

DME ESVs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ADW FAA 880073-2 ADW [IFPA]	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	278.9	113.1	ADW FAA 880073-2	
Restriction:		Bearing [True]: 25.0° to 35.0° Bearing [Mag]: 35.0° to 45.0°				Distance: All Altitude: Below 2500.0 ft		
Restriction:		Bearing [True]: 210.0° to 270.0° Bearing [Mag]: 220.0° to 280.0°				Distance: All Altitude: Below 99999.0 ft		
ESV:		Bearing [True]: 308.0° to 332.0° Bearing [Mag]: 318.0° to 342.0°				Arc Distance: Out to 53.0 NM Altitude: 3000.0 to 20000.0 ft		
2	AML FAA 732650-44 AML [IFPA]	N38° 56' 04.538000000", W077° 28' 00.128500000"	8.0 W	40	298.6	113.5	AML FAA 732650-44	
Restriction:		Bearing [True]: 47.0° to 202.0° Bearing [Mag]: 55.0° to 210.0°				Distance: All Altitude: Below 2500.0 ft		
Restriction:		Bearing [True]: 203.0° to 222.0° Bearing [Mag]: 211.0° to 230.0°				Distance: All Altitude: Below 3000.0 ft		
ESV:		Bearing [True]: 263.0° to 359.0° Bearing [Mag]: 271.0° to 7.0°				Arc Distance: Out to 73.0 NM Altitude: 7000.0 to 17000.0 ft		
3	ESV LRP [IFPA] LRP [IFPA]	N40° 07' 11.911900000", W076° 17' 28.663300000"	9.0 W	40	400.3	117.3	ESV LRP [IFPA]	
Restriction:		Bearing [True]: 311.0° to 21.0° Bearing [Mag]: 320.0° to 30.0°				Distance: Beyond 31.0 NM Altitude: Below 8000.0 ft		
Restriction:		Bearing [True]: 171.0° to 181.0° Bearing [Mag]: 180.0° to 190.0°				Distance: All Altitude: Below 99999.0 ft		
ESV:		Bearing [True]: 231.0° to 246.0° Bearing [Mag]: 240.0° to 255.0°				Arc Distance: Out to 70.0 NM Altitude: 9000.0 to 16000.0 ft		

DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFR

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Robert CTR Mason
Project File:	C:\Users\Robert CTR Mason\Desktop\DCA SID AMENDMENTS with REVGE\DCA - HORTO\KDCA HORTO DME\HORTO DME.tgs
Output File:	C:\Users\Robert CTR Mason\Desktop\DCA SID AMENDMENTS with REVGE\DCA - HORTO\KDCA HORTO DME\KDCA [IFPA] HORTO4 20191114_1228 EST\KDCA-RW01-DER_BUFFR\KDCA HORTO4 SID KDCA RW01 BUFFR 20191114_1228 EST.pdf
Procedure Name:	HORTO4
Software: DmeDmePlugin:	6.0.0
Date/Time:	11/14/2019 12:28 EST
Databases:	DTED.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
KDCA:RW01:DER	WP	N38° 51' 40.293300000", W077° 02' 19.405300000"	12.1	VNAV	130	FLY_BY	TF
REVGE	WP	N38° 53' 59.460000000", W077° 04' 14.240000000"	1500	VNAV	220	FLY_BY	TF
BEBLE	WP	N38° 54' 55.810000000", W077° 06' 26.920000000"	1892.9	VNAV	220	FLY_BY	TF
RGIII	WP	N38° 58' 00.539965481", W077° 08' 48.382530523"	2609.7	VNAV	220	FLY_BY	TF
MELOE	WP	N38° 59' 37.280000000", W077° 19' 08.690000000"	4254	VNAV	220	FLY_BY	TF
HORTO	WP	N39° 07' 04.500000000", W077° 27' 49.300000000"	5000	VNAV	220	FLY_BY	TF
BUFFR	WP	N39° 27' 33.650000000", W077° 35' 53.930000000"	9200	VNAV	220	FLY_BY	TF
Climb Gradient: 825.0 ft/NM up to 600.0 ft MSL 200.0 ft/NM							

DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFR

Flyability	
Flight Type:	SID
Selected Airport:	KDCA [IFPA]
Climb Gradient:	825.0 ft/NM up to 600.0 ft MSL 200.0 ft/NM
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:	PXT

DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFER

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	MRB	N39° 23' 08.060000000", W077° 50' 54.082000000"	7.0 W	40	L	IFPA	NO	Enabled	72.6 %	73.4 %
2	OTT	N38° 42' 21.135200000", W076° 44' 41.085400000"	10.0 W	40	L	IFPA	NO	Enabled	25.6 %	25.8 %
3	LDN	N38° 51' 15.810000000", W078° 12' 20.001000000"	6.0 W	40	L	IFPA	NO	Enabled	6.4 %	6.5 %
4	THS	N39° 55' 59.621000000", W077° 57' 03.400000000"	7.0 W	40	L	IFPA	NO	Enabled	13.2 %	13.3 %
5	BAL	N39° 10' 15.828300000", W076° 39' 40.522500000"	11.0 W	40	L	IFPA	NO	Enabled	52.4 %	52.9 %
6	CSN	N38° 38' 28.327700000", W077° 51' 55.797900000"	6.0 W	130	H	IFPA	NO	Enabled	44.8 %	45.4 %
7	AML	N38° 56' 04.538000000", W077° 28' 00.128500000"	8.0 W	40	L	IFPA	NO	Enabled	74.8 %	75.7 %
8	ADW	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	L	IFPA	NO	Enabled	17.4 %	17.5 %
9	DCA	N38° 51' 34.030100000", W077° 02' 11.170000000"	9.0 W	40	L	IFPA	NO	Enabled	40.5 %	41 %
10	EMI	N39° 29' 42.026600000", W076° 58' 42.859100000"	8.0 W	130	H	IFPA	NO	Enabled	86.3 %	87.3 %
11	PXT	N38° 17' 16.282500000", W076° 24' 00.831500000"	10.0 W	40	L	IFPA	NO	Disabled		

DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFR

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
1.7	BAL	ADW				
2.0						
2.3	BAL	ADW				
2.4						
3.3	BAL	DCA				
4.4	BAL	DCA	EMI			
4.5	BAL	EMI				
4.6	BAL	DCA	EMI			
5.0	BAL	DCA	ADW	EMI		
5.2	ADW	EMI	BAL			
5.4	BAL	DCA	EMI			
5.5	BAL	DCA	CSN	ADW	EMI	
5.6	BAL	DCA	ADW	EMI		
5.7	ADW	EMI	BAL			
5.8	BAL	EMI				
5.8	BAL	DCA	EMI			
6.0	ADW	EMI	BAL			
6.2	BAL	DCA	CSN	ADW	EMI	
6.2	BAL	EMI				
6.3	BAL	DCA	EMI			
6.5	BAL	EMI				
6.6	BAL	DCA	EMI			
6.7	BAL	DCA	ADW	EMI		
6.8	BAL	DCA	EMI			
6.9	BAL	EMI				
6.9	BAL	DCA	EMI			
7.2	BAL	DCA	CSN	ADW	EMI	
7.2	BAL	EMI				
7.4	BAL	DCA	EMI			
7.4	BAL	EMI				
7.7	BAL	DCA	EMI			
7.9	BAL	DCA	CSN	ADW	EMI	
8.1	BAL	DCA	AML	EMI		
8.2	BAL	DCA	AML	EMI	ADW	
8.5	BAL	DCA	AML	EMI		
9.2	DCA	CSN	BAL	AML	EMI	
9.5	BAL	DCA	AML	EMI		
9.6	AML	EMI	BAL			
9.7	BAL	DCA	ADW	EMI	AML	
9.7	BAL	DCA	AML	EMI		
10.3	AML	EMI	BAL			
10.3	ADW	EMI	AML	BAL		
10.5	DCA	CSN	OTT	EMI	BAL	AML
10.5	BAL	DCA	EMI	AML		
10.7	OTT	EMI	BAL	AML		
10.8	DCA	CSN	OTT	EMI	BAL	AML
11.3	DCA	CSN	EMI	BAL	AML	
11.3	ADW	EMI	MRB	CSN	OTT	BAL
11.4	MRB	CSN	OTT	EMI	BAL	AML
11.6	OTT	EMI	CSN	BAL	AML	
12.0	DCA	CSN	EMI	BAL	AML	
12.1	ADW	EMI	MRB	CSN	OTT	BAL
12.1	MRB	CSN	EMI	BAL	AML	
15.8	ADW	EMI	DCA	OTT	MRB	CSN
15.9	OTT	EMI	MRB	CSN	AML	BAL

DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFER

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
16.2	OTT	EMI	MRB	CSN	BAL	
23.9	MRB	EMI	CSN	ADW	AML	BAL
24.2	DCA	CSN	MRB	EMI	AML	BAL
24.8	MRB	EMI	CSN	AML	BAL	
25.6	MRB	EMI	DCA	CSN	AML	
25.9	CSN	ADW	DCA	MRB	AML	
26.0	CSN	ADW	MRB	EMI	DCA	
26.1	MRB	EMI	DCA	CSN		
26.2	DCA	CSN	MRB	LDN	BAL	
26.3	MRB	EMI	DCA	CSN		
26.4	MRB	EMI	DCA	CSN	LDN	BAL
26.5	MRB	EMI	CSN	LDN	BAL	
26.6	MRB	CSN	LDN	BAL		
26.7	MRB	EMI	CSN	LDN	BAL	
27.9	MRB	EMI	DCA	CSN	AML	
28.0	AML	BAL	MRB	EMI	CSN	LDN
28.1	CSN	ADW	MRB	EMI	AML	
28.1	CSN	ADW	MRB	AML		
28.2	CSN	ADW	MRB	EMI	AML	
28.3	CSN	ADW	MRB	AML		
28.4	CSN	ADW	MRB	EMI	AML	
28.7	DCA	EMI	MRB	CSN	AML	
28.7	AML	BAL	CSN	ADW	MRB	EMI
28.9	MRB	CSN	EMI	AML		
28.9	CSN	ADW	MRB	EMI	AML	
29.0	MRB	CSN	EMI	AML		
29.1	CSN	ADW	MRB	EMI	AML	
29.4	DCA	EMI	MRB	CSN	AML	
30.9	DCA	EMI	MRB	AML		
31.1	DCA	EMI	ADW	MRB	AML	
31.2	DCA	EMI	MRB	AML		
32.3	MRB	CSN	AML	BAL	DCA	EMI
33.0	DCA	EMI	MRB	AML		
33.1	MRB	CSN	AML	BAL	DCA	EMI
33.9	DCA	EMI	AML	MRB		
34.1	AML	EMI	MRB			
35.8	DCA	EMI	AML	MRB		
36.1						
36.3	DCA	EMI	AML	MRB		
36.8						
37.0	DCA	EMI	AML	MRB		
37.2						
37.3	DCA	EMI	AML	MRB		
37.5						
37.7	DCA	EMI	AML	MRB		
37.8						
37.8	DCA	EMI	AML	MRB		
38.3						
38.4	AML	EMI	DCA	MRB		
41.5	AML	EMI	MRB	ADW		
41.7	AML	EMI	THS	MRB		

DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFR

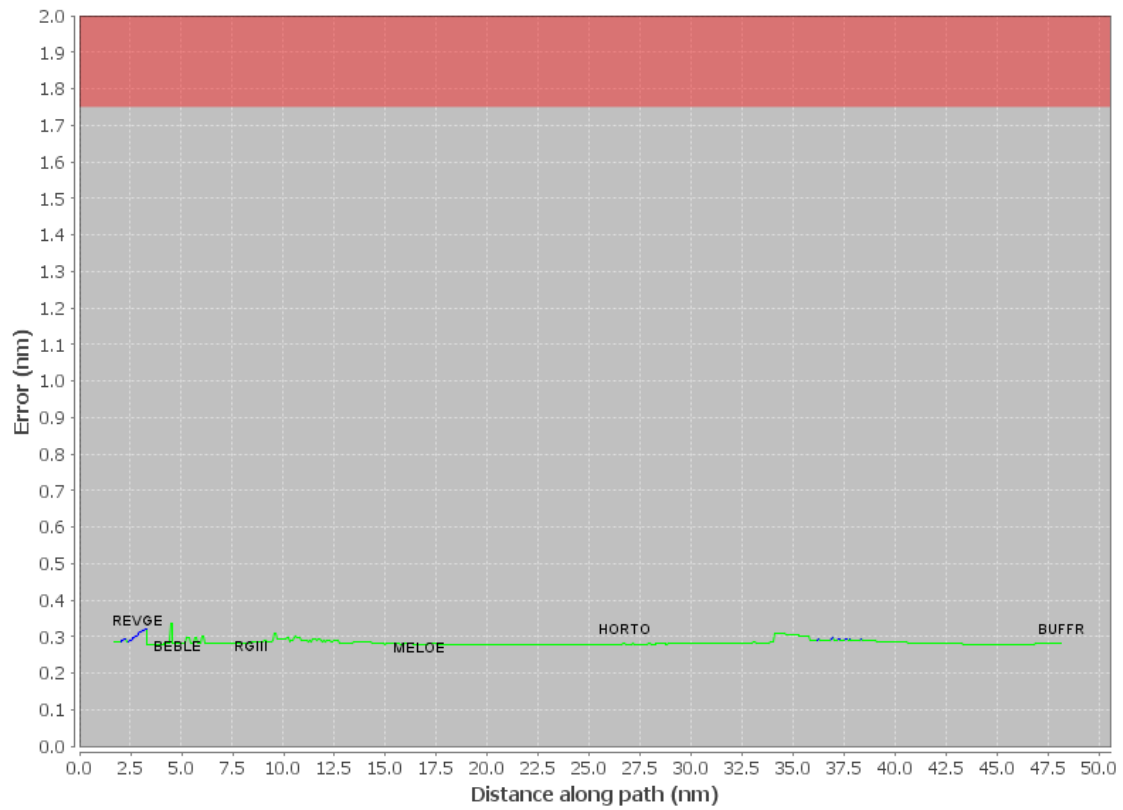
Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N38° 51' 42.440631997", W077° 02' 19.621454093"	N38° 53' 06.723615789", W077° 03' 17.125293007"	1.6633
2	N38° 53' 21.791959464", W077° 03' 33.441386598"	N38° 53' 34.348420452", W077° 03' 47.039594149"	0.2739
3	N38° 53' 39.370879569", W077° 03' 52.479249602"	N38° 54' 13.124465574", W077° 04' 46.399497472"	0.9143
4	N39° 16' 07.365002611", W077° 31' 22.730339681"	N39° 16' 14.368909378", W077° 31' 25.490251267"	0.122
5	N39° 16' 45.886235898", W077° 31' 37.911742560"	N39° 16' 56.391919041", W077° 31' 42.052926818"	0.183
6	N39° 17' 06.897555989", W077° 31' 46.194454763"	N39° 17' 13.901288287", W077° 31' 48.955664360"	0.122
7	N39° 17' 27.908691271", W077° 31' 54.478541959"	N39° 17' 34.912361952", W077° 31' 57.240209999"	0.122
8	N39° 17' 41.916012090", W077° 32' 00.002030890"	N39° 17' 45.417829455", W077° 32' 01.382998661"	0.061
9	N39° 18' 13.432183424", W077° 32' 12.432116938"	N39° 18' 16.933954548", W077° 32' 13.813428771"	0.061

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDCA:RW01:DER	REVGE	ADW, BAL
REVGE	BEBLE	EMI, DCA, BAL
BEBLE	RGIII	EMI, AML, DCA, ADW, BAL, CSN
RGIII	MELOE	AML, EMI, DCA, ADW, MRB, BAL, OTT, CSN
MELOE	HORTO	AML, EMI, DCA, ADW, LDN, MRB, BAL, OTT, CSN
HORTO	BUFFR	EMI, AML, DCA, ADW, LDN, MRB, BAL, THS, CSN

User Data Files								
#	File Name							
None								
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LRP [IFPA] LRP [IFPA]	N40° 07' 11.911900000", W076° 17' 28.663300000"	9.0 W	40	400.3	117.3	ESV LRP [IFPA]	
ESV:		Bearing [True]: 231.0° to 246.0° Bearing [Mag]: 240.0° to 255.0°				Arc Distance: Out to 70.0 NM Altitude: 9000.0 to 16000.0 ft		
2	ADW FAA 880073-2 ADW [IFPA]	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	278.9	113.1	ADW FAA 880073-2	
ESV:		Bearing [True]: 308.0° to 332.0° Bearing [Mag]: 318.0° to 342.0°				Arc Distance: Out to 53.0 NM Altitude: 3000.0 to 20000.0 ft		
3	AML FAA 732650-44 AML [IFPA]	N38° 56' 04.538000000", W077° 28' 00.128500000"	8.0 W	40	298.6	113.5	AML FAA 732650-44	
ESV:		Bearing [True]: 263.0° to 359.0° Bearing [Mag]: 271.0° to 7.0°				Arc Distance: Out to 73.0 NM Altitude: 7000.0 to 17000.0 ft		

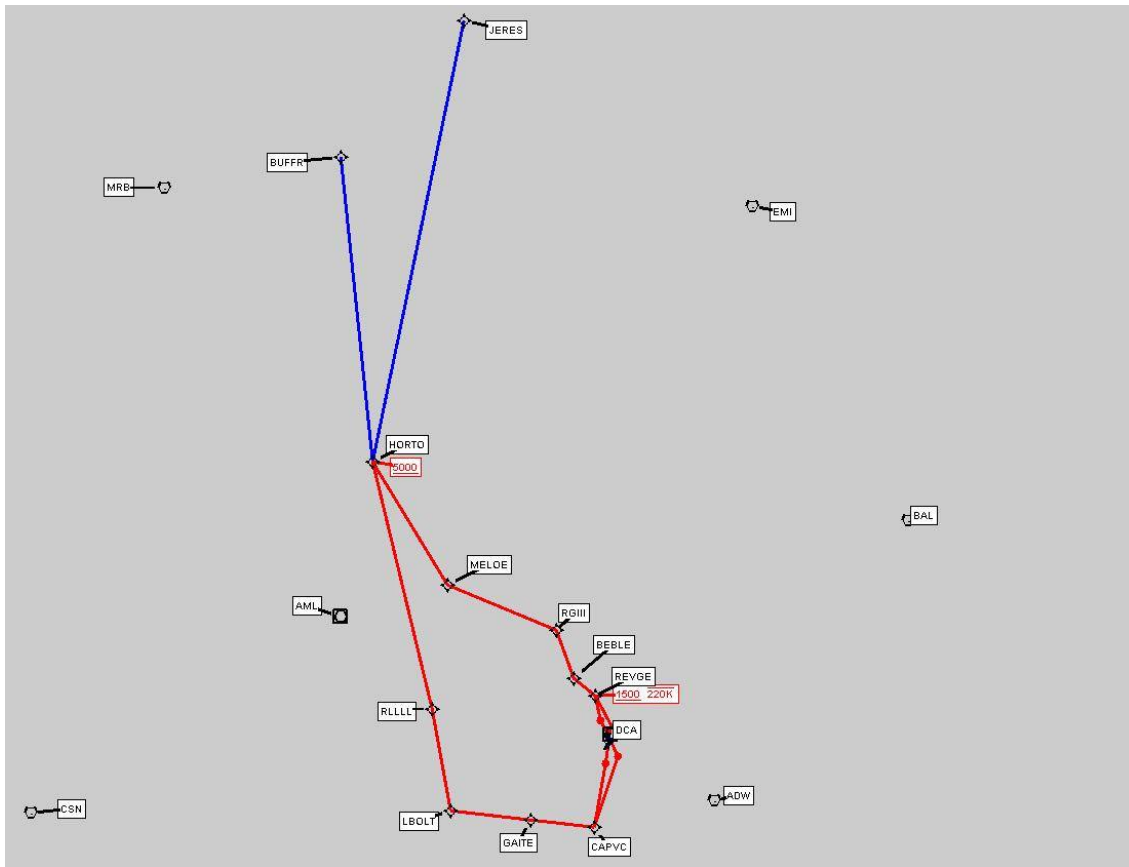
DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFR

DME Error



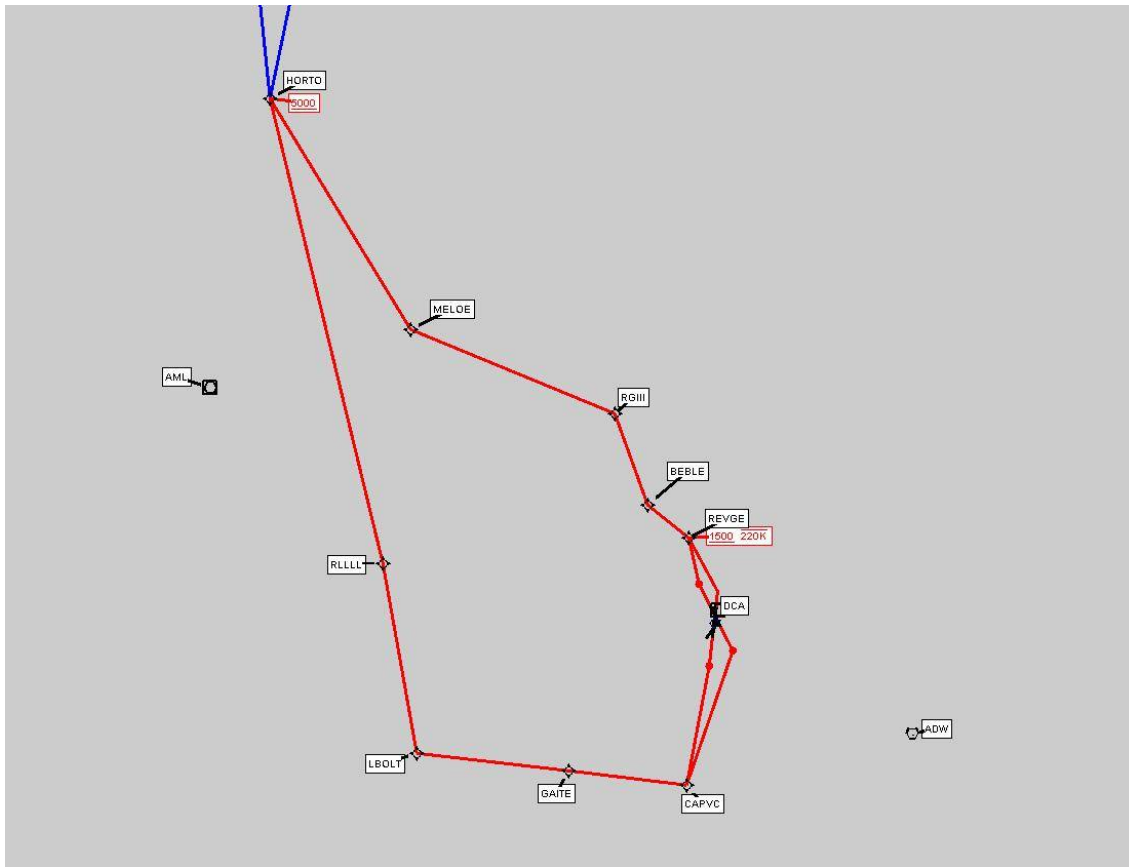
DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFER

Graphic Depiction 1



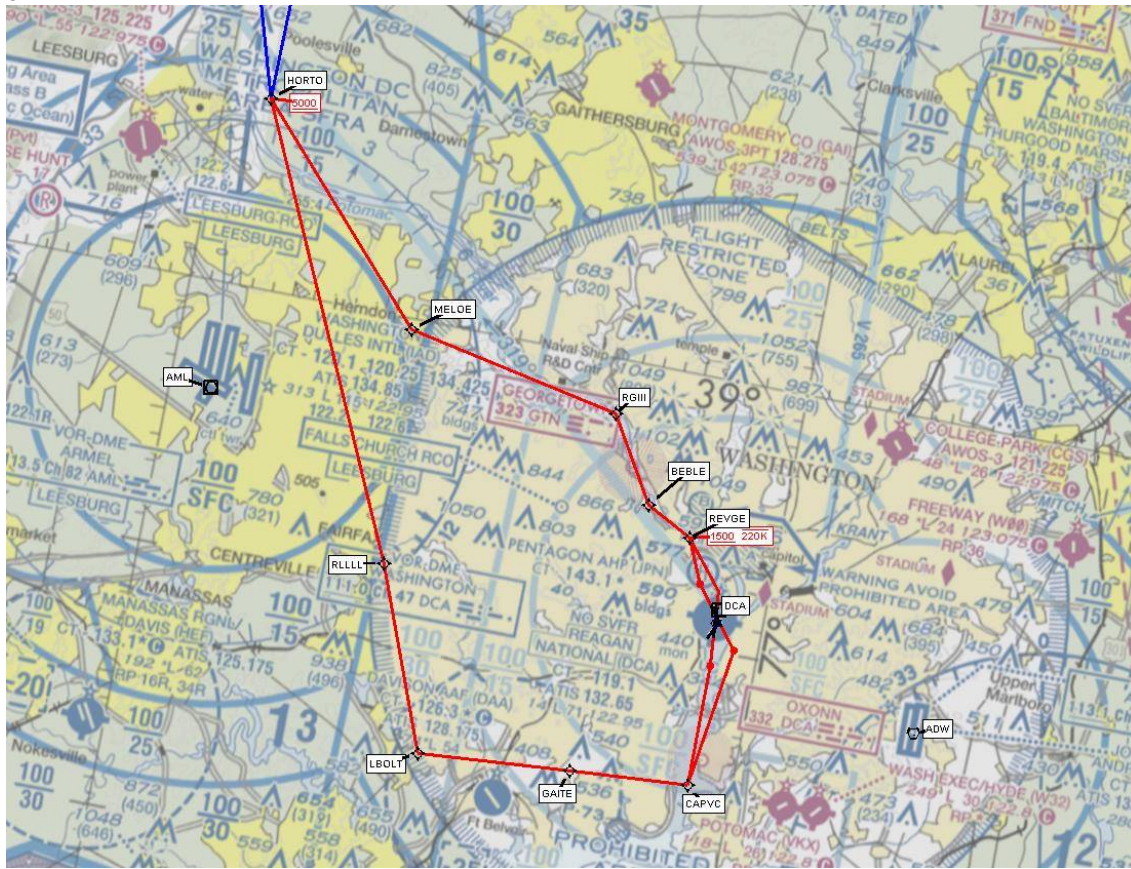
DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFER

Graphic Depiction 2



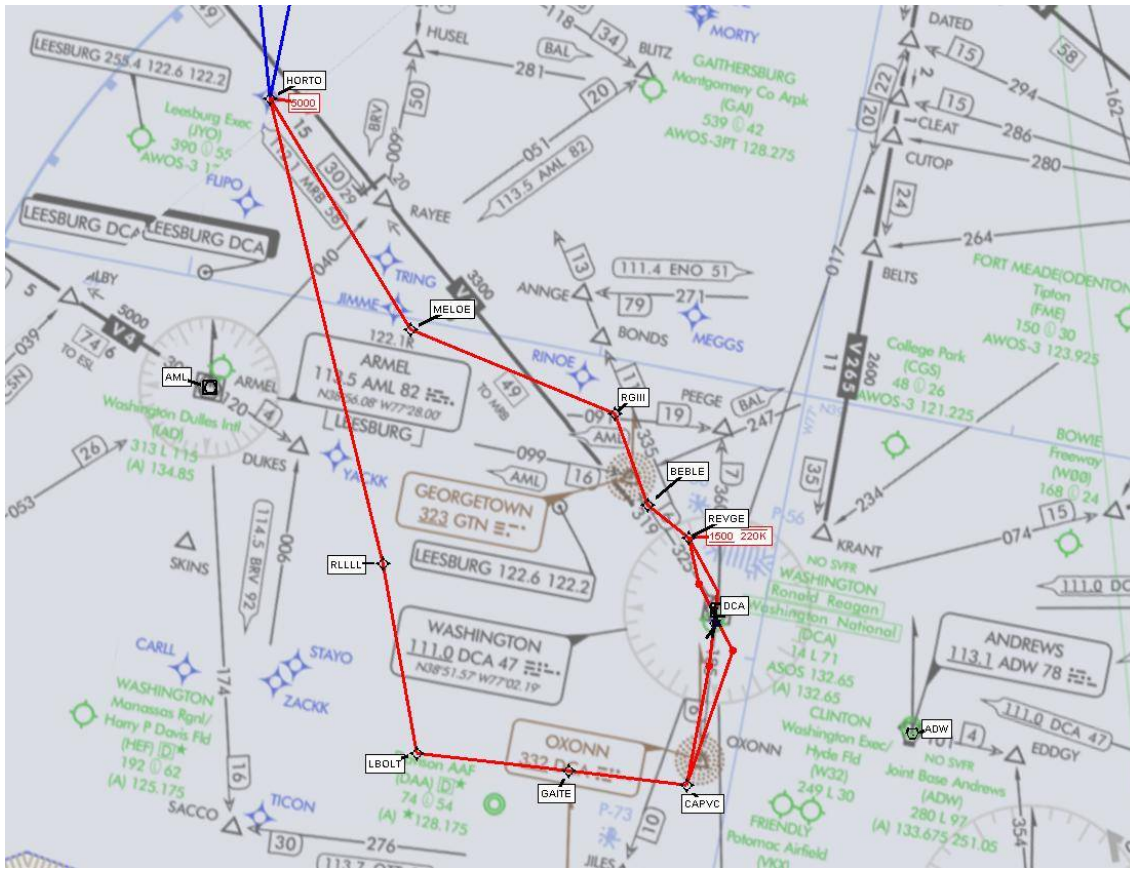
DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFER

Graphic Depiction 3



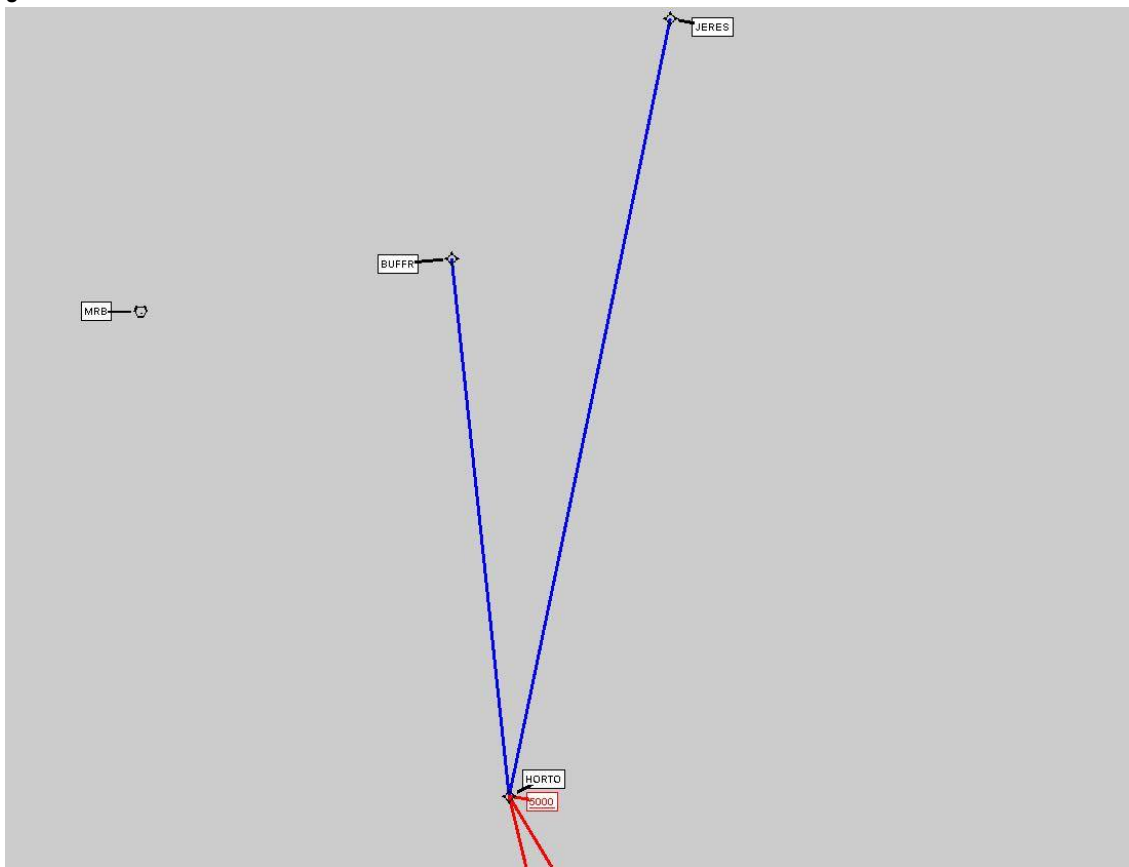
DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFER

Graphic Depiction 4



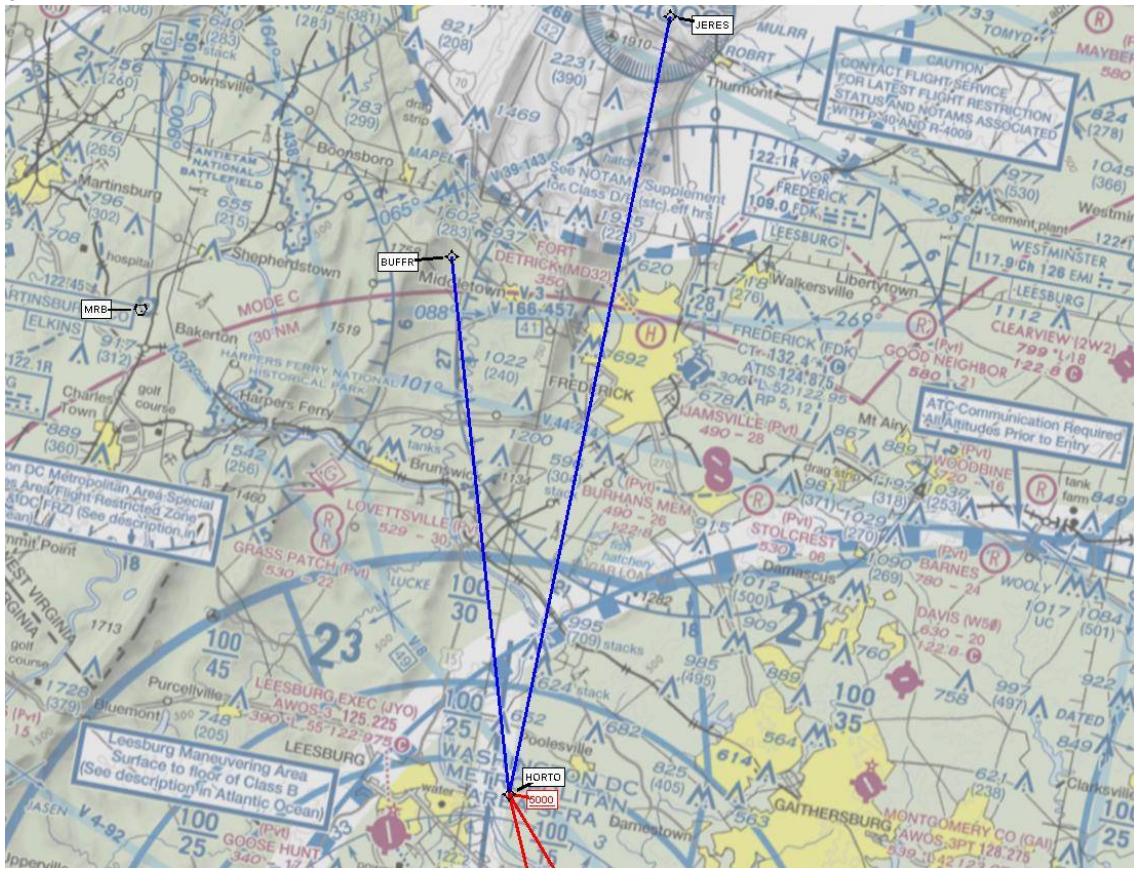
DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFR

Graphic Depiction 5



DME DME Assessment Results for HORTO4 path KDCA:RW01:DER_BUFFER

Graphic Depiction 6



Graphic Depiction 7



DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Robert CTR Mason
Project File:	C:\Users\Robert CTR Mason\Desktop\DCA SID AMENDMENTS with REVGE\DCA - HORTO\KDCA HORTO DME\HORTO DME.tgs
Output File:	C:\Users\Robert CTR Mason\Desktop\DCA SID AMENDMENTS with REVGE\DCA - HORTO\KDCA HORTO DME\KDCA [IFPA] HORTO4 20191114_1228 EST\KDCA-RW15-DER_JERES\KDCA HORTO4 SID KDCA RW15 JERES 20191114_1228 EST.pdf
Procedure Name:	HORTO4
Software: DmeDmePlugin:	6.0.0
Date/Time:	11/14/2019 12:28 EST
Databases:	DTED.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
KDCA:RW15:DER	WP	N38° 50' 59.294600000", W077° 01' 55.952800000"	10.3	VNAV	130	FLY_OVER	TF
CAPVC	WP	N38° 44' 58.800000000", W077° 02' 04.960000000"	1415.9	VNAV	200	FLY_BY	TF
GAITE	WP	N38° 44' 40.120000000", W077° 07' 44.970000000"	2304.8	VNAV	200	FLY_BY	TF
LBOLT	WP	N38° 44' 13.130000000", W077° 15' 01.420000000"	3446.6	VNAV	200	FLY_BY	TF
RLLLL	WP	N38° 50' 55.110000000", W077° 18' 20.230000000"	4500	VNAV	200	FLY_BY	TF
HORTO	WP	N39° 07' 04.500000000", W077° 27' 49.300000000"	5000	VNAV	220	FLY_BY	TF
JERES	WP	N39° 38' 34.400000000", W077° 27' 18.200000000"	11000	VNAV	220	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 515.0 ft MSL 200.0 ft/NM							

DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Flyability	
Flight Type:	SID
Selected Airport:	KDCA [IFPA]
Climb Gradient:	500.0 ft/NM up to 515.0 ft MSL 200.0 ft/NM
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:	PXT

DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	MRB	N39° 23' 08.060000000", W077° 50' 54.082000000"	7.0 W	40	L	IFPA	NO	Enabled	60.9 %	64 %
2	OTT	N38° 42' 21.135200000", W076° 44' 41.085400000"	10.0 W	40	L	IFPA	NO	Enabled	44.7 %	43.1 %
3	LDN	N38° 51' 15.810000000", W078° 12' 20.001000000"	6.0 W	40	L	IFPA	NO	Enabled	4.5 %	4.7 %
4	THS	N39° 55' 59.621000000", W077° 57' 03.400000000"	7.0 W	40	L	IFPA	NO	Enabled	17.4 %	18.9 %
5	LRP	N40° 07' 11.911900000", W076° 17' 28.663300000"	9.0 W	40	L	IFPA	NO	Enabled	12.1 %	13.2 %
6	BAL	N39° 10' 15.828300000", W076° 39' 40.522500000"	11.0 W	40	L	IFPA	NO	Enabled	45.6 %	45 %
7	BRV	N38° 20' 10.526400000", W077° 21' 10.315900000"	9.0 W	40	L	IFPA	NO	Enabled	40.5 %	38.9 %
8	CSN	N38° 38' 28.327700000", W077° 51' 55.797900000"	6.0 W	130	H	IFPA	NO	Enabled	55.6 %	55.7 %
9	AML	N38° 56' 04.538000000", W077° 28' 00.128500000"	8.0 W	40	L	IFPA	NO	Enabled	30.6 %	30.2 %
10	DCA	N38° 51' 34.030100000", W077° 02' 11.170000000"	9.0 W	40	L	IFPA	NO	Enabled	52 %	52.5 %
11	ADW	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	L	IFPA	NO	Enabled	29.6 %	31.2 %
12	EMI	N39° 29' 42.026600000", W076° 58' 42.859100000"	8.0 W	130	H	IFPA	NO	Enabled	51.8 %	55 %
13	PXT	N38° 17' 16.282500000", W076° 24' 00.831500000"	10.0 W	40	L	IFPA	NO	Disabled		

DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
2.9	BRV	OTT				
3.6	BRV	OTT	BAL			
4.6	BRV	OTT	BAL	DCA		
6.3	BRV	OTT	BAL			
7.4	OTT	DCA	CSN	BRV	BAL	
11.4	BRV	CSN				
11.7	AML	DCA	BAL	BRV	CSN	
15.7	AML	DCA	BRV	OTT	CSN	
18.7	AML	DCA	CSN			
18.9	BRV	OTT	AML	DCA	CSN	
25.5	BRV	ADW	OTT	CSN	BAL	AML
25.5	BRV	OTT	CSN	BAL	AML	
28.1	MRB	CSN	BAL	OTT		
28.3	MRB	CSN	BRV	AML	DCA	BAL
28.5	MRB	CSN	BRV	DCA	BAL	ADW
28.6	MRB	CSN	BRV	DCA	BAL	OTT
28.7	MRB	CSN	BAL	BRV	OTT	
31.9	MRB	CSN	OTT	EMI	DCA	BAL
32.0	MRB	CSN	OTT	EMI	BAL	
36.1	OTT	EMI	MRB	CSN	AML	
36.2	OTT	EMI	MRB	CSN		
36.2	OTT	EMI	MRB	CSN	DCA	AML
36.5	OTT	EMI	MRB	CSN	AML	
37.0	DCA	EMI	MRB	CSN	AML	
37.7	MRB	EMI	CSN	ADW	AML	
38.0	DCA	CSN	MRB	EMI	AML	
38.8	MRB	EMI	CSN	ADW	AML	
39.0	DCA	CSN	ADW	MRB	AML	
39.2	DCA	CSN	MRB	AML		
39.3	DCA	CSN	OTT	MRB	EMI	AML
39.4	DCA	CSN	MRB	EMI	AML	BAL
39.7	CSN	ADW	MRB	AML		
39.8	DCA	CSN	ADW	MRB	AML	
40.1	MRB	EMI	DCA	CSN	AML	
40.3	MRB	EMI	DCA	CSN		
40.3	MRB	EMI	DCA	CSN	LDN	BAL
40.6	DCA	CSN	MRB	LDN	BAL	
40.7	MRB	EMI	DCA	CSN		
40.8	DCA	CSN	MRB	LDN	BAL	
40.8	MRB	EMI	DCA	CSN		
41.0	CSN	ADW	MRB	EMI	DCA	
41.1	MRB	EMI	DCA	CSN	LDN	BAL
41.3	MRB	CSN	LDN	BAL		
41.4	MRB	EMI	CSN	LDN	BAL	
41.7	CSN	ADW	MRB	EMI		
41.8	MRB	EMI	DCA	CSN		
41.8	MRB	EMI	CSN	LDN	BAL	
42.3	MRB	EMI	DCA	CSN		
42.3	MRB	EMI	CSN	LDN	BAL	
42.7	CSN	ADW	MRB	EMI		
43.1	MRB	CSN	EMI	LDN	BAL	
43.3	DCA	EMI	MRB	CSN		
43.7	CSN	ADW	DCA	EMI	MRB	
43.7	DCA	EMI	MRB	CSN		
44.3	MRB	CSN	ADW	EMI		

DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
44.5	MRB	CSN	DCA	EMI	ADW	LDN
44.8	MRB	CSN	DCA	EMI		
44.9	MRB	CSN	DCA	EMI	ADW	LDN
45.1	MRB	CSN	ADW	EMI		
45.4	MRB	CSN	DCA	EMI	ADW	LDN
45.6	MRB	CSN	ADW	EMI		
45.7	MRB	CSN	DCA	EMI	ADW	BAL
46.7	MRB	CSN	ADW	EMI	BAL	
48.1	DCA	EMI	ADW	MRB		
49.9	ADW	EMI	MRB			
50.5	DCA	EMI	ADW	MRB		
50.6						
50.7	ADW	EMI	MRB			
51.1	DCA	EMI	ADW	MRB		
51.2	ADW	EMI	MRB			
51.6						
51.7	ADW	EMI	MRB			
51.8	DCA	EMI	MRB	BAL		
52.6						
52.8	DCA	EMI	BAL	MRB		
53.2	DCA	EMI	MRB			
53.5	MRB	DCA	BAL	ADW		
53.6	DCA	EMI	MRB			
54.7	DCA	EMI	ADW	MRB		
54.8	DCA	EMI	MRB	BAL		
54.8	DCA	EMI	ADW	MRB		
55.5	DCA	EMI	MRB	BAL		
55.6	DCA	EMI	ADW	MRB		
55.9	ADW	EMI	MRB	BAL		
56.0	ADW	EMI	MRB			
56.5	DCA	EMI	ADW	MRB		
57.4	ADW	EMI	MRB			
58.2	DCA	EMI	THS	MRB		
59.2	ADW	EMI	MRB			
59.9	DCA	EMI	MRB	THS		
60.6	ADW	MRB	EMI	THS		
62.3	LRP	ADW	THS	MRB	EMI	
65.3	LRP	THS	MRB	EMI		
66.5	THS	MRB	EMI			
67.4	LRP	THS	MRB	EMI		

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N38° 50' 57.573559104", W077° 01' 54.272969178"	N38° 48' 16.672687539", W077° 01' 29.473335479"	2.897
2	N39° 16' 17.570065071", W077° 27' 40.247142674"	N39° 16' 24.895396923", W077° 27' 40.126972265"	0.122
3	N39° 17' 19.835302879", W077° 27' 39.225472544"	N39° 17' 23.497958072", W077° 27' 39.165358649"	0.061
4	N39° 18' 22.100352694", W077° 27' 38.203299656"	N39° 18' 29.425640312", W077° 27' 38.083010943"	0.122

DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
KDCA:RW15:DER	CAPVC	DCA, BRV, BAL, OTT
CAPVC	GAITE	DCA, BRV, BAL, OTT, CSN
GAITE	LBOLT	AML, DCA, BRV, BAL, OTT, CSN
LBOLT	RLLLL	AML, DCA, ADW, BRV, BAL, OTT, CSN
RLLLL	HORTO	AML, EMI, DCA, ADW, BRV, LDN, MRB, BAL, OTT, CSN
HORTO	JERES	EMI, DCA, ADW, LDN, LRP, MRB, BAL, THS, CSN

User Data Files

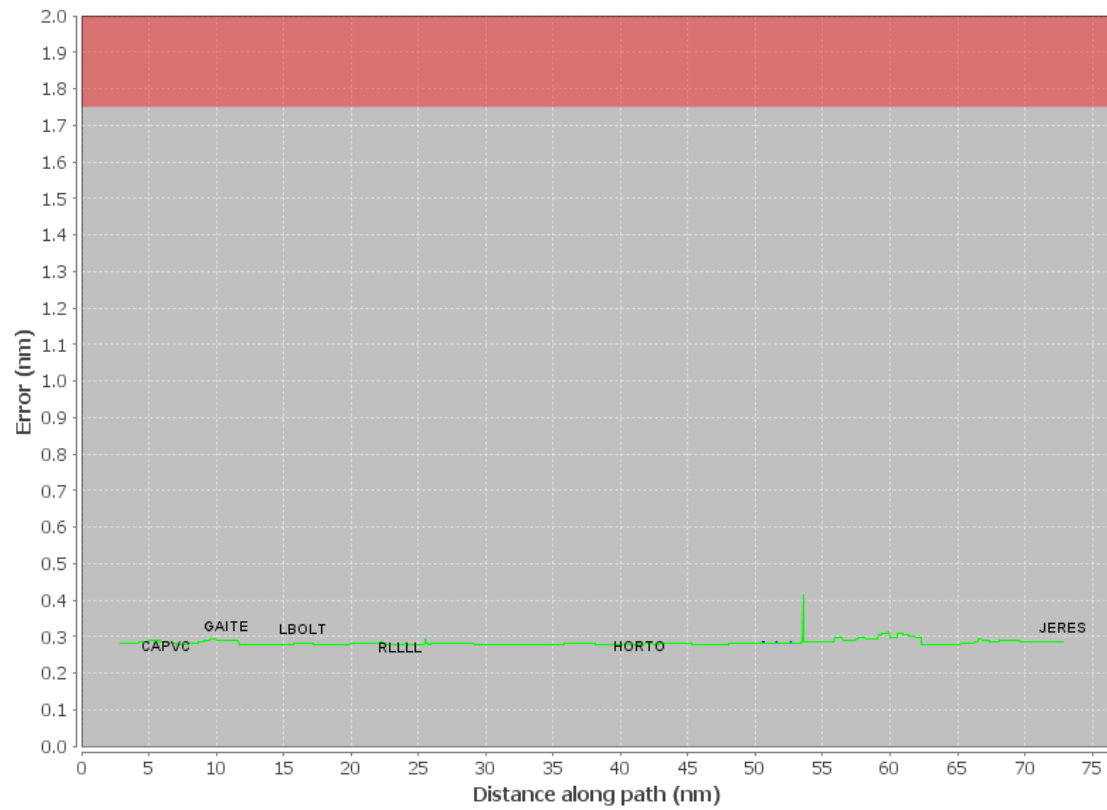
#	File Name
None	

User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LRP [IFPA] LRP [IFPA]	N40° 07' 11.911900000", W076° 17' 28.663300000"	9.0 W	40	400.3	117.3	ESV LRP [IFPA]	
ESV:		Bearing [True]: 231.0° to 246.0° Bearing [Mag]: 240.0° to 255.0°				Arc Distance: Out to 70.0 NM Altitude: 9000.0 to 16000.0 ft		
2	ADW FAA 880073-2 ADW [IFPA]	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	278.9	113.1	ADW FAA 880073-2	
ESV:		Bearing [True]: 308.0° to 332.0° Bearing [Mag]: 318.0° to 342.0°				Arc Distance: Out to 53.0 NM Altitude: 3000.0 to 20000.0 ft		
3	AML FAA 732650-44 AML [IFPA]	N38° 56' 04.538000000", W077° 28' 00.128500000"	8.0 W	40	298.6	113.5	AML FAA 732650-44	
ESV:		Bearing [True]: 263.0° to 359.0° Bearing [Mag]: 271.0° to 7.0°				Arc Distance: Out to 73.0 NM Altitude: 7000.0 to 17000.0 ft		

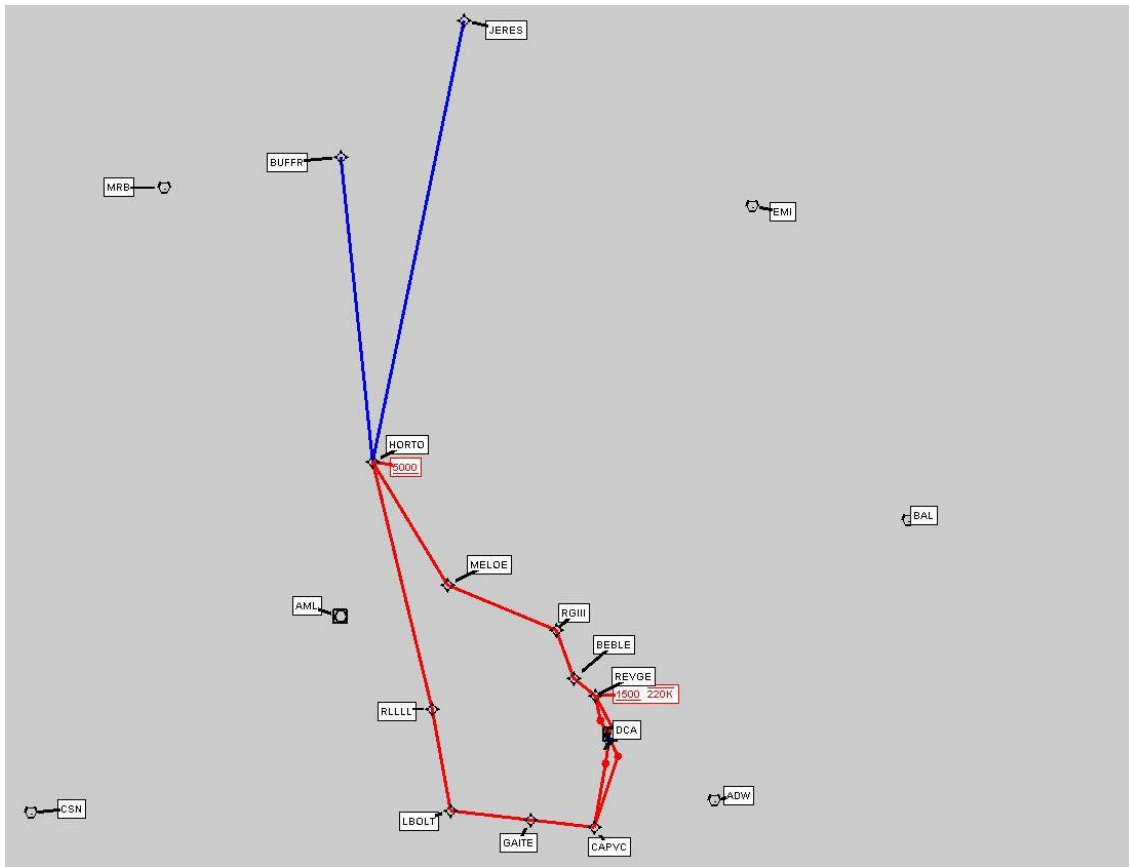
DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

DME Error

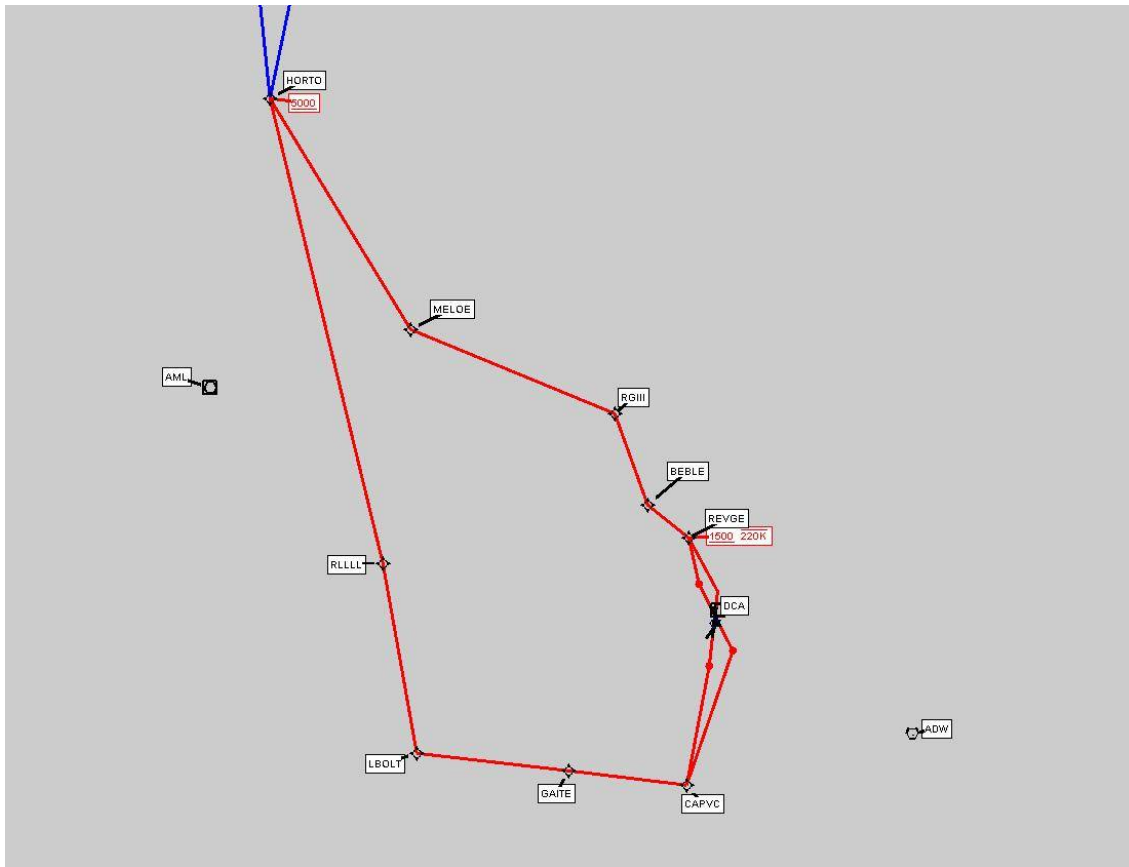


DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Graphic Depiction 1

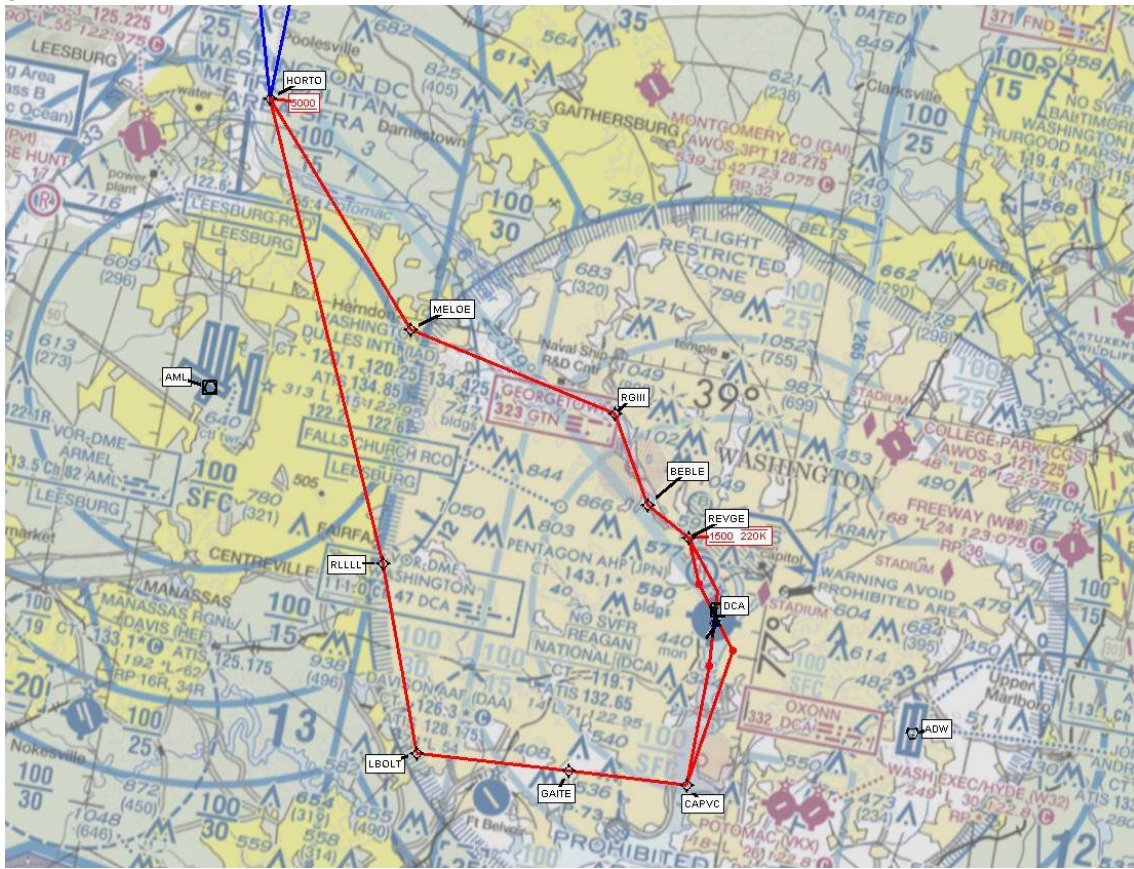


Graphic Depiction 2



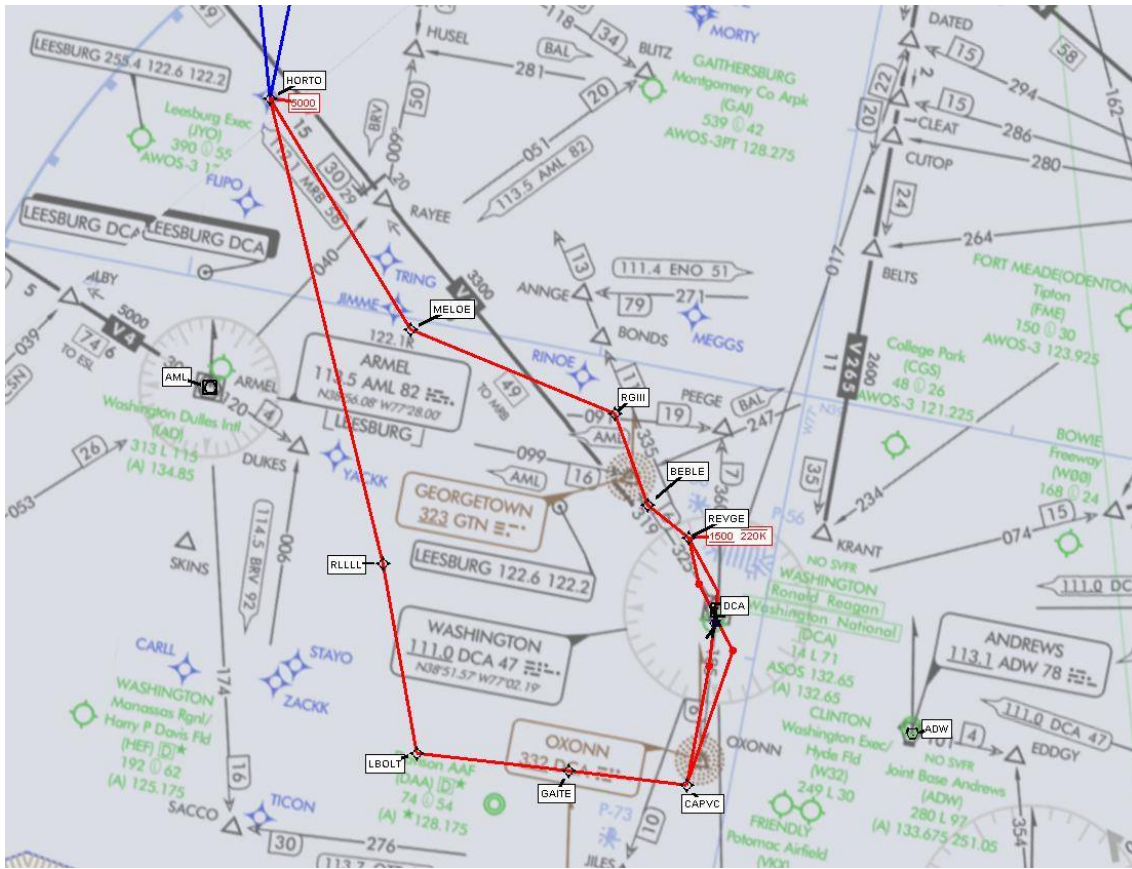
DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Graphic Depiction 3



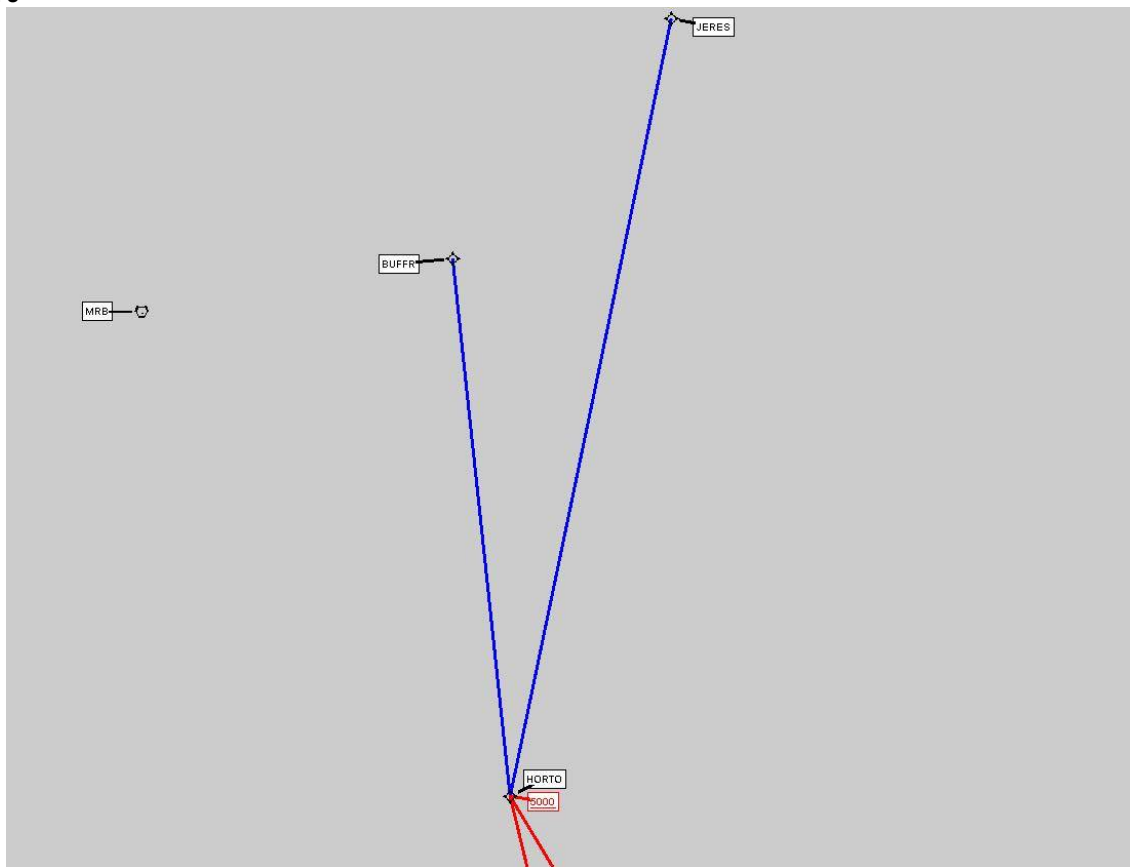
DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Graphic Depiction 4



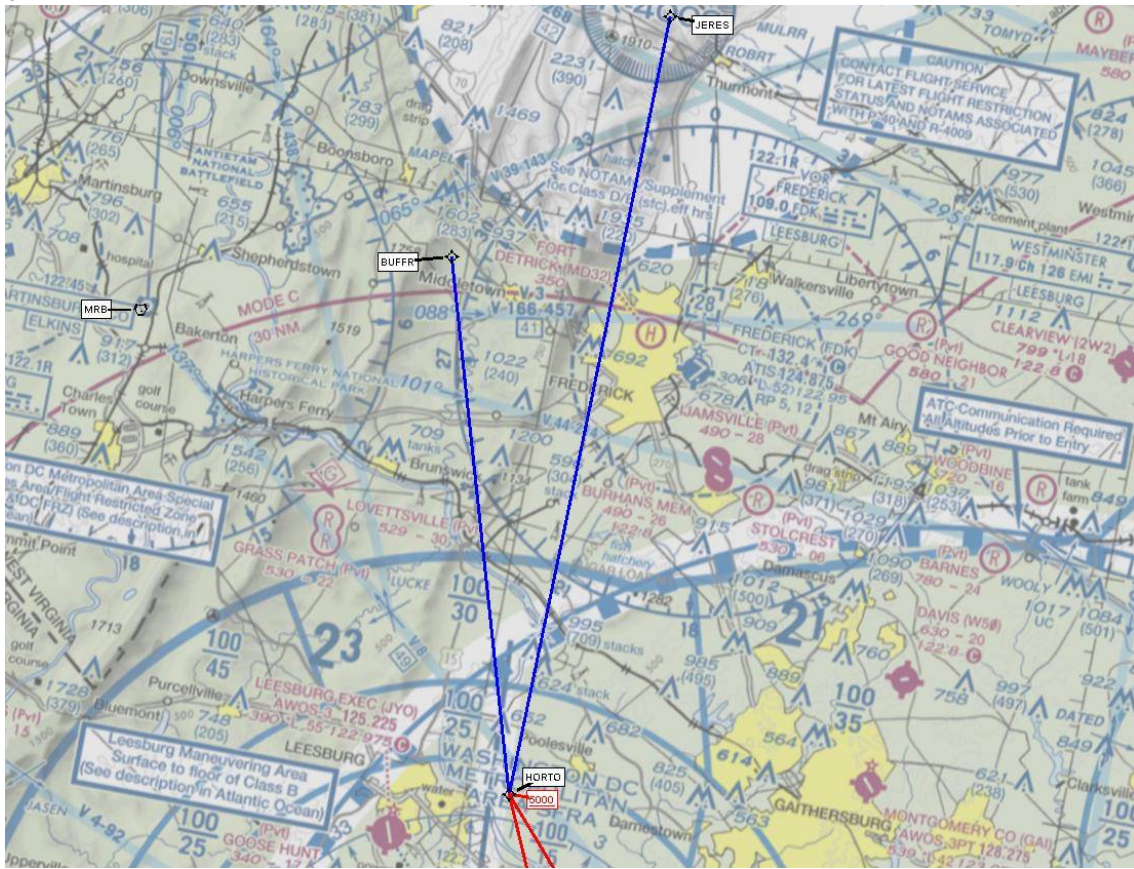
DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Graphic Depiction 5



DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Graphic Depiction 6



DME DME Assessment Results for HORTO4 path KDCA:RW15:DER_JERES

Graphic Depiction 7



DME DME Assessment Results for HORTO4 path KDCA:RW19:DER_CAPVC

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Robert CTR Mason
Project File:	C:\Users\Robert CTR Mason\Desktop\DCA SID AMENDMENTS with REVGE\DCA - HORTO\KDCA HORTO DME\HORTO DME.tgs
Output File:	C:\Users\Robert CTR Mason\Desktop\DCA SID AMENDMENTS with REVGE\DCA - HORTO\KDCA HORTO DME\KDCA [IFPA] HORTO4 20191114_1228 EST\KDCA-RW19- DER_CAPVC\KDCA HORTO4 SID KDCA RW19 CAPVC 20191114_1228 EST.pdf
Procedure Name:	HORTO4
Software: DmeDmePlugin:	6.0.0
Date/Time:	11/14/2019 12:28 EST
Databases:	DTED.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
KDCA:RW19:DER	WP	N38° 50' 29.645500000", W077° 02' 12.294400000"	11.4	VNAV	130	FLY_OVER	TF
CAPVC	WP	N38° 44' 58.800000000", W077° 02' 04.960000000"	1415.9	VNAV	200	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 515.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDCA [IFPA]
Climb Gradient:	500.0 ft/NM up to 515.0 ft MSL 200.0 ft/NM
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 HORTO4 path KDCA:RW19:DER_CAPVC

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:	PXT

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.135200000", W076° 44' 41.085400000"	10.0 W	40	L	IFPA	NO	Enabled	48 %	52.5 %
2	BAL	N39° 10' 15.828300000", W076° 39' 40.522500000"	11.0 W	40	L	IFPA	NO	Enabled	44.9 %	49.6 %
3	BRV	N38° 20' 10.526400000", W077° 21' 10.315900000"	9.0 W	40	L	IFPA	NO	Enabled	48 %	52.5 %
4	DCA	N38° 51' 34.030100000", W077° 02' 11.170000000"	9.0 W	40	L	IFPA	NO	Enabled	21.7 %	25.5 %
5	ADW	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	L	IFPA	NO	Enabled	2.3 %	2.2 %
6	PXT	N38° 17' 16.282500000", W076° 24' 00.831500000"	10.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
1.9	DCA	ADW				
2.1						
2.6	BRV	OTT				
2.8	BRV	OTT	BAL			
4.2	BRV	OTT	DCA	BAL		

DME DME Assessment Results for HORTO4 path KDCA:RW19:DER_CAPVC

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N38° 50' 27.491810194", W077° 02' 12.077669869"	N38° 48' 33.784600239", W077° 02' 05.966855757"	1.8973
2	N38° 48' 24.122418351", W077° 02' 05.921567749"	N38° 47' 52.720296440", W077° 02' 05.774405188"	0.5229

Available DMEs by Waypoints

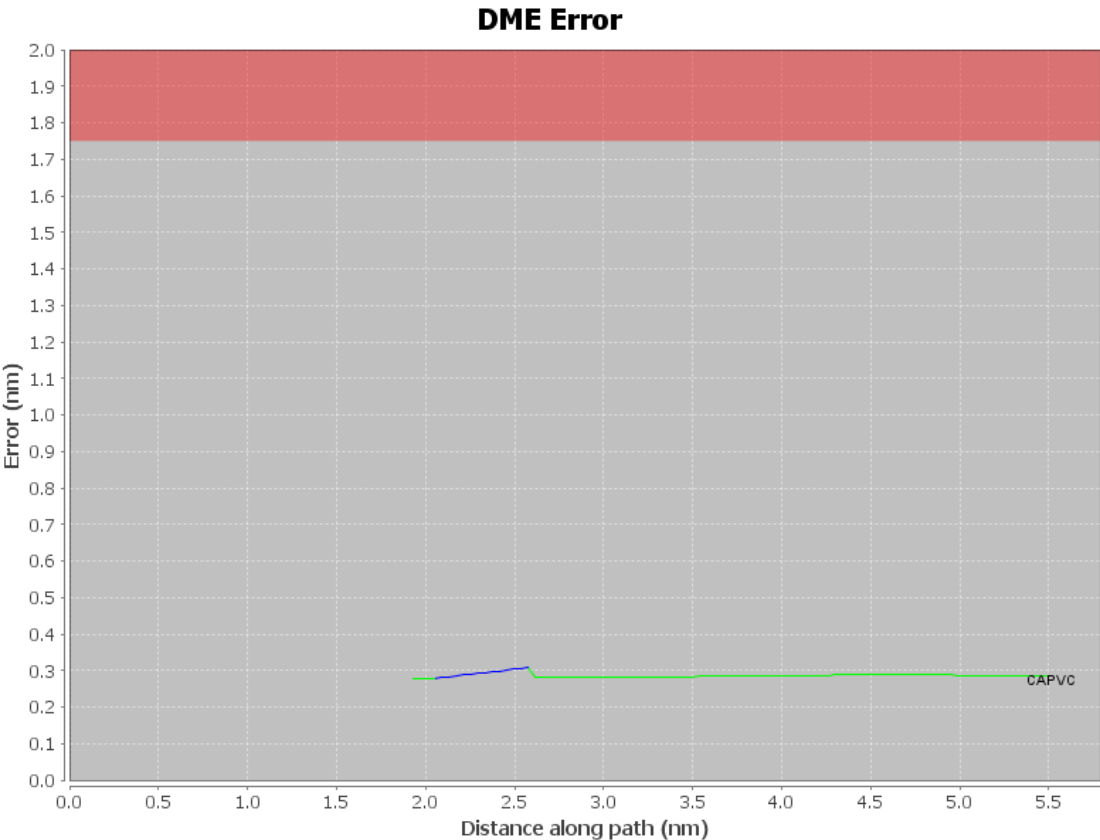
Waypoint Before	Waypoint After	DME List
KDCA:RW19:DER	CAPVC	DCA, ADW, BRV, BAL, OTT

User Data Files

#	File Name
	None

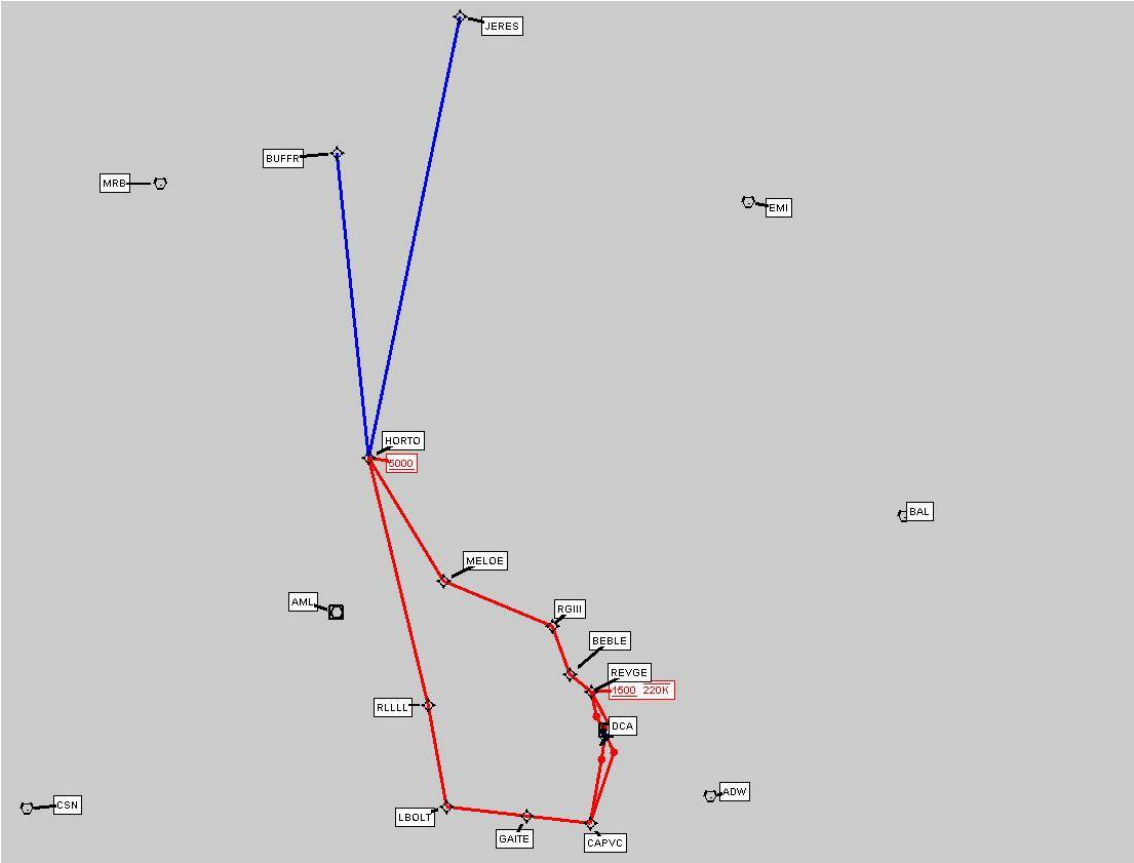
User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LRP [IFPA] LRP [IFPA]	N40° 07' 11.911900000", W076° 17' 28.663300000"	9.0 W	40	400.3	117.3	ESV LRP [IFPA]	
ESV:		Bearing [True]: 231.0° to 246.0° Bearing [Mag]: 240.0° to 255.0°				Arc Distance: Out to 70.0 NM Altitude: 9000.0 to 16000.0 ft		
2	ADW FAA 880073-2 ADW [IFPA]	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	278.9	113.1	ADW FAA 880073-2	
ESV:		Bearing [True]: 308.0° to 332.0° Bearing [Mag]: 318.0° to 342.0°				Arc Distance: Out to 53.0 NM Altitude: 3000.0 to 20000.0 ft		
3	AML FAA 732650-44 AML [IFPA]	N38° 56' 04.538000000", W077° 28' 00.128500000"	8.0 W	40	298.6	113.5	AML FAA 732650-44	
ESV:		Bearing [True]: 263.0° to 359.0° Bearing [Mag]: 271.0° to 7.0°				Arc Distance: Out to 73.0 NM Altitude: 7000.0 to 17000.0 ft		



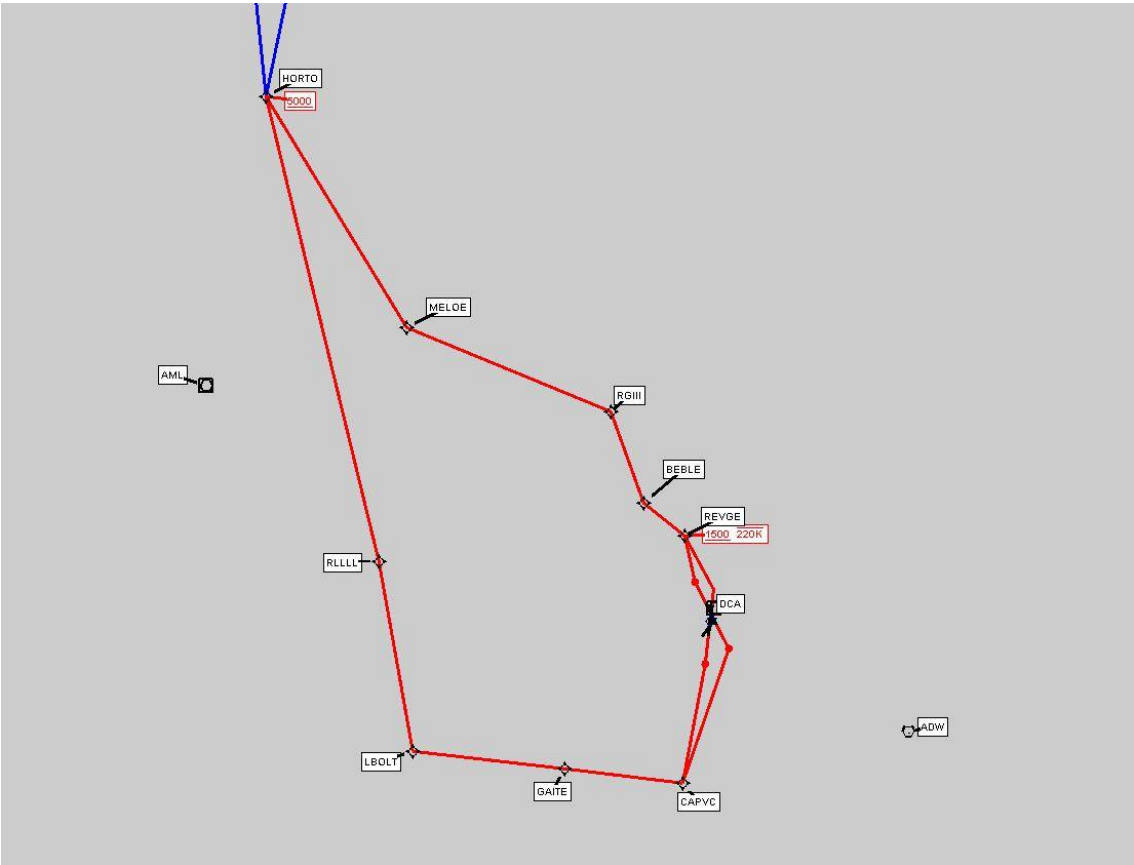
DME DME Assessment Results for HORTO4 path KDCA:RW19:DER_CAPVC

Graphic Depiction 1



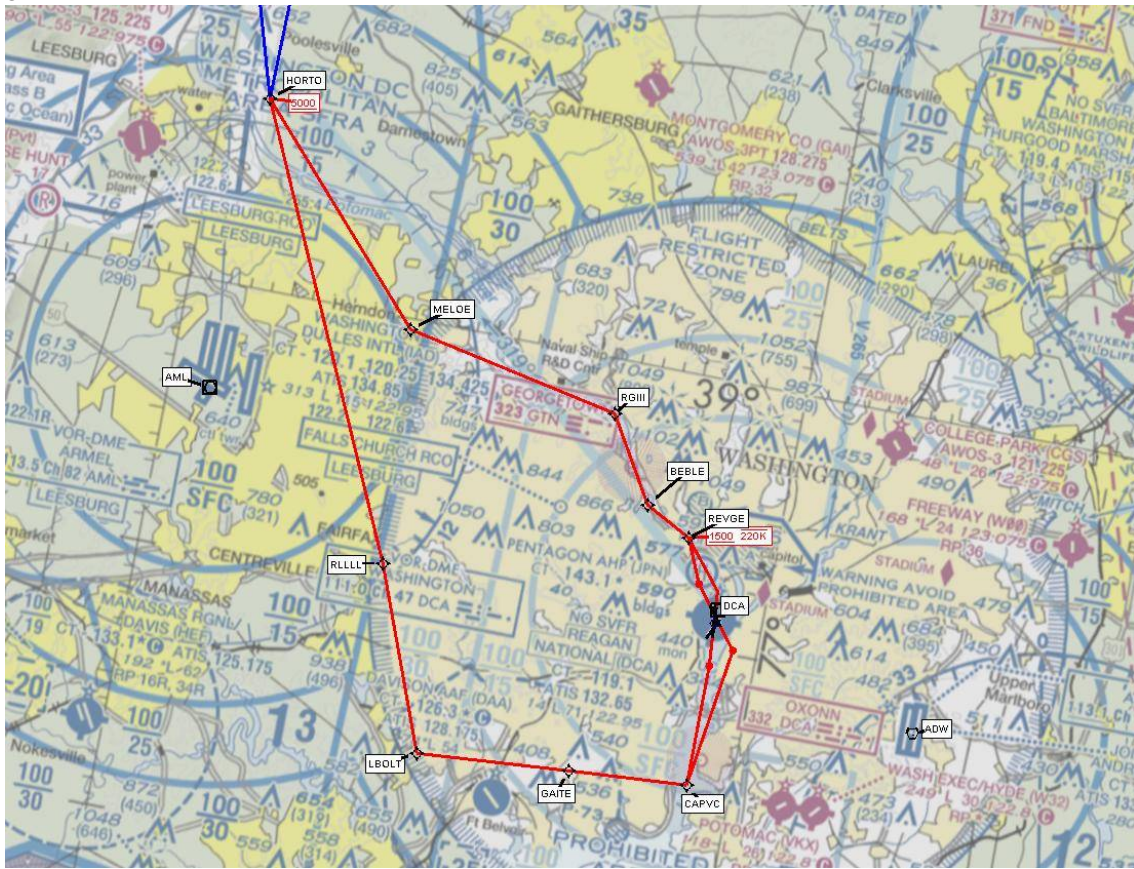
DME DME Assessment Results for HORTO4 path KDCA:RW19:DER_CAPVC

Graphic Depiction 2



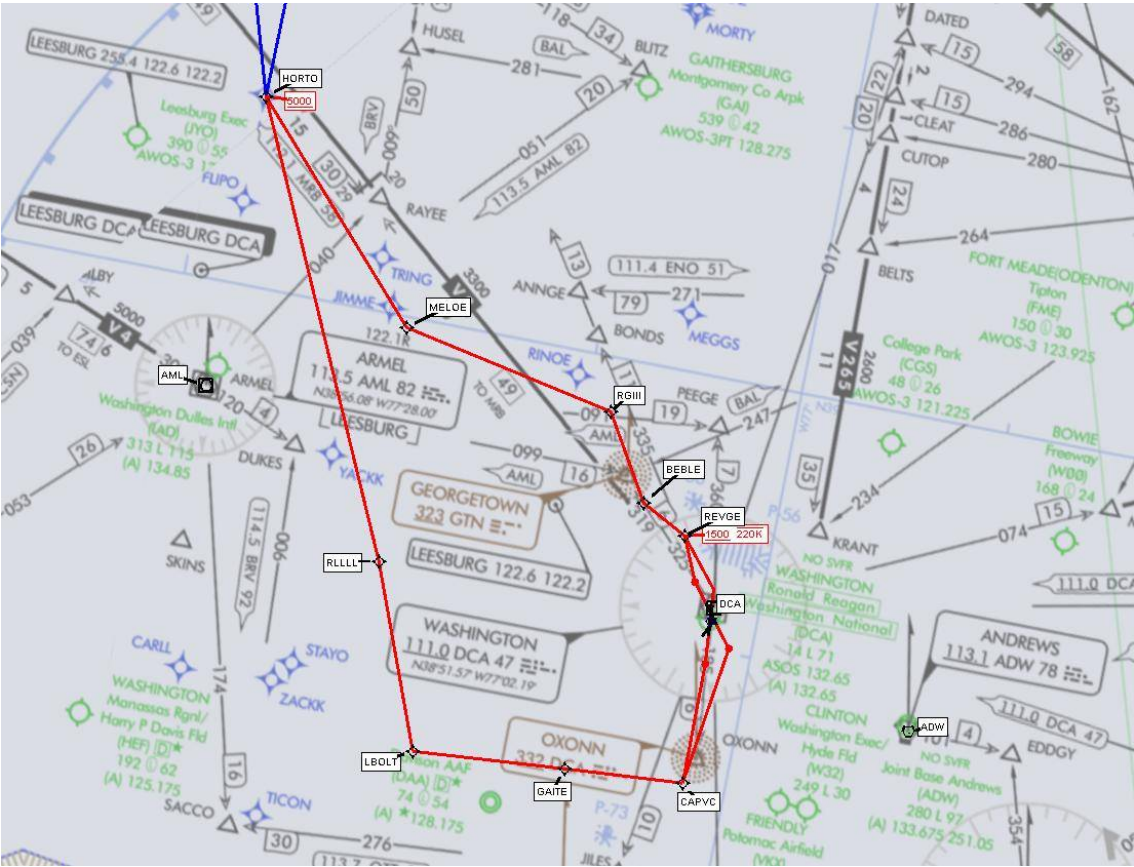
DME DME Assessment Results for HORTO4 path KDCA:RW19:DER_CAPVC

Graphic Depiction 3



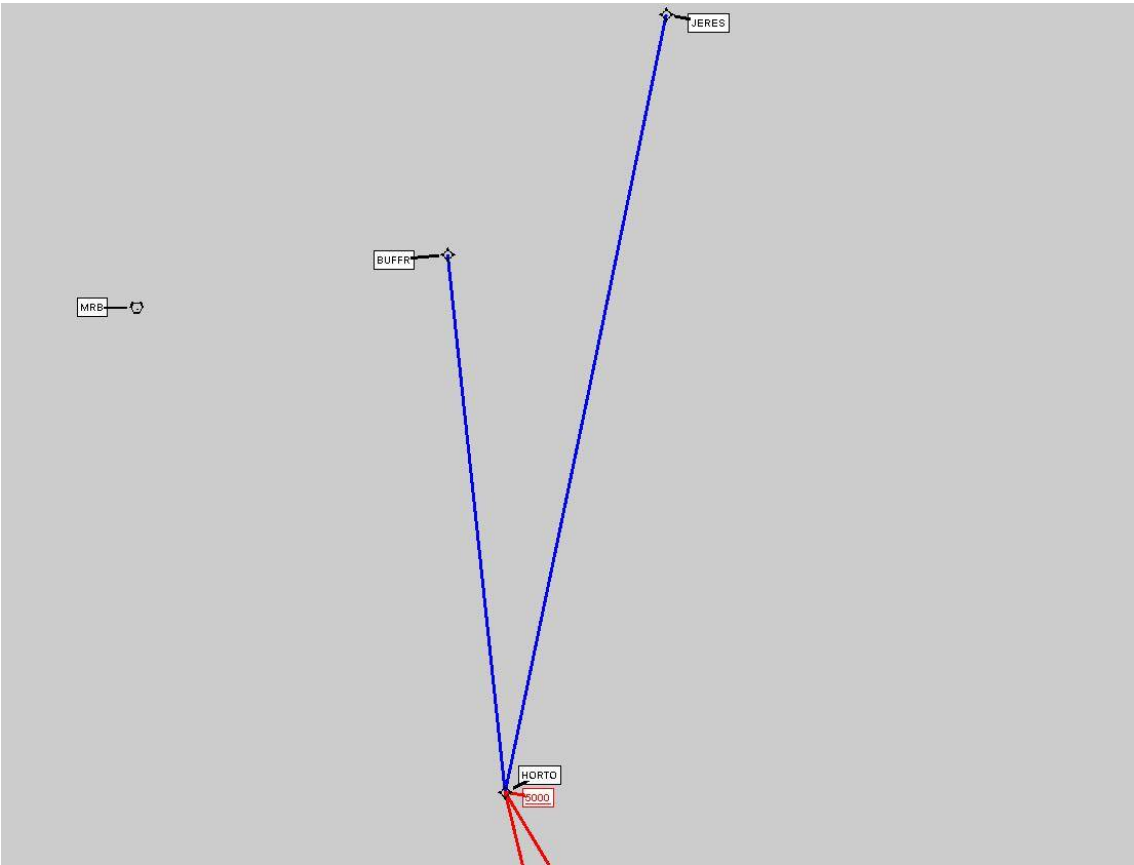
DME DME Assessment Results for HORTO4 path KDCA:RW19:DER_CAPVC

Graphic Depiction 4

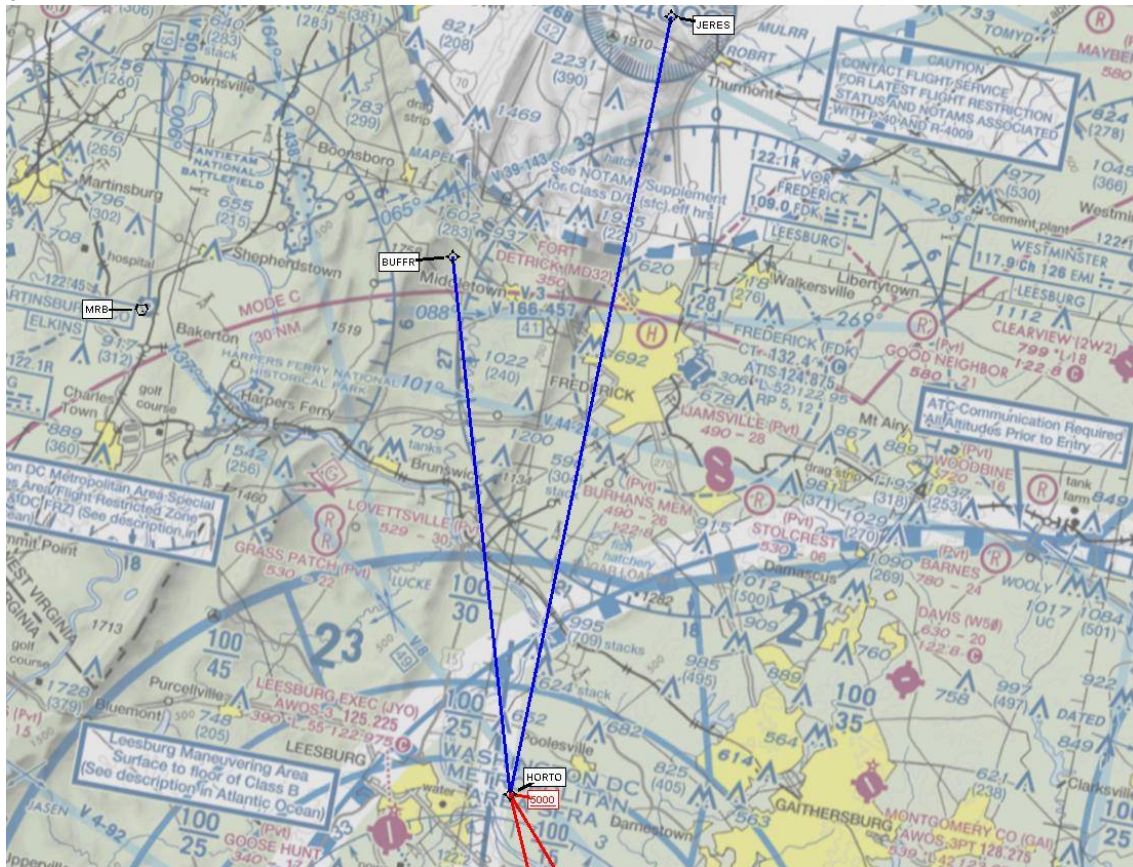


DME DME Assessment Results for HORTO4 path KDCA:RW19:DER_CAPVC

Graphic Depiction 5



Graphic Depiction 6



DME DME Assessment Results for HORTO4 path KDCA:RW19:DER_CAPVC

Graphic Depiction 7



DME DME Assessment Results for HORTO4 path KDCA:RW33:DER_REVGE

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Robert CTR Mason
Project File:	C:\Users\Robert CTR Mason\Desktop\DCA SID AMENDMENTS with REVGE\DCA - HORTO\KDCA HORTO DME\HORTO DME.tgs
Output File:	C:\Users\Robert CTR Mason\Desktop\DCA SID AMENDMENTS with REVGE\DCA - HORTO\KDCA HORTO DME\KDCA [IFPA] HORTO4 20191114_1228 EST\KDCA-RW33- DER_REVGE\KDCA HORTO4 SID KDCA RW33 REVGE 20191114_1228 EST.pdf
Procedure Name:	HORTO4
Software: DmeDmePlugin:	6.0.0
Date/Time:	11/14/2019 12:28 EST
Databases:	DTED.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
KDCA:RW33:DER	WP	N38° 51' 40.181200000", W077° 02' 35.869100000"	14	VNAV	130	FLY_OVER	TF
REVGE	WP	N38° 53' 59.460000000", W077° 04' 14.240000000"	1500	VNAV	220	FLY_BY	TF
Climb Gradient: 540.0 ft/NM up to 640.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDCA [IFPA]
Climb Gradient:	540.0 ft/NM up to 640.0 ft MSL 200.0 ft/NM
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 HORTO4 path KDCA:RW33:DER_REVGE

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:	PXT

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	BAL	N39° 10' 15.828300000", W076° 39' 40.522500000"	11.0 W	40	L	IFPA	NO	Enabled	5 %	6.1 %
2	ADW	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	L	IFPA	NO	Enabled	5 %	6.1 %
3	PXT	N38° 17' 16.282500000", W076° 24' 00.831500000"	10.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
2.0	BAL	ADW				
2.2						
2.3	BAL	ADW				
2.4						

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N38° 51' 41.884587399", W077° 02' 37.532417743"	N38° 53' 21.235470779", W077° 03' 52.055650586"	1.9297
2	N38° 53' 32.996996501", W077° 03' 58.880900652"	N38° 53' 41.818063733", W077° 04' 04.000248593"	0.1613

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDCA:RW33:DER	REVGE	ADW, BAL

DME DME Assessment Results for HORTO4 path KDCA:RW33:DER_REVGE

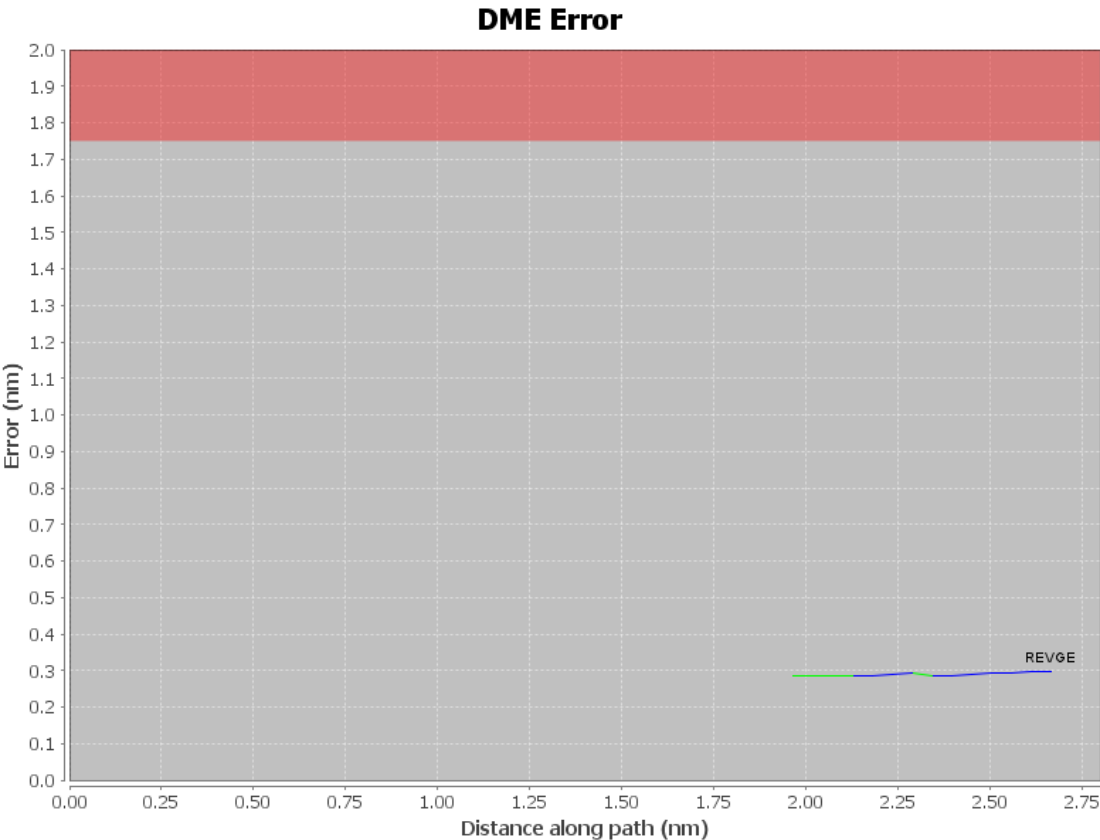
User Data Files

File Name

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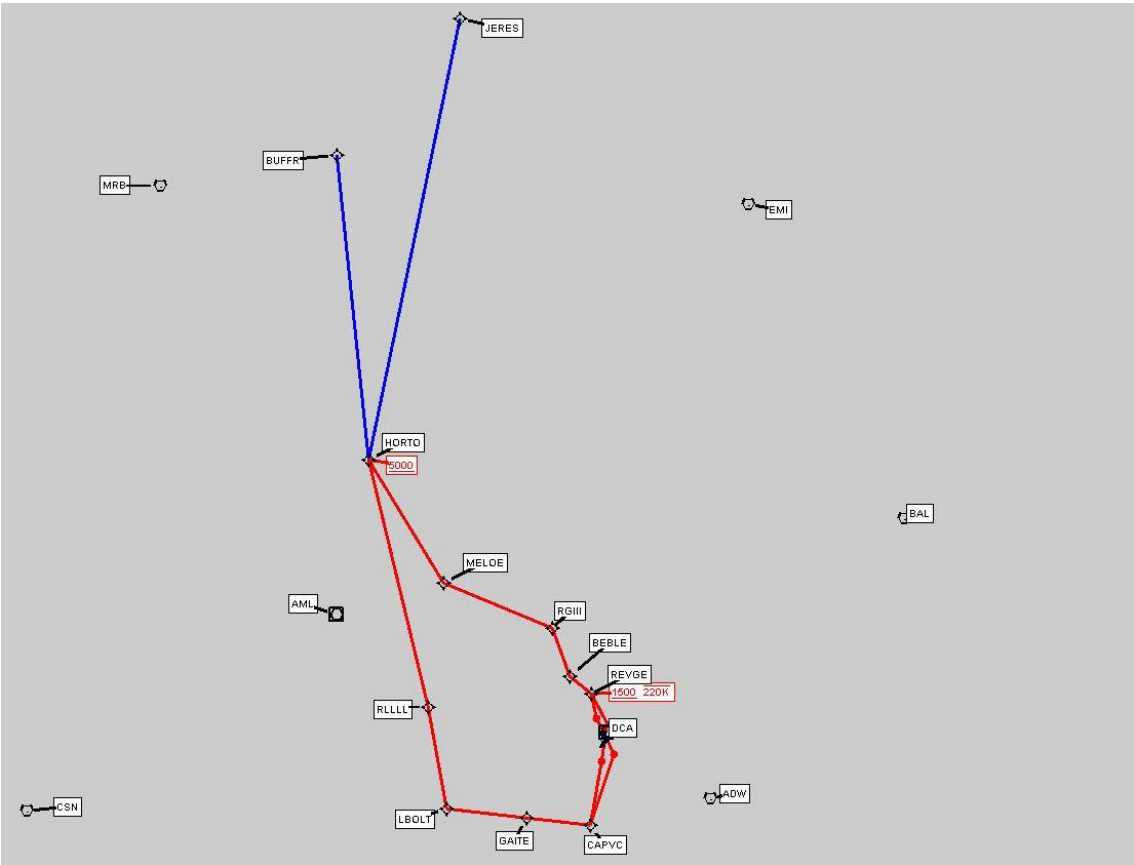
User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LRP [IFPA] LRP [IFPA]	N40° 07' 11.911900000", W076° 17' 28.663300000"	9.0 W	40	400.3	117.3	ESV LRP [IFPA]	
ESV:		Bearing [True]: 231.0° to 246.0° Bearing [Mag]: 240.0° to 255.0°				Arc Distance: Out to 70.0 NM Altitude: 9000.0 to 16000.0 ft		
2	ADW FAA 880073-2 ADW [IFPA]	N38° 48' 25.990000000", W076° 51' 58.520000000"	10.0 W	40	278.9	113.1	ADW FAA 880073-2	
ESV:		Bearing [True]: 308.0° to 332.0° Bearing [Mag]: 318.0° to 342.0°				Arc Distance: Out to 53.0 NM Altitude: 3000.0 to 20000.0 ft		
3	AML FAA 732650-44 AML [IFPA]	N38° 56' 04.538000000", W077° 28' 00.128500000"	8.0 W	40	298.6	113.5	AML FAA 732650-44	
ESV:		Bearing [True]: 263.0° to 359.0° Bearing [Mag]: 271.0° to 7.0°				Arc Distance: Out to 73.0 NM Altitude: 7000.0 to 17000.0 ft		



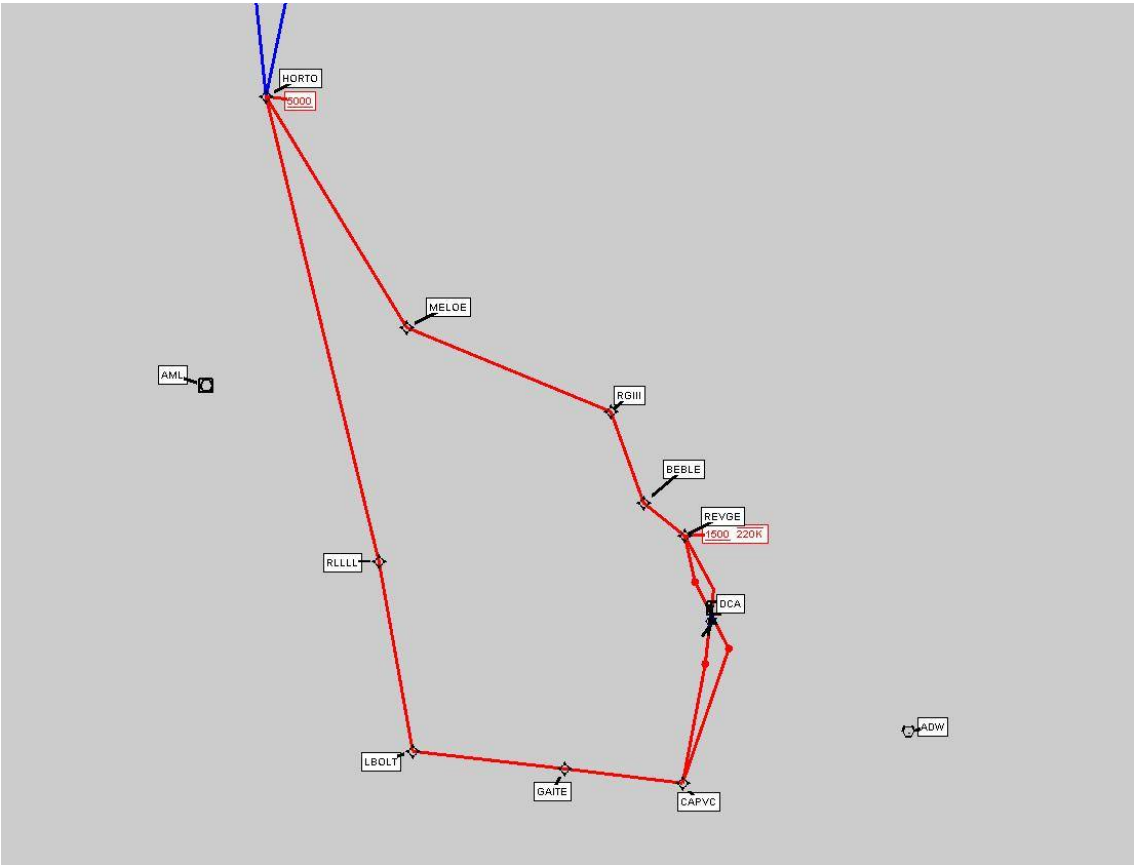
DME DME Assessment Results for HORTO4 path KDCA:RW33:DER_REVGE

Graphic Depiction 1



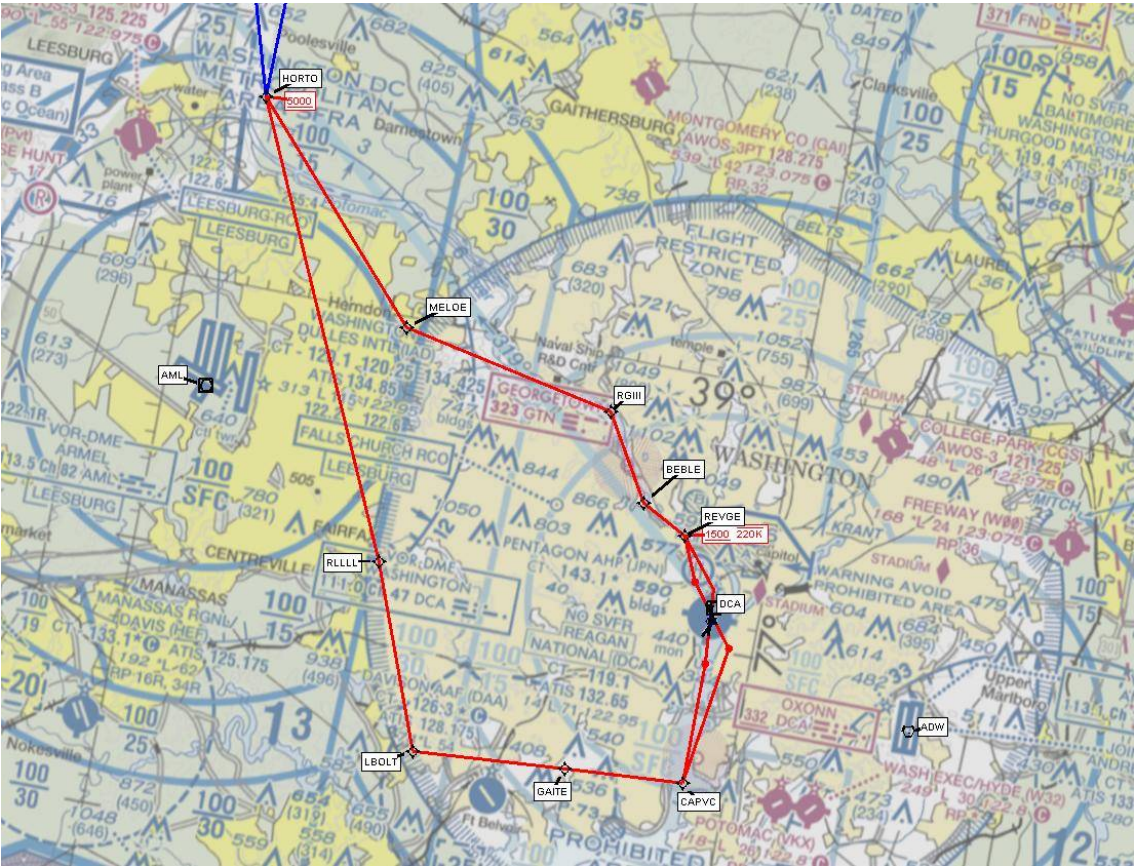
DME DME Assessment Results for HORTO4 path KDCA:RW33:DER_REVGE

Graphic Depiction 2

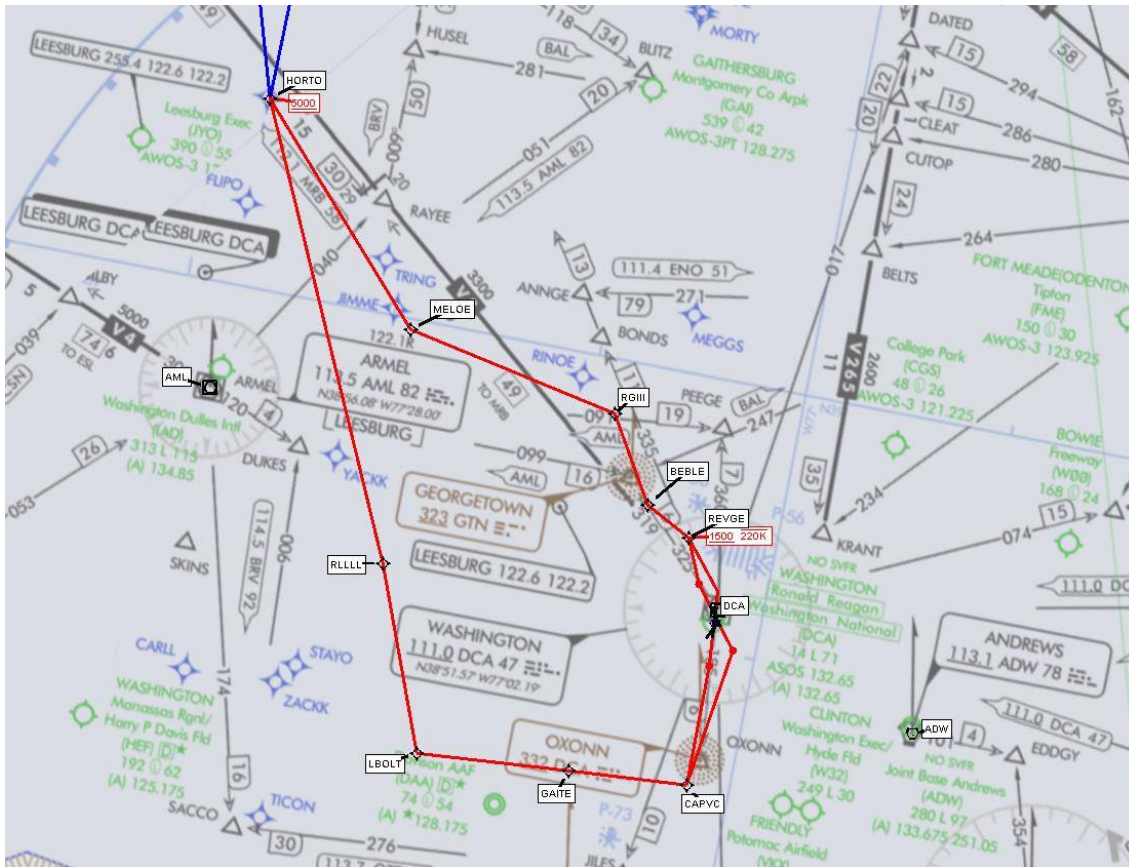


DME DME Assessment Results for HORTO4 path KDCA:RW33:DER_REVGE

Graphic Depiction 3

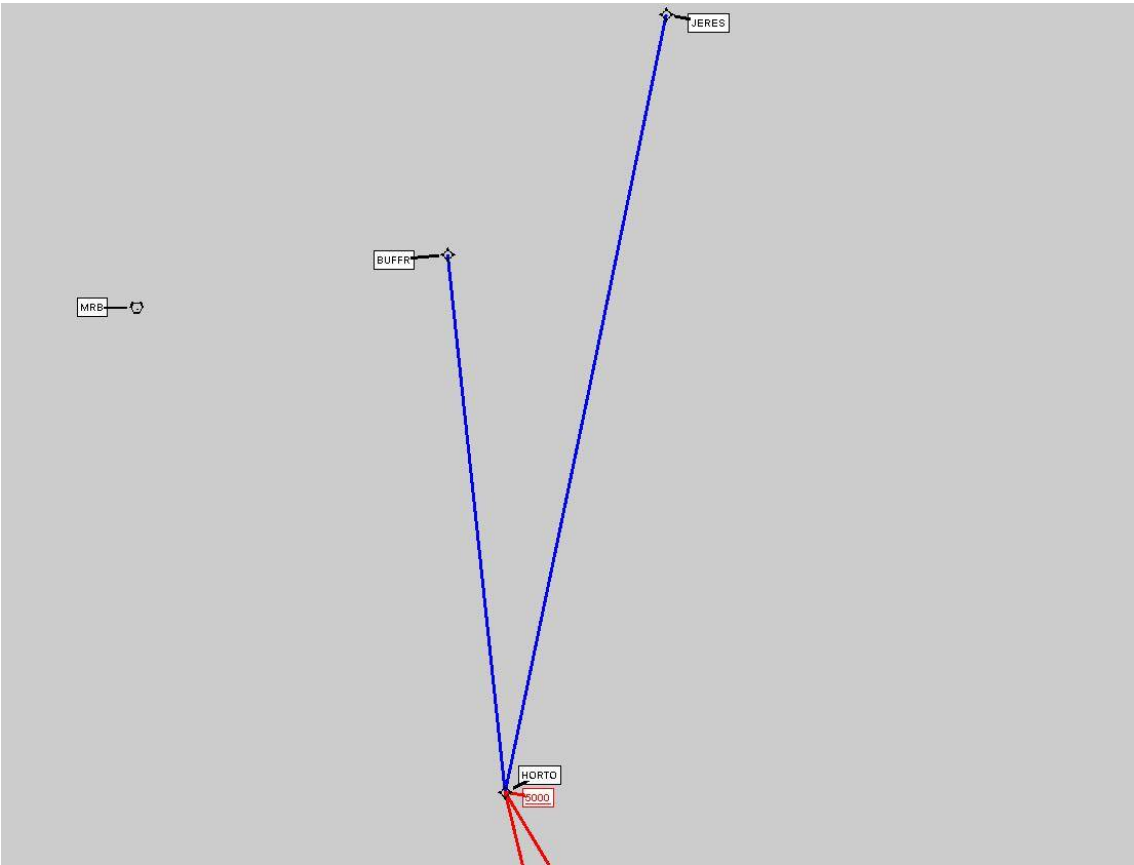


Graphic Depiction 4

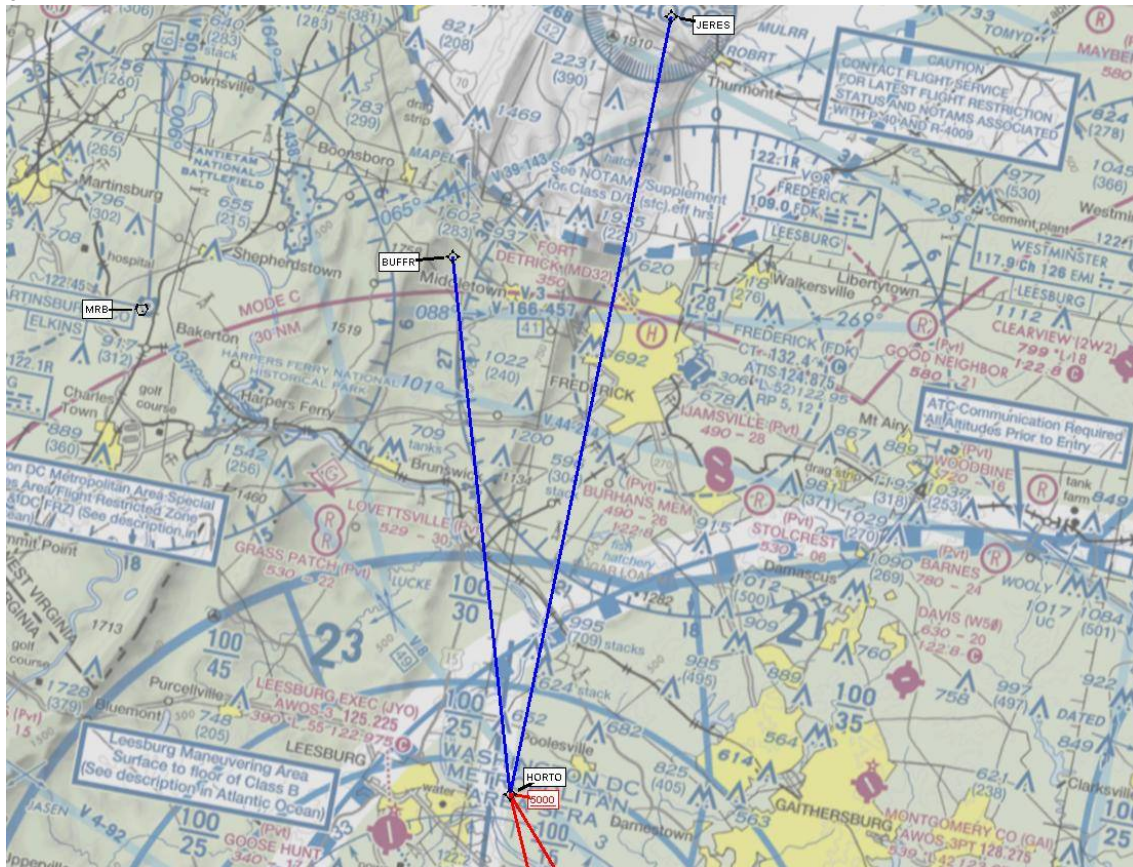


DME DME Assessment Results for HORTO4 path KDCA:RW33:DER_REVGE

Graphic Depiction 5



Graphic Depiction 6



DME DME Assessment Results for HORTO4 path KDCA:RW33:DER_REVGE

Graphic Depiction 7

