

DME DME Assessment Results for SABTH1 path KDEN:RW17L:DER_JSMNN

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bruce CTR Connolly
Project File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\SABTH1.tgs
Output File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\KDEN [IFPA] SABTH1 20190905_1604 EDT\KDEN-RW17L-DER_JSMNN\KDEN SABTH1 SID KDEN RW17L JSMNN 20190905_1604 EDT.pdf
Procedure Name:	SABTH1
Software: DmeDmePlugin:	5.6.0
Date/Time:	09/05/2019 16:04 EDT
Databases:	DTED Level 0 Max

Failures

No Failures

Warnings

No Warnings

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
KDEN:RW17L:DER	WP	N39° 49' 55.27", W104° 38' 30.16"	5370	VNAV	130	FLY_OVER	TF
KDEN:RW17L-VA End	WP	N39° 48' 26.17", W104° 38' 31.24"	5934	VNAV	145	FLY_OVER	TF
RAYDR_	WP	N39° 38' 44.03", W104° 38' 38.33"	8503.2	VNAV	200	FLY_BY	TF
JSMNN	WP	N39° 11' 37.35", W104° 34' 29.31"	17000	VNAV	240	FLY_BY	TF
Climb Gradient: 380.0 ft/NM up to 5934.0 ft MSL 265.0 ft/NM up to 14000.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDEN [IFPA]
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	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 Assessment Results for SABTH1 path KDEN:RW17L:DER_JSMNN

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:	Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Included
Terminal DMEs:	Included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Not enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	BRK	N38° 56' 40.22", W104° 38' 00.49"	8.0 E	130	H	IFPA	NO	Enabled	26.5 %	29.4 %
2	HGO	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	H	IFPA	NO	Enabled	30.3 %	33.2 %
3	DEN	N39° 48' 45.05", W104° 39' 38.66"	8.0 E	130	H	IFPA	NO	Enabled	72.5 %	78.5 %
4	BJC	N39° 54' 46.94", W105° 08' 20.35"	11.0 E	130	H	IFPA	NO	Enabled	57.5 %	55.8 %
5	LAA	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	H	IFPA	NO	Enabled	4.4 %	5.2 %
6	DVV	N39° 53' 40.88", W104° 37' 27.61"	8.0 E	130	H	IFPA	NO	Enabled	86 %	87.1 %
7	AKO	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	H	IFPA	NO	Enabled	39.9 %	44.1 %
8	FQF	N39° 41' 24.50", W104° 37' 15.50"	11.0 E	130	H	IFPA	NO	Enabled	39.9 %	44.1 %

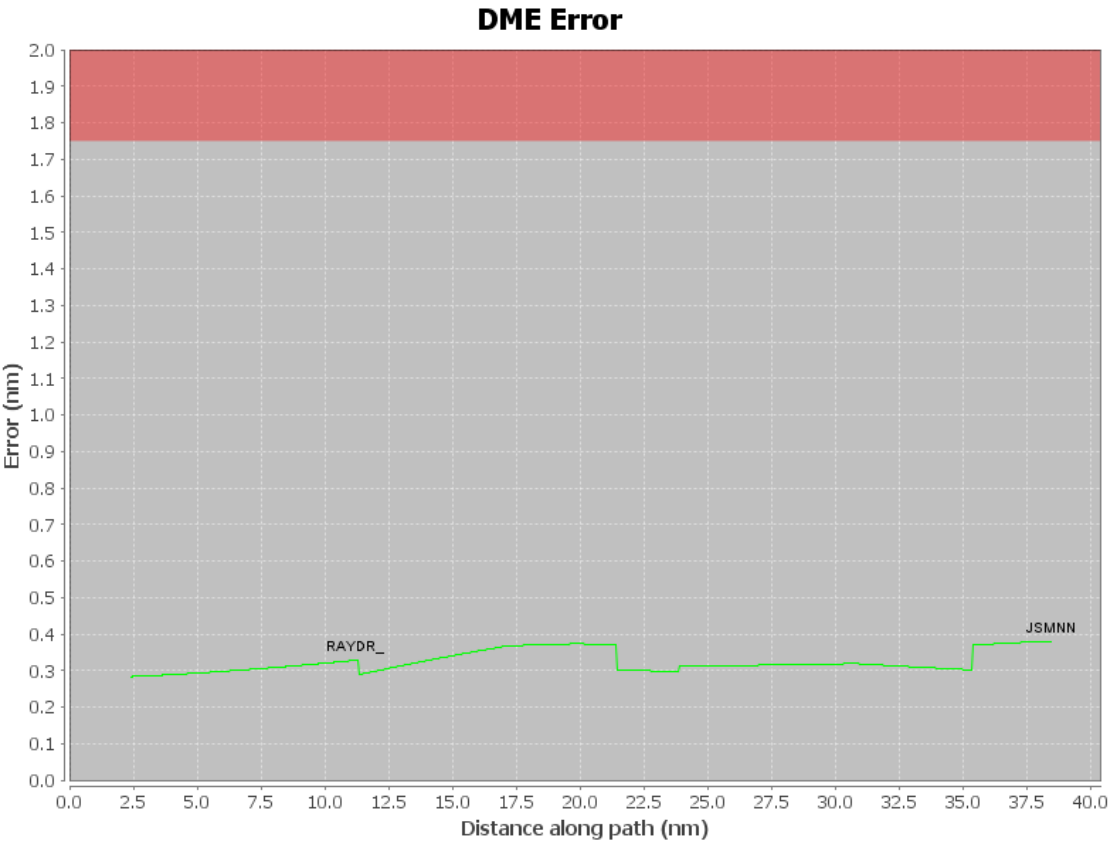
Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
2.4	BJC	DVV				
8.3	BJC	DVV	DEN			
19.7	HGO	DVV	BJC	DEN		
21.5	AKO	BJC	HGO	DEN	DVV	FQF
23.9	HGO	AKO	DEN	FQF	DVV	
32.5	AKO	DEN	FQF	DVV	BRK	
35.0	AKO	DEN	FQF	DVV		
35.9	AKO	DEN	FQF			
36.2	AKO	DEN	FQF	LAA	DVV	BRK
36.3	AKO	DEN	FQF	LAA	BRK	
38.3	AKO	DEN	FQF			
38.5	LAA	BRK	AKO	DEN	FQF	

DME DME Assessment Results for SABTH1 path KDEN:RW17L:DER_JSMNN

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N39° 51' 04.66", W104° 41' 47.74"	N39° 49' 41.93", W104° 39' 37.98"	2.1587
2	N39° 49' 39.77", W104° 39' 38.01"	N39° 42' 32.45", W104° 55' 41.10"	14.2474
3	N39° 12' 04.96", W104° 32' 18.58"	N39° 11' 45.41", W104° 32' 23.62"	0.3324
4	N39° 50' 28.10", W104° 45' 25.51"	N39° 47' 37.62", W104° 51' 47.21"	5.6529
5	N39° 47' 29.15", W104° 52' 06.14"	N39° 47' 27.94", W104° 52' 08.85"	0.0401
6	N39° 49' 30.88", W104° 41' 48.82"	N39° 49' 11.20", W104° 41' 15.72"	0.5359
7	N39° 48' 51.88", W104° 41' 15.94"	N39° 48' 49.46", W104° 41' 15.97"	0.0403
8	N39° 42' 45.16", W104° 21' 23.78"	N39° 39' 36.86", W104° 23' 02.72"	3.3856
9	N39° 37' 17.93", W104° 24' 15.61"	N39° 36' 50.14", W104° 24' 30.17"	0.4995
10	N39° 43' 42.33", W104° 21' 45.78"	N39° 48' 04.11", W104° 41' 47.64"	16.0054
11	N39° 47' 52.19", W104° 41' 45.04"	N39° 47' 18.82", W104° 41' 37.77"	0.5639
12	N39° 48' 26.17", W104° 38' 31.24"	N39° 47' 30.62", W104° 38' 31.92"	0.9261
13	N39° 52' 37.27", W104° 35' 25.24"	N39° 52' 08.12", W104° 33' 59.11"	1.2042
14	N39° 49' 53.15", W104° 38' 30.18"	N39° 06' 52.06", W104° 33' 39.04"	43.1859
15	N39° 00' 06.48", W104° 32' 39.16"	N38° 57' 03.57", W104° 32' 12.22"	3.0688
16	N39° 48' 32.90", W104° 39' 38.81"	N39° 47' 22.90", W104° 39' 39.65"	1.1668
17	N39° 51' 48.65", W104° 41' 13.90"	N39° 22' 53.62", W104° 44' 19.42"	29.0184
18	N37° 24' 33.87", W103° 37' 13.11"	N39° 52' 38.08", W104° 37' 10.15"	155.312
19	N39° 52' 38.06", W104° 37' 07.39"	N39° 50' 27.40", W104° 43' 35.96"	5.428
20	N39° 50' 27.42", W104° 43' 38.77"	N39° 38' 43.97", W104° 39' 45.85"	12.0996
21	N39° 46' 32.24", W104° 54' 13.25"	N39° 46' 16.25", W104° 54' 19.11"	0.2768
22	N39° 46' 09.86", W104° 54' 21.46"	N39° 46' 03.47", W104° 54' 23.80"	0.1107

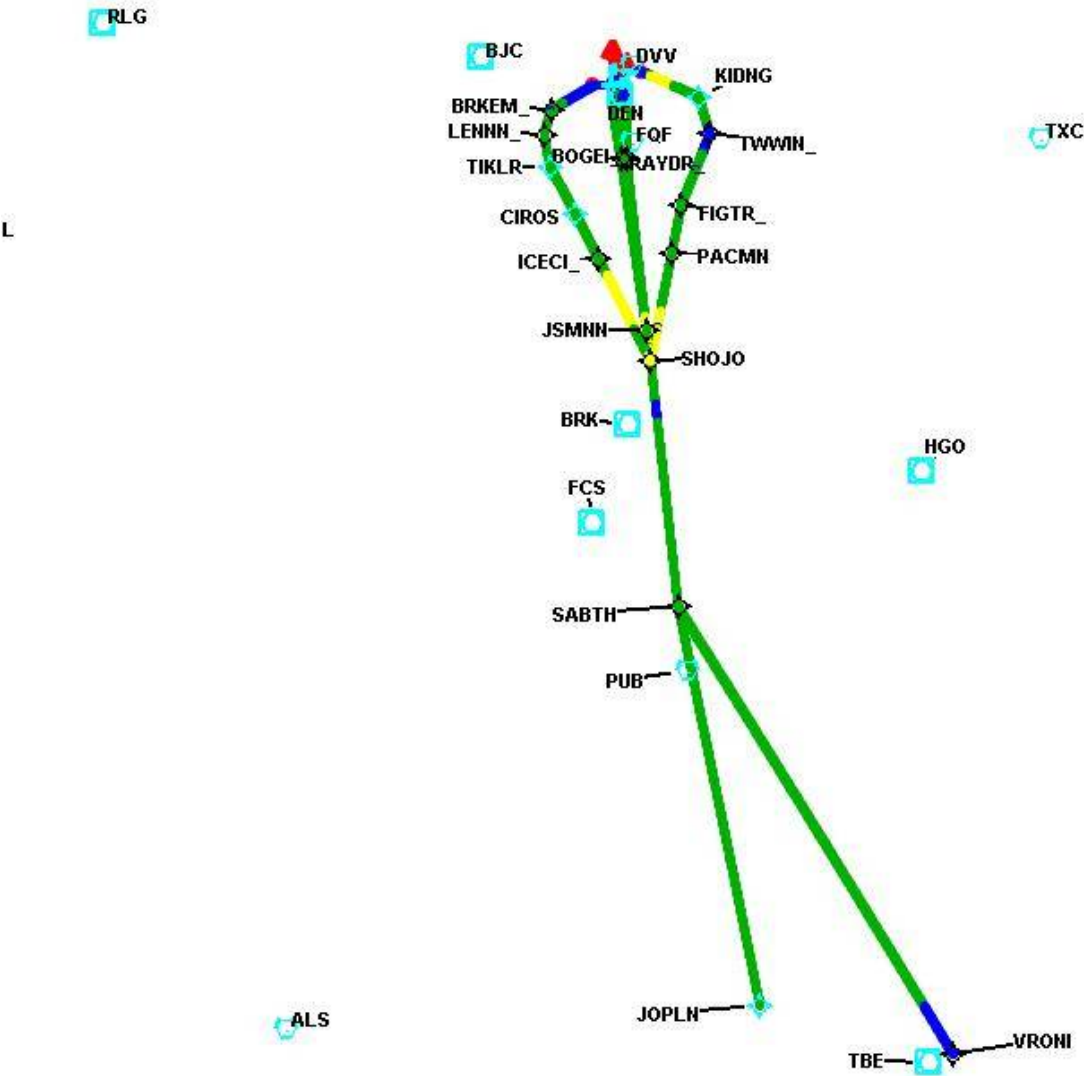
Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDEN:RW17L:DER	KDEN:RW17L-VA End	
KDEN:RW17L-VA End	RAYDR_	DVV, BJC, DEN
RAYDR_	JSMNN	HGO, DVV, AKO, BJC, FQF, BRK, DEN, LAA

User Data Files								
#	File Name							
None								
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LAA User ESV LAA [IFPA]	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	3944	116.9	LAA User ESV	
ESV:		Bearing [True]: 222.0° to 306.0° Bearing [Mag]: 210.0° to 294.0°				Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 ft		
2	HGO FAA 860203-31 HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO FAA 860203-31	
ESV:		Bearing [True]: 300.0° to 324.0° Bearing [Mag]: 293.0° to 317.0°				Arc Distance: Out to 65.0 NM Altitude: 9900.0 to 20000.0 ft		
3	HGO User ESV HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO User ESV	
ESV:		Bearing [True]: 179.0° to 278.0° Bearing [Mag]: 172.0° to 271.0°				Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 ft		
4	AKO FAA 704171-25 AKO [IFPA]	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	4626	114.4	AKO FAA 704171-25	
ESV:		Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°				Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 ft		



DME DME Assessment Results for SABTH1 path KDEN:RW17L:DER_JSMNN

Graphic Depiction 1



DME DME Assessment Results for SABTH1 path KDEN:RW17R:DER_BOGEI_

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bruce CTR Connolly
Project File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\SABTH1.tgs
Output File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\KDEN [IFPA] SABTH1 20190905_1604 EDT\KDEN-RW17R-DER_BOGEI_KDEN SABTH1 SID KDEN RW17R BOGEI 20190905_1604 EDT.pdf
Procedure Name:	SABTH1
Software: DmeDmePlugin:	5.6.0
Date/Time:	09/05/2019 16:04 EDT
Databases:	DTED Level 0 Max

Failures

No Failures

Warnings

No Warnings

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
KDEN:RW17R:DER	WP	N39° 49' 41.93", W104° 39' 37.98"	5433.8	VNAV	130	FLY_OVER	TF
KDEN:RW17R-VA End	WP	N39° 48' 32.90", W104° 39' 38.81"	5934	VNAV	145	FLY_OVER	TF
BOGEI_	WP	N39° 38' 43.97", W104° 39' 45.85"	8582.1	VNAV	200	FLY_BY	TF
Climb Gradient: 435.0 ft/NM up to 5934.0 ft MSL 270.0 ft/NM up to 14000.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDEN [IFPA]
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	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 Assessment Results for SABTH1 path KDEN:RW17R:DER_BOGEI_

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:	Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Included
Terminal DMEs:	Included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Not enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DEN	N39° 48' 45.05", W104° 39' 38.66"	8.0 E	130	H	IFPA	NO	Enabled	57 %	59.1 %
2	BJC	N39° 54' 46.94", W105° 08' 20.35"	11.0 E	130	H	IFPA	NO	Enabled	77.4 %	78.9 %
3	DVV	N39° 53' 40.88", W104° 37' 27.61"	8.0 E	130	H	IFPA	NO	Enabled	77.4 %	78.9 %
4	FQF	N39° 41' 24.50", W104° 37' 15.50"	11.0 E	130	H	IFPA	NO	Enabled	20.2 %	20.2 %

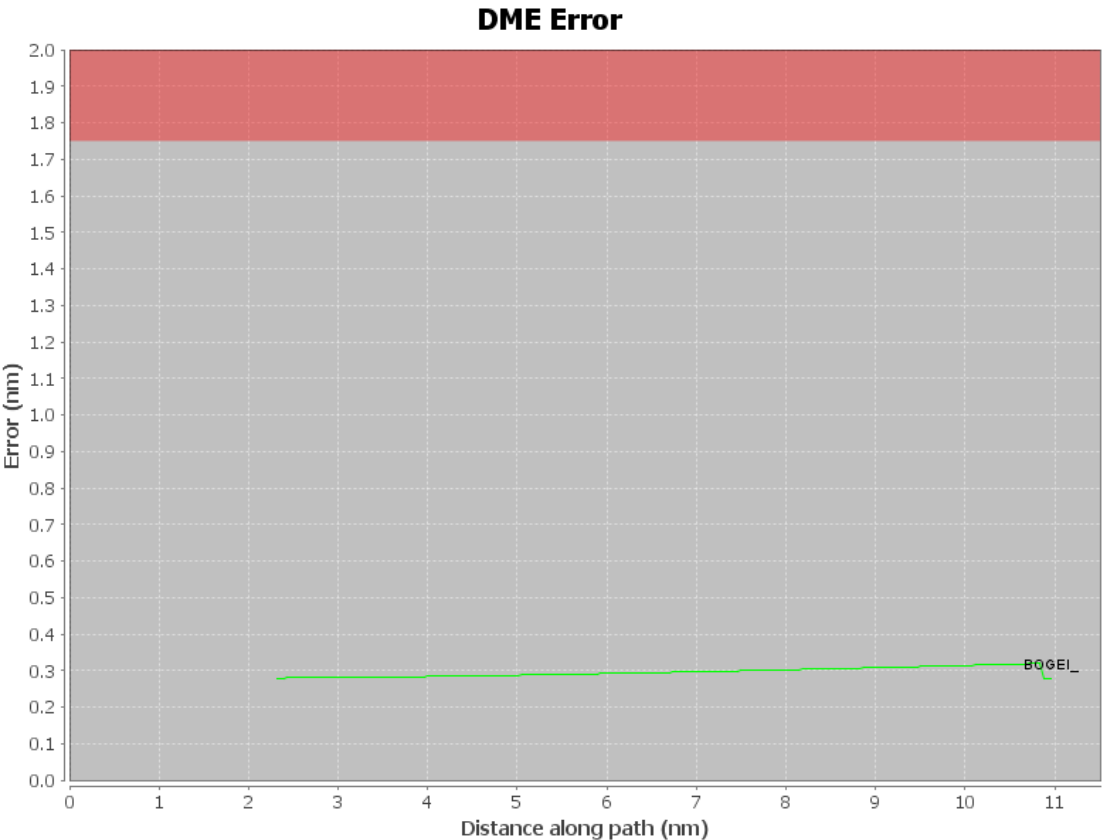
Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
2.3	BJC	DVV				
3.4	BJC	DVV	FQF			
3.6	BJC	DVV				
4.1	BJC	DVV	DEN	FQF		
6.0	BJC	DVV				
6.3	BJC	DVV	DEN			
10.6	BJC	DVV	DEN	FQF		
10.9	BJC	DVV	DEN			

DME DME Assessment Results for SABTH1 path KDEN:RW17R:DER_BOGEI_

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N39° 51' 04.66", W104° 41' 47.74"	N39° 49' 41.93", W104° 39' 37.98"	2.1587
2	N39° 49' 39.77", W104° 39' 38.01"	N39° 42' 32.45", W104° 55' 41.10"	14.2474
3	N39° 12' 04.96", W104° 32' 18.58"	N39° 11' 45.41", W104° 32' 23.62"	0.3324
4	N39° 50' 28.10", W104° 45' 25.51"	N39° 47' 37.62", W104° 51' 47.21"	5.6529
5	N39° 47' 29.15", W104° 52' 06.14"	N39° 47' 27.94", W104° 52' 08.85"	0.0401
6	N39° 49' 30.88", W104° 41' 48.82"	N39° 49' 11.20", W104° 41' 15.72"	0.5359
7	N39° 48' 51.88", W104° 41' 15.94"	N39° 48' 49.46", W104° 41' 15.97"	0.0403
8	N39° 42' 45.16", W104° 21' 23.78"	N39° 39' 36.86", W104° 23' 02.72"	3.3856
9	N39° 37' 17.93", W104° 24' 15.61"	N39° 36' 50.14", W104° 24' 30.17"	0.4995
10	N39° 43' 42.33", W104° 21' 45.78"	N39° 48' 04.11", W104° 41' 47.64"	16.0054
11	N39° 47' 52.19", W104° 41' 45.04"	N39° 47' 18.82", W104° 41' 37.77"	0.5639
12	N39° 48' 26.17", W104° 38' 31.24"	N39° 47' 30.62", W104° 38' 31.92"	0.9261
13	N39° 52' 37.27", W104° 35' 25.24"	N39° 52' 08.12", W104° 33' 59.11"	1.2042
14	N39° 49' 53.15", W104° 38' 30.18"	N39° 06' 52.06", W104° 33' 39.04"	43.1859
15	N39° 00' 06.48", W104° 32' 39.16"	N38° 57' 03.57", W104° 32' 12.22"	3.0688
16	N39° 48' 32.90", W104° 39' 38.81"	N39° 47' 22.90", W104° 39' 39.65"	1.1668
17	N39° 51' 48.65", W104° 41' 13.90"	N39° 22' 53.62", W104° 44' 19.42"	29.0184
18	N37° 24' 33.87", W103° 37' 13.11"	N39° 52' 38.08", W104° 37' 10.15"	155.312
19	N39° 52' 38.06", W104° 37' 07.39"	N39° 50' 27.40", W104° 43' 35.96"	5.428
20	N39° 50' 27.42", W104° 43' 38.77"	N39° 38' 43.97", W104° 39' 45.85"	12.0996
21	N39° 46' 32.24", W104° 54' 13.25"	N39° 46' 16.25", W104° 54' 19.11"	0.2768
22	N39° 46' 09.86", W104° 54' 21.46"	N39° 46' 03.47", W104° 54' 23.80"	0.1107

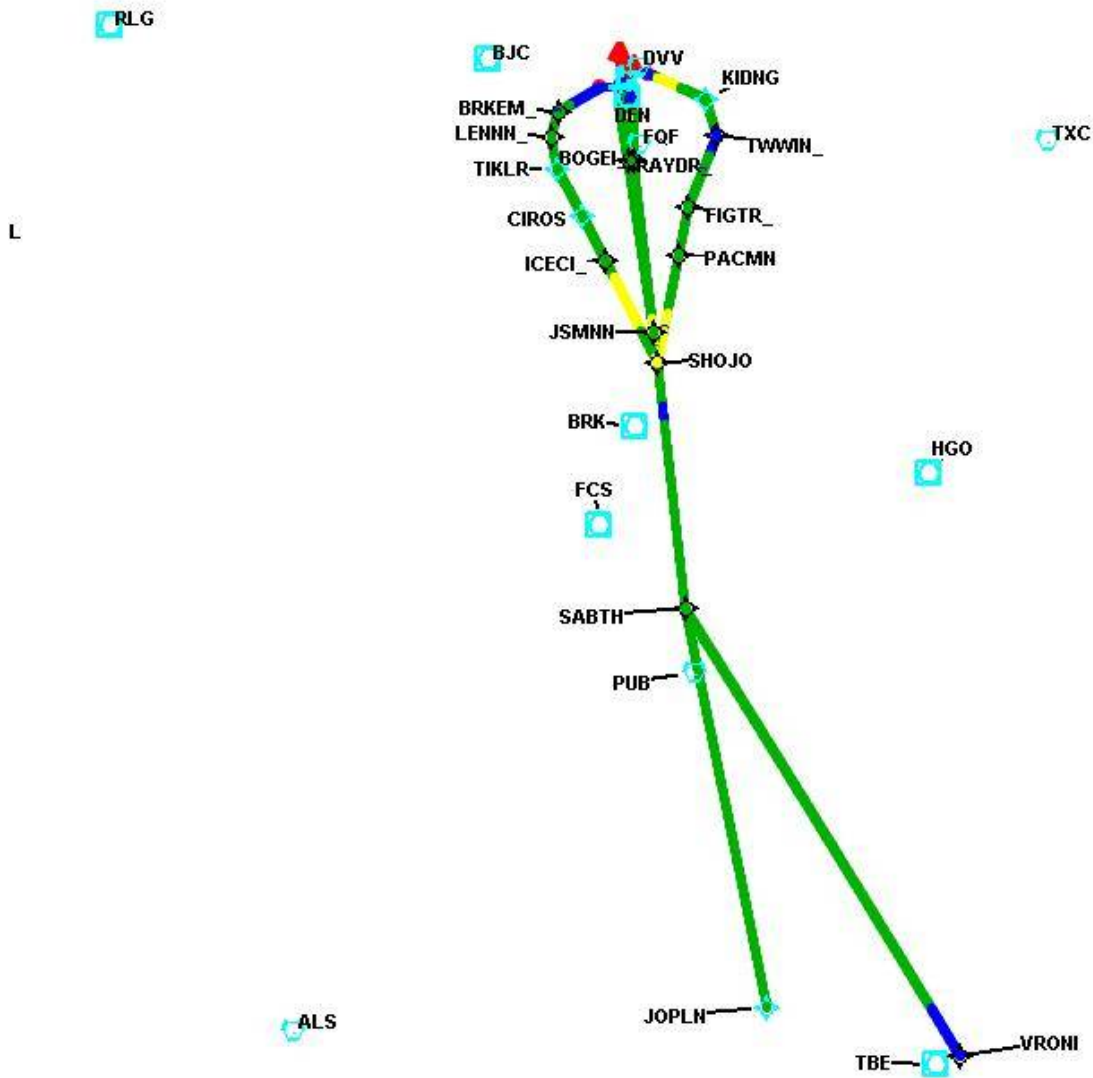
Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDEN:RW17R:DER	KDEN:RW17R-VA End	
KDEN:RW17R-VA End	BOGEI_	DVV, BJC, FQF, DEN

User Data Files								
#	File Name							
None								
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LAA User ESV LAA [IFPA]	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	3944	116.9	LAA User ESV	
ESV:		Bearing [True]: 222.0° to 306.0° Bearing [Mag]: 210.0° to 294.0°				Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 ft		
2	HGO FAA 860203-31 HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO FAA 860203-31	
ESV:		Bearing [True]: 300.0° to 324.0° Bearing [Mag]: 293.0° to 317.0°				Arc Distance: Out to 65.0 NM Altitude: 9900.0 to 20000.0 ft		
3	HGO User ESV HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO User ESV	
ESV:		Bearing [True]: 179.0° to 278.0° Bearing [Mag]: 172.0° to 271.0°				Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 ft		
4	AKO FAA 704171-25 AKO [IFPA]	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	4626	114.4	AKO FAA 704171-25	
ESV:		Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°				Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 ft		



DME DME Assessment Results for SABTH1 path KDEN:RW17R:DER_BOGEI_

Graphic Depiction 1



DME DME Assessment Results for SABTH1 path KDEN:RW25:DER_JOPLN

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bruce CTR Connolly
Project File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\SABTH1.tgs
Output File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\KDEN [IFPA] SABTH1 20190905_1604 EDT\KDEN-RW25-DER_JOPLN\KDEN SABTH1 SID KDEN RW25 JOPLN 20190905_1604 EDT.pdf
Procedure Name:	SABTH1
Software: DmeDmePlugin:	5.6.0
Date/Time:	09/05/2019 16:04 EDT
Databases:	DTED Level 0 Max

Failures

No Failures

Warnings

No Warnings

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
KDEN:RW25:DER	WP	N39° 50' 27.40", W104° 43' 35.96"	5350.2	VNAV	130	FLY_OVER	TF
KDEN:RW25-VA End	WP	N39° 50' 28.10", W104° 45' 25.51"	5934	VNAV	145	FLY_OVER	TF
BRKEM_	WP	N39° 46' 32.24", W104° 54' 13.25"	7500.8	VNAV	200	FLY_BY	TF
LENNN_	WP	N39° 42' 32.45", W104° 55' 41.10"	10000	VNAV	200	FLY_BY	TF
TIKLR	WP	N39° 37' 34.30", W104° 54' 21.73"	11013.8	VNAV	240	FLY_BY	TF
CIROS	WP	N39° 29' 59.92", W104° 49' 05.10"	14000	VNAV	240	FLY_BY	TF
ICECI_	WP	N39° 22' 53.62", W104° 44' 19.42"	16000	VNAV	240	FLY_BY	TF
SHOJO	WP	N39° 06' 52.06", W104° 33' 39.04"	18000	VNAV	240	FLY_BY	TF
SABTH	WP	N38° 27' 45.86", W104° 27' 55.30"	18000	VNAV	240	FLY_BY	TF
JOPLN	WP	N37° 24' 37.63", W104° 11' 03.71"	18000	VNAV	240	FLY_BY	TF
Climb Gradient: 415.0 ft/NM up to 5934.0 ft MSL 285.0 ft/NM up to 16000.0 ft MSL 200.0 ft/NM							

DME DME Assessment Results for SABTH1 path KDEN:RW25:DER_JOPLN

Flyability	
Flight Type:	SID
Selected Airport:	KDEN [IFPA]
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	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:	Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Included
Terminal DMEs:	Included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Not enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	BRK	N38° 56' 40.22", W104° 38' 00.49"	8.0 E	130	H	IFPA	NO	Enabled	41.4 %	43.3 %
2	HGO	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	H	IFPA	NO	Enabled	58.2 %	60.9 %
3	DEN	N39° 48' 45.05", W104° 39' 38.66"	8.0 E	130	H	IFPA	NO	Enabled	24.8 %	24.9 %
4	BJC	N39° 54' 46.94", W105° 08' 20.35"	11.0 E	130	H	IFPA	NO	Enabled	20 %	19.5 %
5	LAA	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	H	IFPA	NO	Enabled	69.4 %	72.6 %
6	PUB	N38° 17' 39.32", W104° 25' 46.01"	8.0 E	130	H	IFPA	NO	Enabled	43.4 %	45.4 %
7	TBE	N37° 15' 31.17", W103° 36' 00.20"	12.0 E	40	L	IFPA	NO	Enabled	7.6 %	8 %
8	DVV	N39° 53' 40.88", W104° 37' 27.61"	8.0 E	130	H	IFPA	NO	Enabled	23.8 %	23.5 %
9	AKO	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	H	IFPA	NO	Enabled	17.2 %	18 %
10	FQF	N39° 41' 24.50", W104° 37' 15.50"	11.0 E	130	H	IFPA	NO	Enabled	29.8 %	30.2 %

DME DME Assessment Results for SABTH1 path KDEN:RW25:DER_JOPLN

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
7.1	BJC	DVV				
7.4						
7.4	BJC	DVV				
9.3						
9.5	BJC	DEN				
9.6						
9.7	BJC	DEN				
10.5	BJC	DVV	DEN	FQF		
18.2	BJC	DEN	DVV			
18.2	BJC	DEN	FQF	DVV		
20.5	BJC	FQF	DEN	DVV	AKO	
24.2	BJC	FQF	BRK	DEN	DVV	
38.3	HGO	FQF	DVV	DEN	AKO	BRK
41.6	AKO	BRK	DEN	LAA	DVV	FQF
45.4	AKO	DEN	LAA	BRK	FQF	
48.9	LAA	AKO	BRK	FQF		
53.5	LAA	BRK	FQF			
58.2	LAA	BRK				
59.9						
63.0	LAA	PUB				
66.2	HGO	PUB	LAA			
66.5	LAA	PUB				
66.5	HGO	PUB	LAA			
67.3	LAA	PUB				
67.4	HGO	PUB	LAA			
69.7	HGO	PUB	BRK	LAA		
98.7	HGO	BRK	LAA			
102.1	LAA	HGO				
106.9	LAA	PUB	HGO			
142.4	HGO	TBE	LAA	PUB		
142.5	LAA	HGO				
144.4	HGO	TBE	LAA			

DME DME Assessment Results for SABTH1 path KDEN:RW25:DER_JOPLN

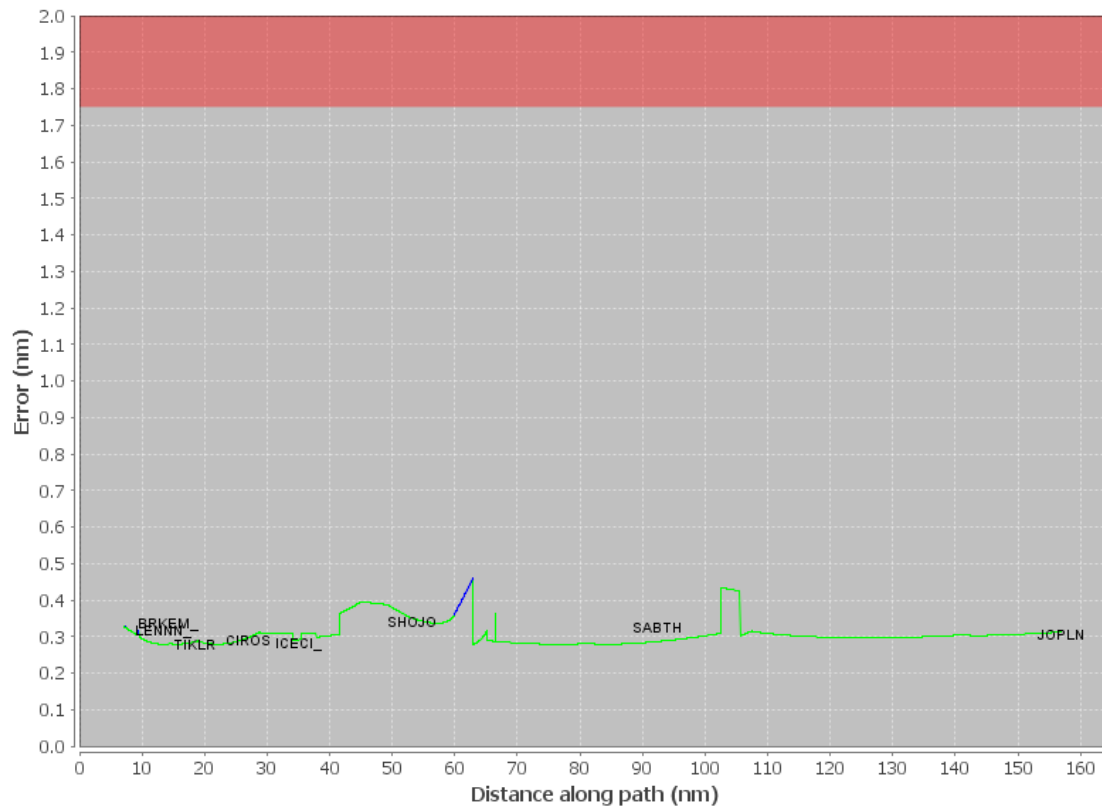
Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N39° 51' 04.66", W104° 41' 47.74"	N39° 49' 41.93", W104° 39' 37.98"	2.1587
2	N39° 49' 39.77", W104° 39' 38.01"	N39° 42' 32.45", W104° 55' 41.10"	14.2474
3	N39° 12' 04.96", W104° 32' 18.58"	N39° 11' 45.41", W104° 32' 23.62"	0.3324
4	N39° 50' 28.10", W104° 45' 25.51"	N39° 47' 37.62", W104° 51' 47.21"	5.6529
5	N39° 47' 29.15", W104° 52' 06.14"	N39° 47' 27.94", W104° 52' 08.85"	0.0401
6	N39° 49' 30.88", W104° 41' 48.82"	N39° 49' 11.20", W104° 41' 15.72"	0.5359
7	N39° 48' 51.88", W104° 41' 15.94"	N39° 48' 49.46", W104° 41' 15.97"	0.0403
8	N39° 42' 45.16", W104° 21' 23.78"	N39° 39' 36.86", W104° 23' 02.72"	3.3856
9	N39° 37' 17.93", W104° 24' 15.61"	N39° 36' 50.14", W104° 24' 30.17"	0.4995
10	N39° 43' 42.33", W104° 21' 45.78"	N39° 48' 04.11", W104° 41' 47.64"	16.0054
11	N39° 47' 52.19", W104° 41' 45.04"	N39° 47' 18.82", W104° 41' 37.77"	0.5639
12	N39° 48' 26.17", W104° 38' 31.24"	N39° 47' 30.62", W104° 38' 31.92"	0.9261
13	N39° 52' 37.27", W104° 35' 25.24"	N39° 52' 08.12", W104° 33' 59.11"	1.2042
14	N39° 49' 53.15", W104° 38' 30.18"	N39° 06' 52.06", W104° 33' 39.04"	43.1859
15	N39° 00' 06.48", W104° 32' 39.16"	N38° 57' 03.57", W104° 32' 12.22"	3.0688
16	N39° 48' 32.90", W104° 39' 38.81"	N39° 47' 22.90", W104° 39' 39.65"	1.1668
17	N39° 51' 48.65", W104° 41' 13.90"	N39° 22' 53.62", W104° 44' 19.42"	29.0184
18	N37° 24' 33.87", W103° 37' 13.11"	N39° 52' 38.08", W104° 37' 10.15"	155.312
19	N39° 52' 38.06", W104° 37' 07.39"	N39° 50' 27.40", W104° 43' 35.96"	5.428
20	N39° 50' 27.42", W104° 43' 38.77"	N39° 38' 43.97", W104° 39' 45.85"	12.0996
21	N39° 46' 32.24", W104° 54' 13.25"	N39° 46' 16.25", W104° 54' 19.11"	0.2768
22	N39° 46' 09.86", W104° 54' 21.46"	N39° 46' 03.47", W104° 54' 23.80"	0.1107

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDEN:RW25:DER	KDEN:RW25-VA End	
KDEN:RW25-VA End	BRKEM_	DVV, BJC
BRKEM_	LENNN_	DVV, BJC, FQF, DEN
LENNN_	TIKLR	DVV, BJC, FQF, DEN
TIKLR	CIROS	DVV, AKO, BJC, FQF, BRK, DEN
CIROS	ICECI_	HGO, DVV, AKO, BJC, FQF, BRK, DEN
ICECI_	SHOJO	HGO, DVV, AKO, BJC, FQF, BRK, DEN, LAA
SHOJO	SABTH	HGO, AKO, BRK, FQF, PUB, LAA
SABTH	JOPLN	HGO, TBE, BRK, PUB, LAA

User Data Files								
#	File Name							
None								
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LAA User ESV LAA [IFPA]	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	3944	116.9	LAA User ESV	
ESV:		Bearing [True]: 222.0° to 306.0° Bearing [Mag]: 210.0° to 294.0°				Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 ft		
2	HGO FAA 860203-31 HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO FAA 860203-31	
ESV:		Bearing [True]: 300.0° to 324.0° Bearing [Mag]: 293.0° to 317.0°				Arc Distance: Out to 65.0 NM Altitude: 9900.0 to 20000.0 ft		
3	HGO User ESV HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO User ESV	
ESV:		Bearing [True]: 179.0° to 278.0° Bearing [Mag]: 172.0° to 271.0°				Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 ft		
4	AKO FAA 704171-25 AKO [IFPA]	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	4626	114.4	AKO FAA 704171-25	
ESV:		Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°				Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 ft		

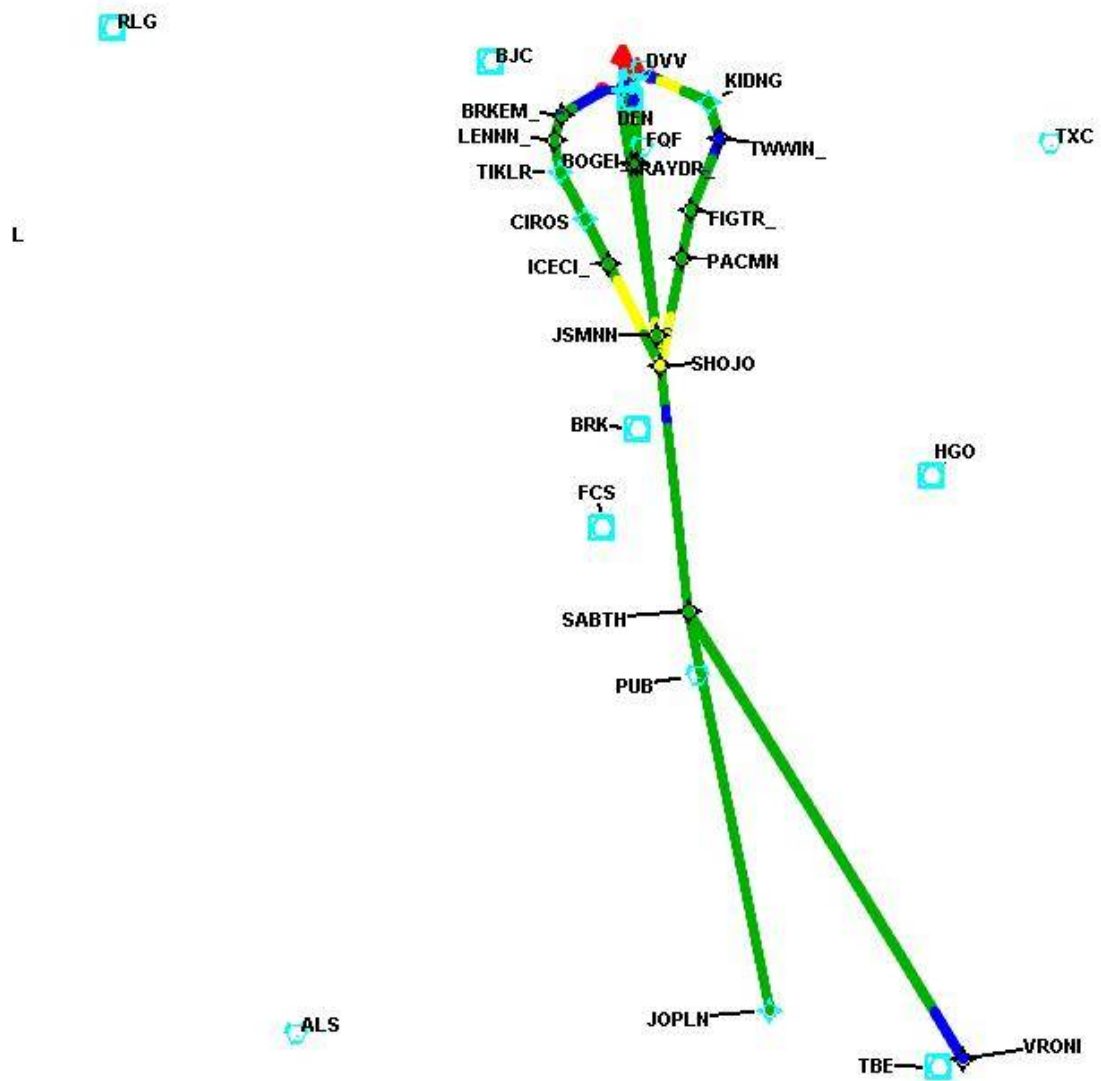
DME DME Assessment Results for SABTH1 path KDEN:RW25:DER_JOPLN

DME Error



DME DME Assessment Results for SABTH1 path KDEN:RW25:DER_JOPLN

Graphic Depiction 1



DME DME Assessment Results for SABTH1 path KDEN:RW08:DER_SHOJO

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bruce CTR Connolly
Project File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\SABTH1.tgs
Output File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\KDEN [IFPA] SABTH1 20190905_1604 EDT\KDEN-RW08-DER_SHOJO\KDEN SABTH1 SID KDEN RW08 SHOJO 20190905_1604 EDT.pdf
Procedure Name:	SABTH1
Software: DmeDmePlugin:	5.6.0
Date/Time:	09/05/2019 16:04 EDT
Databases:	DTED Level 0 Max

Failures

No Failures

Warnings

No Warnings

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
KDEN:RW08:DER	WP	N39° 52' 38.08", W104° 37' 10.15"	5294.4	VNAV	130	FLY_OVER	TF
KDEN:RW08-VA End	WP	N39° 52' 37.27", W104° 35' 25.24"	5934	VNAV	145	FLY_OVER	TF
KIDNG	WP	N39° 48' 37.67", W104° 23' 39.58"	7913.7	VNAV	200	FLY_BY	TF
TWWIN_	WP	N39° 42' 45.16", W104° 21' 23.78"	9138.6	VNAV	200	FLY_BY	TF
FIGTR_	WP	N39° 31' 32.09", W104° 27' 16.67"	14000	VNAV	240	FLY_BY	TF
PACMN	WP	N39° 23' 41.10", W104° 29' 18.85"	16000	VNAV	240	FLY_BY	TF
SHOJO	WP	N39° 06' 52.06", W104° 33' 39.04"	18000	VNAV	240	FLY_BY	TF

Climb Gradient:
475.0 ft/NM up to 5934.0 ft MSL
275.0 ft/NM up to 16000.0 ft MSL
200.0 ft/NM

Flyability

Flight Type:	SID
Selected Airport:	KDEN [IFPA]
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	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 Assessment Results for SABTH1 path KDEN:RW08:DER_SHOJO

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:	Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Included
Terminal DMEs:	Included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Not enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	BRK	N38° 56' 40.22", W104° 38' 00.49"	8.0 E	130	H	IFPA	NO	Enabled	42.3 %	49.8 %
2	HGO	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	H	IFPA	NO	Enabled	37 %	42.6 %
3	DEN	N39° 48' 45.05", W104° 39' 38.66"	8.0 E	130	H	IFPA	NO	Enabled	55.2 %	59.1 %
4	GLL	N40° 30' 13.92", W104° 33' 10.85"	13.0 E	130	H	IFPA	NO	Enabled	10.4 %	7.4 %
5	BJC	N39° 54' 46.94", W105° 08' 20.35"	11.0 E	130	H	IFPA	NO	Enabled	27.4 %	22.1 %
6	LAA	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	H	IFPA	NO	Enabled	9.8 %	11.7 %
7	DVV	N39° 53' 40.88", W104° 37' 27.61"	8.0 E	130	H	IFPA	NO	Enabled	70.9 %	71 %
8	AKO	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	H	IFPA	NO	Enabled	48.4 %	55.8 %
9	FQF	N39° 41' 24.50", W104° 37' 15.50"	11.0 E	130	H	IFPA	NO	Enabled	83.4 %	85.5 %

DME DME Assessment Results for SABTH1 path KDEN:RW08:DER_SHOJO

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
2.6	BJC	FQF				
2.8	BJC	GLL	FQF	DVV	DEN	
6.9	DVV	FQF	BJC			
14.7	DVV	FQF				
16.4						
20.8	DVV	FQF				
23.3						
23.7	AKO	DVV	DEN	FQF		
24.6	AKO	DVV	HGO	DEN	FQF	
46.0	HGO	BRK	AKO	DEN	FQF	
48.0	AKO	DEN	FQF	LAA	BRK	
49.3						
49.6	LAA	BRK	AKO	DEN	FQF	
52.4	LAA	BRK	AKO	FQF		

Inertial Drift Segments				
#	Start Location	End Location	Length [NM]	
1	N39° 51' 04.66", W104° 41' 47.74"	N39° 49' 41.93", W104° 39' 37.98"	2.1587	
2	N39° 49' 39.77", W104° 39' 38.01"	N39° 42' 32.45", W104° 55' 41.10"	14.2474	
3	N39° 12' 04.96", W104° 32' 18.58"	N39° 11' 45.41", W104° 32' 23.62"	0.3324	
4	N39° 50' 28.10", W104° 45' 25.51"	N39° 47' 37.62", W104° 51' 47.21"	5.6529	
5	N39° 47' 29.15", W104° 52' 06.14"	N39° 47' 27.94", W104° 52' 08.85"	0.0401	
6	N39° 49' 30.88", W104° 41' 48.82"	N39° 49' 11.20", W104° 41' 15.72"	0.5359	
7	N39° 48' 51.88", W104° 41' 15.94"	N39° 48' 49.46", W104° 41' 15.97"	0.0403	
8	N39° 42' 45.16", W104° 21' 23.78"	N39° 39' 36.86", W104° 23' 02.72"	3.3856	
9	N39° 37' 17.93", W104° 24' 15.61"	N39° 36' 50.14", W104° 24' 30.17"	0.4995	
10	N39° 43' 42.33", W104° 21' 45.78"	N39° 48' 04.11", W104° 41' 47.64"	16.0054	
11	N39° 47' 52.19", W104° 41' 45.04"	N39° 47' 18.82", W104° 41' 37.77"	0.5639	
12	N39° 48' 26.17", W104° 38' 31.24"	N39° 47' 30.62", W104° 38' 31.92"	0.9261	
13	N39° 52' 37.27", W104° 35' 25.24"	N39° 52' 08.12", W104° 33' 59.11"	1.2042	
14	N39° 49' 53.15", W104° 38' 30.18"	N39° 06' 52.06", W104° 33' 39.04"	43.1859	
15	N39° 00' 06.48", W104° 32' 39.16"	N38° 57' 03.57", W104° 32' 12.22"	3.0688	
16	N39° 48' 32.90", W104° 39' 38.81"	N39° 47' 22.90", W104° 39' 39.65"	1.1668	
17	N39° 51' 48.65", W104° 41' 13.90"	N39° 22' 53.62", W104° 44' 19.42"	29.0184	
18	N37° 24' 33.87", W103° 37' 13.11"	N39° 52' 38.08", W104° 37' 10.15"	155.312	
19	N39° 52' 38.06", W104° 37' 07.39"	N39° 50' 27.40", W104° 43' 35.96"	5.428	
20	N39° 50' 27.42", W104° 43' 38.77"	N39° 38' 43.97", W104° 39' 45.85"	12.0996	
21	N39° 46' 32.24", W104° 54' 13.25"	N39° 46' 16.25", W104° 54' 19.11"	0.2768	
22	N39° 46' 09.86", W104° 54' 21.46"	N39° 46' 03.47", W104° 54' 23.80"	0.1107	

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDEN:RW08:DER	KDEN:RW08-VA End	
KDEN:RW08-VA End	KIDNG	DVV, GLL, BJC, FQF, DEN
KIDNG	TWWIN_	DVV, BJC, FQF
TWWIN_	FIGTR_	HGO, DVV, AKO, FQF, BRK, DEN
FIGTR_	PACMN	HGO, AKO, DVV, BRK, FQF, DEN
PACMN	SHOJO	HGO, AKO, DVV, BRK, FQF, DEN, LAA

DME DME Assessment Results for SABTH1 path KDEN:RW08:DER_SHOJO

User Data Files

File Name

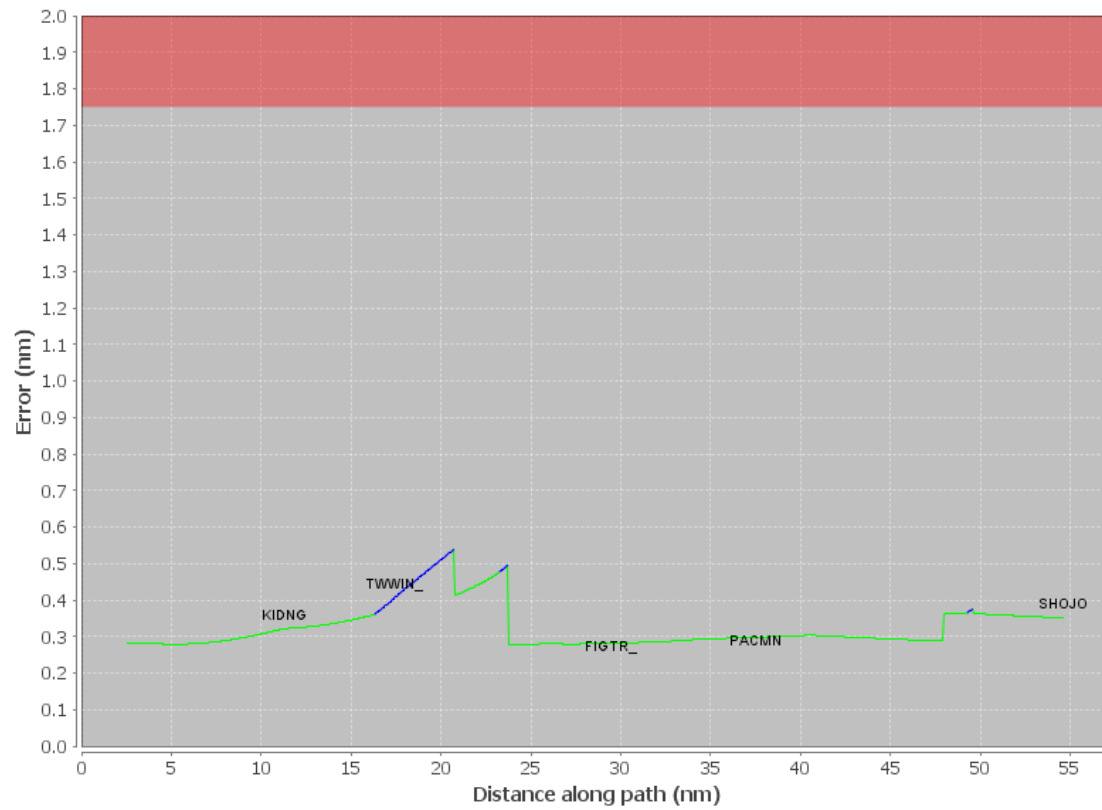
None

User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LAA User ESV LAA [IFPA]	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	3944	116.9	LAA User ESV	
ESV:		Bearing [True]: 222.0° to 306.0° Bearing [Mag]: 210.0° to 294.0°				Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 ft		
2	HGO FAA 860203-31 HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO FAA 860203-31	
ESV:		Bearing [True]: 300.0° to 324.0° Bearing [Mag]: 293.0° to 317.0°				Arc Distance: Out to 65.0 NM Altitude: 9900.0 to 20000.0 ft		
3	HGO User ESV HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO User ESV	
ESV:		Bearing [True]: 179.0° to 278.0° Bearing [Mag]: 172.0° to 271.0°				Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 ft		
4	AKO FAA 704171-25 AKO [IFPA]	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	4626	114.4	AKO FAA 704171-25	
ESV:		Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°				Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 ft		

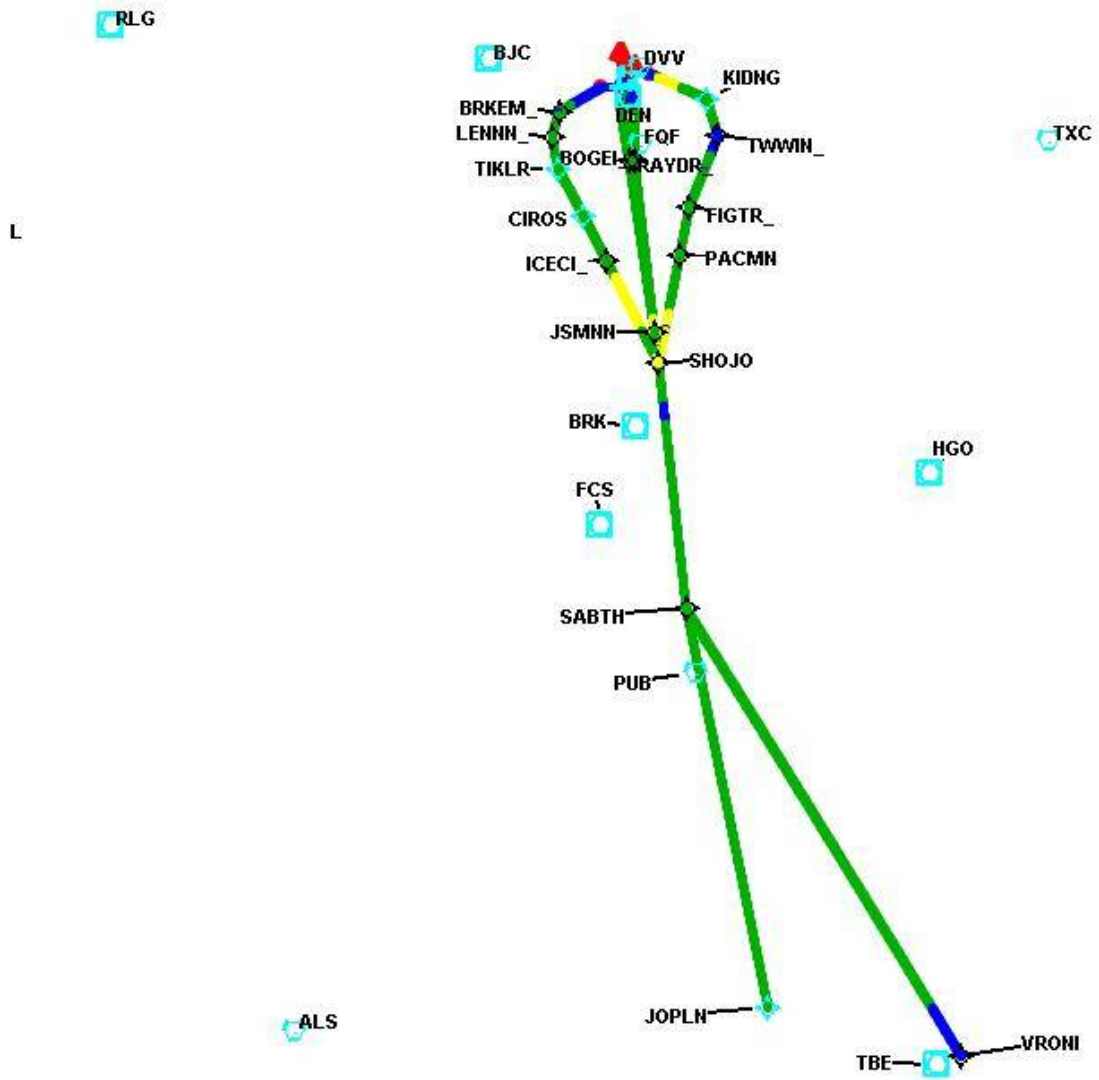
DME DME Assessment Results for SABTH1 path KDEN:RW08:DER_SHOJO

DME Error



DME DME Assessment Results for SABTH1 path KDEN:RW08:DER_SHOJO

Graphic Depiction 1



DME DME Assessment Results for SABTH1 path KDEN:RW16L:DER_SHOJO

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bruce CTR Connolly
Project File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\SABTH1.tgs
Output File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\KDEN [IFPA] SABTH1 20190905_1604 EDT\KDEN-RW16L-DER_SHOJO\KDEN SABTH1 SID KDEN RW16L SHOJO 20190905_1604 EDT.pdf
Procedure Name:	SABTH1
Software: DmeDmePlugin:	5.6.0
Date/Time:	09/05/2019 16:04 EDT
Databases:	DTED Level 0 Max

Failures

No Failures

Warnings

No Warnings

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
KDEN:RW16L:DER	WP	N39° 51' 50.77", W104° 41' 13.88"	5353.7	VNAV	130	FLY_BY	TF
KDEN:RW16L:DER- ENGAGEMENT	WP	N39° 50' 23.66", W104° 41' 14.88"	5934	VNAV	145		TF
KDEN:RW16L-VI End	WP	N39° 45' 48.31", W104° 41' 18.06"	7263.9	VNAV	145	FLY_BY	TF
BOGEI_	WP	N39° 38' 43.97", W104° 39' 45.85"	8582.1	VNAV	200	FLY_BY	TF
JSMNN	WP	N39° 11' 37.35", W104° 34' 29.31"	17000	VNAV	240	FLY_BY	TF
SHOJO	WP	N39° 06' 52.06", W104° 33' 39.04"	18000	VNAV	240	FLY_BY	TF
Climb Gradient: 400.0 ft/NM up to 5934.0 ft MSL 290.0 ft/NM up to 13000.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDEN [IFPA]
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	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 Assessment Results for SABTH1 path KDEN:RW16L:DER_SHOJO

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:	Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Included
Terminal DMEs:	Included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Not enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	BRK	N38° 56' 40.22", W104° 38' 00.49"	8.0 E	130	H	IFPA	NO	Enabled	32.2 %	36.9 %
2	HGO	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	H	IFPA	NO	Enabled	24.5 %	26.5 %
3	DEN	N39° 48' 45.05", W104° 39' 38.66"	8.0 E	130	H	IFPA	NO	Enabled	79.4 %	82.2 %
4	BJC	N39° 54' 46.94", W105° 08' 20.35"	11.0 E	130	H	IFPA	NO	Enabled	55.4 %	52.4 %
5	LAA	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	H	IFPA	NO	Enabled	12.2 %	15.3 %
6	DVV	N39° 53' 40.88", W104° 37' 27.61"	8.0 E	130	H	IFPA	NO	Enabled	78.7 %	77.5 %
7	AKO	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	H	IFPA	NO	Enabled	42.4 %	47.8 %
8	FQF	N39° 41' 24.50", W104° 37' 15.50"	11.0 E	130	H	IFPA	NO	Enabled	63.9 %	69.1 %

DME DME Assessment Results for SABTH1 path KDEN:RW16L:DER_SHOJO

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
2.7	BJC	DVV				
3.0						
3.0	BJC	DVV				
5.8	BJC	DVV	DEN	FQF		
8.4	BJC	DVV	DEN			
13.4	BJC	FQF	DVV	DEN		
13.8	BJC	DVV	DEN			
16.9	BJC	FQF	DVV	DEN		
22.2	HGO	DVV	BJC	FQF	DEN	
26.6	HGO	AKO	DEN	DVV	FQF	
34.3	AKO	DEN	FQF	DVV	BRK	
37.5	AKO	DEN	FQF	DVV		
37.9	AKO	DEN	FQF			
38.3	AKO	DEN	FQF	LAA	DVV	BRK
38.5	AKO	DEN	FQF	LAA	BRK	
40.6	AKO	DEN	FQF			
40.7	LAA	BRK	AKO	DEN	FQF	
43.2	LAA	BRK	FQF			
43.5	LAA	BRK	AKO	FQF		

Inertial Drift Segments				
#	Start Location		End Location	Length [NM]
1	N39° 51' 04.66", W104° 41' 47.74"		N39° 49' 41.93", W104° 39' 37.98"	2.1587
2	N39° 49' 39.77", W104° 39' 38.01"		N39° 42' 32.45", W104° 55' 41.10"	14.2474
3	N39° 12' 04.96", W104° 32' 18.58"		N39° 11' 45.41", W104° 32' 23.62"	0.3324
4	N39° 50' 28.10", W104° 45' 25.51"		N39° 47' 37.62", W104° 51' 47.21"	5.6529
5	N39° 47' 29.15", W104° 52' 06.14"		N39° 47' 27.94", W104° 52' 08.85"	0.0401
6	N39° 49' 30.88", W104° 41' 48.82"		N39° 49' 11.20", W104° 41' 15.72"	0.5359
7	N39° 48' 51.88", W104° 41' 15.94"		N39° 48' 49.46", W104° 41' 15.97"	0.0403
8	N39° 42' 45.16", W104° 21' 23.78"		N39° 39' 36.86", W104° 23' 02.72"	3.3856
9	N39° 37' 17.93", W104° 24' 15.61"		N39° 36' 50.14", W104° 24' 30.17"	0.4995
10	N39° 43' 42.33", W104° 21' 45.78"		N39° 48' 04.11", W104° 41' 47.64"	16.0054
11	N39° 47' 52.19", W104° 41' 45.04"		N39° 47' 18.82", W104° 41' 37.77"	0.5639
12	N39° 48' 26.17", W104° 38' 31.24"		N39° 47' 30.62", W104° 38' 31.92"	0.9261
13	N39° 52' 37.27", W104° 35' 25.24"		N39° 52' 08.12", W104° 33' 59.11"	1.2042
14	N39° 49' 53.15", W104° 38' 30.18"		N39° 06' 52.06", W104° 33' 39.04"	43.1859
15	N39° 00' 06.48", W104° 32' 39.16"		N38° 57' 03.57", W104° 32' 12.22"	3.0688
16	N39° 48' 32.90", W104° 39' 38.81"		N39° 47' 22.90", W104° 39' 39.65"	1.1668
17	N39° 51' 48.65", W104° 41' 13.90"		N39° 22' 53.62", W104° 44' 19.42"	29.0184
18	N37° 24' 33.87", W103° 37' 13.11"		N39° 52' 38.08", W104° 37' 10.15"	155.312
19	N39° 52' 38.06", W104° 37' 07.39"		N39° 50' 27.40", W104° 43' 35.96"	5.428
20	N39° 50' 27.42", W104° 43' 38.77"		N39° 38' 43.97", W104° 39' 45.85"	12.0996
21	N39° 46' 32.24", W104° 54' 13.25"		N39° 46' 16.25", W104° 54' 19.11"	0.2768
22	N39° 46' 09.86", W104° 54' 21.46"		N39° 46' 03.47", W104° 54' 23.80"	0.1107

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDEN:RW16L:DER	KDEN:RW16L:DER-ENGAGEMENT	
KDEN:RW16L:DER-ENGAGEMENT	KDEN:RW16L-VI End	DVV, BJC, FQF, DEN
KDEN:RW16L-VI End	BOGEI_	DVV, BJC, FQF, DEN
BOGEI_	JSMNN	HGO, DVV, AKO, BJC, FQF, BRK, DEN, LAA
JSMNN	SHOJO	AKO, FQF, BRK, DEN, LAA

DME DME Assessment Results for SABTH1 path KDEN:RW16L:DER_SHOJO

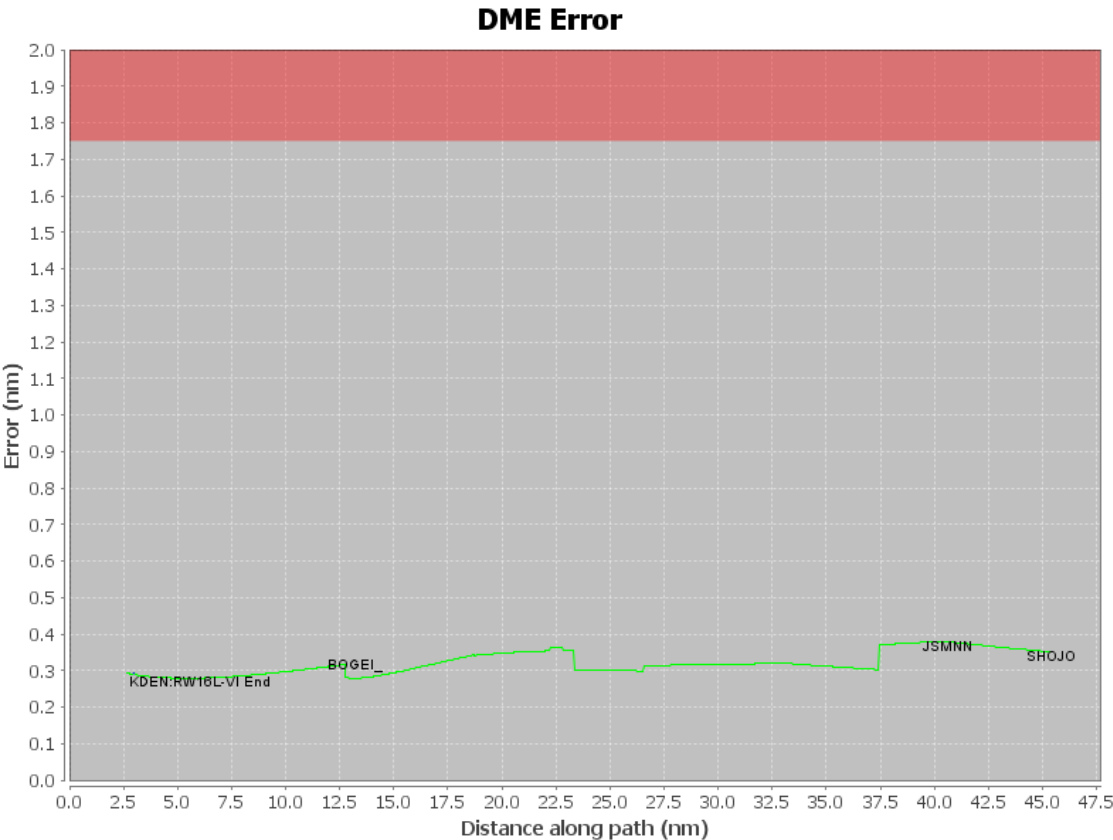
User Data Files

File Name

None

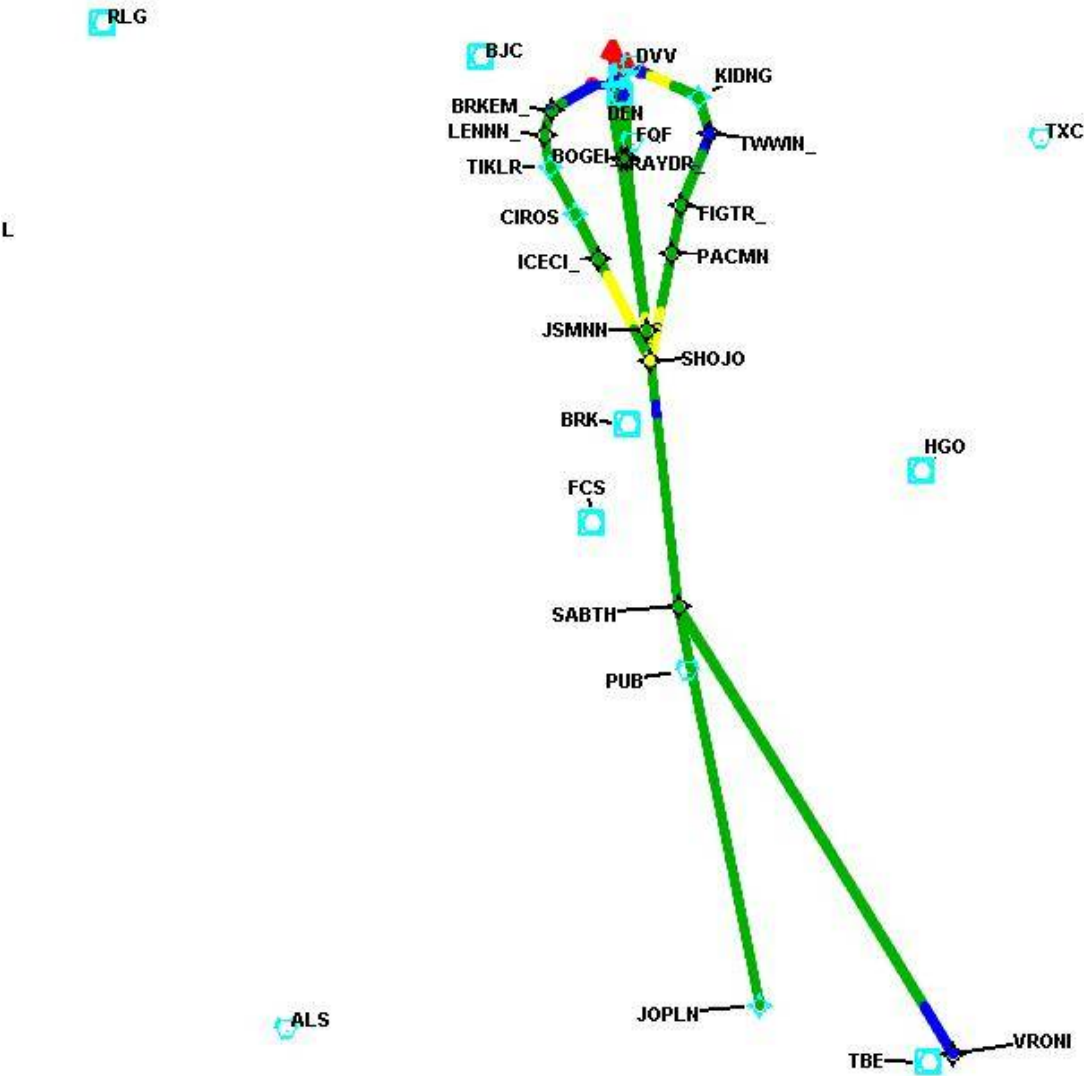
User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LAA User ESV LAA [IFPA]	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	3944	116.9	LAA User ESV	
ESV:		Bearing [True]: 222.0° to 306.0° Bearing [Mag]: 210.0° to 294.0°				Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 ft		
2	HGO FAA 860203-31 HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO FAA 860203-31	
ESV:		Bearing [True]: 300.0° to 324.0° Bearing [Mag]: 293.0° to 317.0°				Arc Distance: Out to 65.0 NM Altitude: 9900.0 to 20000.0 ft		
3	HGO User ESV HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO User ESV	
ESV:		Bearing [True]: 179.0° to 278.0° Bearing [Mag]: 172.0° to 271.0°				Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 ft		
4	AKO FAA 704171-25 AKO [IFPA]	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	4626	114.4	AKO FAA 704171-25	
ESV:		Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°				Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 ft		



DME DME Assessment Results for SABTH1 path KDEN:RW16L:DER_SHOJO

Graphic Depiction 1



DME DME Assessment Results for SABTH1 path KDEN:RW16R:DER_BOGEI_

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bruce CTR Connolly
Project File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\SABTH1.tgs
Output File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\KDEN [IFPA] SABTH1 20190905_1604 EDT\KDEN-RW16R-DER_BOGEI_KDEN SABTH1 SID KDEN RW16R BOGEI 20190905_1604 EDT.pdf
Procedure Name:	SABTH1
Software: DmeDmePlugin:	5.6.0
Date/Time:	09/05/2019 16:04 EDT
Databases:	DTED Level 0 Max

Failures

No Failures

Warnings

No Warnings

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
KDEN:RW16R:DER	WP	N39° 51' 06.79", W104° 41' 47.72"	5327	VNAV	130	FLY_BY	TF
KDEN:RW16R:DER- ENGAGEMENT	WP	N39° 49' 30.88", W104° 41' 48.82"	5934	VNAV	145		TF
KDEN:RW16R-VI End	WP	N39° 48' 13.64", W104° 41' 49.71"	6274.9	VNAV	145	FLY_BY	TF
BOGEI_	WP	N39° 38' 43.97", W104° 39' 45.85"	8582.1	VNAV	200	FLY_BY	TF
Climb Gradient: 380.0 ft/NM up to 5934.0 ft MSL 265.0 ft/NM up to 13000.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDEN [IFPA]
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	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 Assessment Results for SABTH1 path KDEN:RW16R:DER_BOGEI_

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:	Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Included
Terminal DMEs:	Included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Not enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DEN	N39° 48' 45.05", W104° 39' 38.66"	8.0 E	130	H	IFPA	NO	Enabled	54.2 %	56.3 %
2	BJC	N39° 54' 46.94", W105° 08' 20.35"	11.0 E	130	H	IFPA	NO	Enabled	69 %	70.8 %
3	DVV	N39° 53' 40.88", W104° 37' 27.61"	8.0 E	130	H	IFPA	NO	Enabled	69 %	70.8 %
4	FQF	N39° 41' 24.50", W104° 37' 15.50"	11.0 E	130	H	IFPA	NO	Enabled	18.1 %	17.7 %

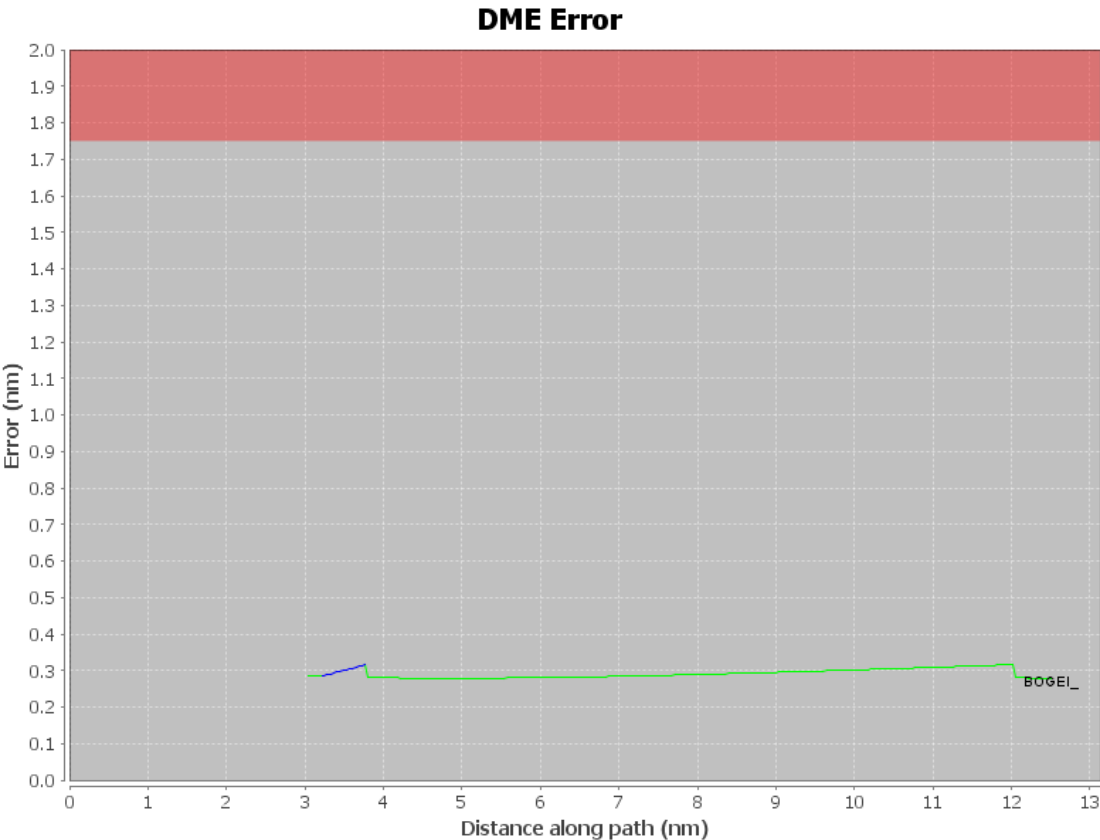
Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
3.0	BJC	DVV				
3.2						
3.8	BJC	DVV				
5.4	BJC	DVV	DEN	FQF		
5.4	BJC	DVV				
5.5	BJC	DVV	DEN	FQF		
7.7	BJC	DVV	DEN			

DME DME Assessment Results for SABTH1 path KDEN:RW16R:DER_BOGEI_

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N39° 51' 04.66", W104° 41' 47.74"	N39° 49' 41.93", W104° 39' 37.98"	2.1587
2	N39° 49' 39.77", W104° 39' 38.01"	N39° 42' 32.45", W104° 55' 41.10"	14.2474
3	N39° 12' 04.96", W104° 32' 18.58"	N39° 11' 45.41", W104° 32' 23.62"	0.3324
4	N39° 50' 28.10", W104° 45' 25.51"	N39° 47' 37.62", W104° 51' 47.21"	5.6529
5	N39° 47' 29.15", W104° 52' 06.14"	N39° 47' 27.94", W104° 52' 08.85"	0.0401
6	N39° 49' 30.88", W104° 41' 48.82"	N39° 49' 11.20", W104° 41' 15.72"	0.5359
7	N39° 48' 51.88", W104° 41' 15.94"	N39° 48' 49.46", W104° 41' 15.97"	0.0403
8	N39° 42' 45.16", W104° 21' 23.78"	N39° 39' 36.86", W104° 23' 02.72"	3.3856
9	N39° 37' 17.93", W104° 24' 15.61"	N39° 36' 50.14", W104° 24' 30.17"	0.4995
10	N39° 43' 42.33", W104° 21' 45.78"	N39° 48' 04.11", W104° 41' 47.64"	16.0054
11	N39° 47' 52.19", W104° 41' 45.04"	N39° 47' 18.82", W104° 41' 37.77"	0.5639
12	N39° 48' 26.17", W104° 38' 31.24"	N39° 47' 30.62", W104° 38' 31.92"	0.9261
13	N39° 52' 37.27", W104° 35' 25.24"	N39° 52' 08.12", W104° 33' 59.11"	1.2042
14	N39° 49' 53.15", W104° 38' 30.18"	N39° 06' 52.06", W104° 33' 39.04"	43.1859
15	N39° 00' 06.48", W104° 32' 39.16"	N38° 57' 03.57", W104° 32' 12.22"	3.0688
16	N39° 48' 32.90", W104° 39' 38.81"	N39° 47' 22.90", W104° 39' 39.65"	1.1668
17	N39° 51' 48.65", W104° 41' 13.90"	N39° 22' 53.62", W104° 44' 19.42"	29.0184
18	N37° 24' 33.87", W103° 37' 13.11"	N39° 52' 38.08", W104° 37' 10.15"	155.312
19	N39° 52' 38.06", W104° 37' 07.39"	N39° 50' 27.40", W104° 43' 35.96"	5.428
20	N39° 50' 27.42", W104° 43' 38.77"	N39° 38' 43.97", W104° 39' 45.85"	12.0996
21	N39° 46' 32.24", W104° 54' 13.25"	N39° 46' 16.25", W104° 54' 19.11"	0.2768
22	N39° 46' 09.86", W104° 54' 21.46"	N39° 46' 03.47", W104° 54' 23.80"	0.1107

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDEN:RW16R:DER	KDEN:RW16R:DER-ENGAGEMENT	
KDEN:RW16R:DER-ENGAGEMENT	KDEN:RW16R-VI End	
KDEN:RW16R-VI End	BOGEI_	DVV, BJC, FQF, DEN

User Data Files								
#	File Name							
None								
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LAA User ESV LAA [IFPA]	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	3944	116.9	LAA User ESV	
ESV:		Bearing [True]: 222.0° to 306.0° Bearing [Mag]: 210.0° to 294.0°				Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 ft		
2	HGO FAA 860203-31 HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO FAA 860203-31	
ESV:		Bearing [True]: 300.0° to 324.0° Bearing [Mag]: 293.0° to 317.0°				Arc Distance: Out to 65.0 NM Altitude: 9900.0 to 20000.0 ft		
3	HGO User ESV HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO User ESV	
ESV:		Bearing [True]: 179.0° to 278.0° Bearing [Mag]: 172.0° to 271.0°				Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 ft		
4	AKO FAA 704171-25 AKO [IFPA]	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	4626	114.4	AKO FAA 704171-25	
ESV:		Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°				Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 ft		



Graphic Depiction 1



DME DME Assessment Results for SABTH1 path SABTH_VRONI

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bruce CTR Connolly
Project File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\SABTH1.tgs
Output File:	C:\Users\Bruce CTR Connolly\Desktop\Denver Metroplex working file\DEN SIDs\DEN SABTH1\KDEN [IFPA] SABTH1 20190905_1604 EDT\SABTH_VRONI\KDEN SABTH1 SID SABTH VRONI 20190905_1604 EDT.pdf
Procedure Name:	SABTH1
Software: DmeDmePlugin:	5.6.0
Date/Time:	09/05/2019 16:04 EDT
Databases:	DTED Level 0 Max

Failures

No Failures

Warnings

No Warnings

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
SABTH	WP	N38° 27' 45.86", W104° 27' 55.30"	18000	VNAV	240	FLY_BY	TF
VRONI	WP	N37° 16' 52.72", W103° 31' 10.19"	18000	VNAV	240	FLY_BY	TF

Flyability

Flight Type:	SID
Selected Airport:	KDEN [IFPA]
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	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 Assessment Results for SABTH1 path SABTH_VRONI

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:	Allowed
DoD Facilities:	Not included
Foreign Facilities:	Not included
High DMEs:	Included
Low DMEs:	Included
Terminal DMEs:	Included
Flight Check DMEs:	Not selected
Higher Altitudes:	Not Evaluated
Near Maximum Altitude:	Not Evaluated
Automatic ESVs:	Not enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	BRK	N38° 56' 40.22", W104° 38' 00.49"	8.0 E	130	H	IFPA	NO	Enabled	11 %	11 %
2	HGO	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	H	IFPA	NO	Enabled	84.5 %	84.5 %
3	LAA	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	H	IFPA	NO	Enabled	89.1 %	89.1 %
4	PUB	N38° 17' 39.32", W104° 25' 46.01"	8.0 E	130	H	IFPA	NO	Enabled	50.7 %	50.7 %
5	TBE	N37° 15' 31.17", W103° 36' 00.20"	12.0 E	40	L	IFPA	NO	Enabled	36.9 %	36.9 %

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	HGO	BRK	PUB	LAA		
6.5	HGO	BRK	LAA			
9.3	LAA	HGO				
12.5	HGO	PUB	LAA			
43.8	LAA	TBE	PUB	HGO		
48.7	LAA	TBE	HGO			
70.9	LAA	TBE				
74.8						

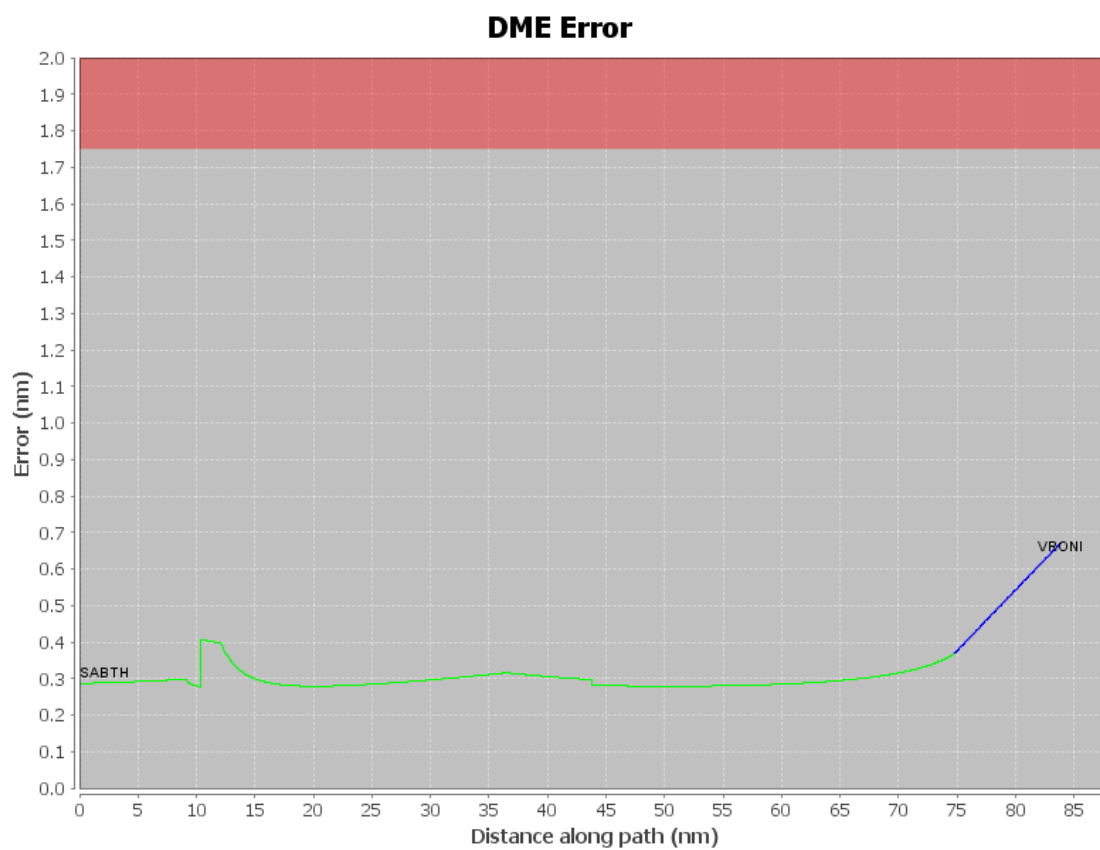
DME DME Assessment Results for SABTH1 path SABTH_VRONI

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N39° 51' 04.66", W104° 41' 47.74"	N39° 49' 41.93", W104° 39' 37.98"	2.1587
2	N39° 49' 39.77", W104° 39' 38.01"	N39° 42' 32.45", W104° 55' 41.10"	14.2474
3	N39° 12' 04.96", W104° 32' 18.58"	N39° 11' 45.41", W104° 32' 23.62"	0.3324
4	N39° 50' 28.10", W104° 45' 25.51"	N39° 47' 37.62", W104° 51' 47.21"	5.6529
5	N39° 47' 29.15", W104° 52' 06.14"	N39° 47' 27.94", W104° 52' 08.85"	0.0401
6	N39° 49' 30.88", W104° 41' 48.82"	N39° 49' 11.20", W104° 41' 15.72"	0.5359
7	N39° 48' 51.88", W104° 41' 15.94"	N39° 48' 49.46", W104° 41' 15.97"	0.0403
8	N39° 42' 45.16", W104° 21' 23.78"	N39° 39' 36.86", W104° 23' 02.72"	3.3856
9	N39° 37' 17.93", W104° 24' 15.61"	N39° 36' 50.14", W104° 24' 30.17"	0.4995
10	N39° 43' 42.33", W104° 21' 45.78"	N39° 48' 04.11", W104° 41' 47.64"	16.0054
11	N39° 47' 52.19", W104° 41' 45.04"	N39° 47' 18.82", W104° 41' 37.77"	0.5639
12	N39° 48' 26.17", W104° 38' 31.24"	N39° 47' 30.62", W104° 38' 31.92"	0.9261
13	N39° 52' 37.27", W104° 35' 25.24"	N39° 52' 08.12", W104° 33' 59.11"	1.2042
14	N39° 49' 53.15", W104° 38' 30.18"	N39° 06' 52.06", W104° 33' 39.04"	43.1859
15	N39° 00' 06.48", W104° 32' 39.16"	N38° 57' 03.57", W104° 32' 12.22"	3.0688
16	N39° 48' 32.90", W104° 39' 38.81"	N39° 47' 22.90", W104° 39' 39.65"	1.1668
17	N39° 51' 48.65", W104° 41' 13.90"	N39° 22' 53.62", W104° 44' 19.42"	29.0184
18	N37° 24' 33.87", W103° 37' 13.11"	N39° 52' 38.08", W104° 37' 10.15"	155.312
19	N39° 52' 38.06", W104° 37' 07.39"	N39° 50' 27.40", W104° 43' 35.96"	5.428
20	N39° 50' 27.42", W104° 43' 38.77"	N39° 38' 43.97", W104° 39' 45.85"	12.0996
21	N39° 46' 32.24", W104° 54' 13.25"	N39° 46' 16.25", W104° 54' 19.11"	0.2768
22	N39° 46' 09.86", W104° 54' 21.46"	N39° 46' 03.47", W104° 54' 23.80"	0.1107

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
SABTH	VRONI	HGO, TBE, BRK, PUB, LAA

User Data Files								
#	File Name							
None								
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LAA User ESV LAA [IFPA]	N38° 11' 49.53", W102° 41' 15.12"	12.0 E	130	3944	116.9	LAA User ESV	
ESV:		Bearing [True]: 222.0° to 306.0° Bearing [Mag]: 210.0° to 294.0°				Arc Distance: Out to 119.0 NM Altitude: 16300.0 to 22000.0 ft		
2	HGO FAA 860203-31 HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO FAA 860203-31	
ESV:		Bearing [True]: 300.0° to 324.0° Bearing [Mag]: 293.0° to 317.0°				Arc Distance: Out to 65.0 NM Altitude: 9900.0 to 20000.0 ft		
3	HGO User ESV HGO [IFPA]	N38° 49' 03.00", W103° 37' 17.00"	7.0 E	130	5252.6	112.1	HGO User ESV	
ESV:		Bearing [True]: 179.0° to 278.0° Bearing [Mag]: 172.0° to 271.0°				Arc Distance: Out to 91.0 NM Altitude: 16900.0 to 20000.0 ft		
4	AKO FAA 704171-25 AKO [IFPA]	N40° 09' 20.00", W103° 10' 46.97"	13.0 E	130	4626	114.4	AKO FAA 704171-25	
ESV:		Bearing [True]: 226.0° to 255.0° Bearing [Mag]: 213.0° to 242.0°				Arc Distance: Out to 94.0 NM Altitude: 11700.0 to 20000.0 ft		

DME DME Assessment Results for SABTH1 path SABTH_VRONI



DME DME Assessment Results for SABTH1 path SABTH_VRONI

Graphic Depiction 1

