

DME DME Assessment Results for Q88 path HAKMN_DKOTA

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Randy CTR Bachmann
Project File:	C:\Users\Randy CTR Bachmann\Documents\OAPM\DEN OAPM\Denver QRoutes 1-19-2018v2.tgs
Output File:	C:\Users\Randy CTR Bachmann\Desktop\K3T3 Q88_2018-11-06_0946\HAKMN_DKOTA\K3T3 Q88 RNAV ROUTE_HAKMN_DKOTA_2018-11-06_0946.pdf
Procedure Name:	Q88
Software: DmeDmePlugin:	5.4.2
Date/Time:	11/06/2018 09:46 AM PST
Databases:	

Failures

No Failures

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	IAS (kts)	Turn Type	Leg Type
HAKMN	WP	N35° 30' 28.31", W115° 04' 47.04"	18000	VNAV	240	FLY_BY	TF
ZZYZX	WP	N35° 39' 53.52", W114° 51' 54.99"	18000	VNAV	240	FLY_BY	TF
LAKRR	WP	N36° 05' 07.72", W114° 17' 09.16"	18000	VNAV	240	FLY_BY	TF
NOOTN	WP	N36° 37' 32.63", W113° 20' 40.25"	22000	VNAV	240	FLY_BY	TF
GARDD	WP	N37° 03' 12.91", W112° 37' 54.38"	22000	VNAV	240	FLY_BY	TF
VERKN	WP	N37° 23' 00.05", W112° 04' 21.69"	22000	VNAV	240	FLY_BY	TF
PROMT	WP	N37° 30' 06.70", W111° 52' 12.94"	22000	VNAV	240	FLY_BY	TF
CHESZ	WP	N38° 16' 59.03", W110° 02' 11.31"	22000	VNAV	240	FLY_BY	TF
SINRY	WP	N38° 53' 04.80", W108° 30' 24.00"	22000	VNAV	240	FLY_BY	TF
ZAKRY	WP	N39° 22' 47.16", W107° 12' 15.76"	22000	VNAV	240	FLY_BY	TF
YAMPA	WP	N40° 38' 00.76", W104° 44' 01.92"	22000	VNAV	240	FLY_BY	TF
BICAR	WP	N41° 10' 24.68", W103° 36' 16.61"	22000	VNAV	240	FLY_BY	TF
CHUWY	WP	N41° 30' 42.77", W102° 52' 39.47"	22000	VNAV	240	FLY_BY	TF
KEEFF	WP	N42° 26' 47.41", W101° 45' 50.67"	22000	VNAV	240	FLY_BY	TF
GUDDY	WP	N43° 21' 58.60", W100° 37' 18.90"	22000	VNAV	240	FLY_BY	TF
VIVID	WP	N43° 51' 37.63", W099° 59' 15.44"	22000	VNAV	240	FLY_BY	TF
JOYCC	WP	N44° 13' 51.72", W099° 25' 42.73"	22000	VNAV	240	FLY_BY	TF
DKOTA	WP	N45° 22' 17.00", W097° 37' 27.00"	22000	VNAV	240	FLY_BY	TF

DME DME Assessment Results for Q88 path HAKMN_DKOTA

Flyability	
Flight Type:	RNAV_ROUTE
Selected Airport:	K3T3
Climb Gradient:	None assigned
Speeds:	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

DME/DME	
RNP:	RNP 2
Flight Mode:	Manual
Line of Sight (DTED Level 0 Max):	Evaluated
Inertial Drift:	Enabled
Initial Drift:	0.558 NM
INS Drift Rate:	8.0 NM/Hour
Range Mode:	OSV
RNP Edges:	Evaluated
Min DME Range:	3.0 NM
DME Types:	DME, VOR-DME, VORTAC
DME Include Angles:	30 to 150
Critical DMEs:	Not Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Not included
Terminal DMEs:	Not included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Enabled
Disabled DMEs:	None

DME DME Assessment Results for Q88 path HAKMN_DKOTA

DME/DME (Continued)									
DMEs Used									
#	Name	Lat/Lon	MAGVAR	Range	Source	Critical	Status	Time	Distance
1	RLG	N40° 00' 09.50", W106° 26' 32.96"	14.0 E	130	AIRNAV2	NO	Enabled	7.4 %	7.4 %
2	CYS	N41° 12' 39.48", W104° 46' 22.49"	13.0 E	130	AIRNAV2	NO	Enabled	18.9 %	18.9 %
3	TBC	N36° 07' 16.72", W111° 16' 10.52"	15.0 E	130	AIRNAV2	NO	Enabled	9.7 %	9.7 %
4	BLD	N35° 59' 44.84", W114° 51' 48.88"	15.0 E	130	AIRNAV2	NO	Enabled	15.5 %	15.5 %
5	FSD	N43° 38' 58.14", W096° 46' 52.02"	9.0 E	130	AIRNAV2	NO	Enabled	11.5 %	11.5 %
6	BFF	N41° 53' 38.99", W103° 28' 55.31"	13.0 E	130	AIRNAV2	NO	Enabled	20.2 %	20.3 %
7	BJC	N39° 54' 46.94", W105° 08' 20.35"	11.0 E	130	AIRNAV2	NO	Enabled	11.5 %	11.5 %
8	SNY	N41° 05' 48.00", W102° 58' 58.80"	13.0 E	130	AIRNAV2	NO	Enabled	19 %	19 %
9	GOG	N35° 53' 39.30", W115° 29' 45.90"	0.0 E	130	AIRNAV2	NO	Enabled	2.1 %	2.1 %
10	DRK	N34° 42' 09.20", W112° 28' 49.24"	14.0 E	130	AIRNAV2	NO	Enabled	0.3 %	0.3 %
11	MLF	N38° 21' 37.28", W113° 00' 47.64"	16.0 E	130	AIRNAV2	NO	Enabled	4.9 %	4.9 %
12	ILC	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	AIRNAV2	NO	Enabled	1.2 %	1.2 %
13	HVE	N38° 25' 00.51", W110° 41' 59.07"	15.0 E	130	AIRNAV2	NO	Enabled	19.3 %	19.3 %
14	GLL	N40° 30' 13.92", W104° 33' 10.85"	13.0 E	130	AIRNAV2	NO	Enabled	19.7 %	19.7 %
15	PKE	N34° 06' 07.10", W114° 40' 55.44"	15.0 E	130	AIRNAV2	NO	Enabled	2.2 %	2.2 %
16	FQF	N39° 41' 24.50", W104° 37' 15.50"	11.0 E	130	AIRNAV2	NO	Enabled	16.8 %	16.8 %
17	DBL	N39° 26' 21.64", W106° 53' 40.85"	12.0 E	130	AIRNAV2	NO	Enabled	7.5 %	7.5 %
18	DEN	N39° 48' 45.05", W104° 39' 38.66"	8.0 E	130	AIRNAV2	NO	Enabled	17.5 %	17.5 %
19	MCK	N40° 12' 13.67", W100° 35' 39.21"	8.0 E	130	AIRNAV2	NO	Enabled	0.1 %	0.1 %
20	PUC	N39° 36' 11.49", W110° 45' 12.70"	14.0 E	130	AIRNAV2	NO	Enabled	11.9 %	11.9 %
21	FAR	N46° 45' 12.01", W096° 51' 04.75"	9.0 E	130	AIRNAV2	NO	Enabled	4.3 %	4.3 %
22	AKO	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	AIRNAV2	NO	Enabled	14.7 %	14.7 %
23	ONL	N42° 28' 13.80", W098° 41' 12.94"	10.0 E	130	AIRNAV2	NO	Enabled	16.4 %	16.4 %
24	RWF	N44° 28' 02.19", W095° 07' 41.63"	7.0 E	130	AIRNAV2	NO	Enabled	1.6 %	1.7 %
25	LAS	N36° 04' 46.93", W115° 09' 35.27"	15.0 E	130	AIRNAV2	NO	Enabled	14.4 %	14.4 %
26	CHE	N40° 31' 12.29", W107° 18' 17.64"	14.0 E	130	AIRNAV2	NO	Enabled	16 %	16 %
27	ABR	N45° 25' 02.48", W098° 22' 07.39"	7.0 E	130	AIRNAV2	NO	Enabled	17.8 %	17.8 %
28	PGS	N35° 37' 28.96", W113° 32' 40.08"	15.0 E	130	AIRNAV2	NO	Enabled	13.4 %	13.4 %
29	DVC	N37° 48' 31.46", W108° 55' 52.59"	14.0 E	130	AIRNAV2	NO	Enabled	16.1 %	16.1 %
30	EHK	N37° 47' 14.39", W113° 04' 05.63"	16.0 E	130	AIRNAV2	NO	Enabled	3.7 %	3.7 %
31	BCE	N37° 41' 21.07", W112° 18' 14.03"	15.0 E	130	AIRNAV2	NO	Enabled	12.3 %	12.3 %
32	HCT	N40° 27' 14.62", W100° 55' 24.86"	11.0 E	130	AIRNAV2	NO	Enabled	15.3 %	15.3 %
33	RAP	N43° 58' 33.74", W103° 00' 44.38"	13.0 E	130	AIRNAV2	NO	Enabled	15.1 %	15.1 %

DME DME Assessment Results for Q88 path HAKMN_DKOTA

DME/DME (Continued)									
DMEs Used									
#	Name	Lat/Lon	MAGVAR	Range	Source	Critical	Status	Time	Distance
34	DVV	N39° 53' 40.88", W104° 37' 27.61"	8.0 E	130	AIRNAV2	NO	Enabled	17.8 %	17.8 %
35	JNC	N39° 03' 34.44", W108° 47' 33.27"	15.0 E	130	AIRNAV2	NO	Enabled	23 %	23 %
36	MTJ	N38° 30' 22.71", W107° 53' 57.13"	12.0 E	130	AIRNAV2	NO	Enabled	14.2 %	14.2 %
37	DPR	N45° 04' 41.43", W101° 42' 54.26"	10.0 E	130	AIRNAV2	NO	Enabled	14.3 %	14.3 %
38	EED	N34° 45' 57.62", W114° 28' 26.77"	15.0 E	130	AIRNAV2	NO	Enabled	6.8 %	6.8 %
	Total Coverage							99.7 %	99.7 %

DME DME Assessment Results for Q88 path HAKMN_DKOTA

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	BLD	GOG	EED	LAS		
3.7	BLD	GOG	EED	LAS	PKE	
7.4	BLD	GOG	PKE	LAS		
8.0	BLD	GOG	PKE	LAS	EED	
18.4	PGS	BLD	EED	GOG	LAS	
20.3	EED	GOG	BLD	PKE	LAS	
21.3	PGS	EED	BLD	LAS		
52.2	LAS	EED	BLD	PGS	PKE	
58.4	LAS	EED	PGS	BLD		
65.9	PGS	BLD	LAS	EED	EHK	
68.6	PGS	BLD	LAS	EHK		
76.6	PGS	BLD	LAS	DRK	EHK	
79.8	LAS	PGS	BLD	EHK		
103.4	LAS	PGS	BLD			
107.8	LAS	PGS	ILC	BLD	BCE	
120.0	LAS	MLF	BLD	PGS		
122.8	TBC	PGS	MLF	LAS	BLD	
144.5	TBC	PGS	BLD	MLF		
152.6	BLD	MLF	TBC			
154.9	TBC	BCE	BLD	MLF		
155.2	TBC	BCE	MLF			
158.3	TBC	BCE				
170.9						
174.2	MLF	HVE	TBC	BCE		
185.6	BCE	HVE	TBC			
223.8	BCE	HVE				
224.0	BCE	HVE	PUC			
236.1	BCE	HVE	PUC	JNC		
250.9	BCE	HVE	DVC	PUC	JNC	
251.4	BCE	HVE	PUC	JNC		
251.8	BCE	HVE	DVC	PUC	JNC	
256.2	BCE	HVE	DVC	JNC		
258.0	BCE	HVE	DVC	PUC	JNC	
269.5	JNC	HVE	PUC	DVC		
297.5	JNC	DVC	PUC	HVE	MTJ	
345.5	DVC	MTJ	JNC	HVE		
367.3	DVC	MTJ	JNC			
367.9	DVC	MTJ	JNC	HVE		
368.3	DVC	MTJ	JNC			
394.3	JNC	MTJ	DVC	CHE		
412.9	JNC	MTJ	CHE			
417.5	JNC	MTJ	CHE	DBL		
439.7	DBL	CHE	JNC			
453.4	JNC	CHE				
455.5	DBL	RLG	JNC	CHE		
464.6	JNC	CHE	RLG	DEN	DBL	
466.6	RLG	CHE	DEN	DBL		
468.5	DBL	CHE	RLG	DEN	FQF	
495.3	RLG	GLL	CHE	DVV	DEN	FQF
497.1	GLL	CHE	RLG	DVV	FQF	
499.9	GLL	CHE	RLG	FQF	DEN	
529.5	FQF	CYS	BJC	DEN	DVV	CHE
554.9	BJC	GLL	FQF	DEN	DVV	CYS
634.9	CYS	BFF	SNY	AKO	GLL	DVV
648.6	CYS	BFF	AKO	SNY	GLL	HCT
679.9	SNY	BFF	AKO	CYS	HCT	

DME DME Assessment Results for Q88 path HAKMN_DKOTA

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
690.6	SNY	BFF	AKO	HCT		
695.5	SNY	BFF	AKO	HCT	MCK	
696.1	SNY	BFF	HCT			
709.6	SNY	BFF	HCT	RAP		
754.4	BFF	RAP	HCT			
754.9	BFF	RAP				
755.8	BFF	RAP	HCT			
766.8	BFF	RAP	HCT	ONL		
769.1	HCT	ONL	RAP			
784.5	BFF	RAP	HCT	ONL		
786.7	HCT	ONL	RAP			
790.9	BFF	RAP	HCT	ONL		
793.5	BFF	RAP	DPR	ONL	HCT	
797.3	DPR	ONL	HCT	RAP		
797.7	DPR	ONL	RAP			
825.2	ABR	ONL	RAP	DPR		
861.0	ONL	ABR	DPR			
887.7	ABR	DPR	ONL	FSD		
931.6	FSD	ABR	DPR			
936.7	FSD	ABR				
960.4	FSD	FAR	ABR			
986.8	FAR	ABR	RWF	FSD		

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N37° 17' 14.19", W112° 14' 11.56"	N37° 15' 17.92", W112° 17' 29.20"	3.26
2	N37° 15' 21.01", W112° 17' 23.95"	N37° 17' 17.27", W112° 14' 06.31"	3.26

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
HAKMN	ZZYZX	EED, BLD, PKE, GOG, LAS
ZZYZX	LAKRR	EED, BLD, PKE, PGS, GOG, LAS
LAKRR	NOOTN	ILC, EED, BCE, EHK, BLD, PKE, DRK, PGS, LAS
NOOTN	GARDD	ILC, TBC, BCE, MLF, BLD, PGS, LAS
GARDD	VERKN	TBC, BCE, MLF, HVE, BLD, PGS
VERKN	PROMT	TBC, BCE, HVE, MLF
PROMT	CHESZ	DVC, TBC, BCE, HVE, JNC, PUC
CHESZ	SINRY	DVC, MTJ, HVE, JNC, PUC
SINRY	ZAKRY	DVC, CHE, MTJ, JNC, DBL
ZAKRY	YAMPA	CHE, BFF, DVV, AKO, GLL, RLG, DEN, DBL, FQF, BJC, CYS, JNC, SNY
YAMPA	BICAR	BFF, AKO, DVV, GLL, FQF, BJC, CYS, DEN, SNY
BICAR	CHUWY	BFF, AKO, DVV, GLL, HCT, DEN, CYS, SNY
CHUWY	KEEFF	RAP, BFF, MCK, AKO, GLL, HCT, CYS, SNY
KEEFF	GUDDY	RAP, ABR, BFF, DPR, HCT, ONL, SNY
GUDDY	VIVID	RAP, ABR, DPR, ONL
VIVID	JOYCC	ABR, FSD, DPR, ONL
JOYCC	DKOTA	RWF, ABR, FSD, FAR, DPR, ONL

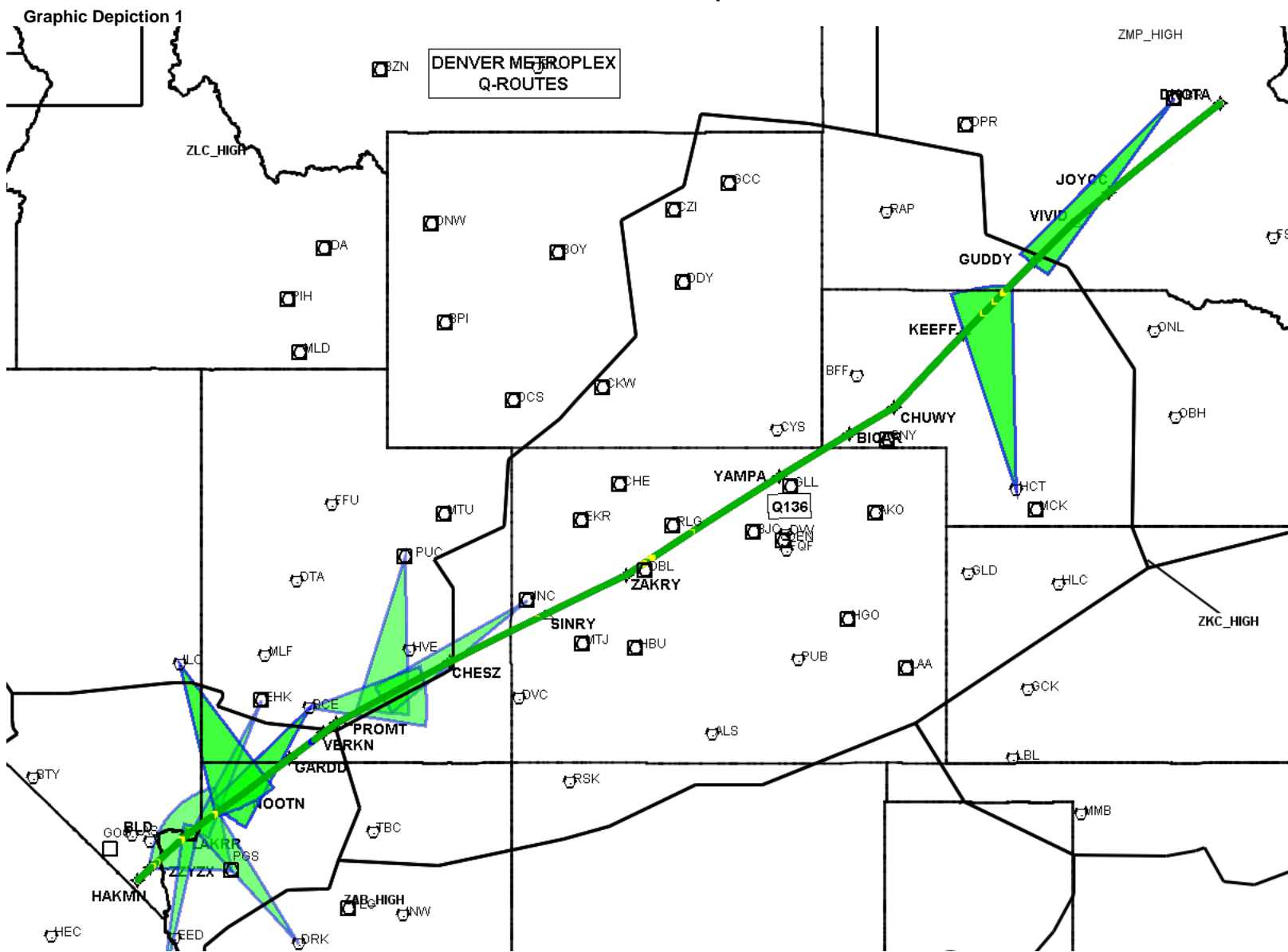
DME DME Assessment Results for Q88 path HAKMN_DKOTA

User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV BCE BCE [AIRNAV2]	N37° 41' 21.07", W112° 18' 14.03"	15.0 E	130	9040	112.8	UDT ESV BCE	
ESV:		Bearing [True]: 209.0° to 227.0° Bearing [Mag]: 194.0° to 212.0°				Arc Distance: Out to 103.0 NM Altitude: 22000.0 to 28000.0 ft		
2	UDT ESV BCE BCE [AIRNAV2]	N37° 41' 21.07", W112° 18' 14.03"	15.0 E	130	9040	112.8	UDT ESV BCE	
ESV:		Bearing [True]: 69.0° to 98.0° Bearing [Mag]: 54.0° to 83.0°				Arc Distance: Out to 90.0 NM Altitude: 22000.0 to 24000.0 ft		
3	UDT ESV HCT HCT [AIRNAV2]	N40° 27' 14.62", W100° 55' 24.86"	11.0 E	130	3010	117.7	UDT ESV HCT	
ESV:		Bearing [True]: 343.0° to 359.0° Bearing [Mag]: 332.0° to 348.0°				Arc Distance: Out to 156.0 NM Altitude: 22000.0 to 45000.0 ft		
4	DPR [AIRNAV2] ESV DPR [AIRNAV2]	N45° 04' 41.43", W101° 42' 54.26"	10.0 E	130	2572.2	116.8	DPR [AIRNAV2] ESV	
ESV:		Bearing [True]: 155.0° to 169.0° Bearing [Mag]: 145.0° to 159.0°				Arc Distance: Out to 131.0 NM Altitude: 21000.0 to 23000.0 ft		
5	EHK [AIRNAV2] ESV EHK [AIRNAV2]	N37° 47' 14.39", W113° 04' 05.63"	16.0 E	130	5482.3	117.3	EHK [AIRNAV2] ESV	
ESV:		Bearing [True]: 202.0° to 209.0° Bearing [Mag]: 186.0° to 193.0°				Arc Distance: Out to 112.0 NM Altitude: 17000.0 to 21000.0 ft		
6	DRK [AIRNAV2] ESV DRK [AIRNAV2]	N34° 42' 09.20", W112° 28' 49.24"	14.0 E	130	5003.3	114.1	DRK [AIRNAV2] ESV	
ESV:		Bearing [True]: 317.0° to 328.0° Bearing [Mag]: 303.0° to 314.0°				Arc Distance: Out to 120.0 NM Altitude: 17000.0 to 21000.0 ft		
7	UDT ESV JNC JNC [AIRNAV2]	N39° 03' 34.44", W108° 47' 33.27"	15.0 E	130	7100	112.4	UDT ESV JNC	
ESV:		Bearing [True]: 231.0° to 241.0° Bearing [Mag]: 216.0° to 226.0°				Arc Distance: Out to 133.0 NM Altitude: 22000.0 to 45000.0 ft		
8	UDT ESV ABR ABR [AIRNAV2]	N45° 25' 02.48", W098° 22' 07.39"	7.0 E	130	1304	113.0	UDT ESV ABR	
ESV:		Bearing [True]: 214.0° to 223.0° Bearing [Mag]: 207.0° to 216.0°				Arc Distance: Out to 159.0 NM Altitude: 22000.0 to 45000.0 ft		
9	UDT ESV HCT HCT [AIRNAV2]	N40° 27' 14.62", W100° 55' 24.86"	11.0 E	130	3010	117.7	UDT ESV HCT	
ESV:		Bearing [True]: 343.0° to 359.0° Bearing [Mag]: 332.0° to 348.0°				Arc Distance: Out to 156.0 NM Altitude: 22000.0 to 45000.0 ft		
10	BFF [AIRNAV2] ESV BFF [AIRNAV2]	N41° 53' 38.99", W103° 28' 55.31"	13.0 E	130	4173.2	112.6	BFF [AIRNAV2] ESV	
ESV:		Bearing [True]: 56.0° to 60.0° Bearing [Mag]: 43.0° to 47.0°				Arc Distance: Out to 130.0 NM Altitude: 21000.0 to 23000.0 ft		
11	UDT ESV ILC ILC [AIRNAV2]	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	9318	116.3	UDT ESV ILC	
ESV:		Bearing [True]: 142.0° to 166.0° Bearing [Mag]: 126.0° to 150.0°				Arc Distance: Out to 119.0 NM Altitude: 22000.0 to 28000.0 ft		
12	UDT ESV ILC ILC [AIRNAV2]	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	9318	116.3	UDT ESV ILC	
ESV:		Bearing [True]: 142.0° to 166.0° Bearing [Mag]: 126.0° to 150.0°				Arc Distance: Out to 119.0 NM Altitude: 22000.0 to 28000.0 ft		
13	UDT ESV BCE BCE [AIRNAV2]	N37° 41' 21.07", W112° 18' 14.03"	15.0 E	130	9040	112.8	UDT ESV BCE	
ESV:		Bearing [True]: 209.0° to 227.0° Bearing [Mag]: 194.0° to 212.0°				Arc Distance: Out to 103.0 NM Altitude: 22000.0 to 28000.0 ft		
14	PGS [AIRNAV2] ESV PGS [AIRNAV2]	N35° 37' 28.96", W113° 32' 40.08"	15.0 E	130	4760	112.0	PGS [AIRNAV2] ESV	
ESV:		Bearing [True]: 272.0° to 348.0° Bearing [Mag]: 257.0° to 333.0°				Arc Distance: Out to 65.0 NM Altitude: 17000.0 to 21000.0 ft		
15	UDT ESV PUC PUC [AIRNAV2]	N39° 36' 11.49", W110° 45' 12.70"	14.0 E	130	5830	115.5	UDT ESV PUC	
ESV:		Bearing [True]: 179.0° to 198.0° Bearing [Mag]: 165.0° to 184.0°				Arc Distance: Out to 119.0 NM Altitude: 22000.0 to 24000.0 ft		
16	PKE [AIRNAV2] ESV PKE [AIRNAV2]	N34° 06' 07.10", W114° 40' 55.44"	15.0 E	130	1049.9	117.9	PKE [AIRNAV2] ESV	
ESV:		Bearing [True]: 8.0° to 13.0° Bearing [Mag]: 353.0° to 358.0°				Arc Distance: Out to 128.0 NM Altitude: 17000.0 to 21000.0 ft		
17	UDT ESV ABR ABR [AIRNAV2]	N45° 25' 02.48", W098° 22' 07.39"	7.0 E	130	1304	113.0	UDT ESV ABR	

DME DME Assessment Results for Q88 path HAKMN_DKOTA

User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
	ESV:	Bearing [True]: 214.0° to 223.0° Bearing [Mag]: 207.0° to 216.0°				Arc Distance: Out to 159.0 NM Altitude: 22000.0 to 45000.0 ft		

DME DME Assessment Results for Q88 path HAKMN_DKOTA



DME DME Assessment Results for Q88 path DKOTA_HAKMN

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Randy CTR Bachmann
Project File:	C:\Users\Randy CTR Bachmann\Documents\OAPM\DEN OAPM\Denver QRoutes 1-19-2018v2.tgs
Output File:	C:\Users\Randy CTR Bachmann\Desktop\K3T3 Q88_2018-11-06_0946\DKOTA_HAKMN\K3T3 Q88 RNAV ROUTE_DKOTA_HAKMN_2018-11-06_0946.pdf
Procedure Name:	Q88
Software: DmeDmePlugin:	5.4.2
Date/Time:	11/06/2018 09:46 AM PST
Databases:	

Failures

No Failures

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	IAS (kts)	Turn Type	Leg Type
DKOTA	WP	N45° 22' 17.00", W097° 37' 27.00"	22000	VNAV	240	FLY_BY	TF
JOYCC	WP	N44° 13' 51.72", W099° 25' 42.73"	22000	VNAV	240	FLY_BY	TF
VIVID	WP	N43° 51' 37.63", W099° 59' 15.44"	22000	VNAV	240	FLY_BY	TF
GUDDY	WP	N43° 21' 58.60", W100° 37' 18.90"	22000	VNAV	240	FLY_BY	TF
KEEFF	WP	N42° 26' 47.41", W101° 45' 50.67"	22000	VNAV	240	FLY_BY	TF
CHUWY	WP	N41° 30' 42.77", W102° 52' 39.47"	22000	VNAV	240	FLY_BY	TF
BICAR	WP	N41° 10' 24.68", W103° 36' 16.61"	22000	VNAV	240	FLY_BY	TF
YAMPA	WP	N40° 38' 00.76", W104° 44' 01.92"	22000	VNAV	240	FLY_BY	TF
ZAKRY	WP	N39° 22' 47.16", W107° 12' 15.76"	22000	VNAV	240	FLY_BY	TF
SINRY	WP	N38° 53' 04.80", W108° 30' 24.00"	22000	VNAV	240	FLY_BY	TF
CHESZ	WP	N38° 16' 59.03", W110° 02' 11.31"	22000	VNAV	240	FLY_BY	TF
PROMT	WP	N37° 30' 06.70", W111° 52' 12.94"	22000	VNAV	240	FLY_BY	TF
VERKN	WP	N37° 23' 00.05", W112° 04' 21.69"	22000	VNAV	240	FLY_BY	TF
GARDD	WP	N37° 03' 12.91", W112° 37' 54.38"	22000	VNAV	240	FLY_BY	TF
NOOTN	WP	N36° 37' 32.63", W113° 20' 40.25"	22000	VNAV	240	FLY_BY	TF
LAKRR	WP	N36° 05' 07.72", W114° 17' 09.16"	18000	VNAV	240	FLY_BY	TF
ZZYZX	WP	N35° 39' 53.52", W114° 51' 54.99"	18000	VNAV	240	FLY_BY	TF
HAKMN	WP	N35° 30' 28.31", W115° 04' 47.04"	18000	VNAV	240	FLY_BY	TF

DME DME Assessment Results for Q88 path DKOTA_HAKMN

Flyability	
Flight Type:	RNAV_ROUTE
Selected Airport:	K3T3
Climb Gradient:	None assigned
Speeds:	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

DME/DME	
RNP:	RNP 2
Flight Mode:	Manual
Line of Sight (DTED Level 0 Max):	Evaluated
Inertial Drift:	Enabled
Initial Drift:	0.558 NM
INS Drift Rate:	8.0 NM/Hour
Range Mode:	OSV
RNP Edges:	Evaluated
Min DME Range:	3.0 NM
DME Types:	DME, VOR-DME, VORTAC
DME Include Angles:	30 to 150
Critical DMEs:	Not Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Not included
Terminal DMEs:	Not included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Enabled
Disabled DMEs:	None

DME DME Assessment Results for Q88 path DKOTA_HAKMN

DME/DME (Continued)									
DMEs Used									
#	Name	Lat/Lon	MAGVAR	Range	Source	Critical	Status	Time	Distance
1	CYS	N41° 12' 39.48", W104° 46' 22.49"	13.0 E	130	AIRNAV2	NO	Enabled	19 %	18.9 %
2	RLG	N40° 00' 09.50", W106° 26' 32.96"	14.0 E	130	AIRNAV2	NO	Enabled	7.4 %	7.4 %
3	TBC	N36° 07' 16.72", W111° 16' 10.52"	15.0 E	130	AIRNAV2	NO	Enabled	9.7 %	9.7 %
4	BLD	N35° 59' 44.84", W114° 51' 48.88"	15.0 E	130	AIRNAV2	NO	Enabled	15.5 %	15.5 %
5	FSD	N43° 38' 58.14", W096° 46' 52.02"	9.0 E	130	AIRNAV2	NO	Enabled	11.5 %	11.5 %
6	BFF	N41° 53' 38.99", W103° 28' 55.31"	13.0 E	130	AIRNAV2	NO	Enabled	20.3 %	20.3 %
7	BJC	N39° 54' 46.94", W105° 08' 20.35"	11.0 E	130	AIRNAV2	NO	Enabled	11.5 %	11.5 %
8	SNY	N41° 05' 48.00", W102° 58' 58.80"	13.0 E	130	AIRNAV2	NO	Enabled	19 %	19 %
9	GOG	N35° 53' 39.30", W115° 29' 45.90"	0.0 E	130	AIRNAV2	NO	Enabled	2.1 %	2.1 %
10	MLF	N38° 21' 37.28", W113° 00' 47.64"	16.0 E	130	AIRNAV2	NO	Enabled	4.9 %	4.9 %
11	DRK	N34° 42' 09.20", W112° 28' 49.24"	14.0 E	130	AIRNAV2	NO	Enabled	0.3 %	0.3 %
12	ILC	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	AIRNAV2	NO	Enabled	1.2 %	1.2 %
13	HVE	N38° 25' 00.51", W110° 41' 59.07"	15.0 E	130	AIRNAV2	NO	Enabled	19.3 %	19.3 %
14	GLL	N40° 30' 13.92", W104° 33' 10.85"	13.0 E	130	AIRNAV2	NO	Enabled	19.7 %	19.7 %
15	FQF	N39° 41' 24.50", W104° 37' 15.50"	11.0 E	130	AIRNAV2	NO	Enabled	16.8 %	16.8 %
16	PKE	N34° 06' 07.10", W114° 40' 55.44"	15.0 E	130	AIRNAV2	NO	Enabled	2.2 %	2.2 %
17	DEN	N39° 48' 45.05", W104° 39' 38.66"	8.0 E	130	AIRNAV2	NO	Enabled	17.6 %	17.5 %
18	DBL	N39° 26' 21.64", W106° 53' 40.85"	12.0 E	130	AIRNAV2	NO	Enabled	7.5 %	7.5 %
19	MCK	N40° 12' 13.67", W100° 35' 39.21"	8.0 E	130	AIRNAV2	NO	Enabled	0.1 %	0.1 %
20	PUC	N39° 36' 11.49", W110° 45' 12.70"	14.0 E	130	AIRNAV2	NO	Enabled	11.9 %	11.9 %
21	FAR	N46° 45' 12.01", W096° 51' 04.75"	9.0 E	130	AIRNAV2	NO	Enabled	4.3 %	4.3 %
22	AKO	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	AIRNAV2	NO	Enabled	14.7 %	14.7 %
23	RWF	N44° 28' 02.19", W095° 07' 41.63"	7.0 E	130	AIRNAV2	NO	Enabled	1.7 %	1.7 %
24	ONL	N42° 28' 13.80", W098° 41' 12.94"	10.0 E	130	AIRNAV2	NO	Enabled	16.4 %	16.4 %
25	ABR	N45° 25' 02.48", W098° 22' 07.39"	7.0 E	130	AIRNAV2	NO	Enabled	17.8 %	17.8 %
26	CHE	N40° 31' 12.29", W107° 18' 17.64"	14.0 E	130	AIRNAV2	NO	Enabled	16 %	16 %
27	LAS	N36° 04' 46.93", W115° 09' 35.27"	15.0 E	130	AIRNAV2	NO	Enabled	14.4 %	14.4 %
28	DVC	N37° 48' 31.46", W108° 55' 52.59"	14.0 E	130	AIRNAV2	NO	Enabled	16.1 %	16.1 %
29	PGS	N35° 37' 28.96", W113° 32' 40.08"	15.0 E	130	AIRNAV2	NO	Enabled	13.3 %	13.4 %
30	EHK	N37° 47' 14.39", W113° 04' 05.63"	16.0 E	130	AIRNAV2	NO	Enabled	3.7 %	3.7 %
31	BCE	N37° 41' 21.07", W112° 18' 14.03"	15.0 E	130	AIRNAV2	NO	Enabled	12.3 %	12.3 %
32	RAP	N43° 58' 33.74", W103° 00' 44.38"	13.0 E	130	AIRNAV2	NO	Enabled	15.1 %	15.1 %
33	HCT	N40° 27' 14.62", W100° 55' 24.86"	11.0 E	130	AIRNAV2	NO	Enabled	15.3 %	15.3 %

DME DME Assessment Results for Q88 path DKOTA_HAKMN

DME/DME (Continued)									
DMEs Used									
#	Name	Lat/Lon	MAGVAR	Range	Source	Critical	Status	Time	Distance
34	DVV	N39° 53' 40.88", W104° 37' 27.61"	8.0 E	130	AIRNAV2	NO	Enabled	17.8 %	17.8 %
35	JNC	N39° 03' 34.44", W108° 47' 33.27"	15.0 E	130	AIRNAV2	NO	Enabled	23 %	23 %
36	MTJ	N38° 30' 22.71", W107° 53' 57.13"	12.0 E	130	AIRNAV2	NO	Enabled	14.2 %	14.2 %
37	DPR	N45° 04' 41.43", W101° 42' 54.26"	10.0 E	130	AIRNAV2	NO	Enabled	14.2 %	14.3 %
38	EED	N34° 45' 57.62", W114° 28' 26.77"	15.0 E	130	AIRNAV2	NO	Enabled	6.7 %	6.8 %
	Total Coverage							99.7 %	99.7 %

DME DME Assessment Results for Q88 path DKOTA_HAKMN

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	FAR	ABR	FSD	RWF		
16.8	FAR	ABR	FSD			
43.2	FSD	ABR				
66.9	FSD	ABR	DPR			
72.0	FSD	ABR	DPR	ONL		
115.8	ABR	DPR	ONL			
142.5	ONL	ABR	DPR	RAP		
178.4	RAP	DPR	ONL			
205.7	DPR	ONL	HCT	RAP		
206.2	BFF	RAP	DPR	ONL	HCT	
209.9	BFF	RAP	HCT	ONL		
212.5	HCT	ONL	RAP			
216.8	BFF	RAP	HCT	ONL		
218.9	HCT	ONL	RAP			
234.3	BFF	RAP	HCT	ONL		
236.7	BFF	RAP	HCT			
247.7	BFF	RAP				
248.6	BFF	RAP	HCT			
249.1	BFF	RAP	HCT	SNY		
294.0	SNY	BFF	HCT			
307.4	SNY	BFF	AKO	HCT	MCK	
308.0	SNY	BFF	AKO	HCT		
312.9	SNY	BFF	AKO	HCT	CYS	
360.6	CYS	BFF	SNY	AKO	GLL	DVV
429.3	BJC	GLL	AKO	CYS	SNY	DVV
440.2	BJC	GLL	CYS	FQF	DEN	DVV
484.1	FQF	CYS	DEN	CHE	DVV	GLL
503.1	GLL	CHE	RLG	FQF	DEN	
504.4	GLL	CHE	RLG	DVV	FQF	
521.2	DBL	CHE	FQF	RLG	DEN	DVV
534.6	DBL	CHE	RLG	DEN	FQF	
535.2	DBL	CHE	RLG	DEN		
537.0	JNC	CHE	RLG	DEN	DBL	FQF
537.6	JNC	CHE	RLG	DEN	DBL	
539.0	JNC	CHE	RLG	DBL		
548.2	JNC	CHE				
550.2	JNC	CHE	DBL			
563.8	DBL	CHE	JNC	MTJ		
586.0	JNC	MTJ	CHE			
590.7	JNC	MTJ	CHE	DVC		
609.3	JNC	MTJ	DVC			
635.3	DVC	MTJ	JNC	HVE		
635.7	DVC	MTJ	JNC			
636.2	DVC	MTJ	JNC	HVE		
658.1	DVC	MTJ	JNC	HVE	PUC	
706.1	JNC	DVC	PUC	HVE		
734.1	BCE	HVE	JNC	PUC	DVC	
745.6	BCE	HVE	DVC	JNC		
747.4	BCE	HVE	DVC	PUC	JNC	
751.8	BCE	HVE	PUC	JNC		
752.2	BCE	HVE	DVC	PUC	JNC	
752.7	BCE	HVE	PUC	JNC		
767.5	BCE	HVE	PUC			
779.6	BCE	HVE				
779.8	BCE	TBC	HVE			
817.8	BCE	HVE	MLF	TBC		

DME DME Assessment Results for Q88 path DKOTA_HAKMN

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
829.3						
832.5	TBC	BCE				
845.2	TBC	BCE	MLF			
848.2	TBC	BCE	BLD	MLF		
848.5	BLD	MLF	TBC			
850.8	TBC	PGS	BLD	MLF		
859.0	TBC	PGS	BLD	MLF	LAS	
880.6	LAS	MLF	BLD	PGS		
883.4	BCE	ILC	BLD	LAS	PGS	
895.6	LAS	PGS	BLD			
900.1	LAS	PGS	BLD	EHK		
923.6	LAS	PGS	BLD	DRK	EHK	
926.8	PGS	BLD	LAS	EHK		
934.9	PGS	BLD	LAS	EED	EHK	
937.6	PGS	BLD	LAS	EED		
945.1	LAS	EED	PGS	BLD	PKE	
951.2	LAS	EED	BLD	PGS		
982.1	EED	GOG	BLD	PKE	LAS	
983.1	PGS	EED	BLD	GOG	LAS	
985.0	BLD	GOG	EED	PKE	LAS	
995.4	BLD	GOG	PKE	LAS		
996.0	BLD	GOG	PKE	EED	LAS	
999.7	BLD	GOG	EED	LAS		

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N37° 17' 14.19", W112° 14' 11.56"	N37° 15' 17.92", W112° 17' 29.20"	3.26
2	N37° 15' 21.01", W112° 17' 23.95"	N37° 17' 17.27", W112° 14' 06.31"	3.26

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
DKOTA	JOYCC	RWF, ABR, FSD, FAR, DPR, ONL
JOYCC	VIVID	ABR, FSD, DPR, ONL
VIVID	GUDDY	RAP, ABR, DPR, ONL
GUDDY	KEEFF	RAP, ABR, BFF, DPR, HCT, ONL, SNY
KEEFF	CHUWY	RAP, BFF, MCK, AKO, GLL, HCT, CYS, SNY
CHUWY	BICAR	BFF, AKO, DVV, GLL, HCT, CYS, DEN, SNY
BICAR	YAMPA	BFF, AKO, DVV, GLL, FQF, BJC, DEN, CYS, SNY
YAMPA	ZAKRY	CHE, BFF, AKO, DVV, GLL, DEN, RLG, DBL, FQF, BJC, CYS, JNC, SNY
ZAKRY	SINRY	DVC, CHE, MTJ, JNC, DBL
SINRY	CHESZ	DVC, MTJ, HVE, JNC, PUC
CHESZ	PROMT	DVC, TBC, BCE, HVE, JNC, PUC
PROMT	VERKN	TBC, BCE, HVE, MLF
VERKN	GARDD	TBC, BCE, HVE, MLF, BLD, PGS
GARDD	NOOTN	ILC, TBC, BCE, MLF, BLD, PGS, LAS
NOOTN	LAKRR	ILC, BCE, EED, EHK, BLD, PKE, DRK, PGS, LAS
LAKRR	ZZYZX	EED, BLD, PKE, PGS, GOG, LAS
ZZYZX	HAKMN	EED, BLD, PKE, GOG, LAS

DME DME Assessment Results for Q88 path DKOTA_HAKMN

User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV BCE BCE [AIRNAV2]	N37° 41' 21.07", W112° 18' 14.03"	15.0 E	130	9040	112.8	UDT ESV BCE	
ESV:		Bearing [True]: 209.0° to 227.0° Bearing [Mag]: 194.0° to 212.0°				Arc Distance: Out to 103.0 NM Altitude: 22000.0 to 28000.0 ft		
2	UDT ESV BCE BCE [AIRNAV2]	N37° 41' 21.07", W112° 18' 14.03"	15.0 E	130	9040	112.8	UDT ESV BCE	
ESV:		Bearing [True]: 69.0° to 98.0° Bearing [Mag]: 54.0° to 83.0°				Arc Distance: Out to 90.0 NM Altitude: 22000.0 to 24000.0 ft		
3	UDT ESV HCT HCT [AIRNAV2]	N40° 27' 14.62", W100° 55' 24.86"	11.0 E	130	3010	117.7	UDT ESV HCT	
ESV:		Bearing [True]: 343.0° to 359.0° Bearing [Mag]: 332.0° to 348.0°				Arc Distance: Out to 156.0 NM Altitude: 22000.0 to 45000.0 ft		
4	DPR [AIRNAV2] ESV DPR [AIRNAV2]	N45° 04' 41.43", W101° 42' 54.26"	10.0 E	130	2572.2	116.8	DPR [AIRNAV2] ESV	
ESV:		Bearing [True]: 155.0° to 169.0° Bearing [Mag]: 145.0° to 159.0°				Arc Distance: Out to 131.0 NM Altitude: 21000.0 to 23000.0 ft		
5	EHK [AIRNAV2] ESV EHK [AIRNAV2]	N37° 47' 14.39", W113° 04' 05.63"	16.0 E	130	5482.3	117.3	EHK [AIRNAV2] ESV	
ESV:		Bearing [True]: 202.0° to 209.0° Bearing [Mag]: 186.0° to 193.0°				Arc Distance: Out to 112.0 NM Altitude: 17000.0 to 21000.0 ft		
6	DRK [AIRNAV2] ESV DRK [AIRNAV2]	N34° 42' 09.20", W112° 28' 49.24"	14.0 E	130	5003.3	114.1	DRK [AIRNAV2] ESV	
ESV:		Bearing [True]: 317.0° to 328.0° Bearing [Mag]: 303.0° to 314.0°				Arc Distance: Out to 120.0 NM Altitude: 17000.0 to 21000.0 ft		
7	UDT ESV JNC JNC [AIRNAV2]	N39° 03' 34.44", W108° 47' 33.27"	15.0 E	130	7100	112.4	UDT ESV JNC	
ESV:		Bearing [True]: 231.0° to 241.0° Bearing [Mag]: 216.0° to 226.0°				Arc Distance: Out to 133.0 NM Altitude: 22000.0 to 45000.0 ft		
8	UDT ESV ABR ABR [AIRNAV2]	N45° 25' 02.48", W098° 22' 07.39"	7.0 E	130	1304	113.0	UDT ESV ABR	
ESV:		Bearing [True]: 214.0° to 223.0° Bearing [Mag]: 207.0° to 216.0°				Arc Distance: Out to 159.0 NM Altitude: 22000.0 to 45000.0 ft		
9	UDT ESV HCT HCT [AIRNAV2]	N40° 27' 14.62", W100° 55' 24.86"	11.0 E	130	3010	117.7	UDT ESV HCT	
ESV:		Bearing [True]: 343.0° to 359.0° Bearing [Mag]: 332.0° to 348.0°				Arc Distance: Out to 156.0 NM Altitude: 22000.0 to 45000.0 ft		
10	BFF [AIRNAV2] ESV BFF [AIRNAV2]	N41° 53' 38.99", W103° 28' 55.31"	13.0 E	130	4173.2	112.6	BFF [AIRNAV2] ESV	
ESV:		Bearing [True]: 56.0° to 60.0° Bearing [Mag]: 43.0° to 47.0°				Arc Distance: Out to 130.0 NM Altitude: 21000.0 to 23000.0 ft		
11	UDT ESV ILC ILC [AIRNAV2]	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	9318	116.3	UDT ESV ILC	
ESV:		Bearing [True]: 142.0° to 166.0° Bearing [Mag]: 126.0° to 150.0°				Arc Distance: Out to 119.0 NM Altitude: 22000.0 to 28000.0 ft		
12	UDT ESV ILC ILC [AIRNAV2]	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	9318	116.3	UDT ESV ILC	
ESV:		Bearing [True]: 142.0° to 166.0° Bearing [Mag]: 126.0° to 150.0°				Arc Distance: Out to 119.0 NM Altitude: 22000.0 to 28000.0 ft		
13	UDT ESV BCE BCE [AIRNAV2]	N37° 41' 21.07", W112° 18' 14.03"	15.0 E	130	9040	112.8	UDT ESV BCE	
ESV:		Bearing [True]: 209.0° to 227.0° Bearing [Mag]: 194.0° to 212.0°				Arc Distance: Out to 103.0 NM Altitude: 22000.0 to 28000.0 ft		
14	PGS [AIRNAV2] ESV PGS [AIRNAV2]	N35° 37' 28.96", W113° 32' 40.08"	15.0 E	130	4760	112.0	PGS [AIRNAV2] ESV	
ESV:		Bearing [True]: 272.0° to 348.0° Bearing [Mag]: 257.0° to 333.0°				Arc Distance: Out to 65.0 NM Altitude: 17000.0 to 21000.0 ft		
15	UDT ESV PUC PUC [AIRNAV2]	N39° 36' 11.49", W110° 45' 12.70"	14.0 E	130	5830	115.5	UDT ESV PUC	
ESV:		Bearing [True]: 179.0° to 198.0° Bearing [Mag]: 165.0° to 184.0°				Arc Distance: Out to 119.0 NM Altitude: 22000.0 to 24000.0 ft		
16	PKE [AIRNAV2] ESV PKE [AIRNAV2]	N34° 06' 07.10", W114° 40' 55.44"	15.0 E	130	1049.9	117.9	PKE [AIRNAV2] ESV	
ESV:		Bearing [True]: 8.0° to 13.0° Bearing [Mag]: 353.0° to 358.0°				Arc Distance: Out to 128.0 NM Altitude: 17000.0 to 21000.0 ft		
17	UDT ESV ABR ABR [AIRNAV2]	N45° 25' 02.48", W098° 22' 07.39"	7.0 E	130	1304	113.0	UDT ESV ABR	

DME DME Assessment Results for Q88 path DKOTA_HAKMN

User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
	ESV:	Bearing [True]: 214.0° to 223.0° Bearing [Mag]: 207.0° to 216.0°				Arc Distance: Out to 159.0 NM Altitude: 22000.0 to 45000.0 ft		

Graphic Depiction 1

