

**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SUPERSEDED NUMBER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>EFFECTIVE DATE</u>
TRALR	EIGHT	TRALR8.TRALR	SEVEN	11/10/2016	
<u>TYPE:</u>	<u>OBSTACLE</u>	<u>COPTER</u>	<u>SID</u>	<u>SPECIAL</u>	<u>RNAV</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DP ROUTE DESCRIPTION:**

**TAKEOFF RWY 1L, 1R:** CLIMB HEADING 013.92 TO INTERCEPT COURSE 072.00 TO NAPSE, THEN ON TRACK 061.57 TO TINNK, THEN ON TRACK 078.32 TO CROSS RIOOS AT OR ABOVE 13000, THEN ON TRACK 078.10 TO TRALR, THENCE...

**TAKEOFF RWY 8L:** CLIMB HEADING 078.93 TO 2682, THEN DIRECT WASTE, THEN ON TRACK 079.31 TO CROSS BAKRR AT OR ABOVE 4600, AT OR BELOW 7000, THEN ON TRACK 067.20 TO TRALR, THENCE...

**TAKEOFF RWY 8R:** CLIMB HEADING 078.93 TO 2682, THEN DIRECT JESJI, THEN ON TRACK 077.75 TO CROSS BAKRR AT OR ABOVE 4600, AT OR BELOW 7000, THEN ON TRACK 067.20 TO TRALR, THENCE...

**TAKEOFF RWY 19L:** CLIMB HEADING 193.92 TO 2682, THEN DIRECT FIXIX, THEN ON TRACK 230.76 TO CROSS ROPPR AT OR ABOVE 5900, AT OR BELOW 7000, THEN ON TRACK 151.84 TO CROSS CEASR AT OR ABOVE 8000, THEN ON TRACK 079.54 TO FORGE, THEN ON TRACK 050.06 TO CROSS WILLW AT OR ABOVE 14000, THEN ON TRACK 053.48 TO TRALR, THENCE...

**TAKEOFF RWY 19R:** CLIMB HEADING 193.92 TO 2682, THEN DIRECT JAKER, THEN ON TRACK 230.01 TO CROSS ROPPR AT OR ABOVE 5900, AT OR BELOW 7000, THEN ON TRACK 151.84 TO CROSS CEASR AT OR ABOVE 8000, THEN ON TRACK 079.54 TO FORGE, THEN ON TRACK 050.06 TO CROSS WILLW AT OR ABOVE 14000, THEN ON TRACK 053.48 TO TRALR, THENCE...

**TAKEOFF RWY 26L:** CLIMB HEADING 258.95 TO 2682, THEN DIRECT PIRMD, THEN ON TRACK 190.12 TO CROSS ROPPR AT OR ABOVE 5900, AT OR BELOW 7000, THEN ON TRACK 151.84 TO CROSS CEASR AT OR ABOVE 8000, THEN ON TRACK 079.54 TO FORGE, THEN ON TRACK 050.06 TO CROSS WILLW AT OR ABOVE 14000, THEN ON TRACK 053.48 TO TRALR, THENCE...

**TAKEOFF RWY 26R:** CLIMB HEADING 258.95 TO 2682, THEN DIRECT RBELL, THEN ON TRACK 189.85 TO CROSS ROPPR AT OR ABOVE 5900, AT OR BELOW 7000, THEN ON TRACK 151.84 TO CROSS CEASR AT OR ABOVE 8000, THEN ON TRACK 079.54 TO FORGE, THEN ON TRACK 050.06 TO CROSS WILLW AT OR ABOVE 14000, THEN ON TRACK 053.48 TO TRALR, THENCE...

...ON (TRANSITION). MAINTAIN FL190, EXPECT FILED ALTITUDE 10 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>
VERKN	TRALR8.VERKN	TRALR	NICLE	TRACK 070.54	50.00	15000		
		NICLE	SUNYY	TRACK 031.12	27.22	15000		
		SUNYY	VERKN	TRACK 028.95	57.64	15000		
DOVE CREEK	TRALR8.DVC	TRALR	NICLE	TRACK 070.54	50.00	15000	10000	
		NICLE	DVC VORTAC	TRACK 054.21	224.82	17000	10900	

**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.

DP NAME			NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER		DATED	EFFECTIVE DATE
TRALR			EIGHT	TRALR8.TRALR	SEVEN		11/10/2016	
MILFORD	TRALR8.MLF	TRALR	GEEEO	TRACK 053.29	33.71	15000		
		GEEEO	NOGNN	TRACK 002.58	58.62	15000		
		NOGNN	MLF VORTAC	TRACK 003.34	60.26	15000		

**PROCEDURAL DATA NOTES:**

**NOTE:** DME/DME/IRU OR GPS REQUIRED.

**NOTE:** RNAV 1.

**NOTE:** RADAR REQUIRED

**NOTE:** FOR NON-GPS EQUIPPED AIRCRAFT DEPARTING RWYS 1L, 1R, 26L, 26R, BLD DME MUST BE OPERATIONAL.

**NOTE:** FOR NON-GPS EQUIPPED AIRCRAFT DEPARTING RWYS 8L, 8R, LAS DME MUST BE OPERATIONAL.

**TAKEOFF MINIMUMS:**

**RWYS 1L, 1R:** STANDARD WITH MINIMUM CLIMB OF 321' PER NM TO 5100.

**RWYS 8L, 8R:** STANDARD WITH MINIMUM CLIMB OF 310' PER NM TO 7000.

**RWY 19L, 19R:** STANDARD WITH MINIMUM CLIMB OF 400' PER NM TO 14000.

**RWY 26L, 26R:** STANDARD WITH MINIMUM CLIMB OF 350' PER NM TO 14000.

**TAKEOFF OBSTACLES NOTES:**

**NOTE: RWY 1L:** REIL 23 FT FROM DER, 153 FT LEFT OF CENTERLINE, 3 FT AGL/2090 FT MSL. SIGN 1037 FT FROM DER, 695 FT LEFT OF CENTERLINE, 41 FT AGL/2125 FT MSL. BLDG 1556 FT FROM DER, 552 FT LEFT OF CENTERLINE, 2129 FT MSL. BLDG 1779 FT FROM DER, 649 FT LEFT OF CENTERLINE, 2147 FT MSL. BLDGS BEGINNING 1907 FT FROM DER, 186 FT LEFT OF CENTERLINE, UP TO 2150 FT MSL. BLDGS BEGINNING 1977 FT FROM DER, 214 FT LEFT OF CENTERLINE, UP TO 2150 FT MSL. BLDGS BEGINNING 2095 FT FROM DER, 275 FT LEFT OF CENTERLINE, UP TO 83 FT AGL/2153 FT MSL. BLDGS BEGINNING 3953 FT FROM DER, 1397 FT LEFT OF CENTERLINE, UP TO 162 FT AGL/2226 FT MSL. BLDG 4126 FT FROM DER, 1090 FT LEFT OF CENTERLINE, 2229 FT MSL. BLDG 4542 FT FROM DER, 1400 FT LEFT OF CENTERLINE, 183 FT AGL/2240 FT MSL. BLDG 4604 FT FROM DER, 1367 FT LEFT OF CENTERLINE, 186 FT AGL/2243 FT MSL.

**NOTE: RWY 1R:** BLDG 609 FT FROM DER, 538 FT RIGHT OF CENTERLINE, 28 FT AGL/2095 FT MSL. SIGN 1336 FROM DER, 447 FT RIGHT OF CENTERLINE, 60 FT AGL/2122 FT MSL.

**NOTE: RWY 8L:** POLE 744 FT FROM DER, 442 FT RIGHT OF CENTERLINE, 30 FT AGL/2057 FT MSL. TREE 758 FT FROM DER, 168 FT RIGHT OF CENTERLINE, 2068 FT MSL. TREE 767 FT FROM DER, 589 FT LEFT OF CENTERLINE, 2060 FT MSL. TREE 850 FT FROM DER, 184 FT LEFT OF CENTERLINE, 2067 FT MSL. TREES BEGINNING 886 FT FROM DER, 371 FT RIGHT OF CENTERLINE, UP TO 2074 FT MSL.

**NOTE: RWY 8R:** TOWER 1457 FT FROM DER, 848 FT RIGHT OF CENTERLINE, 64 FT AGL/2097 FT MSL.

**NOTE: RWY 19L:** RAILROAD, POLE BEGINNING 952 FT FROM DER, 322 FT LEFT OF CENTERLINE, UP TO 2215 FT MSL. RR 1043 FT FROM DER, 178 FT LEFT OF CENTERLINE, 2218 FT MSL. RR, POLE BEGINNING 1122 FT FROM DER, 19 FT LEFT OF CENTERLINE, UP TO 2219 FT MSL. RR 1166 FT FROM DER, 75 FT RIGHT OF CENTERLINE, 2220 FT MSL. RR 1219 FT FROM DER, 235 FT RIGHT OF CENTERLINE, 2222 FT MSL. RR 1230 FT FROM DER, 281 FT RIGHT OF CENTERLINE, 2223 FT MSL. POLE 1234 FT FROM DER, 178 FT LEFT OF CENTERLINE, 2221 FT MSL. RR 1241 FT FROM DER, 351 FT RIGHT OF CENTERLINE, 2224 FT MSL. RR 1246 FT FROM DER, 489 FT RIGHT OF CENTERLINE, 2225 FT MSL. RR, POLE BEGINNING 1247 FT FROM DER, 11 FT RIGHT OF CENTERLINE, UP TO 2226 FT MSL. POLES, TREE, VEHICLES ON ROAD, SIGN, PARKING LOT BEGINNING 1392 FT FROM DER, 115 FT RIGHT OF CENTERLINE, UP TO 36 FT AGL/2238 FT MSL. TREE, POLE BEGINNING 1410 FT FROM DER, 9 FT LEFT OF CENTERLINE, UP TO 2232 FT MSL. TREE 1819 FT FROM DER, 124 FT LEFT OF CENTERLINE, 2236 FT MSL. POLE, TREE, VEHICLES ON ROAD BEGINNING 1824 FT FROM DER, 9 FT RIGHT OF CENTERLINE, UP TO 34 FT AGL/2242 FT MSL. POLE 1933 FT FROM DER, 623 FT RIGHT OF CENTERLINE, 34 FT AGL/2243 FT MSL. POLE, TREE BEGINNING 1936 FT FROM DER, 55 FT RIGHT OF CENTERLINE, UP TO 36 FT AGL/2245 FT MSL. POLE, TREE, PARKING LOT BEGINNING 2036 FT FROM DER, 386 FT RIGHT OF CENTERLINE, UP TO 35 FT AGL/2246 FT MSL. POLE, PARKING LOT, TREE, VEHICLES ON ROAD BEGINNING 2133 FT FROM DER, 183 FT RIGHT OF CENTERLINE, UP TO 36 FT AGL/2247 FT MSL. SIGN, TREE, PARKING LOT, VEHICLES ON ROAD, POLE, BLDG BEGINNING 2179 FT FROM DER, 27 FT RIGHT OF CENTERLINE, UP TO 2256 FT MSL. POLE 2229 FT FROM DER, 578 FT LEFT OF CENTERLINE, 2238 FT MSL. POLES BEGINNING 2332 FT FROM DER, 583 FT LEFT OF CENTERLINE, UP TO 2240 FT MSL. SIGN, TREE, POLE, PARKING LOT, BLDG BEGINNING 2381 FT FROM DER, 53 FT RIGHT OF CENTERLINE, UP TO 41 FT AGL/2257 FT MSL. BLDG, TREE, POLE BEGINNING 2466 FT FROM DER, 591 FT RIGHT OF CENTERLINE, UP TO 38 FT AGL/2258 FT MSL. BLDG, TREE, POLES, UTILITY BOX BEGINNING 2505 FT FROM DER, 157 FT RIGHT OF CENTERLINE, UP TO 38 FT AGL/2259 FT MSL. POLE, BLDG BEGINNING 2738 FT FROM DER, 20 FT LEFT OF CENTERLINE, UP TO 2251 FT MSL. BLDG, TREE BEGINNING 2739 FT FROM DER, 1134 FT RIGHT OF CENTERLINE, UP TO 57 FT AGL/2279 FT MSL. BLDG, TREE BEGINNING 2766 FT FROM DER, 869 FT RIGHT OF CENTERLINE, UP TO 57 FT AGL/2280 FT MSL. BLDG, TREE BEGINNING 2822 FT FROM DER, 1006 FT RIGHT OF CENTERLINE, UP TO 58 FT AGL/2281 FT MSL. BLDGS, TREE, POLES BEGINNING 2861 FT FROM DER, 665 FT RIGHT OF CENTERLINE, UP TO 59 FT AGL/2282 FT MSL.

**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>EFFECTIVE DATE</u>
TRALR	EIGHT	TRALR8.TRALR	SEVEN	11/10/2016	
BLDGS, POLE BEGINNING 3418 FT FROM DER, 884 FT RIGHT OF CENTERLINE, UP TO 61 FT AGL/2284 FT MSL. BLDG, POLE BEGINNING 3515 FT FROM DER, 424 FT RIGHT OF CENTERLINE, UP TO 59 FT AGL/2287 FT MSL. SIGN 5292 FT FROM DER, 1688 FT RIGHT OF CENTERLINE, 55 FT AGL/2309 FT MSL. BLDG, POLE BEGINNING 5596 FT FROM DER, 1758 FT LEFT OF CENTERLINE, UP TO 110 FT AGL/2334 FT MSL. COMMUNICATION TWR 5717 FT FROM DER, 781 FT RIGHT OF CENTERLINE, 80 FT AGL/2327 FT MSL. BLDG 2 NM FROM DER, 2897 FT LEFT OF CENTERLINE, 236 FT AGL/2491 FT MSL. BLDGS BEGINNING 2 NM FROM DER, 2936 FT LEFT OF CENTERLINE, UP TO 241 FT AGL/2494 FT MSL.					
<b>NOTE: RWY 19R:</b> GRD 60 FT FROM DER, 475 FT RIGHT OF CENTERLINE, 2186 FT MSL. GRD 151 FT FROM DER, 529 FT RIGHT OF CENTERLINE, 2190 FT MSL. BLDG 194 FT FROM DER, 444 FT RIGHT OF CENTERLINE, 9 FT AGL/2199 FT MSL. NAVAID 262 FT FROM DER, 408 FT RIGHT OF CENTERLINE, 14 FT AGL/2206 FT MSL. VEHICLES ON ROAD, GRD, CONTROL BOX BEGINNING 348 FT FROM DER, 42 FT RIGHT OF CENTERLINE, UP TO 2208 FT MSL. POLE, VEHICLES ON ROAD BEGINNING 503 FT FROM DER, 434 FT RIGHT OF CENTERLINE, UP TO 2218 FT MSL. POLE, SIGN, VEHICLES ON ROAD, FLAG POLE, FENCE BEGINNING 592 FT FROM DER, 277 FT RIGHT OF CENTERLINE, UP TO 37 FT AGL/2234 FT MSL. SIGNS, PARKING LOT, VEHICLES ON ROAD, BLDG, POLE, TREE BEGINNING 844 FT FROM DER, 266 FT RIGHT OF CENTERLINE, UP TO 41 FT AGL/2240 FT MSL. TOWER, FENCE, VEHICLES ON ROAD, SIGN BEGINNING 961 FT FROM DER, 175 FT RIGHT OF CENTERLINE, UP TO 41 FT AGL/2243 FT MSL. T-L TWR, VEHICLES ON ROAD, RAILROAD, POLE, RR CROSSING SIGNAL CONTROL BOX, PARKING LOT BEGINNING 1132 FT FROM DER, 8 FT RIGHT OF CENTERLINE, UP TO 47 FT AGL/2249 FT MSL. RAILROAD 1219 FT FROM DER, 701 FT LEFT OF CENTERLINE, 2222 FT MSL. RAILROAD 1230 FT FROM DER, 656 FT LEFT OF CENTERLINE, 2223 FT MSL. RAILROAD 1240 FT FROM DER, 585 FT LEFT OF CENTERLINE, 2224 FT MSL. RAILROAD 1246 FT FROM DER, 448 FT LEFT OF CENTERLINE, 2225 FT MSL. RAILROAD, POLE BEGINNING 1247 FT FROM DER, 76 FT LEFT OF CENTERLINE, UP TO 2226 FT MSL. POLES, TREE, VEHICLES ON ROAD, SIGN BEGINNING 1392 FT FROM DER, 15 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/2238 FT MSL. POLES, TREE, PARKING LOT, BLDG BEGINNING 1726 FT FROM DER, 11 FT RIGHT OF CENTERLINE, UP TO 2254 FT MSL. POLE, TREE BEGINNING 1823 FT FROM DER, 78 FT LEFT OF CENTERLINE, UP TO 34 FT AGL/2242 FT MSL. POLE 1933 FT FROM DER, 313 FT LEFT OF CENTERLINE, 34 FT AGL/2243 FT MSL. POLE, TREE BEGINNING 1935 FT FROM DER, 12 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/2245 FT MSL. POLE, TREE BEGINNING 2036 FT FROM DER, 5 FT LEFT OF CENTERLINE, UP TO 35 FT AGL/2246 FT MSL. POLES, BLDG, TREE BEGINNING 2043 FT FROM DER, 221 FT RIGHT OF CENTERLINE, UP TO 2255 FT MSL. POLE, TREE BEGINNING 2133 FT FROM DER, 19 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/2247 FT MSL. TREE, POLES, SIGN, BLDG BEGINNING 2146 FT FROM DER, 14 FT RIGHT OF CENTERLINE, UP TO 2259 FT MSL. POLE, BLDG, TREE BEGINNING 2234 FT FROM DER, 12 FT LEFT OF CENTERLINE, UP TO 35 FT AGL/2249 FT MSL. POLE, TREE BEGINNING 2335 FT FROM DER, 88 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/2250 FT MSL. SIGN, TREE, POLES, BLDG BEGINNING 2381 FT FROM DER, 37 FT LEFT OF CENTERLINE, UP TO 41 FT AGL/2257 FT MSL. POLE, BLDGS, TREE BEGINNING 2496 FT FROM DER, 5 FT RIGHT OF CENTERLINE, UP TO 2274 FT MSL. BLDG BEGINNING 2739 FT FROM DER, 196 FT RIGHT OF CENTERLINE, UP TO 57 FT AGL/2279 FT MSL. BLDG, TREE BEGINNING 2766 FT FROM DER, 73 FT RIGHT OF CENTERLINE, UP TO 57 FT AGL/2280 FT MSL. BLDG BEGINNING 2767 FT FROM DER, 44 FT LEFT OF CENTERLINE, UP TO 36 FT AGL/2258 FT MSL. BLDG, TREE BEGINNING 2822 FT FROM DER, 68 FT RIGHT OF CENTERLINE, UP TO 58 FT AGL/2281 FT MSL. BLDG, TREE BEGINNING 2861 FT FROM DER, 126 FT RIGHT OF CENTERLINE, UP TO 59 FT AGL/2282 FT MSL. BLDGS, TREE BEGINNING 2893 FT FROM DER, 6 FT RIGHT OF CENTERLINE, UP TO 2288 FT MSL. BLDG BEGINNING 2895 FT FROM DER, 2 FT LEFT OF CENTERLINE, UP TO 39 FT AGL/2262 FT MSL. BLDGS, TREE BLDG BEGINNING 3032 FT FROM DER, 301 FT RIGHT OF CENTERLINE, UP TO 61 FT AGL/2290 FT MSL. BLDGS, TREE, POLE BEGINNING 3076 FT FROM DER, 58 FT RIGHT OF CENTERLINE, UP TO 61 FT AGL/2291 FT MSL. BLDGS, SIGN, POLES BEGINNING 3459 FT FROM DER, 287 FT RIGHT OF CENTERLINE, UP TO 74 FT AGL/2302 FT MSL. BLDG 3495 FT FROM DER, 53 FT LEFT OF CENTERLINE, 52 FT AGL/2278 FT MSL. COMMUNICATION TWR 5717 FT FROM DER, 156 FT LEFT OF CENTERLINE, 80 FT AGL/2327 FT MSL.					
<b>NOTE: RWY 26L:</b> BLDG 1002 FT FROM DER, 250 FT LEFT OF CENTERLINE, 6 FT AGL/2183 FT MSL. RAILROAD, POLE BEGINNING 1857 FT FROM DER, 793 FT LEFT OF CENTERLINE, UP TO 2215 FT MSL. RAILROAD 2068 FT FROM DER, 796 FT LEFT OF CENTERLINE, 2218 FT MSL. POLE, RAILROAD BEGINNING 2148 FT FROM DER, 800 FT LEFT OF CENTERLINE, UP TO 2221 FT MSL. TREE, RAILROAD BEGINNING 2376 FT FROM DER, 780 FT LEFT OF CENTERLINE, UP TO 2232 FT MSL. TREE, RAILROAD BEGINNING 2528 FT FROM DER, 751 FT LEFT OF CENTERLINE, UP TO 2233 FT MSL. POLE 2861 FT FROM DER, 811 FT LEFT OF CENTERLINE, 36 FT AGL/2238 FT MSL. POLE 3167 FT FROM DER, 1144 FT LEFT OF CENTERLINE, 34 FT AGL/2242 FT MSL. POLE 3171 FT FROM DER, 1091 FT LEFT OF CENTERLINE, 34 FT AGL/2243 FT MSL. POLE 3313 FT FROM DER, 1200 FT LEFT OF CENTERLINE, 35 FT AGL/2246 FT MSL. SIGN, T-L TWR BEGINNING 3672 FT FROM DER, 145 FT LEFT OF CENTERLINE, UP TO 2256 FT MSL. POLE, BLDG BEGINNING 4223 FT FROM DER, 1389 FT LEFT OF CENTERLINE, UP TO 2274 FT MSL. BLDG 4554 FT FROM DER, 1593 FT LEFT OF CENTERLINE, 2277 FT MSL. BLDG 4687 FT FROM DER, 1685 FT LEFT OF CENTERLINE, 53 FT AGL/2279 FT MSL. BLDG 4719 FT FROM DER, 1754 FT LEFT OF CENTERLINE, 61 FT AGL/2290 FT MSL. BLDG 4954 FT FROM DER, 1694 FT LEFT OF CENTERLINE, 61 FT AGL/2291 FT MSL. TRMSN TWR 5469 FT FROM DER, 1056 FT LEFT OF CENTERLINE, 2297 FT MSL. POLE 5879 FT FROM DER, 1519 FT LEFT OF CENTERLINE, 2309 FT MSL. POLE 6019 FT FROM DER, 2022 FT RIGHT OF CENTERLINE, 101 FT AGL/2309 FT MSL. POLE 1 NM FROM DER, 1720 FT LEFT OF CENTERLINE, 46 FT AGL/2311 FT MSL. POLE 1 NM FROM DER, 1922 FT LEFT OF CENTERLINE, 45 FT AGL/2311 FT MSL. TOWER 1.1 NM FROM DER, 1843 FT LEFT OF CENTERLINE, 80 FT AGL/2332 FT MSL. POLE 1.8 NM FROM DER, 1817 FT LEFT OF CENTERLINE, 131 FT AGL/2435 FT MSL.					
<b>NOTE: RWY 26R:</b> NAVAIDS, BLDG BEGINNING 533 FT FROM DER, 367 FT LEFT OF CENTERLINE, UP TO 14 FT AGL/2206 FT MSL. NAVAIDS BEGINNING 533 FT FROM DER, ON CENTERLINE, UP TO 5 FT AGL/2195 FT MSL. VEHICLES ON ROAD BEGINNING 666 FT FROM DER, CROSSING LEFT AND RIGHT OF CENTERLINE, UP TO 2208 FT MSL. POLE 785 FT FROM DER, 592 FT LEFT OF CENTERLINE, 2218 FT MSL. POLE, TREE BEGINNING 786 FT FROM DER, 8 FT LEFT OF CENTERLINE, UP TO 2220 FT MSL. TREES BEGINNING 821 FT FROM DER, 49 FT RIGHT OF CENTERLINE, UP TO 25 FT AGL/2214 FT MSL. POLE, SIGN, TREE, BLDG BEGINNING 873 FT FROM DER, 347 FT LEFT OF CENTERLINE, UP TO 37 FT AGL/2234 FT MSL. TREES BEGINNING 952 FT FROM DER, 48 FT RIGHT OF CENTERLINE, UP TO 2233 FT MSL. POLE, TREE, RAILROAD BEGINNING 1093 FT FROM DER, 531 FT LEFT OF CENTERLINE, UP TO 38 FT AGL/2237 FT MSL. TREES BEGINNING 1559 FT FROM DER, 555 FT RIGHT OF CENTERLINE, UP TO 2259 FT MSL. TREE, BLDG, RAILROAD BEGINNING 1812 FT FROM DER, 191 FT LEFT OF CENTERLINE, UP TO 2246 FT MSL. BLDG 2501 FT FROM DER, 881 FT LEFT OF CENTERLINE, 2254 FT MSL. POLES BEGINNING 3002 FT FROM DER, 543 FT LEFT OF CENTERLINE, UP TO 44 FT AGL/2271 FT MSL. POLES BEGINNING 3005 FT FROM DER, 743 FT LEFT OF CENTERLINE, UP TO 48 FT AGL/2277 FT MSL. POLE 3116 FT FROM DER, 1022 FT RIGHT OF CENTERLINE, 101 FT AGL/2309 FT MSL. SIGN 3339 FT FROM DER, 278 FT LEFT OF CENTERLINE, UP TO 2286 FT MSL. COMMUNICATION TWR 4521 FT FROM DER, 704 FT RIGHT OF CENTERLINE, 2332 FT MSL. SIGN 1.3 NM FROM DER, 2649 FT LEFT OF CENTERLINE, 80 FT AGL/2384 FT MSL. POLE 1.5					

QUALITY  
3  
CHECKED

**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>EFFECTIVE DATE</u>
TRALR	EIGHT	TRALR8.TRALR	SEVEN	11/10/2016	

NM FROM DER, 2801 FT LEFT OF CENTERLINE, 100 FT AGL/2444 FT MSL. POLE 1.6 NM FROM DER, 2832 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/2455 FT MSL. POLE, COMMUNICATION TWR BEGINNING 1.7 NM FROM DER, 2068 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/2463 FT MSL. POLE 1.7 NM FROM DER, 2845 FT LEFT OF CENTERLINE, 135 FT AGL/2469 FT MSL. TRANSMISSION TWR 2.1 NM FROM DER, 3453 FT LEFT OF CENTERLINE, 134 FT AGL/2490 FT MSL.

**CONTROLLING OBSTACLES:**

**RWY 19L, 19R, 26L, 26R:** 4753 FT MSL AAO 355440.10N/1151859.90W.

**RWY 1L, 1R:** 4280 FT MSL AAO 361038.70N/1145940.50W

**LOST COMMUNICATIONS PROCEDURES:**

**ADDITIONAL FLIGHT DATA:**

**CHART:** TOP ALTITUDE: FL190

REFERENCE MAG VAR: KLAS 11E EPOCH YR: 2020

DME/DME ASSESSMENT SAT (RNP 2.0)

**AIRPORTS SERVED:**

<u>AIRPORT NAME</u>	<u>CITY</u>	<u>STATE</u>
MCCARRAN INTL	LAS VEGAS	NV

**COMMUNICATIONS:**

ATIS, CLNC DEL, GND CON, LAS TWR, LAS DEP CON

**FIXES AND/OR NAVAIDS:**



**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>EFFECTIVE DATE</u>
TRALR	EIGHT	TRALR8.TRALR	SEVEN	11/10/2016	

**REMARKS:**

ABBREVIATED AMENDMENT -- THIS AMENDMENT DOES NOT FULFILL THE REQUIREMENT FOR A PERIODIC REVIEW.

**FLIGHT INSPECTED BY:**

Pending

**OFFICE SYMBOL:**

**DATE:**

**DEVELOPED BY:**

JEFFREY ROBINSON

*Digitally signed by*

**STEVEN A VARGAS**

May 09, 2017

**OFFICE SYMBOL:**

AJV-5421

**DATE:**

03/29/2017

**APPROVED BY:**

JULIE MORGAN

*Digitally signed by*

**STEVEN A VARGAS**

May 09, 2017

**OFFICE SYMBOL:**

AJV-5420

**DATE:**

**REQUIRED EFFECTIVE DATE:**

ROUTINE

**COORDINATED WITH:**

**A4A**      **ALPA**      **AOPA**      **APA**      **HAI**      **NBAA**

☒      ☒      ☒      ☒      ☐      ☒

**OTHER:**

ZLA, ZAB, LAS TWR, LAS APP CON, AMGR

**CHANGES - REASONS:**

**CHANGES:**

1. INCREASED ALL MAGNETIC HEADINGS/COURSES/TRACKS BY 4 DEGREES.
2. UPDATED TAKEOFF OBSTACLE NOTES TO MATCH 8260-15A.
3. UPDATED ADDITIONAL FLIGHT DATA MAG VAR INFORMATION FROM 15E/EY1980 TO 11E/EY2020.

**REASONS:**

- 1, 3. KLAS MAG VAR CHANGE FROM 15E TO 11E.
2. 8260-15A AMENDED TO INCORPORATE TARGETS 5.2 OBSTACLE GROUPER METHODOLOGY.

**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>EFFECTIVE DATE</u>
TRALR		EIGHT		TRALR8.TRALR		SEVEN		11/10/2016	
<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>
RW01L (AER)*	360436.44N/1151010.30W*	N	-	-	-	-			*DISPL THLD (587 FT)
	360737.65N/1150826.54W	-	-	VI	024.92	03.33			CG 321 FT PER NM TO 5100
NAPSE	360934.00N/1144914.00W	Y	FB	CF	083.00	15.68			RECOMMENDED NAVAID: LAS VORTAC
TINNK	361119.34N/1144219.29W	Y	FB	TF	072.57	05.86			
RIOOS	361120.81N/1143943.64W	Y	FB	TF	089.32	02.10	AT/ABOVE 13000		
TRALR	361137.33N/1141440.59W	Y	FB	TF	089.10	20.28			
RW01R (AER)*	360431.67N/1151000.44W*	N	-	-	-	-			*DISPL THLD (491 FT)
	360739.02N/1150813.15W	-	-	VI	024.92	03.44			CG 321 FT PER NM TO 5100
NAPSE	360934.00N/1144914.00W	Y	FB	CF	083.00	15.50			RECOMMENDED NAVAID: LAS VORTAC
TINNK	361119.34N/1144219.29W	Y	FB	TF	072.57	05.86			
RIOOS	361120.81N/1143943.64W	Y	FB	TF	089.32	02.10	AT/ABOVE 13000		
TRALR	361137.33N/1141440.59W	Y	FB	TF	089.10	20.28			
RW08L (AER)*	360434.95N/1150946.64W*	N	-	-	-	-			*DISPL THLD (2138 FT)
2682 MSL	-	-	-	VA	089.93	-			CG 310 FT PER NM TO 7000
WASTE	360435.14N/1150425.72W	Y	FB	DF	-	-			
BAKKR	360433.00N/1145711.00W	Y	FB	TF	090.31	05.87	4600B7000		
TRALR	361137.33N/1141440.59W	Y	FB	TF	078.20	35.15			
RW08R (AER)	360425.06N/1150941.16W	N	-	-	-	-			
2682 MSL	-	-	-	VA	089.93	-			CG 310 FT PER NM TO 7000

QUALITY  
3  
CHECKED

**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>EFFECTIVE DATE</u>
TRALR		EIGHT		TRALR8.TRALR		SEVEN		11/10/2016	
<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>
JESJI	360425.22N/1150442.73W	Y	FB	DF	-	-			
BAKKR	360433.00N/1145711.00W	Y	FB	TF	088.75	06.10	4600B7000		
TRALR	361137.33N/1141440.59W	Y	FB	TF	078.20	35.15			
RW19L (AER)*	360547.01N/1150917.31W*	N	-	-	-	-			*DISPL THLD (878 FT)
2682 MSL	-	-	-	VA	204.92	-			CG 400 FT PER NM TO 14000
FIXIX	360054.10N/1151204.79W	Y		DF	-	-			
ROPPI	355816.27N/1151805.99W	Y	FB	TF	241.76	05.55	5900B7000		
CEASR	355159.04N/1151542.89W	Y	FB	TF	162.84	06.57	AT/ABOVE 8000		
FORGE	355153.09N/1150406.47W	Y	FB	TF	090.54	09.43			
WILLW	355700.77N/1145240.97W	Y	FB	TF	061.06	10.60	AT/ABOVE 14000		
TRALR	361137.33N/1141440.59W	Y	FB	TF	064.48	34.09			
RW19R (AER)	360551.77N/1150927.19W	N	-	-	-	-			
2682 MSL	-	-	-	VA	204.92	-			CG 400 FT PER NM TO 14000
JAKER	360053.20N/1151217.95W	Y	FB	DF	-	-			
ROPPI	355816.27N/1151805.99W	Y	FB	TF	241.01	05.38	5900B7000		
CEASR	355159.04N/1151542.89W	Y	FB	TF	162.84	06.57	AT/ABOVE 8000		
FORGE	355153.09N/1150406.47W	Y	FB	TF	090.54	09.43			
WILLW	355700.77N/1145240.97W	Y	FB	TF	061.06	10.60	AT/ABOVE 14000		
TRALR	361137.33N/1141440.59W	Y	FB	TF	064.48	34.09			

QUALITY  
3  
CHECKED

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

DP NAME		NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		EFFECTIVE DATE	
TRALR		EIGHT		TRALR8.TRALR		SEVEN		11/10/2016			
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS		
RW26L (AER)	360425.17N/1150732.97W	N	-	-	-	-					
2682 MSL	-	-	-	VA	269.95	-			CG 350 FT PER NM TO 14000		
PIRMD	360424.61N/1151511.00W	Y	FB	DF	-	-					
ROPPR	355816.27N/1151805.99W	Y	FB	TF	201.12	06.57	5900B7000				
CEASR	355159.04N/1151542.89W	Y	FB	TF	162.84	06.57	AT/ABOVE 8000				
FORGE	355153.09N/1150406.47W	Y	FB	TF	090.54	09.43					
WILLW	355700.77N/1145240.97W	Y	FB	TF	061.06	10.60	AT/ABOVE 14000				
TRALR	361137.33N/1141440.59W	Y	FB	TF	064.48	34.09					
RW26R (AER)*	360435.06N/1150732.94W*	N	-	-	-	-			*DISPL THLD (1396 FT)		
2682 MSL	-	-	-	VA	269.95	-			CG 350 FT PER NM TO 14000		
RBELL	360434.51N/1151508.75W	Y	FB	DF	-	-					
ROPPR	355816.27N/1151805.99W	Y	FB	TF	200.85	06.74	5900B7000				
CEASR	355159.04N/1151542.89W	Y	FB	TF	162.84	06.57	AT/ABOVE 8000				
FORGE	355153.09N/1150406.47W	Y	FB	TF	090.54	09.43					
WILLW	355700.77N/1145240.97W	Y	FB	TF	061.06	10.60	AT/ABOVE 14000				
TRALR	361137.33N/1141440.59W	Y	FB	TF	064.48	34.09					
TRALR	361137.33N/1141440.59W	Y	-	IF	-	-			TRALR8.DVC		
NICLE	361843.67N/1131328.96W	Y	FB	TF	081.54	50.00					
DVC VORTAC	374831.46N/1085552.59W	Y	FB	TF	065.21	224.82					
QUALITY 3											

QUALITY  
3  
CHECKED



**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>EFFECTIVE DATE</u>
TRALR		EIGHT		TRALR8.TRALR		SEVEN		11/10/2016	
<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>
TRALR	361137.33N/1141440.59W	Y	-	IF	-	-			TRALR8.MLF
GEEOO	362609.96N/1133702.26W	Y	FB	TF	064.29	33.71			
NOGNN	372311.85N/1131945.83W	Y	FB	TF	013.58	58.62			
MLF VORTAC	382137.28N/1130047.64W	Y	FB	TF	014.34	60.26			
TRALR	361137.33N/1141440.59W	Y	-	IF	-	-			TRALR8.VERKN
NICLE	361843.67N/1131328.96W	Y	FB	TF	081.54	50.00			
SUNYY	363854.44N/1125047.99W	Y	FB	TF	042.12	27.22			
VERKN	372300.05N/1120421.69W	Y	FB	TF	039.95	57.64			

QUALITY  
3  
CHECKED