

**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SUPERSEDED NUMBER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	ONE	RADYR1.RADYR	NONE		02/25/2021
<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 089.42 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	RADYR1.BOJAC	RADYR	DOYYL	TRACK 165.67	29.36	13000	10000	
		DOYYL	BOJAC	TRACK 098.19	43.57	13000	8500	
BLYTHE	RADYR1.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	RADYR1.HEC	RADYR	SLVRR	TRACK 216.89	23.51	13000	10500	

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RADYR		ONE	RADYR1.RADYR	NONE		02/25/2021
	SLVRR		TOPAC	TRACK 216.12	12.68	13000 7500
	TOPAC		HEC VORTAC	TRACK 216.37	35.65	13000 6800
LVELL	RADYR1.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	RADYR1.BLAQQ	RADYR	BLAQQ	TRACK 165.61	10.05	13000 7700
SLVRR	RADYR1.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:**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	ONE	RADYR1.RADYR	NONE		02/25/2021

COMMUNICATIONS:

D-ATIS, CLNC DEL, DPDLG, TWR, DEP CON, GND CON.

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

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

FLIGHT INSPECTED BY

PENDING

*Digitally signed by***JOHN BORDY**

Jan 14, 2021

OFFICE**DATE****DEVELOPED BY**

ALLAN WILL (SHANE FOWLER)

*Digitally signed by***JOHN BORDY**

Jan 14, 2021

OFFICE

AJV-A423

DATE

12/16/2019

APPROVED BY

MARLON ROBINSON

*Digitally signed by***JOHN BORDY**

Jan 14, 2021

OFFICE

AJV-A420

DATE**TITLE**

MANAGER

REQUIRED EFFECTIVE DATE

02/25/2021

COORDINATED WITH:

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

CHANGES - REASONS:

02/19/20: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 12/16/19.

1. CHANGED "RADYR TO BLAQQ" TO "RADYR TO DOYYL" AND CHANGED COURSE/DISTANCE/MOCA FROM 165.61/10.05/7700 TO 165.67/29.36/10000 - DELETED BLAQQ FROM BLYTHE AND LVELL TRANSITIONS.

03/12/20: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 12/16/19.

1. REMOVED ALL MOCAS FROM THE FORM - PER FICO REQUEST.
2. ADDED NOTE: MOCAS NOT PUBLISHED TO PROCEDURAL DATA NOTES SECTION - PER FICO REQUEST.
3. ADDED GND CON TO COMMUNICATIONS - ATC REQUEST.

01/12/21: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 03/16/20.

1. ADDED ALL PREVIOUSLY REMOVED MOCAS FROM THE FORM - CRITERIA.
2. REMOVED NOTE: MOCAS NOT PUBLISHED FROM PROCEDURAL DATA NOTES SECTION - APPLYING MOCAS.
3. CHANGED REQUIRED EFFECTIVE DATE FROM "ROUTEINE" TO READ "02/25/2021" - HAS A HARD DATE.
4. ADDED 02/25/2021 TO THE ACTUAL EFFECTIVE DATE AT THE TOP OF ALL PAGES - HAS A HARD DATE.

QUALITY
49
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>ACTUAL EFFECTIVE DATE</u>
RADYR		ONE		RADYR1.RADYR		NONE			02/25/2021
<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)
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	100.42	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		



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RADYR		ONE		RADYR1.RADYR		NONE			02/25/2021
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
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		ONE		RADYR1.RADYR		NONE			02/25/2021
<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		RADYR1.BLAQQ
BLAQQ	352629.38N/1152232.76W	Y	FB	TF	176.61	10.05			
RADYR	353632.42N/1152316.35W	Y	-	IF	-	-	AT/ABOVE 13000		RADYR1.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		RADYR1.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		RADYR1.HEC
SLVRR	352043.39N/1154435.31W	Y	FB	TF	227.89	23.51			

QUALITY
49
CHECKED

DP NAME						NUMBER	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE
RADYR						ONE	RADYR1.RADYR	NONE		02/25/2021
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS	
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		RADYR1.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		RADYR1.SLVRR	
SLVRR	352043.39N/1154435.31W	Y	FB	TF	227.89	23.51				

