

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
GRAPHIC DEPARTURE PROCEDURES (DP)**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated.

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
MRS HH	TWO	MRS HH2.MRS HH	ONE	03/26/2020	31 DEC 20

<u>TYPE:</u>	<u>OBSTACLE</u>	<u>COPTER</u>	<u>SID</u>	<u>SPECIAL</u>	<u>RNAV</u>
	☐	☐	☒	☐	☒

DP ROUTE DESCRIPTION:**CENTENNIAL KAPA:**

TAKEOFF RW17L/R: CLIMB ON HEADING 169.95 TO 6385, THEN ON HEADING 169.95 OR AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW35L/R: CLIMB ON HEADING 349.95 TO 6385, THEN ON HEADING 349.95 OR AS ASSIGNED BY ATC. THENCE...

COLORADO AIR AND SPACE PORT KCFO:

TAKEOFF RW08: CLIMB ON A HEADING BETWEEN 312 CW 228 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW17: CLIMB ON A HEADING BETWEEN 352 CW 229 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW26: CLIMB ON A HEADING BETWEEN 315 CW 083 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW35: CLIMB ON A HEADING BETWEEN 313 CW 172 AS ASSIGNED BY ATC. THENCE...

GREELEY-WELD COUNTY KGXY:

TAKEOFF RW10: CLIMB ON A HEADING BETWEEN 292 CW 214 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW17: CLIMB ON A HEADING BETWEEN 350 CW 212 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW28: CLIMB ON A HEADING BETWEEN 294 CW 097 OR BETWEEN 097 CW 209 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW35: CLIMB ON A HEADING BETWEEN 293 CW 169 AS ASSIGNED BY ATC. THENCE...

NORTHERN COLORADO RGNL KFNL:

TAKEOFF RW15: CLIMB ON A HEADING BETWEEN 350 CW 180 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW33: CLIMBING RIGHT TURN ON A HEADING BETWEEN 350 CW 150 AS ASSIGNED BY ATC. THENCE...

ROCKY MOUNTAIN METROPOLITAN KBJC:

TAKEOFF RW12L/R: CLIMB ON A HEADING BETWEEN 350 CW 150 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW30L/R: CLIMBING RIGHT TURN ON A HEADING BETWEEN 350 CW 113 AS ASSIGNED BY ATC. THENCE...

VANCE BRAND KLMO:

TAKEOFF RW11: CLIMB ON A HEADING BETWEEN 030 CW 160 AS ASSIGNED BY ATC. THENCE...

TAKEOFF RW29: CLIMBING RIGHT TURN ON A HEADING BETWEEN 030 CW 110 AS ASSIGNED BY ATC. THENCE...

ALL AIRPORTS:

...EXPECT RADAR VECTORS TO CROSS KRTMN AT 8,000 THEN ON TRACK 013.03/12.29 TO MRS HH, THEN ON (TRANSITION) MAINTAIN FL230 OR FILED LOWER ALTITUDE. EXPECT HIGHER FILED ALTITUDE TEN MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

<u>TRANSITION NAME</u>	<u>TRANSITION COMPUTER CODE</u>	<u>FROM FIX/NAVAID</u>	<u>TO FIX/NAVAID</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>MEA</u>	<u>MOCA</u>	<u>CROSSING ALTITUDE/FIXES</u>
CHUWY	MRS HH2.CHUWY	MRS HH	YOKES	TRACK 053.55	23.13	15000	7300	
		YOKES	LNGWD	TRACK 039.31	57.72	17000	7800	
		LNGWD	CHUWY	TRACK 039.91	25.66	17000	6000	
DDRTH	MRS HH2.DDRTH	MRS HH	TIMEH	TRACK 313.70	19.97	15000	8100	
		TIMEH	YAMMI	TRACK 313.54	08.42	17000	8300	
		YAMMI	DDRTH	TRACK 300.34	67.69	17000	13500	

QUALITY
3
CHECKED

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MRS HH		TWO	MRS HH2.MRS HH	ONE	03/26/2020	31 DEC 20
XXWNG	MRS HH2.XXWNG	MRS HH	RIKKK	TRACK 333.89	24.64	15000 8000
		RIKKK	XXWNG	TRACK 322.48	47.33	16000 10800
JOBBA	MRS HH2.JOBBA	MRS HH	BRYCC	TRACK 026.54	19.54	15000 7500
		BRYCC	HHOTH	TRACK 018.40	28.99	16000 7700
		HHOTH	JOBBA	TRACK 031.61	41.59	17000 7700
SAABR	MRS HH2.SAABR	MRS HH	BRYCC	TRACK 026.54	19.54	15000 7500
		BRYCC	HHOTH	TRACK 018.40	28.99	16000 7700
		HHOTH	SAABR	TRACK 004.04	42.91	17000 7900

PROCEDURAL DATA NOTES:

NOTE: DME/DME/IRU OR GPS REQUIRED.

NOTE: RNAV 1.

NOTE: TURBOJETS ONLY.

NOTE: RADAR REQUIRED.

TAKEOFF MINIMUMS:**CENTENNIAL KAPA:**

RWYS 10, 28 NA

RWY 17L STANDARD WITH MINIMUM CLIMB OF 257 FT PER NM TO 8000

RWY 17R STANDARD WITH MINIMUM CLIMB OF 372 FT PER NM TO 8000

RWY 35L, 35R STANDARD

COLORADO AIR AND SPACE PORT KCFO:

RWY 8, 17, 26, 35 STANDARD

GREELEY-WELD COUNTY KGXY:

RWY 10, 17, 28, 35 STANDARD

NORTHERN COLORADO RG NL KFNL:

RWYS 6, 24 NA

RWY 15, 33 STANDARD

ROCKY MOUNTAIN METROPOLITAN KBJC:

RWYS 3, 21 NA

RWY 12L/R, 30L/R STANDARD

VANCE BRAND KLMO:

RWY 11 STANDARD

RWY 29 STANDARD WITH MINIMUM CLIMB OF 370 FT PER NM TO 8000.

TAKEOFF OBSTACLES NOTES:

SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP).

CONTROLLING OBSTACLES:

CENTENNIAL:

RWY 17L: 6569 FT MSL AAO 392953.93N/1046044.26W.

RWY17R: 6021 FT MSL OBS LT ON BLDG 393302.52N/1045119.43W (CG), 6559 FT MSL AAO 392953.93N/1045044.26W (CGTA).

VANCE BRAND:

RWY 29: 6179 FT MSL AAO 401357.20N/1051150.87W.

OBSTACLES MANDATING ROUTE DEVELOPMENT:

<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
MRSHH	TWO	MRSHH2.MRSHH	ONE	03/26/2020	31 DEC 20

CENTENNIAL:

RWY 17L/R: 13591 FT MSL AAO 395019.70N/1054255.40W, 14470 FT MSL AAO 393807.40N/1054902.40W, 12995 FT MSL AAO 384926.53N/1050138.90W.
RWY 35L/R: 13591 FT MSL AAO 395019.70N/1054255.40W, 14470 FT MSL AAO 393807.40N/1054902.40W, 14310 FT MSL AAO 385020.60N/1050238.00W.

COLORADO AIR AND SPACE PORT:

RWY 8: 14464 FT MSL AAO 393517.70N/1053838.00W, 14455 FT MSL AAO 401511.20N/1053651.40W.
RWY 17: 14464 FT MSL AAO 393517.70N/1053838.00W.
RWY 26: 14464 FT MSL AAO 393517.70N/1053838.00W, 14455 FT MSL AAO 401511.20N/1053651.40W.
RWY 35: 14455 FT MSL AAO 401511.20N/1053651.40W.

GREELEY-WELD COUNTY:

RWY 10:14455 FT MSL AAO 401519.05N/1053628.56W, 10920 MSL AAO 403043.86N/1052635.42W, 11847 MSL AAO 401043.35N/1053351.27W.
RWY 17:14455 FT MSL AAO 401519.05N/1053628.56W, 10920 MSL AAO 403043.86N/1052635.42W, 11847 MSL AAO 401043.35N/1053351.27W.
RWY 28:14455 FT MSL AAO 401519.05N/1053628.56W, 10920 MSL AAO 403043.86N/1052635.42W, 11847 MSL AAO 401043.35N/1053351.27W.
RWY 35:14455 FT MSL AAO 401519.05N/1053628.56W, 10920 MSL AAO 403043.86N/1052635.42W, 11847 MSL AAO 401043.35N/1053351.27W.

NORTHERN COLORADO RGNL:

RWY 15: 14470 FT MSL AAO 393518.83N/1053829.25W, 14455 MSL AAO 401511.20N/1053651.40W.
RWY 33: 7159 FT MSL AAO 403802.63N/1051418.62W, 14455 MSL AAO 401511.20N/1053651.40W.

ROCKY MOUNTAIN METROPOLITIAN:

RWY 12L/R: 14470 FT MSL AAO 393607.40N/1054902.40W, 12348 FT MSL AAO 403111.11N/10533512.76W, 9222 FT MSL AAO 393343.86N/1051525.75W.
RWY 30L/R: 14470 FT MSL AAO 393807.40N/1054902.40W, 12348 FT MSL AAO 403111.11N/10533512.76W, 14431 FT MSL AAO 391427.57N/1052950.60W.

VANCE BRAND:

RWY 11: 13575 FT MSL AAO 393327.70N/1053613.80W.
RWY 29: 14459 FT MSL AAO 401511.20N/1053651.40W.

LOST COMMUNICATIONS PROCEDURES:**ADDITIONAL FLIGHT DATA:**

KAPA: REF MAG VAR 8E, EPOCH YR 2015
DME/DME ASSESSMENT: SAT (RNP 2.0)
CHART TOP ALTITUDE: FL230

AIRPORTS SERVED:

<u>AIRPORT NAME</u>	<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
CENTENNIAL	KAPA	DENVER	CO
ROCKY MOUNTAIN METROPOLITAN	KBJC	DENVER	CO
COLORADO AIR AND SPACE PORT	KCFO	DENVER	CO
NORTHERN COLORADO RGNL	KFNL	FORT COLLINS/LOVELAND	CO
GREELEY-WELD COUNTY	KGXY	GREELEY	CO
VANCE BRAND	KLMO	LONGMONT	CO

COMMUNICATIONS:

KAPA: ATIS, CLNC DEL, DEN DEP CON

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MRSHH	TWO	MRSHH2.MRSHH	ONE	03/26/2020	31 DEC 20

KBJC: ATIS, CLNC DEL, DEN DEP CON
 KCFO: ATIS, CLNC DEL, DEN DEP CON, DENVER CLNC DEL (WHEN TOWER CLOSED)
 KFNL: CLNC DEL, DEN DEP CON
 KGXY: CLNC DEL, DEN DEP CON
 KLMO: DEN DEP CON

FIXES AND/OR NAVAIDS:**REMARKS:****FLIGHT INSPECTED BY***Digitally signed by***ALLAN WILL****OFFICE****DATE**

DONALD MCDOUGH

Oct 07, 2020

FICO

10/7/2020

DEVELOPED BY *Digitally signed by*MARK CIARLONE **MARK CIARLONE**

Sep 08, 2020

OFFICE**DATE**

AJV-A423

08/17/2020

APPROVED BY*Digitally signed by***ALLAN WILL****OFFICE****DATE**

MARLON ROBINSON

Oct 07, 2020

AJV-A420

TITLE

MANAGER

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:**ZDV, DEN DEP CON, AMGR.

CHANGES - REASONS:

1. TAKEOFF MINIMUMS: CENTENIAL KAPA: RWY 17L UPDATED FROM STANDARD WITH MINIMUM CLIMB OF 255 FT PER NM TO 8000 TO STANDARD WITH MINIMUM CLIMB OF 257 FT PER NM TO 8000 - ALIGNS CLIMB GRADIENT WITH UPCOMING KAPA ODP AMDT DATED 11/5/2020.
2. TAKEOFF MINIMUMS: CENTENIAL KAPA: RWY 17R UPDATED FROM STANDARD WITH MINIMUM CLIMB OF 370 FT PER NM TO 8000 TO STANDARD WITH MINIMUM CLIMB OF 372 FT PER NM TO 8000 - ALIGNS CLIMB GRADIENT WITH UPCOMING KAPA ODP AMDT DATED 11/5/2020.
3. TRANSITION ROUTES (GRAPHIC DEPICTION ONLY): ALL TRANSITION COMPUTER CODES UPDATED FROM MRSHH1.XXXXXX TO MRSHH2.XXXXXX - PER SID AMDT.
4. TRANSITION ROUTES (GRAPHIC DEPICTION ONLY): TRANSITION NAME COLUMN; RENAMED FORMER EXWNG TRANSITION TO NEW XXWNG TRANSITION - PER ATC/FPT REQUEST.
5. TRANSITION ROUTES (GRAPHIC DEPICTION ONLY): TRANSITION XXWNG: TO FIX/NAVAID COLUMN; LINE 2; CHANGED FIX EXWNG TO FIX XXWNG - REQUIRED PER 8260.46G 3-1-3.

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**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
DEPARTURE (DATA RECORD)**

<u>DP NAME</u>		<u>NUMBER</u>		<u>DP COMPUTER CODE</u>		<u>SUPERSEDED NUMBER</u>		<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
MRSHH		TWO		MRSHH2.MRSHH		ONE		03/26/2020	31 DEC 20
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
KRTMN	401209.84N/1044641.95W	Y	-	IF	-	-	AT 8000		
MRSHH	402338.43N/1044055.70W	Y	FB	TF	021.03	12.29			
MRSHH	402338.43N/1044055.70W	Y	-	IF	-	-		MRSHH2.CHUWY	
YOKES	403436.96N/1041414.14W	Y	FB	TF	061.55	23.13			
LNGWD	411333.11N/1031800.39W	Y	FB	TF	047.31	57.72			
CHUWY	413042.77N/1025239.47W	Y	FB	TF	047.91	25.66			
MRSHH	402338.43N/1044055.70W	Y	-	IF	-	-		MRSHH2.DDRTH	
TIMEH	403918.37N/1045711.55W	Y	FB	TF	321.70	19.97			
YAMMI	404553.79N/1050404.83W	Y	FB	TF	321.54	08.42			
DDRTH	412733.07N/1061442.09W	Y	FB	TF	308.34	67.69			
MRSHH	402338.43N/1044055.70W	Y	-	IF	-	-		MRSHH2.XXWNG	
RIKKK	404704.36N/1045100.71W	Y	FB	TF	341.89	24.64			
XXWNG	412812.82N/1052202.39W	Y	FB	TF	330.48	47.33			
MRSHH	402338.43N/1044055.70W	Y	-	IF				MRSHH2.JOBBA	
BRYCC	403943.89N/1042622.28W	Y	FB	TF	034.54	19.54			
HHOTH	410541.59N/1040919.36W	Y	FB	TF	026.40	28.99			
JOBBA	413739.80N/1033357.72W	Y	FB	TF	039.61	41.59			

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MRSHH		TWO		MRSHH2.MRSHH		ONE		03/26/2020	31 DEC 20
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
MRSHH	402338.43N/1044055.70W	Y	-	IF	-	-			MRSHH2.SAABR
BRYCC	403943.89N/1042622.28W	Y	FB	TF	034.54	19.54			
HHOTH	410541.59N/1040919.36W	Y	FB	TF	026.40	28.99			
SAABR	414740.01N/1035721.50W	Y	FB	TF	012.04	42.91			

