

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD TERMINAL ARRIVAL (STAR)

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Distances are in nautical miles (NM). Graphic depictions attached.

Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
<b>AALLE (RNAV)</b>	<b>THREE</b>	<b>AALLE.AALLE3</b>	<b>TWO</b>	<b>12/31/2020</b>	<b>7 OCT 21</b>

TRANSITION ROUTES:

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
NYTRO	NYTRO.AALLE3	NYTRO	NYTRO						
			MILKK	173.61	14.85	FL200			
			SDOUT	173.61	17.52	FL200			AT/ABOVE FL300
			AALLE	209.43	43.92	16000	7100		BETWEEN FL190 AND FL220
PORDR	PORDR.AALLE3	PORDR	PORDR						
			HOPPP	239.03	21.60	FL200			
			YEAST	239.04	39.03	FL200			
			BIDDR	238.53	32.37	FL200			
			AALLE	238.10	43.94	16000	7100		BETWEEN FL190 AND FL220

ARRIVAL ROUTE DESCRIPTION:

FROM AALLE ON TRACK 231.08/16.06 TO CROSS HEDDD BETWEEN 16000 AND FL210 AND AT 250 KIAS.

LANDING RWY 7, 8: FROM HEDDD ON TRACK 211.42/13.05 TO CROSS DEELO BETWEEN 15000 AND 17000, THEN ON TRACK 222.14/13.57 TO CROSS JEPHF BETWEEN 13000 AND 15000 AND AT 250 KIAS, THEN ON TRACK 235.81/9.68 TO HAZLT, THEN ON TRACK 262.54/5.33 TO CROSS HAIR AT 11000 AND AT 210 KIAS, THEN ON TRACK 262.54. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 16L/R, 17L/R: FROM HEDDD ON TRACK 268.56/14.32 TO CROSS HIGUN AT 14000 AND AT 210 KIAS, THEN ON TRACK 264.84/9.00 TO CROSS KIPPR AT 12000 AND AT 210 KIAS. EXPECT ILS OR LOC RWY 16L/R OR ILS OR LOC RWY 17L/R APPROACH.

LANDING RWY 25, 26: FROM HEDDD ON TRACK 217.00/9.50 TO CROSS CRUNK AT 14000, THEN ON TRACK 217.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 34L/R: FROM HEDDD ON TRACK 211.42/13.05 TO CROSS DEELO BETWEEN 15000 AND 17000, THEN ON TRACK 222.14/13.57 TO CROSS JEPHF BETWEEN 13000 AND 15000 AND AT 250 KIAS, THEN ON TRACK 235.81/9.68 TO HAZLT, THEN ON TRACK 235.83/8.00 TO GRILA, THEN ON TRACK 173.17/5.00 TO CROSS HIMOM AT 11000 AND AT 210 KIAS, THEN ON TRACK 173.17. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 35L/R: FROM HEDDD ON TRACK 211.42/13.05 TO CROSS DEELO BETWEEN 15000 AND 17000, THEN ON TRACK 211.28/13.95 TO CROSS FULLA BETWEEN 13000 AND 15000 AND AT 250 KIAS, THEN ON TRACK 211.24/5.14 TO FFFAT, THEN ON TRACK 172.74/6.11 TO CROSS DOGGG AT 11000 AND AT 210 KIAS, THEN ON TRACK 172.74. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

PROCEDURAL DATA NOTES:

NOTE: TURBOJET AIRCRAFT ONLY.

NOTE: TURBOJET AIRCRAFT DESCEND VIA MACH NUMBER UNTIL INTERCEPTING 280 KIAS MAINTAIN 280 KIAS UNTIL SLOWED BY STAR.

NOTE: DENVER CENTER WILL ISSUE "DESCEND VIA" CLEARANCE AND LANDING DIRECTION.

NOTE: EXPECT RUNWAY ASSIGNMENT ON INITIAL CONTACT WITH DENVER TRACON.

NOTE: LANDING NORTH SELECT RWY 35R TRANSITION.

NOTE: LANDING SOUTH SELECT RWY 17R TRANSITION.

NOTE: LANDING EAST SELECT RWY 7 TRANSITION.

NOTE: LANDING WEST SELECT RWY 26 TRANSITION.

PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME/IRU OR GPS.

EQUIPMENT REQUIREMENT NOTES:

NOTE: RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.

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FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT AALLE: HOLD NE, LT, 238.10 INBOUND, 10 NM LEGS.  
CHART HOLDING AT BIDDR: HOLD NE, RT, 238.53 INBOUND, 11 NM LEGS.  
CHART HOLDING AT HEDDD: HOLD NE, LT, 231.08 INBOUND, 10 NM LEGS.  
CHART HOLDING AT NYTRO: HOLD N, RT, 173.61 INBOUND, 12 NM LEGS.  
CHART PLZNR AND HOLDING AT PLZNR: HOLD E, RT, 248.41 INBOUND, 10 NM LEGS.  
CHART HOLDING AT PORDR: HOLD NE, LT, 239.03 INBOUND, 12 NM LEGS.

COMMUNICATIONS:

CHART: DENVER APP CON  
CHART: DENVER TOWER

AIRPORTS SERVED:

DENVER INTL, DENVER, CO (KDEN)

LOST COMMUNICATIONS PROCEDURE:

IN THE EVENT OF LOST COMMUNICATIONS PRIOR TO RUNWAY TRANSITION ASSIGNMENT, WHEN DEN IS LANDING SOUTH, EXECUTE THE ILS RWY 17R, WHEN DEN IS LANDING NORTH, EXECUTE THE ILS RWY 35R.

REMARKS:

MEA'S FL200 AND ABOVE NEEDED TO MITIGATE CRITICAL DME'S AND INSURE ADEQUATE SIGNAL COVERGE FOR DME/DME/IRU NAVIGATION.

ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: SAT (RNP 2.0)  
REFERENCE MAGNETIC VARIATION = KDEN 08E/2015  
CHART AT KIPPR TERMINUS: KDEN LDG RWYS 16 L/R AND 17 L/R  
CHART AT CRUNK TERMINUS: KDEN LDG RWYS 25 AND 26  
CHART AT DOGGG TERMINUS: KDEN LDG RWYS 35 L/R  
CHART AT HIMOM TERMINUS: KDEN LDG RWYS 34 L/R  
CHART AT HAITR TERMINUS: KDEN LDG RWYS 7 AND 8

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<u>FLIGHT INSPECTED BY:</u>					<i>Digitally signed by</i> <b>DONALD H LANIER</b>
MATTHEW R BUFORD		FICO	07/27/2021		Jul 28, 2021
Name		Organization	Date	Signature	
<u>DEVELOPED BY:</u>					<i>Digitally signed by</i> <b>DONALD H LANIER</b>
Mark Phipps Denver Metroplex Manager		DENVER ARTCC	4/22/2021		Jul 28, 2021
Name		Organization	Date	Signature	
<u>APPROVED BY:</u>					<i>Digitally signed by</i> <b>DONALD H LANIER</b>
LONNIE EVERHART		AJV-A430			Jul 28, 2021
Name		Organization	Date	Signature	

CHANGES:

1. RECONFIGURED TRANSITION FOR RWY 25, 26; ADDED ROUTING FOR FIXES HEDDD, CRUNK; UPDATED TERMINUS DATA.
2. REFORMATTED RADAR REQUIRED, RNAV 1, DME/DME/IRU OR GPS REQUIRED NOTES TO CURRENT PBN & EQUIPMENT REQUIREMENT NOTES FORMAT.
3. BDDR HOLDING DME LEG LENGTH CHANGED FROM 10 TO 11.
4. CHANGED NYTRO AND PORDR TRANSITIONS CROSSING ALTITUDE AT AALLE FROM AT OR ABOVE FL190 TO BETWEEN FL 190 AND FL220.
5. ADDED NOTES: TURBOJET/MACH NUMBER UNTIL REACHING 280 KIAS, "DESCEND VIA" NOTE, AND LANDING DIRECTION NOTES.

REASONS:

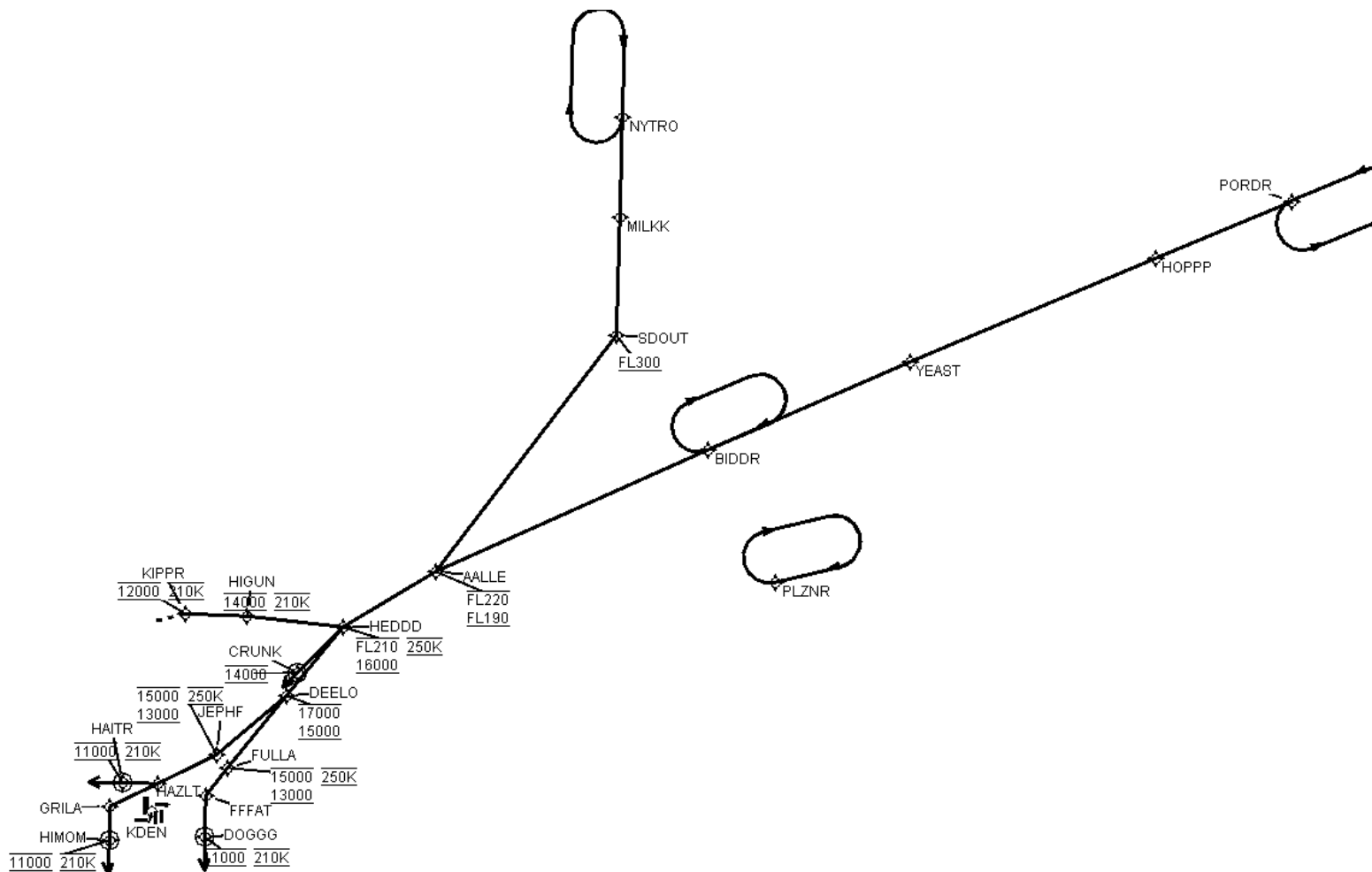
1. REQUIRED FOR AIRCRAFT TO BE IN THE CORRECT POSITION AND ALTITUDE FOR LANDING WEST AND TO OPTIMIZE CONVERGING LANDING OPERATIONS.
2. IAW 8260.191, 4-5-3.
3. NEW MEA OF FL200, LONGER LENGTH REQUIRED.
4. ATC REQUIRED FOR TBO COMPLIANCE.
5. ATC REQUIRED FOR TBO COMPLIANCE.

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AALLE (RNAV)	THREE	AALLE.AALLE3	TWO	12/31/2020	7 OCT 21

## Graphic Depiction 1



FEDERAL AVIATION ADMINISTRATION  
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STAR (DATA RECORD)

Arrival Name AALLE (RNAV)		Number THREE		STAR Computer Code AALLE.AALLE3		Superseded Number TWO		Dated 12/31/2020	Effective Date 7 OCT 21
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
En Route Transition									
NYTRO	413434.16N / 1030914.99W	Y		IF					NYTRO.AALLE3
MILKK	411942.97N / 1030948.18W	Y	FB	TF	181.61	14.85			
SDOUT	410211.76N / 1031027.09W	Y	FB	TF	181.61	17.52	AT/ABOVE FL300		
AALLE	402712.33N / 1034525.19W	Y	FB	TF	217.43	43.92	FL190BFL220		
En Route Transition									
PORDR	412206.94N / 1005954.69W	Y		IF					PORDR.AALLE3
HOPPP	411337.76N / 1012616.10W	Y	FB	TF	247.03	21.60			
YEAST	405813.75N / 1021342.82W	Y	FB	TF	247.04	39.03			
BIDDR	404513.07N / 1025247.42W	Y	FB	TF	246.53	32.37			
AALLE	402712.33N / 1034525.19W	Y	FB	TF	246.10	43.94	FL190BFL220		
Common Route									
AALLE	402712.33N / 1034525.19W	Y		IF			FL190BFL220		AALLE.AALLE3
HEDDD	401855.45N / 1040325.89W	Y	FB	TF	239.08	16.06	16000BFL210	AT 250K	
Runway Transition									
HEDDD	401855.45N / 1040325.89W	Y		IF			16000BFL210	AT 250K	
DEELO	400849.45N / 1041414.39W	Y	FB	TF	219.42	13.05	15000B17000		
JEPHF	400006.58N / 1042747.45W	Y	FB	TF	230.14	13.57	13000B15000	AT 250K	
HAZLT	395549.45N / 1043905.06W	Y	FB	TF	243.81	09.68			
HAITR	395552.24N / 1044600.66W	Y	FO	TF	270.54	05.33	AT 11000	AT 210K	
KDEN:RWY 7,RWY 8				FM	270.54				
Runway Transition									
HEDDD	401855.45N / 1040325.89W	Y		IF			16000BFL210	AT 250K	
HIGUN	402032.12N / 1042202.21W	Y	FB	TF	276.56	14.32	AT 14000	AT 210K	

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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
KIPPR	402058.32N / 1043347.99W	Y	FB	TF	272.84	09.00	AT 12000	AT 210K	
KDEN:RWY 16L,RWY 16R,RWY 17L,RWY 17R									
Runway Transition									
HEDDD	401855.45N / 1040325.89W	Y		IF			16000BFL210	AT 250K	
CRUNK	401211.77N / 1041211.93W	Y	FO	TF	225.00	09.50	AT 14000		
KDEN:RWY 25,RWY 26				FM	225.00				
Runway Transition									
HEDDD	401855.45N / 1040325.89W	Y		IF			16000BFL210	AT 250K	
DEELO	400849.45N / 1041414.39W	Y	FB	TF	219.42	13.05	15000B17000		
JEPHF	400006.58N / 1042747.45W	Y	FB	TF	230.14	13.57	13000B15000	AT 250K	
HAZLT	395549.45N / 1043905.06W	Y	FB	TF	243.81	09.68			
GRILA	395217.37N / 1044824.29W	Y	FB	TF	243.83	08.00			
HIMOM	394717.19N / 1044832.22W	Y	FO	TF	181.17	05.00	AT 11000	AT 210K	
KDEN:RWY 34L,RWY 34R				FM	181.17				
Runway Transition									
HEDDD	401855.45N / 1040325.89W	Y		IF			16000BFL210	AT 250K	
DEELO	400849.45N / 1041414.39W	Y	FB	TF	219.42	13.05	15000B17000		
FULLA	395800.38N / 1042543.71W	Y	FB	TF	219.28	13.95	13000B15000	AT 250K	
FFFAT	395401.30N / 1042957.17W	Y	FB	TF	219.24	05.14			
DOGGG	394754.32N / 1043003.31W	Y	FO	TF	180.74	06.11	AT 11000	AT 210K	
KDEN:RWY 35L,RWY 35R				FM	180.74				