

**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SUPERSEDED NUMBER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>
JOHKR	FOUR	JOHKR4.JOHKR	THREE	05/22/2022	31OCT2024

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

DP ROUTE DESCRIPTION:

TAKEOFF RWY 01L/01R: 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 KWYYN, THEN ON TRACK 263.06 TO CROSS RAWKK AT OR ABOVE 13000, THEN ON TRACK 263.08 TO JOHKR, THENCE ...

TAKEOFF RWY 08L: 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 260.34 TO JOHKR, THENCE ...

TAKEOFF RWY 08R: 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 260.34 TO JOHKR, THENCE ...

TAKEOFF RWY 19L/19R: CLIMB ON HEADING 193.92 TO 2682, THEN DIRECT DEREW AT OR BELOW 7000, THEN ON TRACK 188.00 TO CARNG, THEN ON TRACK 218.00 TO COMIC, THEN ON TRACK 224.34 TO MGNT0, THEN ON TRACK 260.48 TO CROSS KRUGR AT OR BELOW 11000 AND AT OR BELOW 250 KIAS, THEN ON TRACK 260.37 TO JOHKR, 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 197.02 TO MGNT0, THEN ON TRACK 260.48 TO CROSS KRUGR AT OR BELOW 11000 AND AT OR BELOW 250 KIAS, THEN ON TRACK 260.37 TO JOHKR, THENCE ...

TAKEOFF RWY 26R: CLIMB ON HEADING 258.96 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 197.02 TO MGNT0, THEN ON TRACK 260.48 TO CROSS KRUGR AT OR BELOW 11000 AND AT OR BELOW 250 KIAS, THEN ON TRACK 260.37 TO JOHKR, 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>
KENNO	JOHKR4.KENNO	JOHKR	GRYMZ	TRACK 303.97	32.86	15000	8600	
		GRYMZ	DEDPL	TRACK 305.14	13.50	15000	8900	
		DEDPL	BIKKR	TRACK 306.50	09.95	17000	8700	
		BIKKR	CAGEE	TRACK 306.42	13.86	17000	7700	
		CAGEE	KENNO	TRACK 321.52	37.95	17000	11000	

PBN REQUIREMENT NOTES:

RNAV 1 - DME/DME/IRU OR GPS



<u>DP NAME</u>	<u>NUMBER</u>	<u>DP COMPUTER CODE</u>	<u>SUPERSEDED NUMBER</u>	<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
JOHKR	FOUR	JOHKR4.JOHKR	THREE	05/22/2022	31OCT2024

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT

PROCEDURAL DATA NOTES:**TAKEOFF MINIMUMS:**

RWY 1L: STANDARD WITH MINIMUM CLIMB OF 514' PER NM TO 8700.

RWY 1R: STANDARD WITH MINIMUM CLIMB OF 526' PER NM TO 8700.

RWY 8L: STANDARD WITH MINIMUM CLIMB OF 500' PER NM TO 2682, THEN MINIMUM CLIMB OF 360' PER NM TO 10500.

RWY 8R: STANDARD WITH MINIMUM CLIMB OF 500' PER NM TO 2682, THEN MINIMUM CLIMB OF 250' PER NM TO 6500.

RWY 19L/R: STANDARD WITH MINIMUM CLIMB OF 500' PER NM TO 2682, THEN MINIMUM CLIMB OF 350' PER NM TO 9200.

RWY 26L: STANDARD WITH MINIMUM CLIMB OF 500' PER NM TO 2682, THEN MINIMUM CLIMB OF 360' PER NM TO 9300.

RWY 26R: STANDARD WITH MINIMUM CLIMB OF 500' PER NM TO 2682, THEN MINIMUM CLIMB OF 360' PER NM TO 9000.

TAKEOFF OBSTACLES NOTES:

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

CONTROLLING OBSTACLES:

RWY 1L/1R: 3229 FT MSL MONUMENT 360850.71N/1150919.85W (CLIMB GRADIENT), 6873 FT MSL AAO 355406.00N/1153109.00W (CLIMB-TO ALTITUDE).

RWY 8L/8R: 5246 FT MSL AAO 355421.00NN/1150242.00W.

RWY 19L/19R, 26L/26R: 7792 FT MSL AAO 355609.00N/1152948.00W.

MSA:

FROM KLAS 13200

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

CHART: TOP ALTITUDE: FL190.

CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT RUDYY.

CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT HNIBL.

CHART SPEED ICON MAXIMUM SPEED 250 KIAS AT KRUGR.

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

AIRPORT MV: LAS 11E/2020

AIRPORTS SERVED:

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
KLAS	LAS VEGAS	NV

COMMUNICATIONS:

CHART: D-ATIS, CLNC DEL, CPDLC, TWR, GND CON.

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

HISTORICAL TAILWINDS (2018-2022 - 99TH PERCENTILE) USED.

APPROVAL LETTER ON FILE FOR RWY 1L/R CG IN EXCESS OF 500 FEET PER NM.

CLIMB GRADIENT IN EXCESS OF 200 FT PER NM APPLIED TO SUPPORT OPERATIONAL REQUIREMENTS AND OBSTACLES.



DP NAME

JOHKR

NUMBER

FOUR

DP COMPUTER CODE

JOHKR4.JOHKR

SUPERSEDED NUMBER

THREE

DATED

05/22/2022

ACTUAL EFFECTIVE DATE

31OCT2024

FLIGHT INSPECTED BY

GARY VEER

SIGNATURE

Digitally signed by
DAVID DANNER

Aug 21, 2024

OFFICE

FIOG

DATE

8/15/2024

DEVELOPED BY

LEO PALMER

SIGNATURE

Digitally signed by
LEO PALMER

Aug 16, 2024

OFFICE

AJV-A421

DATE

04/11/2024

APPROVED BY

DAVE DANNER

SIGNATURE

Digitally signed by
DAVID DANNER

Aug 16, 2024

OFFICE

AJV-A420

DATE

TITLE

MANAGER

REQUIRED EFFECTIVE DATE

ROUTINE

Aug 21, 2024

COORDINATED WITH:

A4A ALPA AOPA APA HAI NBAA OTHER:LAS APP CON, APT MGR

CHANGES - REASONS:
MEAS JOHKR TO GRYMZ LOWERED FROM FL180 TO 15000--UPDATED DME ANALYSIS, PER FPT
MEAS GRYMZ TO DEDPL LOWERED FROM FL180 TO 15000--UPDATED DME ANALYSIS, PER FPT
MEAS DEDPL TO BIKKR LOWERED FROM FL210 TO 17000--UPDATED DME ANALYSIS, PER FPT
MEAS BIKKR TO CAGEE LOWERED FROM FL210 TO 17000--UPDATED DME ANALYSIS, PER FPT
MEAS CAGEE TO KENNO LOWERED FROM FL210 TO 17000--UPDATED DME ANALYSIS, PER FPT
DEDPL TO BIKKR TRANSITION MOCA CHANGED FROM 8600 TO 8700. - TERRAIN EVAL UPDATED USING 3DEP.
CAGEE TO KENNO TRANSITION MOCA CHANGED FROM 10900 TO 11000. -TERRAIN EVAL UPDATED USING 3DEP
REMOVED CHART NOTE: "TURBOJETS ONLY." FROM PROCEDURAL NOTES. -ALLOWS OTHER PROPULSION TYPES TO USE DP, PER FPT
SPEED RESTRICTION OF AT/BELOW 230 KIAS ADDED AT BESSY TO RESOLVE VA/DF WIND SPIRAL FAILURE. - PER FPT FOR AIRSPACE CONGESTION.
SPEED RESTRCTION OF AT/BELOW 250 KIAS ADDED AT KRUGR TO MITIGATE OVERSHOOTS OF 11000 FOOT RESTRICTION DURING CLIMB. - PER FPT FOR AIRSPACE CONGESTION.
RWY 1R TAKEOFF MINIMUM CG CHANGED FROM 525 FT PER NM TO 526 FT PER NM TO 8700, TO RESOLVE OCS PENETRATION (UNROUNDED 525.1289).
ADDED "MSA: FROM KLAS 13200". - IAW 8260.46J APP. E SEC 1
RWY 1R/1R CGTA CONTROLLING OBS CHANGED FROM 7500 FT AAO TO 6873 FT AAO. - TERRAIN EVAL UPDATED USING 3DEP.
RWY 8L/8R CONTROLLING OBS CHANGED FROM 8366/5561 FT AAO, TO 5246 FT AAO. - TERRAIN EVAL UPDATED USING 3DEP.
19L/R, 26L/R CONTROLLING OBS CHNAGED FROM 7989 FT AAO TO 7792 FT AAO. - TERRAIN EVAL UPDATED USING 3DEP.
"REFERENCE MAG VAR: KLAS 11E EPOCH YR: 2020" CHANGED TO "AIRPORT MV: LAS 11E/2020". IAW MEMO: MAG VAR DOCUMENTATION FOR SID AND GRAPHIC DP'S.
REMARKS: "HISTORICAL TAILWINDS FOR RWY 1L/R TRANSITIONS" CHANGED TO "HISTORICAL TAILWINDS (2018-2022 - 99TH PERCENTILE) USED". - TARGETS APPLIED HISTORICAL WIND.

6/28/2024: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/11/2024.
1. 8260-15B; DP ROUTE DESCRIPTION; RWY 01L/01R: ADDED "AND" BETWEEN "AT OR ABOVE 5000" AND "AT OR BELOW 230 KIAS, AND ADDED A SPACE BETWEEN "190.34TO".
2. 8260-15C; RW01L; JOHKR: TRUE COURSE CHANGED TO "274.08" FROM "270.08".
3. 8260-15C; RW08L: CHANGED COORDINATES – FLAAR CHANGED TO "360255.02N/1145425.66W" FROM "360435.13N/1150457.12W"; HNIBL CHANGED TO "355903.67N/1145257.26W" FROM "360255.02N/1145425.66W"; AND VMPRE CHANGED TO "355252.47N/1145952.81W" FROM "55903.67N/1145257.26W".
4. 8260-15C; RW26R; VI LEG: ADDED DISTANCE, "3.96".

8/16/2024: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/11/2024.
1. REMOVED "CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT BESSY" - PER FPT, NOT LONGER REQUESTED, DUE TO TRAFFIC CONGESTION.



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

DP NAME				NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		ACTUAL EFFECTIVE DATE	
JOHKR				FOUR		JOHKR4.JOHKR		THREE		05/22/2022		31OCT2024	
FIX/NAVAID		LAT/LONG		C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE		SPEED		REMARKS
RW01L (AER)*		360436.44N/1151010.30W		N	-	-	-	-					*DISPL THLD (587.0 FT)
2682 MSL		-		-	-	VA	024.92	-					CG 514 FT PER NM TO 8700
BESSY		360627.67N/1151722.56W		Y	FB	DF	-	-	AT/ABOVE 5000				LEFT TURN
HRRLY		355922.85N/1152049.61W		Y	FB	TF	201.61	07.60					
KWYYN		355155.06N/1152424.55W		Y	FB	TF	201.34	08.00					
RAWKK		355226.01N/1153325.78W		Y	FB	TF	274.06	07.35	AT/ABOVE 13000				
JOHKR		355343.51N/1155618.66W		Y	FB	TF	274.08	18.64					
RW01R (AER)*		360431.67N/1151000.44W		N	-	-	-	-					*DISPL THLD (491.0 FT)
2682 MSL		-		-	-	VA	024.92	-					CG 526 FT PER NM TO 8700
BESSY		360627.67N/1151722.56W		Y	FB	DF	-	-	AT/ABOVE 5000				LEFT TURN
HRRLY		355922.85N/1152049.61W		Y	FB	TF	201.61	07.60					
KWYYN		355155.06N/1152424.55W		Y	FB	TF	201.34	08.00					
RAWKK		355226.01N/1153325.78W		Y	FB	TF	274.06	07.35	AT/ABOVE 13000				
JOHKR		355343.51N/1155618.66W		Y	FB	TF	274.08	18.64					
RW08L (AER)*		360434.95N/1150946.63W		N	-	-	-	-					*DISPL THLD (2139.0 FT)
-		360435.13N/1150457.12W		-	-	VI	089.93	03.91					CG 500 FT PER NM TO 2682 THEN CG 360 FT PER NM TO 10500
FLAAR		360255.02N/1145425.66W		Y	FB	CF	101.10	08.69	AT/ABOVE 6000				
HNIBL		355903.67N/1145257.26W		Y	FB	TF	162.75	04.03	AT/ABOVE 8000		AT/BELOW 230K		
VMPRE		355252.47N/1145952.81W		Y	FB	TF	222.35	08.35					
JOHKR		355343.51N/1155618.66W		Y	FB	TF	271.34	45.86					

QUALITY

23

QUALITY
23
CHECKED

DP NAME		NUMBER					DP COMPUTER CODE		SUPERSEDED NUMBER		DATED		ACTUAL EFFECTIVE DATE	
JOHKR		FOUR					JOHKR4.JOHKR		THREE		05/22/2022		31OCT2024	
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS					
RW08R (AER)	360425.06N/1150941.16W	N	-	-	-	-								
2682 MSL	-	-	-	VA	089.93	-			CG 500 FT PER NM TO 2682 THEN CG 250 FT PER NHM TO 6500					
SCAAR	360424.99N/1150355.43W	Y	FB	DF	-	-								
FLAAR	360255.02N/1145425.66W	Y	FB	TF	100.96	07.84	AT/ABOVE 6000							
HNIBL	355903.67N/1145257.26W	Y	FB	TF	162.75	04.03	AT/ABOVE 8000	AT/BELOW 230K						
VMPRE	355252.47N/1145952.81W	Y	FB	TF	222.35	08.35								
JOHKR	355343.51N/1155618.66W	Y	FB	TF	271.34	45.86								
RW19L (AER)*	360547.01N/1150917.31W	N	-	-	-	-			*DISPL THLD (878.0 FT)					
2682 MSL	-		-	VA	204.92	-			CG 500 FT PER NM TO 2682 THEN CG 350 FT PER NM TO 9200.					
DEREW	360017.72N/1151231.20W	Y	FB	DF	-	-	AT/BELOW 7000							
CARNG	355820.68N/1151320.79W	Y	FB	TF	199.00	02.06								
COMIC	355602.67N/1151635.95W	Y	FB	TF	229.00	03.50								
MGNT0	355304.95N/1152151.60W	Y	FB	TF	235.34	05.20								
KRUGR	355319.14N/1153332.86W	Y	FB	TF	271.48	09.50	AT/BELOW 11000	AT/BELOW 250K						
JOHKR	355343.51N/1155618.66W	Y	FB	TF	271.37	18.50								
RW19R (AER)	360551.77N/1150927.19W	N	-	-	-	-								
2682 MSL	-	-	-	VA	204.92	-			CG 500 FT PER NM TO 2682 THEN CG 350 FT PER NM TO 9200					
DEREW	360017.72N/1151231.20W	Y	FB	DF	-	-	AT/BELOW 7000							
CARNG	355820.68N/1151320.79W	Y	FB	TF	199.00	02.06								
COMIC	355602.67N/1151635.95W	Y	FB	TF	229.00	03.50								
MGNT0	355304.95N/1152151.60W	Y	FB	TF	235.34	05.20								

QUALITY

QUALITY
23
CHECKED

DP NAME		NUMBER		DP COMPUTER CODE		SUPERSEDED NUMBER		DATED	ACTUAL EFFECTIVE DATE
JOHKR		FOUR		JOHKR4.JOHKR		THREE		05/22/2022	31OCT2024
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
KRUGR	355319.14N/1153332.86W	Y	FB	TF	271.48	09.50	AT/BELOW 11000	AT/BELOW 250K	
JOHKR	355343.51N/1155618.66W	Y	FB	TF	271.37	18.50			
RW26L (AER)	360425.17N/1150732.97W	N	-	-	-	-			
2682 MSL	-	-	VA	-	269.95	-			CG 500 FT PER NM TO 2682 THEN CG 360 FT PER NM TO 9300
SILTT	360424.89N/1151214.37W	Y	FB	DF	-	-			
RUDYY	360407.63N/1151532.31W	Y	FB	TF	263.89	02.69	AT/ABOVE 4000	AT/BELOW 230K	
SELLZ	355932.74N/1151738.02W	Y	FB	TF	200.39	04.88	AT/BELOW 8000		
MGNT0	355304.95N/1152151.60W	Y	FB	TF	208.02	07.31	AT/BELOW 11000		
KRUGR	355319.14N/1153332.86W	Y	FB	TF	271.48	09.50		AT/BELOW 250K	
JOHKR	355343.51N/1155618.66W	Y	FB	TF	271.37	18.50			
RW26R (AER)*	360435.05N/1150732.94W	N	-	-	-	-			*DISPL THLD (1399.0 FT)
-	360434.77N/1151226.20W	-	-	VI	269.96	3.96			CG 500 FT PER NM TO 2682 THEN 360 FT PER NM TO 9000.
RUDYY	360407.63N/1151532.31W	Y	FB	CF	259.80	02.55	AT/ABOVE 4000	AT/BELOW 230K	
SELLZ	355932.74N/1151738.02W	Y	FB	TF	200.39	04.88	AT/BELOW 8000		
MGNT0	355304.95N/1152151.60W	Y	FB	TF	208.02	07.31			
KRUGR	355319.14N/1153332.86W	Y	FB	TF	271.48	09.50	AT/BELOW 11000	AT/BELOW 250K	
JOHKR	355343.51N/1155618.66W	Y	FB	TF	271.37	18.50			
JOHKR	355343.51N/1155618.66W	Y	-	IF	-	-		JOHKR4.KENNO	
GRYMZ	361655.44N/1162503.92W	Y	FB	TF	314.97	32.86			
DEDPL	362639.73N/1163639.53W	Y	FB	TF	316.14	13.50			

QUALITY
23
CHECKED

<u>DP NAME</u>		<u>NUMBER</u>		<u>DP COMPUTER CODE</u>		<u>SUPERSEDED NUMBER</u>		<u>DATED</u>	<u>ACTUAL EFFECTIVE DATE</u>
JOHKR		FOUR		JOHKR4.JOHKR		THREE		05/22/2022	31OCT2024
<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>
BIKKR	363400.00N/1164500.00W	Y	FB	TF	317.50	09.95			
CAGEE	364412.42N/1165639.93W	Y	FB	TF	317.42	13.86			
KENNO	371753.37N/1171836.81W	Y	FB	TF	332.52	37.95			

