

**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> DEN	<u>PROCEDURE NAME</u> RNAV (GPS) Y RWY 16R	<u>ORIGINAL/AMENDMENT</u> 2	<u>CITY</u> DENVER	<u>STATE</u> CO
<u>AIRPORT ELEVATION</u> 5434	<u>TDZE</u> 5326	<u>SUPERSEDED</u> RNAV (GPS) Y RWY 16R	<u>DATED</u> 03/21/2024	<u>MAG VAR</u> 8E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ORIGINAL/AMENDMENT</u> 1	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>EPOCH YEAR</u> 2015
		<u>ACTUAL EFFECTIVE DATE</u>	<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>
KIPPR	IAF	HAYLY		TF	FB	1.00	248.52	4.63	12000
HAYLY		PECIY		TF	FB	1.00	214.81	3.79	11500
TSHNR	IAF	PECIY		TF	FB	1.00	153.97	4.46	11500
PECIY		BUDUJ		TF	FB	1.00	169.60	2.36	10600
BUDUJ		ZOREG		TF	FB	1.00	169.60	2.41	10000
KAILE	IAF	OGINE		TF	FB	1.00	116.15	1.90	10400
OGINE		ZOREG		TF	FB	1.00	150.18	2.58	10000
ZOREG		HAROS		TF	FB	1.00	169.60	2.65	10000
HAROS	IF	BRDOR		TF	FB	1.00	169.44	3.96	9000
BRDOR		FESKA		TF	FB	1.00	169.71	3.74	8000
FESKA		ORAGE		TF	FB	1.00	169.05	1.84	7300
CLFFF	IF	OTUNY		TF	FB	1.00	352.06	5.19	9400
OTUNY		NABKE		TF	FB	1.00	041.86	4.12	8500
NABKE		WAVAP		TF	FB	1.00	109.16	3.20	7700
WAVAP		ORAGE		TF	FB	1.00	160.30	1.60	7300
ORAGE		APASE		TF	FB	1.00	169.34	1.31	7000
APASE	FAF	UJNOR	MAP	TF	FO	0.30	169.51	5.10	
UJNOR	MAP	5900 MSL		CA			169.51		5900
5900 MSL		BINBE		DF	FO	1.00			10000



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	5576	2400	250	5576	2400	250	5576	2400	250	5576	2400	250			
LNAV/VNAV DA	5582	2400	256	5582	2400	256	5582	2400	256	5582	2400	256			
LNAV MDA	5660	2400	334	5660	2400	334	5660	2600	334	5660	2600	334			

CHANGES - REASONS

1. TERMINAL ROUTES: THE LEG BEGINNING AT FESKA CHANGED FROM "FESKA TO APASE, COURSE 169.17, DISTANCE 3.15, ALTITUDE 7000" TO "FESKA TO ORAGE. COURSE 169.05, DISTANCE 1.84, ALTITUDE 7300" - NEW INTERMEDIATE CHANGED THE FIRST COMMON FIX PRIOR TO THE FAF. RNAV (RNP) AR CRITERIA APPLIED. 8260.19J 8-6-7.B.(3).(B).
2. TERMINAL ROUTES: ADDED A NEW INTERMEDIATE SEGMENT FROM CLFFF TO OTUNY TO NABKE TO WAVAP TO ORAGE TO APASE – INTERMEDIATE SEGMENT ALLOWING DOWNWIND ENTRY AND STAR USE REQUEST BY FPT.
3. PROFILE: LINE 2 CHANGED FROM "PROFILE STARTS AT HAROS" TO "PROFILE STARTS AT ORAGE" - ORAGE IS THE FIRST COMMON FIX PRIOR TO THE FAF. 8260.19J 8-6-7.B.(3).(B).
4. PROFILE: LINE 4 CHANGED FROM "HAROS 10000, BRDOR 9000, FESKA 8000, APASE 7000" TO "ORAGE 7300, APASE 7000" – NEW INTERMEDIATE CHANGED THE FIRST COMMON FIX PRIOR TO THE FAF. 8260.19J 8-6-7.B.(3).(B).
5. NOTES: ADDED "CHART PROFILE NOTE: SEE PLANVIEW FOR MULTIPLE IF LOCATIONS" - NEW INTERMEDIATE CHANGED THE FIRST COMMON FIX PRIOR TO THE FAF. 8260.19J 8-6-7.B.(3).(B).
6. NOTES: ADDED "CHART SPEED ICON IN PLANVIEW AT CLFFF: MAX 210 KIAS" – REQUIRED FOR STAR. 8260.19J 4-6-10.G.
7. NOTES: ADDED "CHART SPEED ICON IN PLANVIEW AT WAVAP: MAX 170 KIAS" – FOR COURSE CONTAINMENT. 8260.19J 4-6-10.G.
8. NOTES: CHANGED FROM "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -24°C OR ABOVE 54°C." TO "CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -25°C OR ABOVE 54°C"- BASED IN HISTORIC WEATHER DATA 2019-2023. 8260.58C 3-3-4.A.(1).
9. ADDITIONAL FLIGHT DATA: ADDED "CHART MANDATORY 11000 AT CLFFF" – MANDATORY ALTITUDE REQUIRED FOR USE WITH SSKII AND TBARR STAR(RNAV). 8260.19J 8-6-4.C.(4).

COORDINATED WITH:

A4A

☒

ALPA

☒

AOPA

☒

APA

☒

HAI

☐

NBAA

☒

OTHER: ZDV, DEN ATCT, DEN APP CON, AMGR

FLIGHT CHECKED BY

ALEX KRAUSE

Digitally signed by
RAKE MCGRAW
May 01, 2025

OFFICE

AJF

DATE

03/25/2025

DEVELOPED BY

DUSTIN HARDISON

Digitally signed by
DUSTIN W HARDISON
Nov 21, 2024

OFFICE

AJV-A422

DATE

08/28/2024

APPROVED BY

RAKE MCGRAW

Digitally signed by
RAKE MCGRAW
May 01, 2025

OFFICE

AJV-A422

DATE

02/20/2025

TITLE

MANAGER



AIRPORT ID
DEN

PROCEDURE NAME
RNAV (GPS) Y RWY 16R

ORIGINAL/AMENDMENT
2

CITY
DENVER

STATE
CO

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KDEN
RUNWAY	RW16R
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W16B
LTP/FTP LATITUDE	395344.8900N
LTP/FTP LONGITUDE	1044144.1500W
LTP/FTP ELLIPSOIDAL HEIGHT	+16040
FPAP LATITUDE	395215.8065N
FPAP LONGITUDE	1044139.1225W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0000
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0

CRC REMAINDER	E28A6FFA
---------------	----------

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K2
LTP ORTHOMETRIC HEIGHT	+16221
FPAP ORTHOMETRIC HEIGHT	+16221



**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 (GPS) Y RWY 16R	2	DENVER	CO	5434	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM KIPPR **TO** HAYLY

RNP 1.00 **DISTANCE** 4.63 **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	401936.00N/1043542.00W	5073	215	8	4B	1000				AT5927	12000
TERRAIN	401933.00N/1043542.00W	4872 (4900)								AS1500	6400

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM HAYLY **TO** PECIY

RNP 1.00 **DISTANCE** 3.79 **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	401542.00N/1044148.00W	5194	215	8	4B	1000				AT5306	11500
TERRAIN	401654.00N/1044042.00W	4927 (4900)								AS1500	6400

COMPUTATIONS

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

SEGMENT REMARKS:



INITIAL

FROM

TSHNR

TO

PECIY

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
1.00	4.46										
<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	401618.00N/1044133.00W	5132	215	8	4B	1000				AT5368	11500
TERRAIN	401727.00N/1044039.00W	4895 (4900)								AS1500	6400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM

PECIY

TO

BUDUJ

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
1.00	2.36										
<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 (08-000570)	401540.90N/1044222.80W	5275	500	50	5D	1000				AT4325	10600
TERRAIN	401448.00N/1044233.00W	5026 (5000)								AS1500	6500

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



INITIAL: STEPDOWN

FROM

BUDUJ

TO

ZOREG

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	2.41										
<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 (08-000570)	401540.90N/1044222.80W	5275	500	50	5D	1000				AT3725	10000
TERRAIN	401254.00N/1044333.00W	5072 (5100)								AS1500	6600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL

FROM

KAILE

TO

OGINE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	1.90										
<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 (08-000570)	401540.90N/1044222.80W	5275	500	50	5D	1000				AT4125	10400
TERRAIN	401409.00N/1044506.00W	4947 (4900)								AS1500	6400

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM

OGINE

TO

ZOREG

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	2.58										
<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 (08-000570)	401540.90N/1044222.80W	5275	500	50	5D	1000				AT3725	10000
TERRAIN	401254.00N/1044333.00W	5072 (5100)								AS1500	6600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL: STEPDOWN

FROM

ZOREG

TO

HAROS

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	2.65										
<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	401015.00N/1044418.00W	5292	215	8	4B	1000				AT3708	10000
TERRAIN	401015.00N/1044427.00W	5091 (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

HAROS

TO

BRDOR

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	3.96										
<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	400733.00N/1044445.00W	5391	215	8	4B	500				AT3109	9000
TERRAIN	400730.00N/1044445.00W	5190 (5200)								AS1500	6700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

BRDOR

TO

FESKA

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u>				
1.00	3.74										
<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 (08-000787)	400319.72N/1044448.77W	5570	250	50	4D	500				AT1930	8000
TERRAIN	400324.00N/1044454.00W	5160 (5200)								AS1500	6700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

FESKA

TO

ORAGE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>	<u>HMAS</u>				
1.00	1.84										
<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	400130.00N/1044442.00W	5351	215	8	4B	500				AT1449	7300
TERRAIN	400130.00N/1044445.00W	5150 (5200)								AS1500	6700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE

FROM

CLFFF

TO

OTUNY

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>	<u>HMAS</u>				
1.00	5.19										
<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	395742.00N/1045254.00W	5404	215	8	4B	500				AT3496	9400
TERRAIN	395742.00N/1045254.00W	5203 (5200)								AS1500	6700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

OTUNY

TO

NABKE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>					<u>HMAS</u>	
1.00	4.12										
<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 (08-000794)	400136.31N/1044517.91W	5486	20	10	1B	500				AT2514	8500
TERRAIN	400036.00N/1044554.00W	5180 (5200)								AS1500	6700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

NABKE

TO

WAVAP

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>					<u>HMAS</u>	
1.00	3.20										
<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>
TOWER (08-000787)	400319.72N/1044448.77W	5570	250	50	4D	500				AT1630	7700
TERRAIN	400142.00N/1044530.00W	5223 (5200)								AS1500	6700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

WAVAP

TO

ORAGE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>					<u>HMAS</u>	
1.00	1.60										
<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	400109.00N/1044539.00W	5391	215	8	4B	500				AT1409	7300
TERRAIN	400030.00N/1044009.00W	5137 (5100)								AS1500	6600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE: STEPDOWN

FROM

ORAGE

TO

APASE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>					<u>HMAS</u>	
1.00	1.31										
<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	395851.00N/1044033.00W	5374	215	8	4B	500				AT1126	7000
TERRAIN	395854.00N/1044039.00W	5164 (5200)								AS1500	6700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LPV

FROM

APASE

TO

UJNOR

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
0.30	5.10		DA	250	

<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				5576

COMPUTATIONS

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

SEGMENT REMARKS:

FINAL: LNAV/VNAV

FROM

APASE

TO

UJNOR

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
0.30	5.10		DA	256	

<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			MA6	5582

COMPUTATIONS

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

SEGMENT REMARKS:

FINAL: LNAV

FROM

APASE

TO

UJNOR

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>
0.30	5.10		UJNOR	334	

<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 (08-022496)	395339.57N/1044117.85W	5391	20	3	1A	250					5660

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

BINBE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
0.30										5384	
<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				10000
AAO	393839.00N/1045509.00W	5827	215	8	4B	1000					6900
TERRAIN	393839.00N/1045509.00W	5626 (5600)								AS1500	7100

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

BINBE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
0.30										5421	
<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>
CONTROL_TOWER (08-000781)	395144.74N/1044025.08W	5704	20	3	1A		ASC				10000
AAO	393839.00N/1045509.00W	5827	215	8	4B	1000					6900
TERRAIN	393839.00N/1045509.00W	5626 (5600)								AS1500	7100

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSSED APPROACH: LNAV

FROM

UJNOR

TO

BINBE

<u>RNP</u> 0.30-1.00	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>		<u>HAT</u>		<u>HMAS</u> 5560				
<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				10000
AAO	393839.00N/1045509.00W	5827	215	8	4B	1000					6900
TERRAIN	393839.00N/1045509.00W	5626 (5600)								AS1500	7100

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MSA

CENTER

UJNOR

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	28.6	9127	215	8	4B	1000			10200

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

DEN APP CON, DEN TOWER, ZDV ARTCC

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

WX REMARKS:

BACKUP ALTIMETER SETTING NOT REQUIRED. REDUNDANT SOURCES AT AIRPORT.

PRIMARY NAVAID	MONITOR POINT	HRS OPERATION	CAT
APPROACH AND RUNWAY LIGHTING SYSTEM		RUNWAY MARKINGS	RUNWAY VISUAL RANGE
RW07 - MALSR, HIRL, TDZ, C/LINE, PAPI-4R		PIR-null	APPROACH, ROLL OUT
RW08 - MALSR, C/LINE, HIRL, PAPI-4L		PIR-G	APPROACH, ROLL OUT
RW16L - MALSR, TDZ, HIRL, C/LINE, PAPI-4L		PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW16R - MALSR, HIRL, C/LINE, TDZ, PAPI-4R		PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW17L - MALSR, C/LINE, HIRL, PAPI-4L		PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW17R - MALSR, TDZ, C/LINE, HIRL, PAPI-4L		PIR-G	APPROACH, MIDPOINT, ROLL OUT
RW25 - MALSR, C/LINE, HIRL, PAPI-4L		PIR-G	APPROACH, ROLL OUT
RW26 - MALSR, HIRL, C/LINE, TDZ, 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, HIRL, C/LINE, TDZ, 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	ELEV RWY THRESHOLD	TCH	ELEV GS ANTENNA	DISTANCE FROM RWY	VGSI ANGLE	TCH
3.00	5321.8	55.0			3.00	71.2

FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	☐	2606FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	☒	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

CRITICAL LOW	CRITICAL HIGH	ACT	APT ISA
-25C	+54C	-25C	+4.24C

CRITICAL TEMPERATURE REMARKS:

AVERAGE COLD TEMPERATURE DERIVED FROM 5-YEAR HISTORY (2019-2023).
CRITICAL LOW TEMPERATURE BASED ON ACT.
DESCENT RATE (FPM): STANDARD TEMP 1030 HIGH TEMP 1359.

"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:

50 FT VEGETATION APPLIED PER FPT.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
0 FT VEGETATION APPLIED TO LNAV FINAL SEGMENT. 50' VEG RESULTED IN AN ERRONEOUS CONTROLLING OBSTACLE (50' AGL TREE ON THE EDGE OF RWY16L). CONTROLLING OBSTACLE IN THE LNAV FINAL IS A 46' AGL (1A) TOWER IN THE PRIMARY AREA.

WAIVER PENDING FOR 170KT SPEED RESTRICTION AT WAVAP.
WAIVER PENDING FOR MULTIPLE INTERMEDIATE FIXES.

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	3.21
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	177.51
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	5400
DISTANCE FROM	THLD	TO 1500FT POINT	4.90
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.95
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	177.51
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	5400

THRESHOLD COORDINATES (IF STR-IN) 395344.87N/1044145.90W
ARP COORDINATES 395142.00N/1044023.40W
RUNWAY APCH END AND DIST FURTHEST FROM ARP RUNWAY 7 DISTANCE 2.77 NM
FAF COORDINATES 395850.60N/1044201.43W
FIX NAME COORDINATES

REMARKS

PART E: PREPARED BY

NAME

DUSTIN HARDISON

OFFICE

AJV-A422

DATE

08/28/2024

TITLE

AERONAUTICAL INFORMATION SPECIALIST

