

**THIS IS A CORRECTED COPY  
OF THE PROCEDURE  
PREVIOUSLY PUBLISHED IN  
NFDD 098.**

**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SUPERSEDED NUMBER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>
RADYR	TWO	RADYR2.RADYR	ONE	02/25/2021	<b>12AUG2021</b>

<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 checked="" type="checkbox"/>

**DP ROUTE DESCRIPTION:**

TAKEOFF RWY 1L: CLIMB ON HEADING 013.92 TO 2682, THEN LEFT TURN DIRECT BESSY AT OR ABOVE 5000, THEN ON TRACK 190.61 TO HRRLY, THEN ON TRACK 190.34 TO CROSS GRUDN AT OR ABOVE 10000, THEN ON TRACK 170.51 TO CROSS RADYR AT OR ABOVE 13000, THENCE...

TAKEOFF RWY 1R: CLIMB ON HEADING 013.92 TO 2682, THEN LEFT TURN DIRECT BESSY AT OR ABOVE 5000, THEN ON TRACK 190.61 TO HRRLY, THEN ON TRACK 190.34 TO CROSS GRUDN AT OR ABOVE 10000, THEN ON TRACK 170.51 TO CROSS RADYR AT OR ABOVE 13000, THENCE...

TAKEOFF RWY 8L: CLIMB ON HEADING 078.93 TO INTERCEPT COURSE 090.10 TO CROSS FLAAR AT OR ABOVE 6000, THEN ON TRACK 151.75 TO CROSS HNIBL AT OR ABOVE 8000 AND AT OR BELOW 230 KIAS, THEN ON TRACK 211.35 TO VMPRE, THEN ON TRACK 248.51 TO CROSS FLABB AT OR ABOVE 13000, THEN ON TRACK 189.95 TO CROSS RADYR AT OR ABOVE 13000, THENCE...

TAKEOFF RWY 8R: CLIMB ON HEADING 078.93 TO 2682, THEN DIRECT SCAAR, THEN ON TRACK 089.96 TO CROSS FLAAR AT OR ABOVE 6000, THEN ON TRACK 151.75 TO CROSS HNIBL AT OR ABOVE 8000 AND AT OR BELOW 230 KIAS, THEN ON TRACK 211.35 TO VMPRE, THEN ON TRACK 248.51 TO CROSS FLABB AT OR ABOVE 13000, THEN ON TRACK 189.95 TO CROSS RADYR AT OR ABOVE 13000, THENCE...

TAKEOFF RWY 19L: CLIMB ON HEADING 193.92 TO 2682, THEN DIRECT DEREW AT OR BELOW 7000, THEN ON TRACK 189.29 TO CROSS RADYR AT OR ABOVE 13000, THENCE...

TAKEOFF RWY 19R: CLIMB ON HEADING 193.92 TO 2682, THEN DIRECT DEREW AT OR BELOW 7000, THEN ON TRACK 189.29 TO CROSS RADYR AT OR ABOVE 13000, THENCE...

TAKEOFF RWY 26L: CLIMB ON HEADING 258.95 TO 2682, THEN DIRECT SILTT, THEN ON TRACK 252.89 TO CROSS RUDYY AT OR ABOVE 4000 AND AT OR BELOW 230 KIAS, THEN ON TRACK 189.39 TO CROSS SELLZ AT OR BELOW 8000, THEN ON TRACK 180.32 TO CROSS RADYR AT OR ABOVE 13000, THENCE...

TAKEOFF RWY 26R: CLIMB ON HEADING 258.95 TO INTERCEPT COURSE 248.80 TO CROSS RUDYY AT OR ABOVE 4000 AND AT OR BELOW 230 KIAS, THEN ON TRACK 189.39 TO CROSS SELLZ AT OR BELOW 8000, THEN ON TRACK 180.32 TO CROSS RADYR AT OR ABOVE 13000, 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>
BOJAC	RADYR2.BOJAC	RADYR	DOYYL	TRACK 165.67	29.36	13000	10000	
		DOYYL	BOJAC	TRACK 098.19	43.57	13000	8500	
BLYTHE	RADYR2.BLH	RADYR	DOYYL	TRACK 165.67	29.36	13000	10000	
		DOYYL	ZELMA	TRACK 165.72	20.18	13000	8500	
		ZELMA	BLH VORTAC	TRACK 147.14	76.54	13000	7500	
HECTOR	RADYR2.HEC	RADYR	SLVRR	TRACK 216.89	23.51	13000	10500	

**QUALITY  
22  
CHECKED**

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RADYR		TWO	RADYR2.RADYR	ONE	02/25/2021	12AUG2021
	SLVRR		TOPAC	TRACK 216.12	12.68	13000 7500
	TOPAC		HEC VORTAC	TRACK 216.37	35.65	13000 6800
LVELL	RADYR2.LVELL	RADYR	DOYYL	TRACK 165.67	29.36	13000 10000
	DOYYL		ZELMA	TRACK 165.72	20.18	13000 8500
	ZELMA		JOTNU	TRACK 188.91	29.13	13000 6800
	JOTNU		LVELL	TRACK 200.53	8.11	13000 6800
BLAQQ	RADYR2.BLAQQ	RADYR	BLAQQ	TRACK 165.61	10.05	13000 7700
SLVRR	RADYR2.SLVRR	RADYR	SLVRR	TRACK 216.89	23.51	13000 10500

**PROCEDURAL DATA NOTES:**

NOTE: BLYTHE AND BOJAC TRANSITIONS: DO NOT FILE--ASSIGNED BY ATC.

NOTE: DME/DME/IRU OR GPS REQUIRED.

NOTE: RNAV 1.

NOTE: RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.

NOTE: TURBO-JET ONLY.

**TAKEOFF MINIMUMS:**

RWY 1L: STANDARD WITH MINIMUM CLIMB OF 515 FT PER NM TO 4500.

RWY 1R: STANDARD WITH MINIMUM CLIMB OF 530 FT PER NM TO 4500.

RWY 8L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2682, THEN MINIMUM CLIMB OF 220 FT PER NM TO 6300.

RWY 8R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2682, THEN MINIMUM CLIMB OF 215 FT PER NM TO 6300.

RWY 19L/R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2682, THEN MINIMUM CLIMB OF 255 FT PER NM TO 4400.

RWY 26L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2682, THEN MINIMUM CLIMB OF 270 FT PER NM TO 6700.

RWY 26R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2682, THEN MINIMUM CLIMB OF 275 FT PER NM TO 6700.

**TAKEOFF OBSTACLES NOTES:**

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

**CONTROLLING OBSTACLES:**

RWY 1L/R: 3229 FT MSL MONUMENT 360850.71N/1150919.85W (CLIMB GRADIENT), 5895 FT MSL AAO 355327.01N/1152320.16W (CLIMB-TO ALTITUDE).

RWY 8L/R: 5258 FT MSL AAO 355414.00N/1150237.93W.

RWY 19L/R: 3840 FT MSL AAO 355659.29N/1151230.11W.

RWY 26L/R: 5600 FT MSL AAO 355221.23N/1152157.62W.

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

CHART: TOP ALTITUDE: FL190.

REFERENCE MAG VAR: KLAS 11E EPOCH YR: 2020.

DME/DME/IRU ASSESSMENT: SAT (RNP 2.0)

**AIRPORTS SERVED:**

<u>AIRPORT NAME</u>	<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
MC CARRAN INTL	KLAS	LAS VEGAS	NV



<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
RADYR	TWO	RADYR2.RADYR	ONE	02/25/2021	12AUG2021

**COMMUNICATIONS:**

D-ATIS, CLNC DEL, CPDLC, TWR, DEP CON, GND CON

**FIXES AND/OR NAVAIDS:****REMARKS:**

ABBREVIATED AMENDMENT

LETTER OF APPROVAL ON FILE FOR RUNWAY 1L/1R CLIMB GRADIENTS IN EXCESS OF 500 FT PER NM.

**FLIGHT INSPECTED BY**

PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJF-10) MEMO, APRIL 29, 2020 SUBJECT: FLIGHT  
INSPECTION REVIEW NOT REQUIRED.

*Digitally signed by***ALLAN WILL**

Jun 28, 2021

**OFFICE****DATE****DEVELOPED BY** *Digitally signed by*KELLIE BARNES **KELLIE R BARNES**

Jun 28, 2021

**OFFICE**

AJV-A423

**DATE**

04/13/2021

**APPROVED BY**

MARLON ROBINSON

*Digitally signed by***ALLAN WILL**

Jun 28, 2021

**OFFICE**

AJV-A420

**DATE****TITLE**

MANAGER

**REQUIRED EFFECTIVE DATE**

ROUTINE

**COORDINATED WITH:**

**A4A** ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** ZLA, LAS APP CON, APT MGR.

**CHANGES - REASONS:**

1. CHANGED ALL COMPUTER CODE NUMBER FROM 1 TO 2 - NEW AMENDMENT
2. CHANGED RWY 8L INTERCEPT COURSE FROM 089.42 TO 090.10 IN DP ROUTE DESCRIPTION - DECONFLICT RWY 8L AND 8R FLIGHT PATHS TO FLAAR; INTERCEPT COURSE PREVIOUSLY FLIGHT CHECKED ON JOHCR RWY 8L DEPARTURE
3. ADDED "ABBREVIATED AMENDMENT" TO REMARKS - 82060.46G APPENDIX E
4. ADDED "SEE FORM 8260-15A, TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)" TO TAKEOFF OBSTACLE NOTES - 8260.46G APPENDIX 3

06/28/21: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 04/21/21.

1. CHANGED DPDLIC TO CPDLC IN COMMUNICATIONS



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

DP NAME						NUMBER	DP COMPUTER CODE		SUPERSEDED NUMBER		DATED	ACTUAL EFFECTIVE DATE
RADYR						TWO	RADYR2.RADYR		ONE		02/25/2021	12AUG2021
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED		REMARKS		
RW01L (AER)*	360436.44N/1151010.30W	N	-	-	-	-			*DISPL THLD (587 FT)			
2682 MSL	-	-	-	VA	024.92	-	AT/ABOVE 2682			CG 515 FT PER NM TO 4500.		
BESSY	360627.67N/1151722.56W	Y	FB	DF	-	-	AT/ABOVE 5000			LEFT TURN.		
HRRLY	355922.85N/1152049.61W	Y	FB	TF	201.61	7.60						
GRUDN	355534.14N/1152239.48W	Y	FB	TF	201.34	4.09	AT/ABOVE 10000					
RADYR	353632.42N/1152316.35W	Y	FB	TF	181.51	19.01	AT/ABOVE 13000					
RW01R (AER)*	360431.67N/1151000.44W	N	-	-	-	-			*DISPL THLD (491 FT)			
2682 MSL	-	-	-	VA	024.92		AT/ABOVE 2682			CG 530 FT PER NM TO 4500.		
BESSY	360627.67N/1151722.56W	Y	FB	DF	-	-	AT/ABOVE 5000			LEFT TURN.		
HRRLY	355922.85N/1152049.61W	Y	FB	TF	201.61	7.60						
GRUDN	355534.14N/1152239.48W	Y	FB	TF	201.34	4.09	AT/ABOVE 10000					
RADYR	353632.42N/1152316.35W	Y	FB	TF	181.51	19.01	AT/ABOVE 13000					
RW08L (AER)*	360434.95N/1150946.63W	N	-	-	-	-			*DISPL THLD (2139 FT)			
-	360435.11N/1150539.84W	-	-	VI	089.93	3.33			CG 500 FT PER NM TO 2682 THEN CG 220 FT PER NM TO 6300.			
FLAAR	360255.02N/1145425.66W	Y	FB	CF	101.10	9.26	AT/ABOVE 6000					
HNIBL	355903.67N/1145257.26W	Y	FB	TF	162.75	4.03	AT/ABOVE 8000	AT/BELOW 230K				
VMPRE	355252.47N/1145952.81W	Y	FB	TF	222.35	8.35						
FLABB	355018.01N/1151649.28W	Y	FB	TF	259.51	14.01	AT/ABOVE 13000					
RADYR	353632.42N/1152316.35W	Y	FB	TF	200.95	14.71	AT/ABOVE 13000					
QUALITY												

QUALITY  
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RADYR		TWO		RADYR2.RADYR		ONE		02/25/2021	12AUG2021
<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>
RW08R (AER)	360425.06N/1150941.16W	N	-	-	-	-			CG 500 FT PER NM TO 2682 THEN CG 215 FT PER NM TO 6300.
2682 MSL	-	-	-	VA	089.93	-	AT/ABOVE 2682		
SCAAR	360424.99N/1150355.43W	Y	FB	DF	-	-			
FLAAR	360255.02N/1145425.66W	Y	FB	TF	100.96	7.84	AT/ABOVE 6000		
HNIBL	355903.67N/1145257.26W	Y	FB	TF	162.75	4.03	AT/ABOVE 8000	AT/BELOW 230K	
VMPRE	355252.47N/1145952.81W	Y	FB	TF	222.35	8.35			
FLABB	355018.01N/1151649.28W	Y	FB	TF	259.51	14.01	AT/ABOVE 13000		
RADYR	353632.42N/1152316.35W	Y	FB	TF	200.95	14.71	AT/ABOVE 13000		
RW19L (AER)*	360547.01N/1150917.31W	N	-	-	-	-			*DISPL THLD (878 FT)
2682 MSL	-	-	-	VA	204.92	-	AT/ABOVE 2682		CG 500 FT PER NM TO 2682 THEN CG 255 FT PER NM TO 4400.
DEREW	360017.72N/1151231.20W	Y	FB	DF	-	-	AT/BELOW 7000		
RADYR	353632.42N/1152316.35W	Y	FB	TF	200.29	25.28	AT/ABOVE 13000		
RW19R (AER)	360551.77N/1150927.19W								
2682 MSL	-	-	-	VA	204.92	-	AT/ABOVE 2682		CG 500 FT PER NM TO 2682 THEN CG 255 FT PER NM TO 4400.
DEREW	360017.72N/1151231.20W	Y	FB	DF	-	-	AT/BELOW 7000		
RADYR	353632.42N/1152316.35W	Y	FB	TF	200.29	25.28	AT/ABOVE 13000		
RW26L (AER)	360425.17N/1150732.97W	N	-	-	-	-			CG 500 FT PER NM TO 2682 THEN CG 270 FT PER NM TO 6700.
2682 MSL	-	-	-	VA	269.95	-	AT/ABOVE 2682		
SILTT	360424.89N/1151214.37W	Y	FB	DF	-	-			
RUDYY	360407.63N/1151532.31W	Y	FB	TF	263.89	2.69	AT/ABOVE 4000	AT/BELOW 230K	

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RADYR		TWO		RADYR2.RADYR		ONE		02/25/2021	12AUG2021
<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>
SELLZ	355932.74N/1151738.02W	Y	FB	TF	200.39	4.88	AT/BELOW 8000		
RADYR	353632.42N/1152316.35W	Y	FB	TF	191.32	23.42	AT/ABOVE 13000		
RW26R (AER)*	360435.05N/1150732.94W	N	-	-	-	-			*DISPL THLD (1399 FT)
-	360434.77N/1151226.24W	-	-	VI	269.95	3.96			CG 500 FT PER NM TO 2682 THEN CG 275 FT PER NM TO 6700.
RUDYY	360407.63N/1151532.31W	Y	FB	CF	259.80	2.55	AT/ABOVE 4000	AT/BELOW 230K	
SELLZ	355932.74N/1151738.02W	Y	FB	TF	200.39	4.88	AT/BELOW 8000		
RADYR	353632.42N/1152316.35W	Y	FB	TF	191.32	23.42	AT/ABOVE 13000		
TRANSITIONS									
RADYR	353632.42N/1152316.35W	Y	-	IF	-	-	AT/ABOVE 13000		RADYR2.BLAQQ
BLAQQ	352629.38N/1152232.76W	Y	FB	TF	176.61	10.05			
RADYR	353632.42N/1152316.35W	Y	-	IF	-	-	AT/ABOVE 13000		RADYR2.BLH
DOYYL	350711.04N/1152111.64W	Y	FB	TF	176.67	29.36			
ZELMA	344659.99N/1151947.51W	Y	FB	TF	176.72	20.18			
BLH VORTAC	333545.83N/1144540.58W	Y	FB	TF	158.14	76.54			
RADYR	353632.42N/1152316.35W	Y	-	IF	-	-	AT/ABOVE 13000		RADYR2.BOJAC
DOYYL	350711.04N/1152111.64W	Y	FB	TF	176.67	29.36			
BOJAC	345239.92N/1143111.04W	Y	FB	TF	109.19	43.57			
RADYR	353632.42N/1152316.35W	Y	-	IF	-	-	AT/ABOVE 13000		RADYR2.HEC
SLVRR	352043.39N/1154435.31W	Y	FB	TF	227.89	23.51			

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RADYR		TWO		RADYR2.RADYR		ONE		02/25/2021	12AUG2021
<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>
TOPAC	351204.47N/1155555.36W	Y	FB	TF	227.12	12.68			
HEC VORTAC	344749.26N/1162746.52W	Y	FB	TF	227.37	35.65			
RADYR	353632.42N/1152316.35W	Y	-	IF	-	-	AT/ABOVE 13000		RADYR2.LVELL
DOYYL	350711.04N/1152111.64W	Y	FB	TF	176.67	29.36			
ZELMA	344659.99N/1151947.51W	Y	FB	TF	176.72	20.18			
JOTNU	341933.11N/1153146.29W	Y	FB	TF	199.91	29.13			
LVELL	341237.38N/1153653.25W	Y	FB	TF	211.53	8.11			
RADYR	353632.42N/1152316.35W	Y	-	IF	-	-	AT/ABOVE 13000		RADYR2.SLVRR
SLVRR	352043.39N/1154435.31W	Y	FB	TF	227.89	23.51			

