MALSR, HIRL, C/LINE, TDZ, PAPI-4R	PIR-G	APPROACH, ROLL OUT
RW08 - MALSR, C/LINE, HIRL, PAPI-4L	PIR-G	APPROACH, ROLL OUT
RW16L - MALSR, TDZ, C/LINE, HIRL, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW16R - MALSR, HIRL, C/LINE, TDZ, PAPI-4R	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW17L - MALSR, HIRL, C/LINE, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW17R - MALSR, HIRL, TDZ, C/LINE, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW25 - MALSR, C/LINE, HIRL, PAPI-4L	PIR-G	APPROACH, ROLL OUT
RW26 - MALSR, C/LINE, TDZ, HIRL, PAPI-4L	PIR-G	APPROACH, ROLL OUT
RW34L - ALSF-2, TDZ, C/LINE, HIRL, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW34R - ALSF-2, TDZ, HIRL, C/LINE, PAPI-4L	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW35L - ALSF-2, C/LINE, HIRL, TDZ, PAPI-4R	PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW35R - ALSF-2, TDZ, C/LINE, HIRL, PAPI-4R	PIR-G	APPROACH, MIDPOINT, ROLL OUT

GLIDESLOPE ANGLE 3.00	ELEV RWY THRESHOLD 5349.9	TCH 55.6	ELEV GS ANTENNA	DISTANCE FROM RWY	VGSI ANGLE 3.00	TCH 70.9
---------------------------------	-------------------------------------	--------------------	------------------------	--------------------------	---------------------------	--------------------

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 -26C	CRITICAL HIGH +54C	ACT -26C	APT ISA +4.24C
-----------------------------	------------------------------	--------------------	--------------------------

CRITICAL TEMPERATURE REMARKS:



AIRPORT ID
DEN

PROCEDURE NAME
RNAV (RNP) Z RWY 16L

AMDT NO.
1

CITY
DENVER

STATE
CO

AIRPORT ELEVATION
5434

FACILITY
RNAV

AVERAGE COLD TEMPERATURE DERIVED FROM 5-YEAR HISTORY (2020-2024).
CRITICAL LOW TEMPERATURE BASED ON ACT.
DESCENT RATE (FPM): STANDARD TEMP 1031 HIGH TEMP 1360.

"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.

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	
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	3.12
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	1.20
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	180.51
DISTANCE FROM	THLD	TO 1500FT POINT	5400
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	4.69
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	1.20
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	180.51
			5400

THRESHOLD COORDINATES (IF STR-IN)

395349.33N/1044112.50W

ARP COORDINATES

395142.00N/1044023.40W

RUNWAY APCH END AND DIST FURTHEST FROM ARP

RUNWAY 7 DISTANCE 2.77 NM

FAF COORDINATES

395849.90N/1044109.02W

FIX NAME COORDINATES

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED.

PART E: PREPARED BY

NAME

RALPH DUMAR

OFFICE

AJV-A4

DATE

07/17/2025

TITLE

AERONAUTICAL INFORMATION SPECIALIST

