NFDD No. 148

08/04/2021 FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.

		30, 00,	Dis	stances are in nautical miles (NM). Graphic	depictions attach	ned.				
Arrival Name			Number	STAR Computer Code		Supers	eded Num	ıber	Dated	Effective Date
FLATI (RNAV)			THREE	FLATI.FLATI3		TWO		12/31/2020	7 OCT 21	
TRANSITION ROUTI	ES:									
Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Al	titudes / Fixes
HIPEE	HIPEE.FLATI3	HIPEE	HIPEE						AT/ABO	VE FL270
			FOLSM	106.95	17.23	FL190				
			BBOCO	107.21	11.37	FL190				
			FLATI	107.36	13.41	FL190			BETWEEN FL	190 AND FL220
MJANE	MJANE.FLATI3	MJANE	MJANE							
			MSTSH	099.87	47.28	FL270				
			HIPEE	100.51	52.72	FL270			AT/ABO	VE FL270
			FOLSM	106.95	17.23	FL190				
			BBOCO	107.21	11.37	FL190				
			FLATI	107.36	13.41	FL190			BETWEEN FL	190 AND FL220
TOFUU	TOFUU.FLATI3	TOFUU	TOFUU							
			GNOLA	123.78	33.82	FL270				
			HIPEE	124.10	52.72	FL270			AT/ABO	VE FL270
			FOLSM	106.95	17.23	FL190				
			BBOCO	107.21	11.37	FL190				
			FLATI	107.36	13.41	FL190			BETWEEN FL	190 AND FL220

ARRIVAL ROUTE DESCRIPTION:

FROM FLATI ON TRACK 107.53/12.16 TO CROSS ELLDO BETWEEN 16000 AND FL210 AND AT 250 KIAS.

LANDING RWY 7, 8: FROM ELLDO ON TRACK 131.65/10.50 TO CROSS MLVVA AT 14000, THEN ON TRACK 131.65. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 16L/R: FROM ELLDO ON TRACK 099.19/6.00 TO CROSS BSAFE AT OR BELOW 15000, THEN ON TRACK 099.36/7.79 TO CROSS BDUNN BETWEEN 14000 AND 15000 AND AT 210 KIAS, THEN ON TRACK 099.28/6.97 TO CROSS TSHNR AT 13000 AND AT 210 KIAS. EXPECT ILS OR LOC RWY 16L/R APPROACH.

LANDING RWY 17L/R: FROM ELLDO ON TRACK 099.19/6.00 TO CROSS BSAFE AT OR BELOW 15000, THEN ON TRACK 099.36/7.79 TO CROSS BDUNN BETWEEN 14000 AND 15000 AND AT 210 KIAS, THEN ON TRACK 099.28/6.97 TO CROSS TSHNR AT 13000 AND AT 210 KIAS. EXPECT ILS OR LOC RWY 17L/R APPROACH.

LANDING RWY 25, 26: FROM ELLDO ON TRACK 136.56/17.26 TO CROSS TOTTT BETWEEN 15000 AND 17000, THEN ON TRACK 136.68/3.00 TO YESSS, THEN ON TRACK 132.82/9.08 TO CROSS SKEWD BETWEEN 13000 AND 15000 AND AT 250 KIAS, THEN ON TRACK 117.50/4.70 TO CROSS LEKEE AT OR ABOVE 12000, THEN ON TRACK 117.55/5.24 TO XCUTV, THEN ON TRACK 082.50/3.30 TO CROSS CAPTJ AT 11000 AND AT 210 KIAS, THEN ON TRACK 082.50. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 34L/R, 35L: FROM ELLDO ON TRACK 136.56/17.26 TO CROSS TOTTT BETWEEN 15000 AND 17000, THEN ON TRACK 136.68/3.00 TO YESSS, THEN ON TRACK 148.58/8.91 TO CROSS BAACK AT OR ABOVE 13000, THEN ON TRACK 148.27/5.00 TO CROSS BABAA BETWEEN 12000 AND 14000 AND AT 250 KIAS, THEN ON TRACK 173.17/10.95 TO CROSS HIMOM AT 11000 AND AT 210 KIAS, THEN ON TRACK 173.17. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 35R: FROM ELLDO ON TRACK 136.56/17.26 TO CROSS TOTTT BETWEEN 15000 AND 17000, THEN ON TRACK 136.68/3.00 TO YESSS, THEN ON TRACK 132.82/9.08 TO CROSS SKEWD BETWEEN 13000 AND 15000 AND AT 250 KIAS, THEN ON TRACK 117.50/4.70 TO CROSS LEKEE AT OR ABOVE 12000, THEN ON TRACK 117.55/5.24 TO XCUTV, THEN ON TRACK 117.48/4.00 TO CROSS HDGHG BETWEEN 12000 AND 14000, THEN ON TRACK 117.82/3.13 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.

08/04/2021 FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STANDARD TERMINAL ARRIVAL (STAR)

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Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
FLATI (RNAV)	THREE	FLATI.FLATI3	TWO	12/31/2020	7 OCT 21

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: HIPEE ENROUTE TRANSITION: DO NOT FILE - TO BE ASSIGNED BY ATC.

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

NOTE: LANDING NORTH SELECT RWY 34R TRANSITION. NOTE: LANDING SOUTH SELECT RWY 16R TRANSITION.

NOTE: LANDING EAST SELECT RWY 7 TRANSITION. NOTE: LANDING WEST SELECT RWY 26 TRANSITION.

PBN REQUIREMENT NOTES:

NOTE: RNAV 1 - DME/DME/IRU OR GPS.

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.

FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT BBOCO: HOLD W, LT, 107.21 INBOUND, 11 NM LEGS.

CHART HOLDING AT ELLDO: HOLD W, RT, 107.53 INBOUND, 10 NM LEGS.

CHART HOLDING AT GNOLA: HOLD NW, LT, 123.78 INBOUND, 12 NM LEGS.

CHART HOLDING AT HIPEE: HOLD W, LT, 100.51 INBOUND, 12 NM LEGS.

CHART HOLDING AT MSTSH: HOLD W, RT, 099.87 INBOUND, 12 NM LEGS.

CHART YYALE AND HOLDING AT YYALE: HOLD W, LT, 092.00 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 16R, WHEN DEN IS LANDING NORTH, EXECUTE THE ILS RWY 34R.

REMARKS:

MEA'S FL190 AND ABOVE NEEDED TO MITIGATE CRITICAL DME'S AND INSURE ADEQUATE SIGNAL RECEPTION FOR DME/DME/IRU NAVIGATION. ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: SAT (RNP 2.0)

REFERENCE MAGNETIC VARIATION = KDEN 08E/2015

CHART AT HIMOM TERMINUS: LDG KDEN RWYS 34L/R, AND 35L

CHART AT TSHNR TERMINUS: LDG KDEN RWYS 16L/R AND 17L/R

08/04/2021 FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STANDARD TERMINAL ARRIVAL (STAR)

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Arrival Name FLATI (RNAV)	Number THREE	STAR Computer Code FLATI.FLATI3	Superseded Number TWO	Dated 12/31/2020	Effective Date 7 OCT 21
CHART AT DOGGG TERMINUS: LDG KDE		FLATI:FLATIS	IWO	12/31/2020	
CHART AT CAPTJ TERMINUS: LDG KDE					
CHART AT MLVVA TERMINUS: LDG KDEI					
FLIGHT INSPECTED BY:					Digitally signed by
MATTHEW R BUFORD		FICO	07/27/2021		DONALD H LANIER
Name		Organization	Date	Signature	Jul 28, 2021
DEVELOPED BY:					Digitally signed by
					DONALD H LANIER
Mark Phipps Denver Metroplex	Manager	DENVER ARTCC	4/22/2021		Jul 28, 2021
Name		Organization	Date	Signature	
PPROVED BY: LONNIE EVERHART		AJV-A430			Digitally signed by
					DONALD H LANIEF
Name		Organization	Date	Signature	Jul 28, 2021

CHANGES:

1. RECONFIGURED TRANSITION FOR RWY 7, 8: ADDED ROUTING FOR FIX MLVVA; UPDATED TERMINUS DATA.

2. CHANGED RWY 16L/R EXPECT APPROACH: FROM "EXPECT ILS OR LOC RWY 16L, RWY 16R APPROACH" TO "EXPECT ILS OR LOC RWY 16L/R APPROACH."

3. CHANGED RWY 17L/R EXPECT APPROACH: FROM "EXPECT ILS OR LOC RWY 17L, RWY 17R APPROACH" TO "EXPECT ILS OR LOC RWY 17L/R APPROACH."

4. PROCEDURAL DATA NOTES: CHANGED NOTE FROM "NOTE: HIPEE ENROUTE TRANSITION IS ATC ASSIGNED ONLY - DO NOT FILE." TO "NOTE: HIPEE ENROUTE TRANSITION: DO NOT FILE – TO BE ASSIGNED BY ATC."

5. REFORMATTED RADAR REQUIRED, RNAV 1, DME/DME/IRU OR GPS REQUIRED NOTES TO CURRENT PBN & EQUIPMENT REQUIREMENT NOTES FORMAT.

6. CHANGED RESTRICTION AT FLATI FROM AT OR ABOVE FL190 TO 190B220.

7. ADDED CHART NOTE ABOUT MAINTAINING 280K AND LISTED LANDING DIRECTIONS AND RUNWAYS.

REASONS:

1. REQUIRED FOR AIRCRAFT TO BE IN THE CORRECT POSITION AND ALTITUDE FOR LANDING WEST TO OPTIMIZE CONVERGING LANDING OPERATIONS.

2. STANDARDIZATION OF FORMS, NO CRITERIA GUIDANCE.

3. STANDARDIZATION OF FORMS, NO CRITERIA GUIDANCE.

4. CRITERIA -- IAW 8260.19I, 4-5-2.

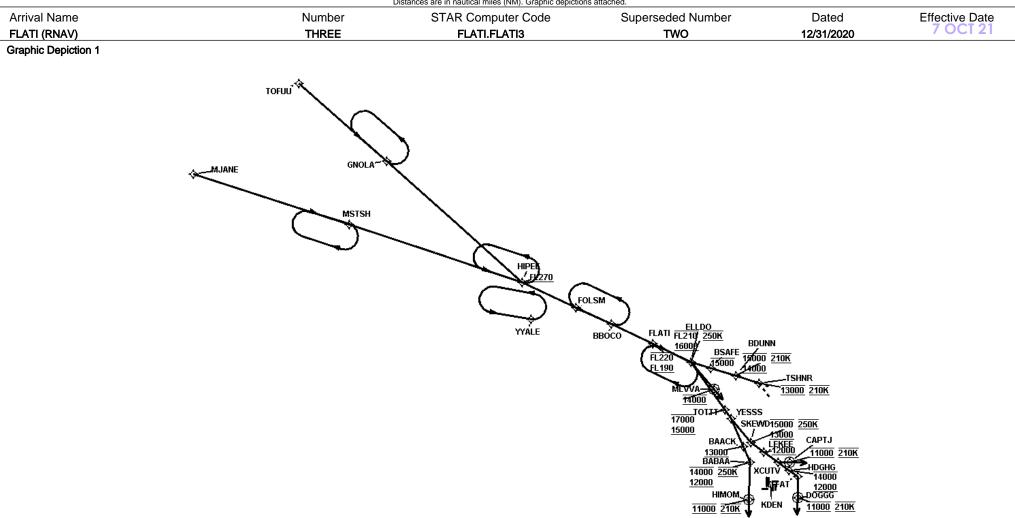
5. CRITERIA -- AW 8260.19I, 4-5-3.

6. ATC REQUIRED FOR TBO COMPLIANCE.

7. ATC REQUIRED FOR TBO COMPLIANCE.

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

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated. Distances are in nautical miles (NM). Graphic depictions attached.



FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STAR (DATA RECORD)

Arrival Name			mber	S	TAR Comp		Superseded		Dated	Effective Date 7 OCT 21
FLATI (RNAV)			IREE		FLATI.FL	ATI3	TWC)	12/31/2020	
FIX/NAVAID	LAT/LONG	С	FO/FB	LEG TYPE	тс	DIST (NM)	ALTITUDE	SPEED	REMARKS	
En Route Transition										
HIPEE	405043.69N / 1061508.14W	Y		IF			AT/ABOVE FL270		HIPEE.FLATI3	
FOLSM	404325.52N / 1055435.30W	Y	FB	TF	114.95	17.23				
BBOCO	403833.95N / 1054104.48W	Y	FB	TF	115.21	11.37				
FLATI	403248.03N / 1052510.72W	Y	FB	TF	115.36	13.41	FL190BFL220			
En Route Transition										
MJANE	412234.11N / 1082033.48W	Y		IF					MJANE.FLATI3	
MSTSH	410747.60N / 1072100.54W	Y	FB	TF	107.87	47.28				
HIPEE	405043.69N / 1061508.14W	Y	FB	TF	108.51	52.72	AT/ABOVE FL270			
FOLSM	404325.52N / 1055435.30W	Y	FB	TF	114.95	17.23				
BBOCO	403833.95N / 1054104.48W	Y	FB	TF	115.21	11.37				
FLATI	403248.03N / 1052510.72W	Y	FB	TF	115.36	13.41	FL190BFL220			
En Route Transition										
TOFUU	414854.82N / 1074012.49W	Y		IF					TOFUU.FLATI3	
GNOLA	412617.12N / 1070640.35W	Y	FB	TF	131.78	33.82				
HIPEE	405043.69N / 1061508.14W	Y	FB	TF	132.10	52.72	AT/ABOVE FL270			
FOLSM	404325.52N / 1055435.30W	Y	FB	TF	114.95	17.23				
BBOCO	403833.95N / 1054104.48W	Y	FB	TF	115.21	11.37				
FLATI	403248.03N / 1052510.72W	Y	FB	TF	115.36	13.41	FL190BFL220			
Common Route										
FLATI	403248.03N / 1052510.72W	Y		IF			FL190BFL220		FLATI.FLATI3	
ELLDO	402732.46N / 1051048.22W	Y	FB	TF	115.53	12.16	16000BFL210	AT 250K		

FAA Form 8260-17.2 (06/15) Generated by: TARGETS: 6.2.0; WGS84: 3.2.8 (09/30/20); Common RS: 2.8.0 (10/14/20); RNAV STAR RS: 2.7.0 (10/14/20)

FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE STAR (DATA RECORD)

Arrival Name FLATI (RNAV)		Number THREE		STAR Computer Code FLATI.FLATI3			Superseded TWC		Dated 12/31/2020	Effective Date 7 OCT 21
FIX/NAVAID	LAT/LONG	с	FO/FB	LEG TYPE	тс	DIST (NM)	ALTITUDE	SPEED	REMARKS	
Runway Transition										
ELLDO	402732.46N / 1051048.22W	Y		IF			16000BFL210	AT 250K		
MLVVA	401931.66N / 1050154.90W	Y	FO	TF	139.65	10.50	AT 14000			
KDEN:RWY 7,RWY 8				FM	139.65					
Runway Transition										
ELLDO	402732.46N / 1051048.22W	Y		IF			16000BFL210	AT 250K		
BSAFE	402545.73N / 1050317.87W	Y	FB	TF	107.19	06.00	AT/BELOW 15000			
BDUNN	402325.76N / 1045334.10W	Y	FB	TF	107.36	07.79	14000B15000	AT 210K		
TSHNR	402121.13N / 1044451.74W	Y	FB	TF	107.28	06.97	AT 13000	AT 210K		
KDEN:RWY 16L,RWY 16R										
Runway Transition										
ELLDO	402732.46N / 1051048.22W	Y		IF			16000BFL210	AT 250K		
BSAFE	402545.73N / 1050317.87W	Y	FB	TF	107.19	06.00	AT/BELOW 15000			
BDUNN	402325.76N / 1045334.10W	Y	FB	TF	107.36	07.79	14000B15000	AT 210K		
TSHNR	402121.13N / 1044451.74W	Y	FB	TF	107.28	06.97	AT 13000	AT 210K		
KDEN:RWY 17L, RWY 17R										
Runway Transition										
ELLDO	402732.46N / 1051048.22W	Y		IF			16000BFL210	AT 250K		
TOTTT	401327.39N / 1045744.24W	Y	FB	TF	144.56	17.26	15000B17000			
YESSS	401100.39N / 1045528.47W	Y	FB	TF	144.68	03.00				
SKEWD	400357.73N / 1044800.42W	Y	FB	TF	140.82	09.08	13000B15000	AT 250K		
LEKEE	400113.76N / 1044301.57W	Y	FB	TF	125.50	04.70	AT/ABOVE 12000			
XCUTV	395810.74N / 1043728.95W	Y	FB	TF	125.55	05.24				

FAA Form 8260-17.2 (06/15) Generated by: TARGETS: 6.2.0; WGS84: 3.2.8 (09/30/20); Common RS: 2.8.0 (10/14/20); RNAV STAR RS: 2.7.0 (10/14/20)

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FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STAR (DATA RECORD)

Arrival Name FLATI (RNAV)			mber IREE	STAR Computer Code FLATI.FLATI3			Superseded TWC		Dated 12/31/2020	Effective Date 7 OCT 21
FIX/NAVAID	LAT/LONG	С	FO/FB	LEG TYPE	тс	DIST (NM)	ALTITUDE	SPEED	REMARKS	
CAPTJ	395808.94N / 1043311.12W	Υ	FO	TF	090.50	03.30	AT 11000	AT 210K		
KDEN:RWY 25,RWY 26				FM	090.50					
Runway Transition										
ELLDO	402732.46N / 1051048.22W	Y		IF			16000BFL210	AT 250K		
TOTTT	401327.39N / 1045744.24W	Y	FB	TF	144.56	17.26	15000B17000			
YESSS	401100.39N / 1045528.47W	Y	FB	TF	144.68	03.00				
BAACK	400249.43N / 1045051.84W	Y	FB	TF	156.58	08.91	AT/ABOVE 13000			
BABAA	395814.55N / 1044814.83W	Y	FB	TF	156.27	05.00	12000B14000	AT 250K		
HIMOM	394717.19N / 1044832.22W	Y	FO	TF	181.17	10.95	AT 11000	AT 210K		
KDEN:RWY 34L,RWY 34R,RWY 35L				FM	181.17					
Runway Transition										
ELLDO	402732.46N / 1051048.22W	Y		IF			16000BFL210	AT 250K		
ΤΟΤΤΤ	401327.39N / 1045744.24W	Y	FB	TF	144.56	17.26	15000B17000			
YESSS	401100.39N / 1045528.47W	Y	FB	TF	144.68	03.00				
SKEWD	400357.73N / 1044800.42W	Y	FB	TF	140.82	09.08	13000B15000	AT 250K		
LEKEE	400113.76N / 1044301.57W	Y	FB	TF	125.50	04.70	AT/ABOVE 12000			
XCUTV	395810.74N / 1043728.95W	Y	FB	TF	125.55	05.24				
HDGHG	395551.26N / 1043314.89W	Y	FB	TF	125.48	04.00	12000B14000			
FFFAT	395401.30N / 1042957.17W	Y	FB	TF	125.82	03.13				
DOGGG	394754.32N / 1043003.31W	Y	FO	TF	180.74	06.11	AT 11000	AT 210K		
KDEN:RWY 35R				FM	180.74					

