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 statue miles or feet RVR unless otherwise indicated.

DP NAN	<u>1E</u>					<u>NUMBER</u>	DP COMPUTER CODE	SUPERSEDED NUMBER	DATED	ACTUAL EFFECTIVE DATE
RUGGD						THREE	RUGGD3.RUGGD	TWO	08/12/2021	20APR2023
TYPE:	OBSTACLE	COPTER	SID	SPECIAL	RNAV					
			\boxtimes		\boxtimes					

DP ROUTE DESCRIPTION:

TAKEOFF RWY 16L, 16R, 17: CLIMBING RIGHT TURN ON A HEADING BETWEEN 280 CW 340 FROM DEPARTURE END OF RUWNAY AS ASSIGNED BY ATC, THENCE...
TAKEOFF RWY 34L, 34R, 35: CLIMBING LEFT TURN ON A HEADING BETWEEN 310 CW 340 FROM DEPARTURE END OF RUNWAY AS ASSIGNED BY ATC, THENCE...

...ON RADAR VECTORS TO CROSS BUBBY AT OR ABOVE 11000, THEN ON TRACK 054.04 TO CROSS RUGGD AT OR ABOVE 12000, THEN ON (TRANSITION). MAINTAIN FL230 OR LOWER FILED ALTITUDE. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

TRANSITION NAME	TRANSITION COMPUTER CODE	<u>FROM</u> <u>FIX/NAVAID</u>	<u>TO</u> <u>FIX/NAVAID</u>	COURSE	DISTANCE	MEA	MOCA	<u>CROSSING</u> <u>ALTITUDE/FIXES</u>
MEEKER	RUGGD3.EKR	RUGGD	UPJAR	TRACK 130.06	26.24	17000	11500	
		UPJAR	BORZI	TRACK 095.50	53.21	FL190	14800	
		BORZI	EKR VOR/DME	TRACK 092.78	112.18	FL190	12600	
HOLTR	RUGGD3.HOLTR	RUGGD	KLOUD	TRACK 359.10	15.46	13000	11600	
		KLOUD	SAWGI	TRACK 005.40	25.42	16000	11600	
		SAWGI	HOLTR	TRACK 358.56	30.66	16000	11600	
KIERA	RUGGD3.KIERA	RUGGD	LOFOG	TRACK 137.12	31.20	15000	11500	
		LOFOG	LEGBE	TRACK 099.68	45.80	FL180	13700	
		LEGBE	KIERA	TRACK 099.00	30.00	FL180	10900	
ROCK SPRINGS	RUGGD3.OCS	RUGGD	SPINE	TRACK 096.72	17.33	13000	11500	
		SPINE	SKIII	TRACK 072.36	16.00	14000	11400	
		SKIII	POPLE	TRACK 059.76	15.04	17000	10500	
		POPLE	OCS VOR/DME	TRACK 060.10	82.09	FL190	10700	
PERTY	RUGGD3.PERTY	RUGGD	HERTS	TRACK 117.97	21.50	15000	10900	OVAL/7/
		HERTS	PERTY	TRACK 087.76	62.41	16000	15700	8
								CAECKED.

DP NAME RUGGD NUMBER THREE DP COMPUTER CODE RUGGD3.RUGGD SUPERSEDED NUMBER
TWO

DATED 08/12/2021

20APR2023

PROCEDURAL DATA NOTES:

NOTE: TURBOJET AIRCRAFT ONLY.

NOTE: AIRCRAFT LANDING DENVER INTERNATIONAL AIRPORT, FILE THE PERTY TRANSITION.

PBN REQUIREMENTS NOTES:

RNAV 1 - DME/DME/IRU OR GPS.

EQUIPMENT REQUIREMENT NOTES:

NOTE: RADAR REQUIRED.

TAKEOFF MINIMUMS:

RWY 14, 32: NA-ATC.

RWY 16L: STANDARD WITH MINIMUM CLIMB OF 470 FT PER NM TO 9900.
RWY 16R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 9700.
RWY 17: STANDARD WITH MINIMUM CLIMB OF 425 FT PER NM TO 9400.
RWY 34L: STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 8500.
RWY 34R: STANDARD WITH MINIMUM CLIMB OF 310 FT PER NM TO 11500.
RWY 35: STANDARD WITH MINIMUM CLIMB OF 305 FT PER NM TO 11500.

TAKEOFF OBSTACLES NOTES:

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

CONTROLLING OBSTACLES:

RWY 16L: 8479 FT MSL AAO 404111.67N/1121204.97W. **RWY 16R:** 8359 FT MSL AAO 404114.81N/1121203.19W. **RWY 17:** 8159 FT MSL AAO 404120.23N/1121201.78W.

RWY 34L: 6779 FT MSL AAO 405742.81N/1121256.39W (CLIMB GRADIENT), 9919 FT MSL AAO 412147.08N/1115738.54W (CLIMB-TO ALTITUDE).

RWY 34R, 35: 9799 FT MSL AAO 4411159.50N/1115255.18W.

MSA:

MSA FROM ARP KSLC 13000.

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

AIRPORT MV: SLC (P) 11E/2020.

DME/DME ASSESSMENT: SAT(RNP 2.0).

CHART: TOP ALTITUDE: FL230.

CHART: MINIMUM CROSSING ALTITUDE AT BUBBY-11000.

AIRPORTS SERVED:

AIRPORT ID CITY STATE

KSLC SALT LAKE CITY UT

COMMUNICATIONS:

CHART: ATIS. CLNC DEL. CPDLC. GND CON, SLC ATCT.

FIXES AND/OR NAVAIDS:

WECKED 8

NFDD NO 018 01/27/2023 50

DP NAME **NUMBER DP COMPUTER CODE SUPERSEDED NUMBER DATED ACTUAL EFFECTIVE DATE** 20APR2023 **RUGGD THREE** RUGGD3.RUGGD TWO 08/12/2021

OFFICE

FPO

OFFICE

AJV-A431

OFFICE

AJV-A430

DATE

01/04/2023

DATE

08/10/2022

DATE

TITLE

MANAGER

REMARKS:

- 1. MAXIMUM 100 FT VEGETATION HEIGHT APPLIED.
- 2. DO NOT CHART MOCA: FROM HERTS TO PERTY.

FLIGHT INSPECTED BY

Digitally signed by

ALEX KRAUSE

ERIC N SUSKI

Jan 10, 2023

DEVELOPED BY Digitally signed by

ERIC N SUSKI (MICHAEL MCCARTNEY) **ERIC N SUSKI**

Oct 20, 2022

APPROVED BY Digitally signed by

JOHNNIF BAKER **ERIC N SUSKI**

Oct 20, 2022

REQUIRED EFFECTIVE DATE

ROUTINE

COORDINATED WITH:

ALPA AOPA X A4A 🔀 $APA \times$ HAI 🗌 NBAA 🔀 OTHER: ZLC ARTCC, SLC TRACON, SLC ATCT, AMGR

CHANGES - REASONS:

- 1. CHANGED THE MTU TRANSITION TO KIERA TRANSITION, REMOVED MTU VOR/DME FROM SID AND ESTABLISHED FIX KIERA. DE-CONFLICT WITH ARRIVALS PER ATC.
- 2. CHANGED THE JORGY TRANSITION TO OCS TRANSITION, REMOVED JORGY FROM SID AND ESTABLISHED OCS VOR/DME. DE-CONFLICT WITH ARRIVALS PER ATC.
- 3. REMOVED "SLC DEP CON" FROM COMMUNICATIONS BLOCK. WILL BE CHARTED AUTOMATICALLY IAW FAAO 8260.46H PARAGRAPH 2-1-1.E.(1).
- 4. COMBINED AND CHANGED NOTES FROM "RNAV 1" AND "DME/DME/IRU OR GPS REQUIRED" TO "RNAV 1 DME/DME/IRU OR GPS" AND MOVED FROM PROCEDURAL DATA NOTES TO PBN REQUIREMENTS NOTES SECTION. - IAW FAAO 8260.46H PARAGRAPH 2-1-1.F.(6).
- 5. MOVED "RADAR REQUIRED" FROM PROCEDURAL DATA NOTES TO EQUIPMENT REQUIREMENTS NOTES SECTION. IAW FAAO 8260.46H PARAGRAPH 2-1-1.F.(3).
- 6. ADDED MOCA 14800 ON UPJAR TO BORZI SEGMENT. REQUIRED IAW FAAO 8260.46H APPENDIX E.4.H AND AJV MEMORANDUM "CLARIFICATION TO FAA ORDER 8260.46, DEPARTURE PROCEDURE (DP) PROGRAM, MOCA DOCUMENTATION", DATED JULY 1, 2021.
- 7. ADDED MOCA 12600 ON BORZI TO EKR VOR/DME SEGMENT. REQUIRED IAW FAAO 8260.46H APPENDIX E.4.H AND AJV MEMORANDUM "CLARIFICATION TO FAA ORDER 8260.46. DEPARTURE PROCEDURE (DP) PROGRAM, MOCA DOCUMENTATION", DATED JULY 1, 2021.
- 8. CHANGED MEA ON KLOUD TO SAWGI SEGMENT FROM 17000 TO 16000. ATC REQUEST AND NEW DME/DME EVALUATION.
- 9. CHANGED MEA ON SAWGI TO HOLTR SEGMENT FROM 17000 TO 16000. ATC REQUEST AND NEW DME/DME EVALUATION.
- 10. CHANGED MEA ON RUGGD TO HERTS SEGMENT FROM 17000 TO 15000. ATC REQUEST AND NEW DME/DME EVALUATION.
- 11. CHANGED MEA ON HERTS TO PERTY SEGMENT FROM FL190 TO 16000. ATC REQUEST AND NEW DME/DME EVALUATION.
- 12. ADDED MOCA 15700 ON HERTS TO PERTY SEGMENT. REQUIRED IAW FAA 8260.46H APPENDIX E.4.H.
- 13. ADDED REMARK "DO NOT CHART MOCA: FROM HERTS TO PERTY." MOCA IS WITHIN 500 FEET OF MEA AND NOT DOCUMENTED IAW AJV MEMORANDUM "CLARIFICATION TO FAA ORDER 8260.46, DEPARTURE PROCEDURE (DP) PROGRAM, MOCA DOCUMENTATION", DATED JULY 1, 2021.
- 14. CHANGED CONTROLLING OBSTACLE RWY 16L FROM 8320 FT MSL AAO 404114.81N/1121203.19W TO 8479 FT MSL AAO 404111.67N/1121204.97W. NEW OBSTACLE EVALUATION.
- 15. CHANGED TAKEOFF MINIMUMS RWY 16L FROM "STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 9700" TO "STANDARD WITH MINIMUM CLIMB OF 470 FT PER NM TO 9900". CHANGED TO OBSTACLE BASED CLIMB GRADIENT AND CLIMB GRADIENT TERMINATION ALTITUDE FOR NEW CONTROLLING OBSTACLE IAW FAAO 8260,46H PARAGRAPH 2-1-1.E.(3)(A).
- 16. CHANGED CONTROLLING OBSTACLE RWY 16R FROM 8320 FT MSL AAO 404114.81N/1121203.19W TO 8359 FT MSL AAO 404114.81N/1121203.19W. NEW OBSTACLE EVALUATION.
- 17. UPDATED VERBIAGE RWY 16R TAKEOFF MINIMUMS FROM "STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 9700". -IAW FAAO 8260.46H APPENDIX E.8.C.
- 18. CHANGED CONTROLLING OBSTACLE RWY 17 FROM 7958 FT MSL AAO 404135.36N/1121154.74W TO 8159 FT MSL AAO 404120.23N/1121201.78W. NEW OBSTACLE EVALUATION.
- 19. CHANGED TAKEOFF MINIMUMS RWY 17 FROM "STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 9700" TO "STANDARD WITH MINIMUM CLIMB OF 425 FT PER NM TO 9400". CHANGED TO OBSTACLE BASED CLIMB GRADIENT AND CLIMB GRADIENT TERMINATION ALTITUDE FOR NEW CONTROLLING OBSTACLE IAW FAAO 8260.46H PARAGRAPH 2-1-1.E.(3)(A).
- 20. CHANGED CONTROLLING OBSTACLE RWY 34L FROM 6796 FT MSL AAO 405742.89N/1121257.40W TO 6779 FT MSL AAO 405742.81N/1121256.39W (CLIMB GRADIENT), 9919 FT MSL AAO
- 412147.08N/1115738.54W (CLIMB-TO ALTITUDE). UDPATED OBSTACLE EVALUATION.
 21. CHANGED TAKEOFF MINIMUMS RWY 34L FROM "STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 8500" TO "STANDARD WITH MINIMUM CLIMB OF 250 FT PER NM TO 8500". CHANGED TO OBSTACLE BASED CLIMB GRADIENT AND CLIMB GRADIENT TERMINATION ALTITUDE FOR NEW CONTROLLING OBSTACLE IAW FAAO 8260 46H PARAGRAPH 2-1-1 F (3)(A) TO OBSTACLE BASED CLIMB GRADIENT AND CLIMB GRADIENT TERMINATION ALTITUDE FOR NEW CONTROLLING OBSTACLE IAW FAAO 8260.46H PARAGRAPH 2-1-1.E.(3)(A).

DP NAMENUMBERDP COMPUTER CODESUPERSEDED NUMBERDATEDACTUAL EFFECTIVE DATERUGGDTHREERUGGD3.RUGGDTWO08/12/202120APR2023

- 22. CHANGED CONTROLLING OBSTACLE RWY 34R, 35 FROM 9770 FT MSL AAO 411159.61N/1115255.29W TO 9799 FT MSL AAO 4411159.50N/1115255.18W. UDPATED OBSTACLE EVALUATION.
- 23. CHANGED TAKEOFF MINIMUMS RWY 34R FROM "STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 8500" TO "STANDARD WITH MINIMUM CLIMB OF 310 FT PER NM TO 11500". CHANGED TO OBSTACLE BASED CLIMB GRADIENT AND CLIMB GRADIENT TERMINATION ALTITUDE FOR NEW CONTROLLING OBSTACLE IAW FAAO 8260.46H PARAGRAPH 2-1-1.E.(3)(A).
- 24. CHANGED TAKEOFF MINIMUMS RWY 35 FROM "STANDARD WITH A MINIMUM CLIMB OF 500 FT PER NM TO 8500" TO "STANDARD WITH MINIMUM CLIMB OF 305 FT PER NM TO 11500". CHANGED TO OBSTACLE BASED CLIMB GRADIENT AND CLIMB GRADIENT TERMINATION ALTITUDE FOR NEW CONTROLLING OBSTACLE IAW FAAO 8260.46H PARAGRAPH 2-1-1.E.(3)(A).
- 25. CHANGED MEA ON LOFOG TO LEGBE SEGMENT FROM FL190 TO FL180. ATC REQUEST AND NEW DME/DME EVALUATION.
- 26. ADDED MOCA 13700 ON LOFOG TO LEGBE SEGMENT. REQUIRED IAW FAAO 8260.46H APPENDIX E.4.H AND AJV MEMORANDUM "CLARIFICATION TO FAA ORDER 8260.46, DEPARTURE PROCEDURE (DP) PROGRAM, MOCA DOCUMENTATION", DATED JULY 1, 2021.
- 27. CHANGED MEA ON RUGGD TO SPINE SEGMENT FROM 15000 TO 13000. ATC REQUEST AND NEW DME/DME EVALUATION.
- 28. CHANGED MEA ON SPINE TO SKIII SEGMENT FROM 17000 TO 14000. ATC REQUEST AND NEW DME/DME EVALUATION.
- 29. CHANGED MEA ON SKIII TO POPLE SEGMENT FROM FL190 TO 17000. ATC REQUEST AND NEW DME/DME EVALUATION.
- 30. ADDED MOCA 10500 ON SKIII TO POPLE SEGMENT. REQUIRED IAW FAAO 8260.46H APPENDIX E.4.H AND AJV MEMORANDUM "CLARIFICATION TO FAA ORDER 8260.46, DEPARTURE PROCEDURE (DP) PROGRAM, MOCA DOCUMENTATION", DATED JULY 1, 2021.
- 31. ADDED "CHART:" TO LIST OF REQUIRED FREQUENCIES IN COMMUNICATIONS. IAW FAAO 8260.46H PARAGRAPH 2-1-1.E.(1).
- 32. UPDATED ADDITIONAL FLIGHT DATA REFERENCE MAGNETIC VARIATION VERBIAGE FROM "REFERENCE MAG VAR: KSLC 11E EPOCH YR:2020" TO "AIRPORT MV: SLC (P) 11E/2020". IAW AJV-A MEMORANDUM, "MAGNETIC VARIATION DOCUMENTATION FOR STANDARD INSTRUMENT DEPARTURES AND GRAPHIC OBSTACLE DEPARTURE PROCEDURES", DATED 07/15/2022.
- 33. UPDATED ADDITIONAL FLIGHT DATA MINIMUM CROSSING ALTITUDE VERBIAGE FROM "MINIMUM CROSSING ALTITUDE AT BUBBY 11000" TO "MINIMUM CROSSING ALTITUDE AT BUBBY-11000".
 IAW FAAO 8260.46H APPENDIX E.12.C.
- 34. ADDED DP ROUTE DESCRIPTION AND ADDITIONAL FLIGHT DATA MINIMUM CROSSING ALTITUDE TO CROSS RUGGD AT OR ABOVE 12000. MINIMUM ALTITUDE FOR DME/DME ASSESSMENT.
- 35. CHANGED DP ROUTE DESCRIPTION VERBIAGE FROM "TAKEOFF RWY 16L, 16R, 17: CLIMBING RIGHT TURN ON A HEADING BETWEEN 280 CW 340 AS ASSIGNED BY ATC, THENCE..." TO "TAKEOFF RWY 16L, 16R, 17: CLIMBING RIGHT TURN ON A HEADING BETWEEN 280 CW 340 FROM DEPARTURE END OF RUNWAY AS ASSIGNED BY ATC, THENCE..." ADDED VERBIAGE IAW FAAO 8260.46H APPENDIX D.SECTION 1.7.A.(4).
- 36. CHANGED DP ROUTE DESCRIPTION VERBIAGE FROM "TAKEOFF RWY 34L, 34R, 35: CLIMBING LEFT TURN ON A HEADING BETWEEN 340 CCW 310 AS ASSIGNED BY ATC, THENCE..." TO
 "TAKEOFF RWY 34L, 34R, 35: CLIMBING LEFT TURN ON A HEADING BETWEEN 310 CW 340 FROM DEPARTURE END OF RUNWAY AS ASSIGNED BY ATC, THENCE..." ADDED VERBIAGE AND MADE
 HEADING SECTOR REFERENCES CLOCKWISE IAW FAAO 8260.46H APPENDIX D.SECTION 1.7.A.(4).
- 37. ADDED MSA "MSA FROM ARP KSLC 13000". REQUIRED IAW FAAO 8260.46H APPENDIX E.16.
- 38. ADDED REMARK "MAXIMUM 100 FT VEGETATION HEIGHT APPLIED."



NFDD NO 018 01/27/2023 52

FEDERAL AVIATION ADMINISTRATION FLIGHT STANDARDS SERVICE DEPARTURE (DATA RECORD)

DP NAME						NUMBER	DP COMPUTER CODE		DATED	ACTUAL EFFECTIVE DATE
RUGGD						THREE	RUGGD3.RUGGD	TWO	08/12/2021	20APR2023
FIX/NAVAID	LAT/LONG	<u>C</u>	FO/FB	LEG TYPE	TC	DIST (NM)	<u>ALTITUDE</u>	SPEED	<u>REMARKS</u>	
BUBBY	410253.82N/1120059.53W	Υ	-	IF	-	-	AT/ABOVE 11000			
RUGGD	410808.31N/1114603.29W	Υ	FB	TF	065.04	12.45	AT/ABOVE 12000			
RUGGD	410808.31N/1114603.29W	Y	-	IF	-	-			RUGGD3.EKR	
UPJAR	404741.03N/1112420.68W	Υ	FB	TF	141.06	26.24				
BORZI	403214.46N/1101725.61W	Υ	FB	TF	106.50	53.21				
EKR VOR/DME	400402.79N/1075529.82W	Υ	FB	TF	103.78	112.18				
RUGGD	410808.31N/1114603.29W	Υ	-	IF	-	-			RUGGD3.HOLTF	₹
KLOUD	412322.23N/1114227.02W	Υ	FB	TF	010.10	15.46				
SAWGI	414745.46N/1113251.50W	Υ	FB	TF	016.40	25.42				
HOLTR	421800.00N/1112600.00W	Y	FB	TF	009.56	30.66				
RUGGD	410808.31N/1114603.29W	Υ	-	IF	-	-			RUGGD3.KIERA	
LOFOG	404135.71N/1112423.33W	Υ	FB	TF	148.12	31.20				
LEGBE	402511.00N/1102817.00W	Υ	FB	TF	110.68	45.80				
KIERA	401449.05N/1095128.00W	Υ	FB	TF	110.00	30.00				
RUGGD	410808.31N/1114603.29W	Υ	-	IF	-	-			RUGGD3.OCS	
SPINE	410249.69N/1112414.45W	Υ	FB	TF	107.72	17.33				,,AL/>
SKIII	410438.90N/1110313.58W	Υ	FB	TF	083.36	16.00				8
										CHECKED

DP NAME RUGGD						NUMBER THREE	DP COMPUTER CODE RUGGD3.RUGGD	SUPERSEDED NUMBER TWO	DATED 08/12/2021	ACTUAL EFFECTIVE DATE 20APR2023
FIX/NAVAID	LAT/LONG	<u>C</u>	FO/FB	LEG TYPE	<u>TC</u>	DIST (NM)	ALTITUDE	SPEED	REMARKS	
POPLE	410934.97N/1104425.49W	Υ	FB	TF	070.76	15.04				
OCS VOR/DME	413524.76N/1090055.18W	Υ	FB	TF	071.10	82.09				
RUGGD	410808.31N/1114603.29W	Υ	-	IF	-	-			RUGGD3.PERT	· · · · · · · · · · · · · · · · · · ·
HERTS	405434.17N/1112400.26W	Υ	FB	TF	128.97	21.50				
PERTY	404434.77N/1100251.12W	Υ	FB	TF	098.76	62.41				