

## DME DME Assessment Results for RAVNN7 path CACYE\_TBART

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\CACYE_TBART\KBWI RAVNN7 RNAV STAR CACYE TBART 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
CACYE	WP	N38° 20' 15.5800", W080° 38' 16.6800"	17000	VNAV	290	FLY_BY	TF
TBART	WP	N38° 14' 46.3300", W079° 15' 30.8000"	17000	VNAV	290	FLY_BY	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path CACYE\_TBART**

<b>DME/DME</b>	
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, TACAN
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:	FKN

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	ZZV	N39° 56' 27.0911", W081° 53' 33.3687"	6.0 W	130	DH	IFPA	NO	Enabled	35 %	35 %
2	EKN	N38° 54' 51.9690", W080° 05' 57.3810"	7.0 W	40	L	IFPA	NO	Enabled	0.1 %	0.1 %
3	FAK	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	H	IFPA	NO	Enabled	30.5 %	30.5 %
4	HVQ	N38° 20' 58.8336", W081° 46' 11.6924"	3.0 W	130	H	IFPA	NO	Enabled	63.8 %	63.8 %
5	GVE	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	H	IFPA	NO	Enabled	70.3 %	70.3 %
6	CSN	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	H	IFPA	NO	Enabled	35.2 %	35.2 %
7	PSK	N37° 05' 15.6676", W080° 42' 46.3767"	6.0 W	130	H	IFPA	NO	Enabled	81.3 %	81.3 %
8	LWB	N37° 51' 49.9130", W080° 23' 30.5431"	0.0 E	40	L	IFPA	NO	Enabled	59.4 %	59.4 %
9	BKW	N37° 46' 49.0788", W081° 07' 24.4398"	6.0 W	130	DH	IFPA	NO	Enabled	98.8 %	98.8 %
10	MOL	N37° 54' 03.1524", W079° 06' 22.2526"	5.0 W	40	L	IFPA	NO	Enabled	35.1 %	35.1 %
11	HNN	N38° 45' 14.8487", W082° 01' 34.2034"	-0.0 E	130	H	IFPA	NO	Enabled	46.3 %	46.3 %
12	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

## DME DME Assessment Results for RAVNN7 path CACYE\_TBART

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	BKW	HNN	PSK	HVQ	LWB	ZZV
23.0	HVQ	LWB	HNN	PSK	GVE	BKW
30.4	PSK	GVE	LWB	HVQ	BKW	
33.4	LWB	GVE	HVQ	BKW		
34.1	LWB	GVE	HVQ	BKW	CSN	
34.2	LWB	GVE	HVQ	BKW		
38.7	EKN	BKW	LWB	CSN	HVQ	GVE
38.9	GVE	BKW				
42.4	MOL	BKW	CSN	GVE		
43.7	PSK	MOL	BKW	GVE	CSN	HVQ
46.7	PSK	MOL	BKW	GVE	FAK	CSN
63.6	CSN	MOL	BKW	GVE	FAK	
64.7	CSN	MOL	GVE	FAK		

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
CACYE	TBART	FAK, HVQ, LWB, ZZV, GVE, PSK, HNN, EKN, MOL, BKW, CSN	

User Data Files								
#	File Name							
None								
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

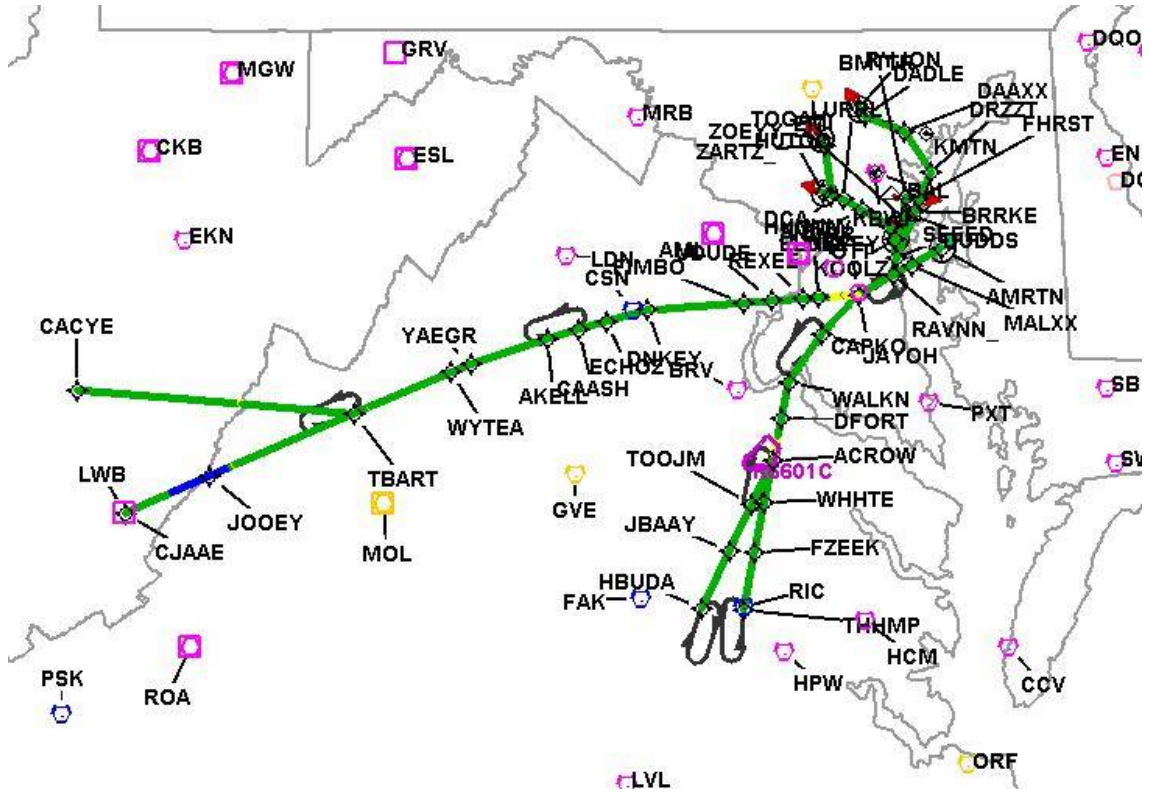
# DME DME Assessment Results for RAVNN7 path CACYE\_TBART

## DME Error



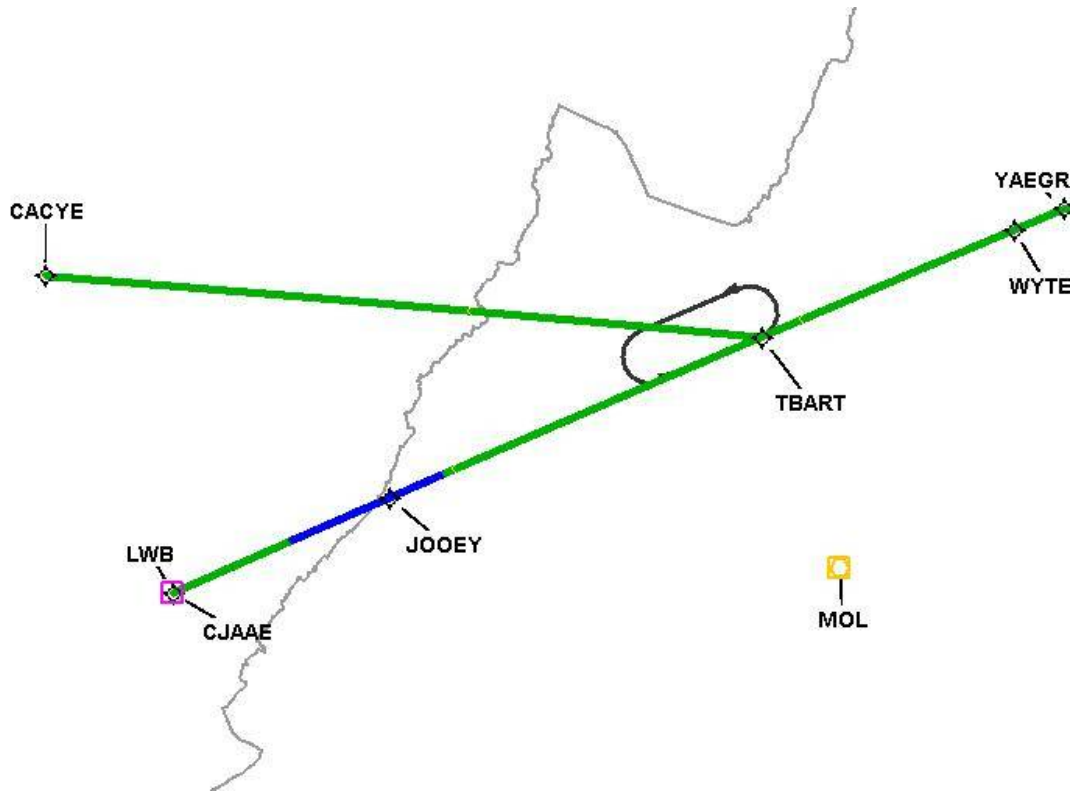
# DME DME Assessment Results for RAVNN7 path CACYE\_TBART

Graphic Depiction 1



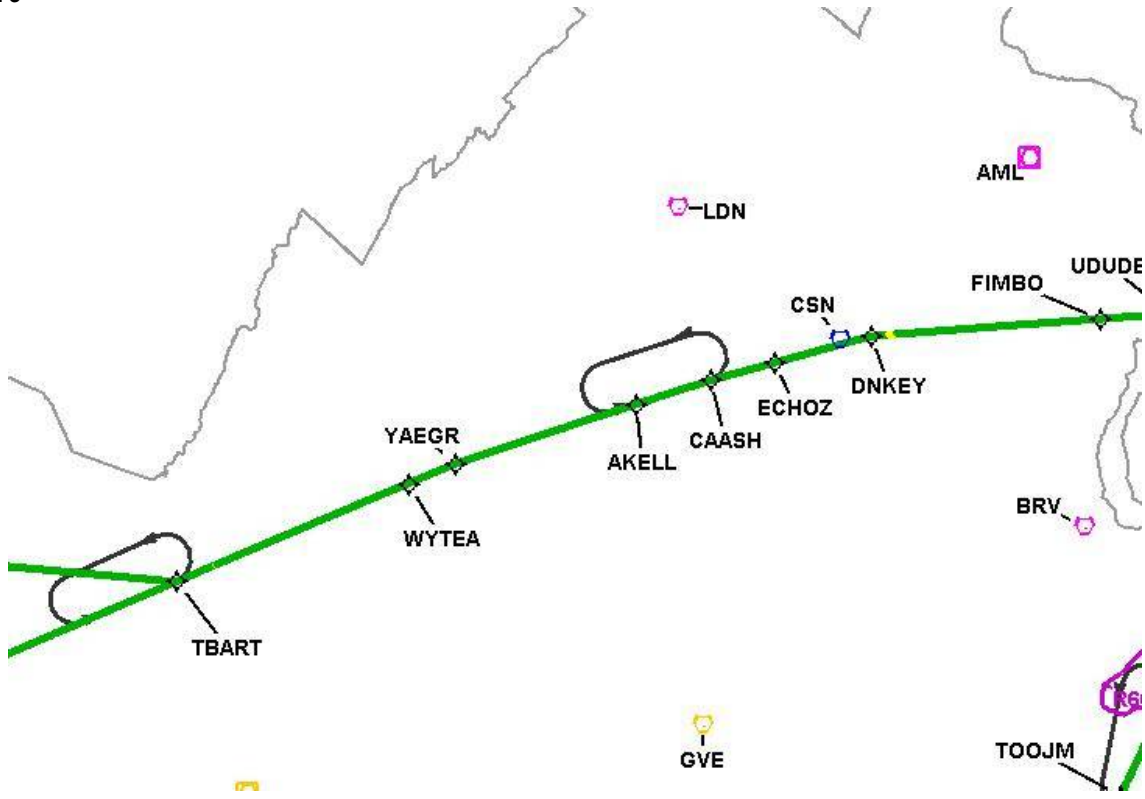
# DME DME Assessment Results for RAVNN7 path CACYE\_TBART

Graphic Depiction 2



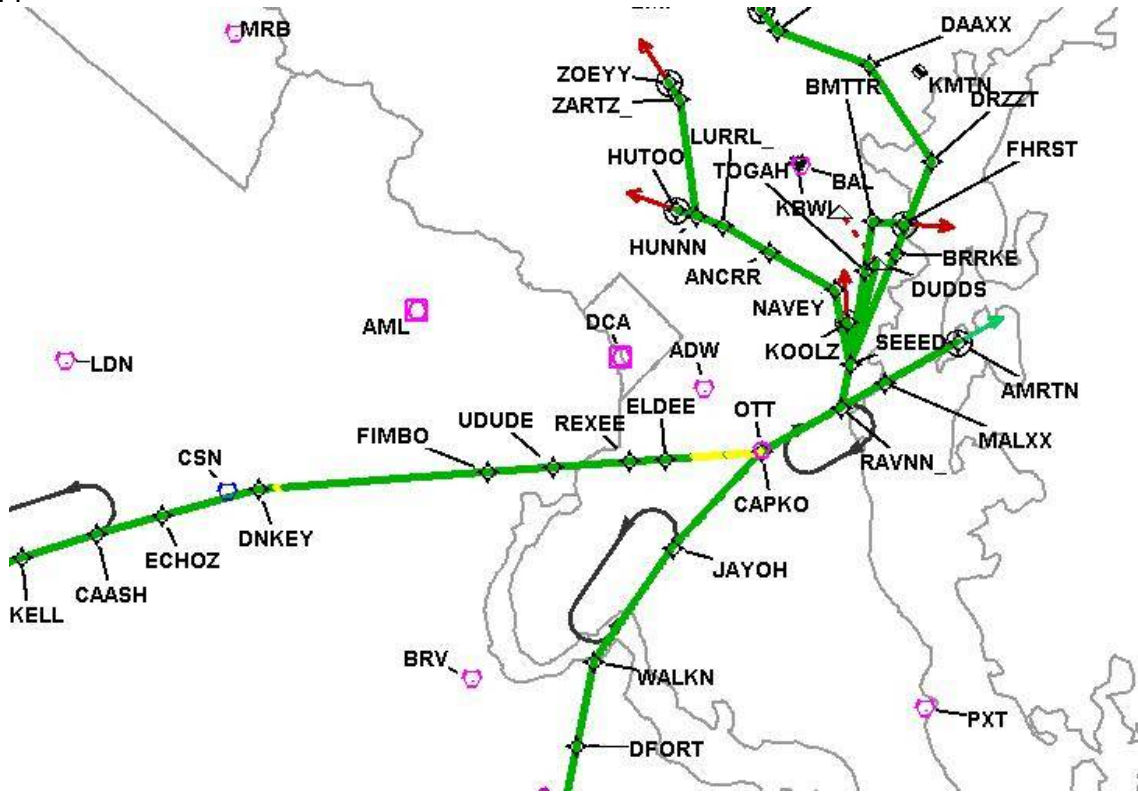
# DME DME Assessment Results for RAVNN7 path CACYE\_TBART

Graphic Depiction 3



# DME DME Assessment Results for RAVNN7 path CACYE\_TBART

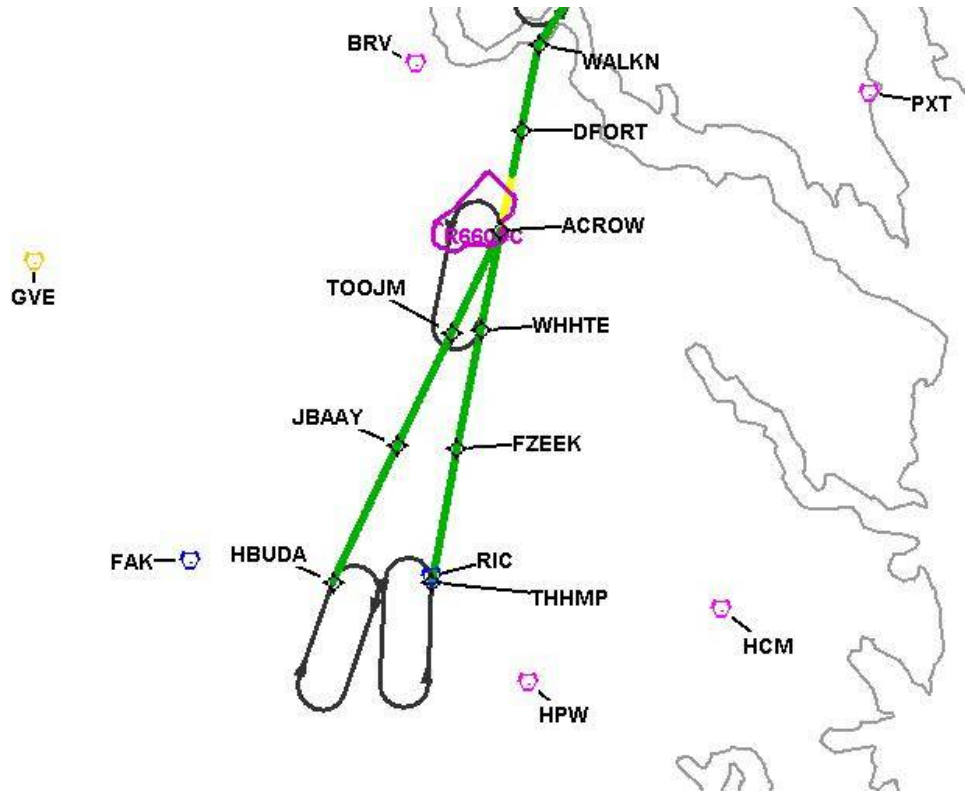
Graphic Depiction 4





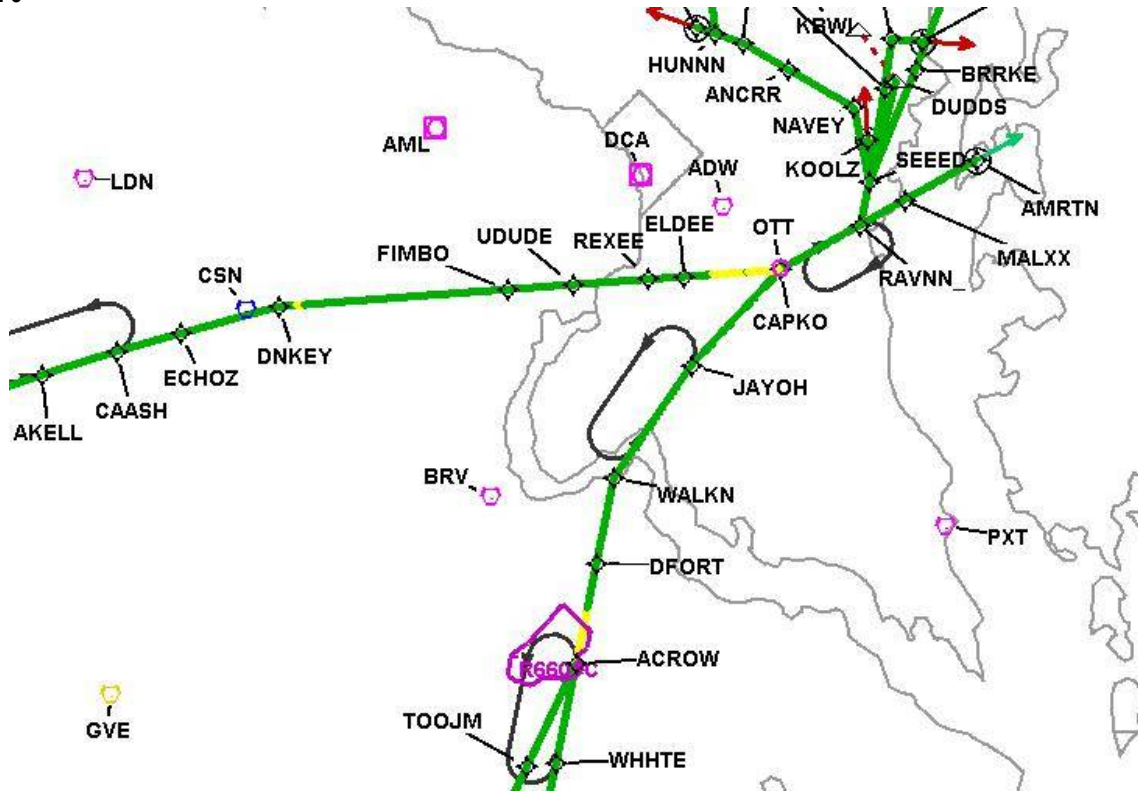
# DME DME Assessment Results for RAVNN7 path CACYE\_TBART

Graphic Depiction 5



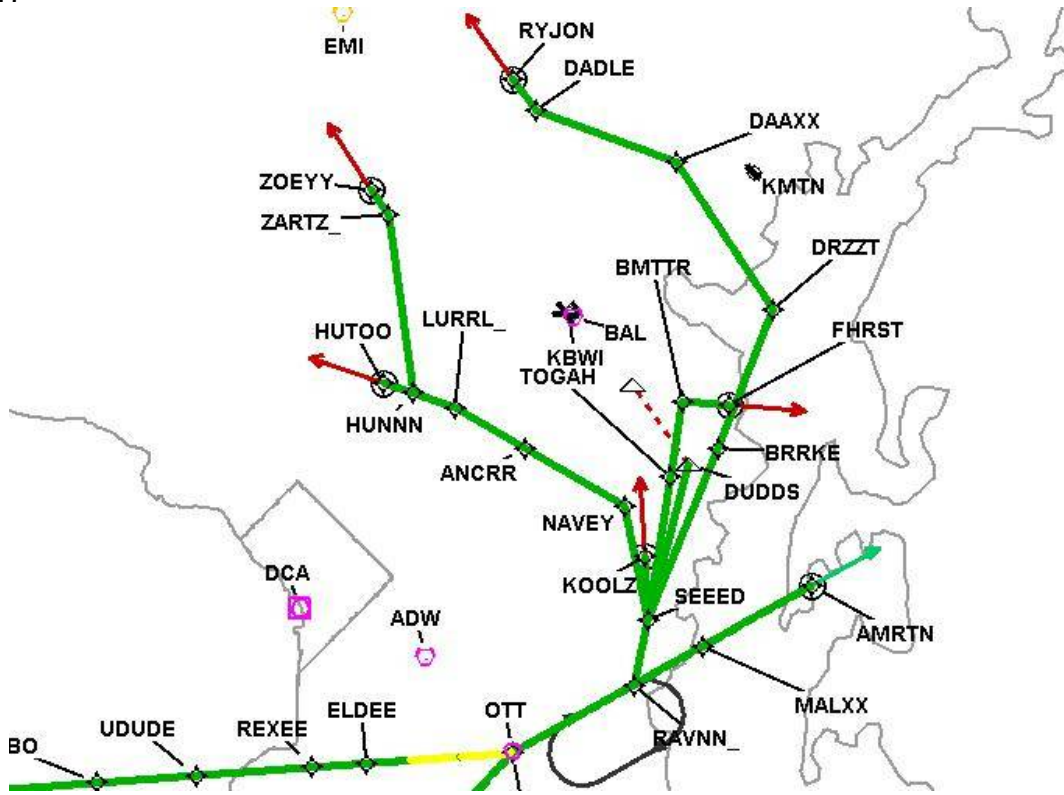
# DME DME Assessment Results for RAVNN7 path CACYE\_TBART

Graphic Depiction 6



DME DME Assessment Results for RAVNN7 path CACYE\_TBART

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\CJAAE_ZOEYY\KBWI RAVNN7 RNAV STAR CJAAE ZOEYY 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

**DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY**

<b>Flight Plan</b>							
Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
CJAAE	WP	N37° 51' 49.6800", W080° 23' 31.3000"	17000	VNAV	290	FLY_BY	TF
JOOEY	WP	N38° 00' 21.0800", W079° 58' 34.0000"	17000	VNAV	290	FLY_BY	TF
TBART	WP	N38° 14' 46.3300", W079° 15' 30.8000"	17000	VNAV	290	FLY_BY	TF
WYTEA	WP	N38° 24' 20.1200", W078° 46' 21.4400"	14000	VNAV	290	FLY_BY	TF
YAEGR	WP	N38° 26' 14.6800", W078° 40' 28.5700"	10000	VNAV	290	FLY_BY	TF
AKELL	WP	N38° 32' 04.2300", W078° 17' 43.8000"	10000	VNAV	290	FLY_BY	TF
CAASH	WP	N38° 34' 23.7700", W078° 08' 18.2900"	10000	VNAV	280	FLY_BY	TF
ECHOZ	WP	N38° 36' 07.4500", W078° 00' 13.6200"	10000	VNAV	280	FLY_BY	TF
DNKEY	WP	N38° 38' 45.0500", W077° 47' 58.0100"	10000	VNAV	280	FLY_BY	TF
FIMBO	WP	N38° 40' 26.4900", W077° 19' 08.0400"	8000	VNAV	280	FLY_BY	TF
UDUDE	WP	N38° 40' 55.0400", W077° 10' 49.8100"	8000	VNAV	280	FLY_BY	TF
REXEE	WP	N38° 41' 26.7000", W077° 01' 20.4900"	8000	VNAV	280	FLY_BY	TF
CAPKO	WP	N38° 42' 20.5200", W076° 44' 42.5400"	5000	VNAV	250	FLY_BY	TF
RAVNN_	WP	N38° 46' 43.0607", W076° 34' 39.2326"	5000	VNAV	250	FLY_BY	TF
SEED	WP	N38° 50' 51.6600", W076° 33' 32.3200"	5000	VNAV	250	FLY_BY	TF
NAVEY	WP	N38° 58' 10.9900", W076° 35' 29.2600"	5000	VNAV	230	FLY_BY	TF
ANCRR	WP	N39° 01' 52.1500", W076° 43' 43.6000"	4000	VNAV	210	FLY_BY	TF
LURRL_	WP	N39° 04' 28.6300", W076° 49' 30.2300"	4000	VNAV	210	FLY_BY	TF
HUNNN	WP	N39° 05' 23.1000", W076° 52' 54.3500"	4000	VNAV	210	FLY_BY	TF
ZARTZ_	WP	N39° 16' 46.1900", W076° 54' 57.2400"	4000	VNAV	210	FLY_BY	TF
ZOEYY	WP	N39° 18' 26.5745", W076° 56' 22.1061"	4000	VNAV	210	FLY_OVER	TF

<b>Flyability</b>	
Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path CJAAE\_ZOEYY**

<b>DME/DME</b>	
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, TACAN
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:	FKN

**DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
<b>#</b>	<b>Name</b>	<b>Lat/Lon</b>	<b>MAGVAR</b>	<b>Range</b>	<b>Type</b>	<b>Source</b>	<b>Critical</b>	<b>Status</b>	<b>Time</b>	<b>Distance</b>
1	RIC	N37° 30' 08.4521", W077° 19' 12.9944"	9.0 W	130	H	IFPA	NO	Enabled	0 %	0 %
2	FAK	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	H	IFPA	NO	Enabled	29.4 %	31.1 %
3	HVQ	N38° 20' 58.8336", W081° 46' 11.6924"	3.0 W	130	H	IFPA	NO	Enabled	7.8 %	8.3 %
4	CSN	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	H	IFPA	NO	Enabled	42 %	44.3 %
5	LWB	N37° 51' 49.9130", W080° 23' 30.5431"	0.0 E	40	L	IFPA	NO	Enabled	4.6 %	4.9 %
6	MOL	N37° 54' 03.1524", W079° 06' 22.2526"	5.0 W	40	L	IFPA	NO	Enabled	24.6 %	26.3 %
7	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	28.4 %	24.5 %
8	LDN	N38° 51' 15.8344", W078° 12' 20.0559"	6.0 W	40	L	IFPA	NO	Enabled	27.4 %	28.7 %
9	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	39.5 %	36.1 %
10	ROA	N37° 20' 36.4659", W080° 04' 13.4304"	4.0 W	40	L	IFPA	NO	Enabled	4.7 %	5 %
11	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	33.5 %	29.7 %
12	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	13.3 %	12.8 %
13	BRV	N38° 20' 10.5264", W077° 21' 10.3159"	9.0 W	40	L	IFPA	NO	Enabled	0.4 %	0.4 %
14	GVE	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	H	IFPA	NO	Enabled	30.7 %	32.7 %
15	ESL	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	L	IFPA	NO	Enabled	13.7 %	14.7 %
16	PSK	N37° 05' 15.6676", W080° 42' 46.3767"	6.0 W	130	H	IFPA	NO	Enabled	16.4 %	17.5 %
17	BKW	N37° 46' 49.0788", W081° 07' 24.4398"	6.0 W	130	DH	IFPA	NO	Enabled	9.2 %	9.8 %
18	AML	N38° 56' 04.5329", W077° 28' 00.1263"	8.0 W	40	L	IFPA	NO	Enabled	42 %	39.9 %
19	HNN	N38° 45' 14.8487", W082° 01' 34.2034"	-0.0 E	130	H	IFPA	NO	Enabled	2.3 %	2.4 %
20	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	47.1 %	43.7 %
21	EMI	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	H	IFPA	NO	Enabled	17 %	13.6 %
22	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

**DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY**

<b>Flight Check DME Selection</b>						
<b>Distance [NM]</b>	<b>Selected DMEs</b>					<b>Alternate</b>
0.0	PSK	HVQ	HNN	ROA		
5.6	PSK	HVQ	ROA			
7.4	LWB	ROA	PSK	HVQ		
8.2	LWB	ROA	PSK	HVQ	GVE	
8.6	LWB	ROA	GVE	HVQ		
11.7						
27.0	PSK	MOL	HVQ	GVE		
28.0	PSK	MOL	HVQ	GVE	LWB	CSN
28.2	PSK	MOL	HVQ	GVE	CSN	
34.6	PSK	MOL	FAK	GVE	LWB	CSN
39.9	PSK	MOL	FAK	GVE	CSN	
58.9	CSN	MOL	GVE	FAK		
61.8	CSN	MOL	GVE	BKW	FAK	
62.5	MOL	GVE	BKW	RIC		
62.7	MOL	BKW				
64.4	MOL	BKW	ESL			
70.6	FAK	MOL	ESL	BKW		
82.9	FAK	LDN	MOL	ESL	BKW	
84.4	FAK	LDN	MOL	ESL		
85.9	LDN	GVE	FAK	MOL	ESL	
87.6	LDN	GVE	FAK	ESL		
88.4	LDN	GVE	CSN			
104.4	CSN	GVE	FAK	ESL	LDN	
114.4	CSN	LDN	GVE	AML		
121.7	AML	LDN	CSN	FAK	GVE	
122.3	AML	LDN	FAK	CSN		
124.3	AML	LDN	FAK			
129.8	AML	LDN	FAK	DCA		
131.4	FAK	CSN	AML	LDN	DCA	
133.0	AML	LDN	DCA	CSN		
133.8	AML	LDN	DCA			
138.6	AML	LDN	CSN	DCA		
141.2	AML	LDN	OTT	CSN	DCA	
149.2	AML	CSN	OTT	FAK	DCA	
152.6	AML	CSN	OTT	DCA		
162.2	AML	BAL	DCA	OTT	CSN	
168.2	OTT	DCA	AML	BAL		
169.2	AML	BAL	OTT	DCA	PXT	
177.5	AML	BAL	DCA	PXT	ADW	
181.7	BAL	DCA	ADW	PXT		
182.8	BAL	DCA	ADW			
183.7	BAL	DCA	ADW	PXT		
184.0	OTT	PXT	BAL	DCA	ADW	
199.6	ADW	EMI	BAL	DCA	OTT	

<b>Inertial Drift Segments</b>			
<b>#</b>	<b>Start Location</b>	<b>End Location</b>	<b>Length [NM]</b>
1	N37° 56' 28.0648", W080° 09' 58.8746"	N38° 02' 30.2612", W079° 52' 12.3729"	15.2682



**DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY**

<b>Available DMEs by Waypoints</b>			
<b>Waypoint Before</b>	<b>Waypoint After</b>	<b>DME List</b>	<b>Suggested DMEs</b>
CJAAE	JOEY	HVQ, ROA, LWB, GVE, PSK, HNN	
JOEY	TBART	FAK, HVQ, LWB, GVE, PSK, MOL, CSN	
TBART	WYTEA	FAK, GVE, LDN, PSK, MOL, RIC, CSN, BKW, ESL	
WYTEA	YAEGR	FAK, LDN, GVE, MOL, BKW, ESL	
YAEGR	AKELL	FAK, LDN, GVE, ESL, CSN	
AKELL	CAASH	AML, FAK, LDN, GVE, CSN, ESL	
CAASH	ECHOZ	AML, LDN, GVE, CSN	
ECHOZ	DNKEY	AML, FAK, DCA, LDN, GVE, CSN	
DNKEY	FIMBO	AML, FAK, DCA, LDN, OTT, CSN	
FIMBO	UDUDE	AML, DCA, OTT, CSN	
UDUDE	REXEE	AML, DCA, BAL, OTT, CSN	
REXEE	CAPKO	AML, DCA, ADW, BRV, BAL, PXT, OTT, CSN	
CAPKO	RAVNN_	AML, DCA, ADW, BAL, PXT, OTT	
RAVNN_	SEED	DCA, ADW, BAL, PXT, OTT	
SEED	NAVEY	EMI, DCA, ADW, BAL, PXT, OTT	
NAVEY	ANCR	EMI, AML, DCA, ADW, BAL, OTT	
ANCR	LURRL_	AML, EMI, DCA, ADW, BAL, OTT	
LURRL_	HUNNN	AML, EMI, DCA, ADW, BAL, OTT	
HUNNN	ZARTZ_	AML, EMI, DCA, ADW, BAL, OTT	
ZARTZ_	ZOEYY	AML, EMI, DCA, ADW, BAL, OTT	

**User Data Files**

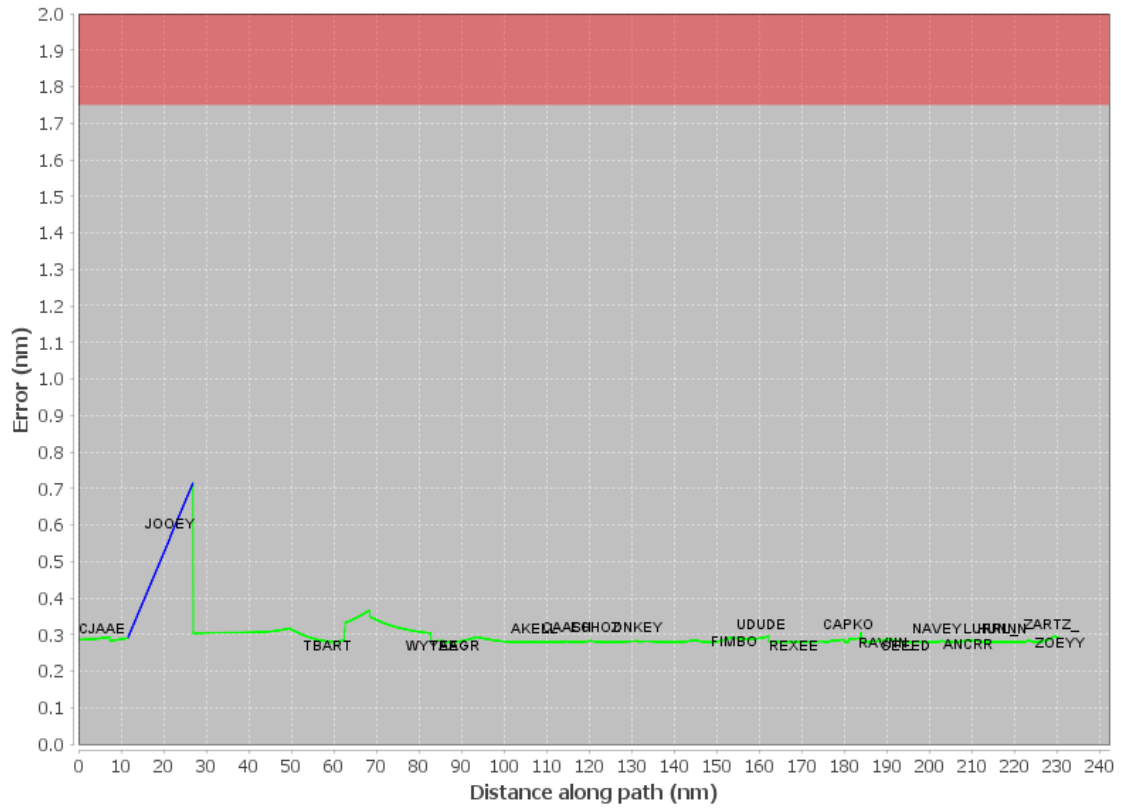
#	File Name
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**User DMEs**

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°		Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft				
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°		Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft				
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°		Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft				
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°		Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft				
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°		Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft				
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°		Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft				
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°		Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft				
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°		Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft				

# DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY

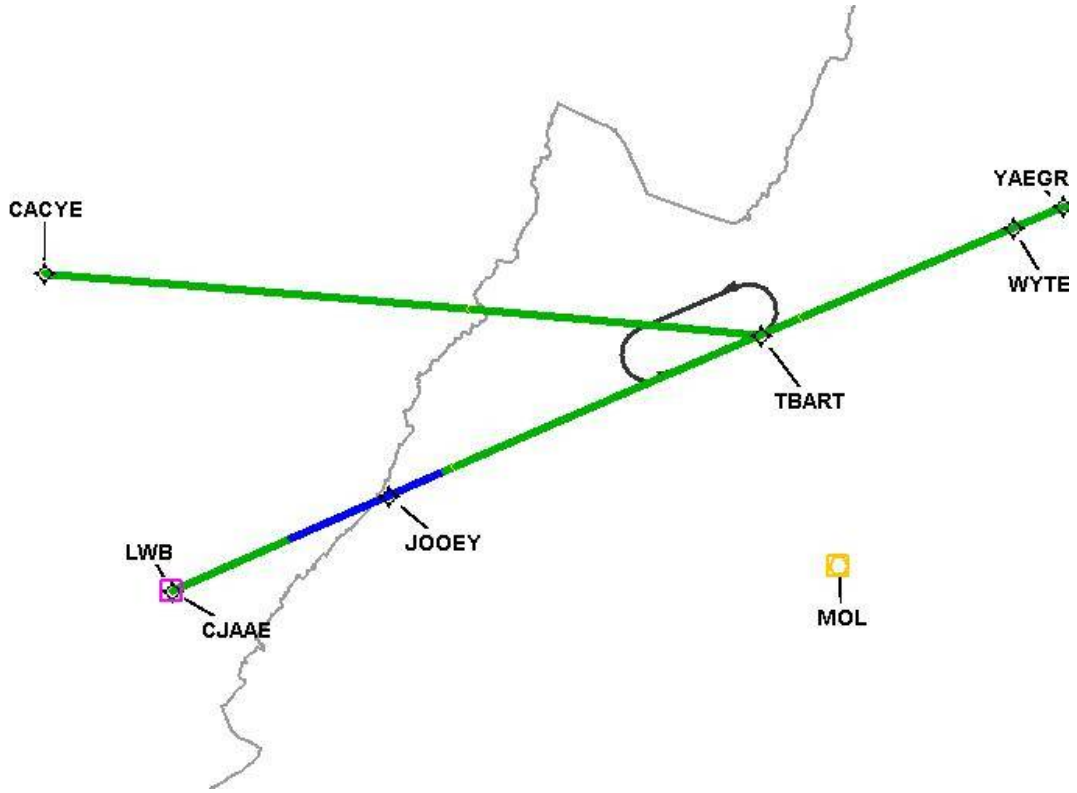
## DME Error





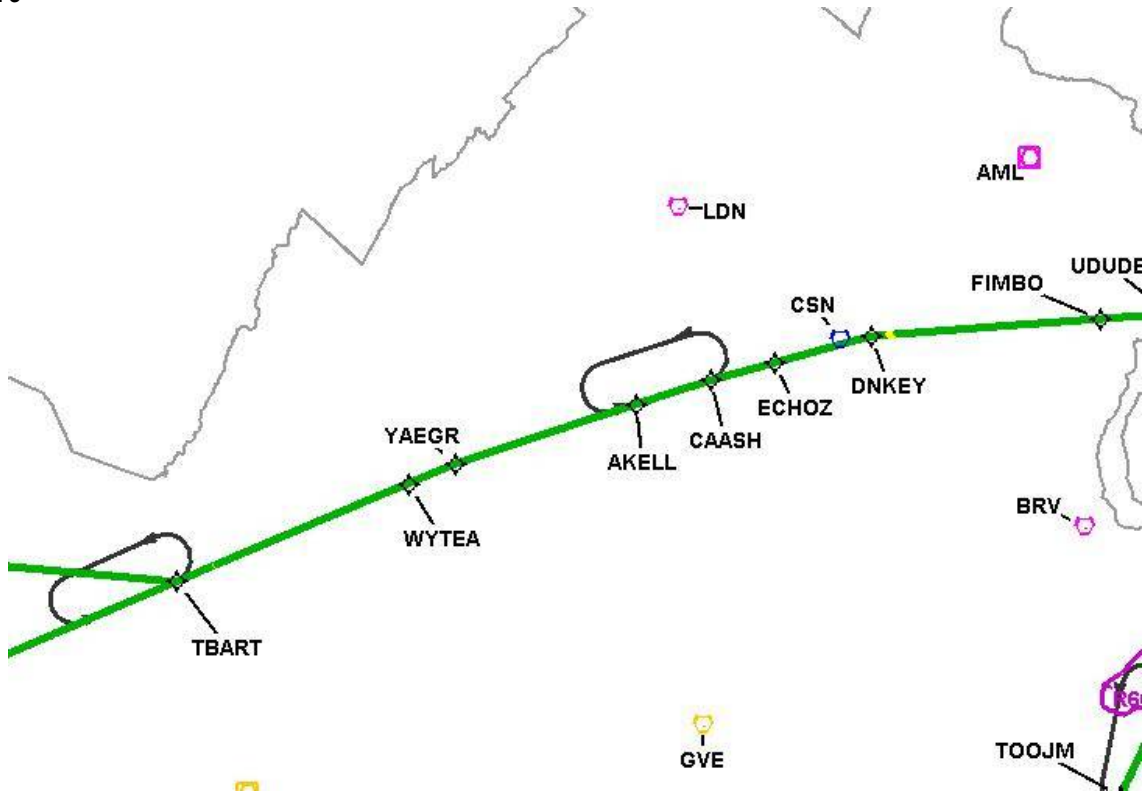
DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY

Graphic Depiction 2



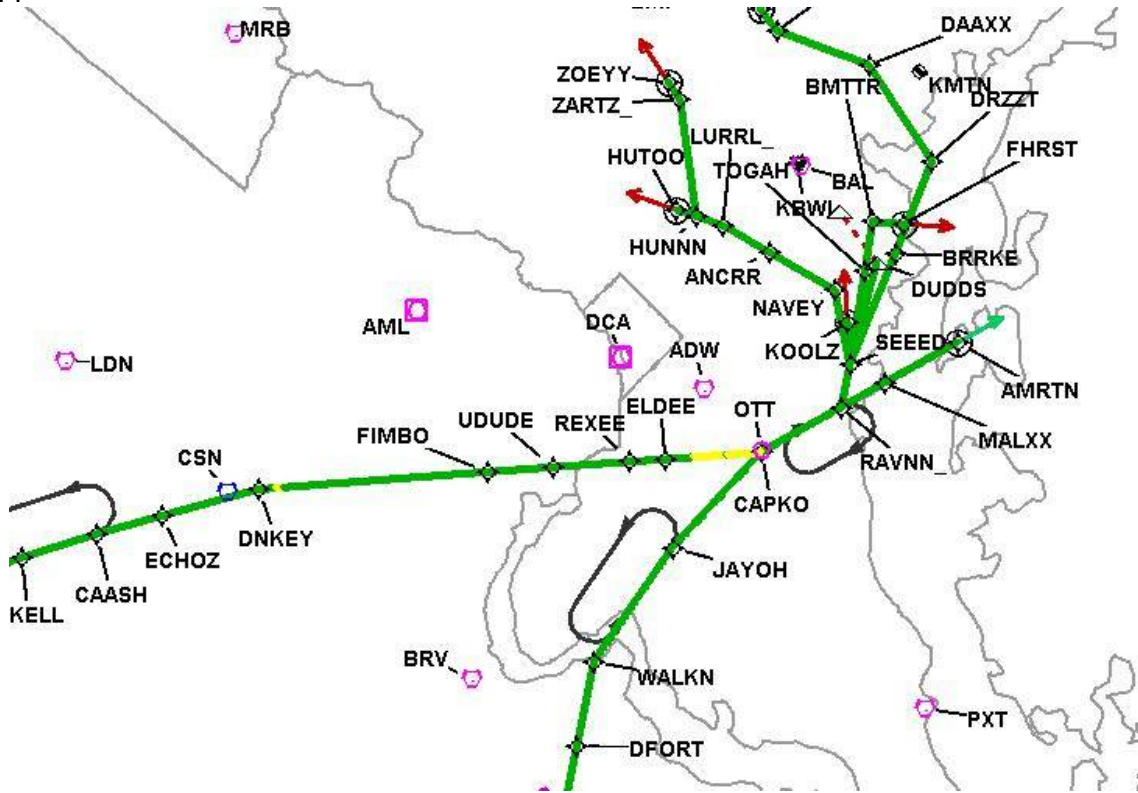
DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY

Graphic Depiction 3



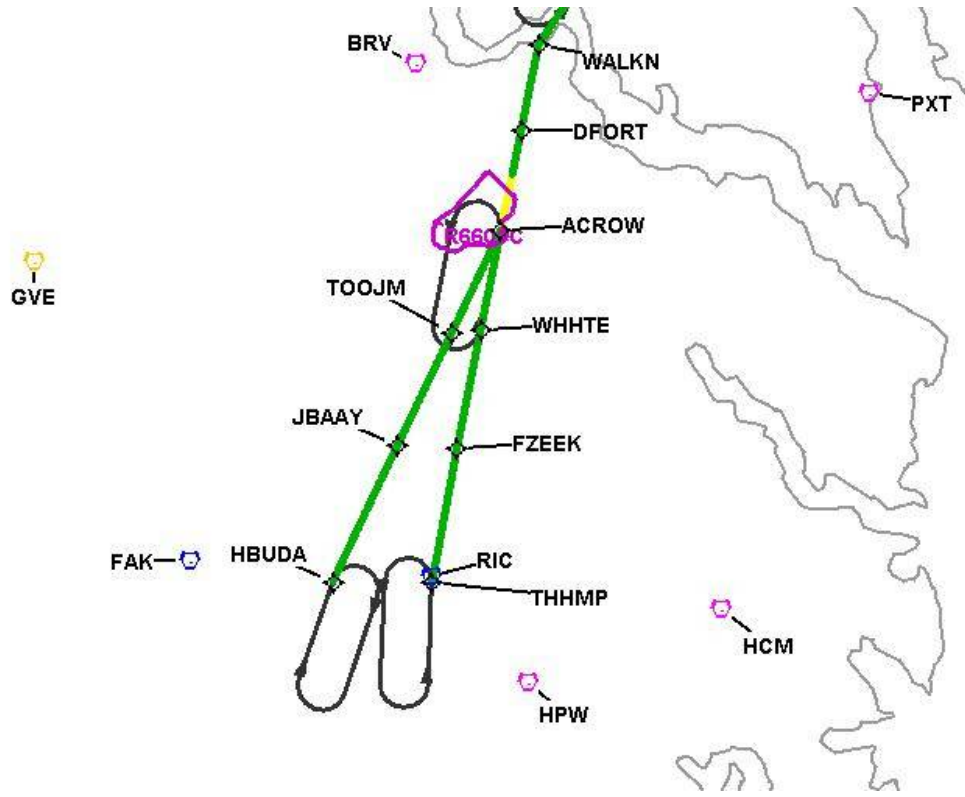
# DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY

Graphic Depiction 4



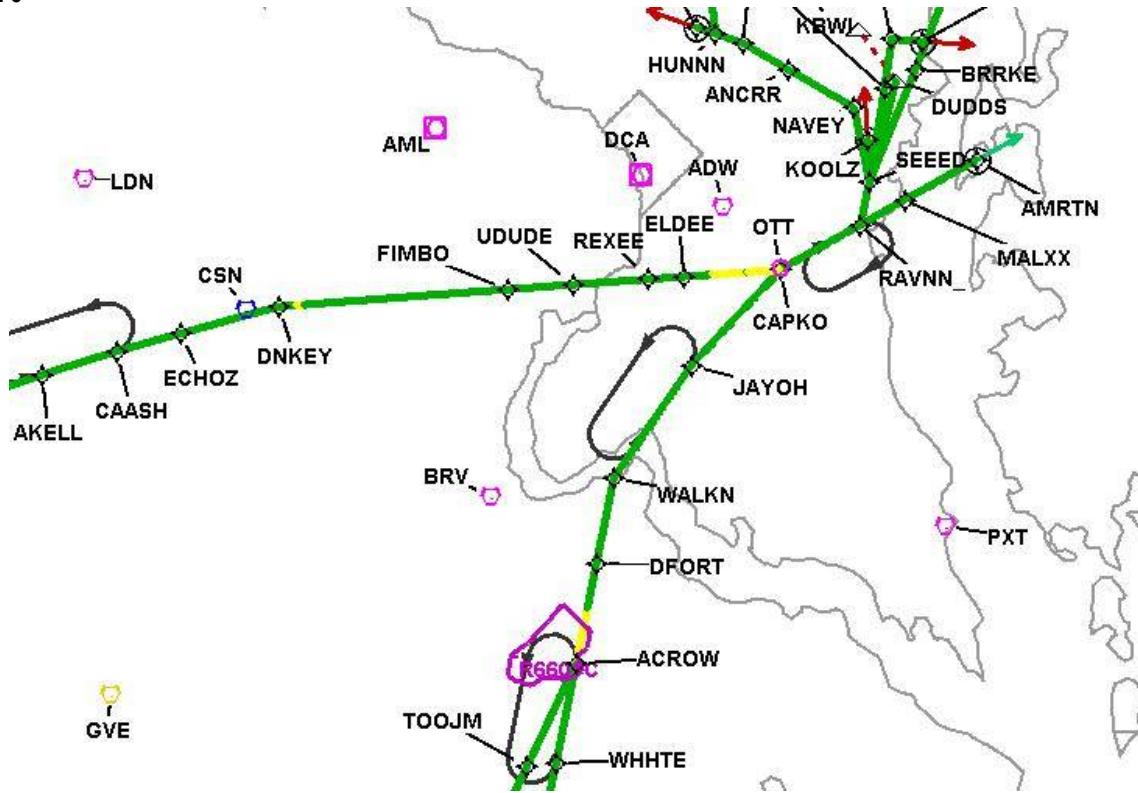
DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY

Graphic Depiction 5



# DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY

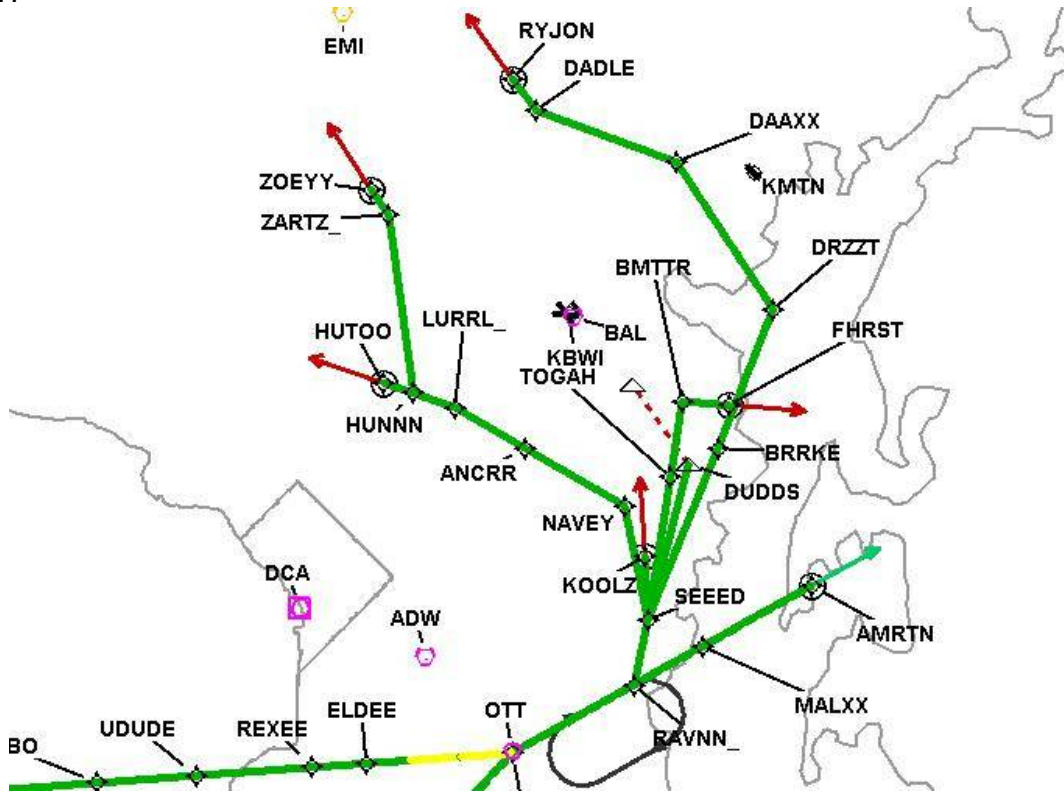
Graphic Depiction 6





DME DME Assessment Results for RAVNN7 path CJAAE\_ZOEYY

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO

Results Summary	
Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\HBUDA_CAPKO\KBWI RAVNN7 RNAV STAR HBUDA CAPKO 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

Failures
No Failures

Warnings
No Warnings

Informational
No Informational

Notes For Flight Check
None

Flight Plan							
Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
HBUDA	WP	N37° 29' 35.6200", W077° 31' 36.8600"	12000	VNAV	280	FLY_BY	TF
JBAAY	WP	N37° 42' 57.2900", W077° 23' 26.3500"	12000	VNAV	280	FLY_BY	TF
TOOJM	WP	N37° 53' 48.9700", W077° 16' 39.4000"	9000	VNAV	280	FLY_BY	TF
ACROW	WP	N38° 03' 51.9300", W077° 10' 28.9800"	9000	VNAV	280	FLY_BY	TF
DFORT	WP	N38° 13' 41.6800", W077° 07' 54.6600"	9000	VNAV	280	FLY_BY	TF
WALKN	WP	N38° 21' 56.9500", W077° 05' 44.5400"	5000	VNAV	280	FLY_BY	TF
JAYOH	WP	N38° 33' 00.3100", W076° 55' 53.8600"	5000	VNAV	280	FLY_BY	TF
CAPKO	WP	N38° 42' 20.5200", W076° 44' 42.5400"	5000	VNAV	250	FLY_BY	TF

Flyability	
Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path HBUDA\_CAPKO**

<b>DME/DME</b>	
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, TACAN
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:	FKN

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	HPW	N37° 19' 43.9320", W077° 06' 57.3970"	6.0 W	40	L	IFPA	NO	Enabled	36.4 %	36.4 %
2	RIC	N37° 30' 08.4521", W077° 19' 12.9944"	9.0 W	130	H	IFPA	NO	Enabled	52.5 %	52.5 %
3	FAK	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	H	IFPA	NO	Enabled	52.6 %	52.6 %
4	LVL	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	L	IFPA	NO	Enabled	18.6 %	18.6 %
5	CSN	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	H	IFPA	NO	Enabled	24.7 %	24.7 %
6	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	42.8 %	42.8 %
7	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	45.9 %	45.9 %
8	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	13.8 %	13.8 %
9	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	64.2 %	64.2 %
10	BRV	N38° 20' 10.5264", W077° 21' 10.3159"	9.0 W	40	L	IFPA	NO	Enabled	9.8 %	9.8 %
11	GVE	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	H	IFPA	NO	Enabled	12.2 %	12.2 %
12	AML	N38° 56' 04.5329", W077° 28' 00.1263"	8.0 W	40	L	IFPA	NO	Enabled	25.1 %	25.1 %
13	EMI	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	H	IFPA	NO	Enabled	3.5 %	3.5 %
14	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	43.5 %	43.5 %
15	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

**DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO**

<b>Flight Check DME Selection</b>						
<b>Distance [NM]</b>	<b>Selected DMEs</b>					<b>Alternate</b>
0.0	LVL	HPW	FAK	GVE	RIC	
10.2	PXT	HPW	RIC	FAK	LVL	
15.5	HPW	FAK	PXT	RIC		
17.7	HPW	FAK	RIC			
23.1	CSN	FAK	HPW	RIC		
30.2	CSN	FAK	RIC			
38.2	BRV	PXT	RIC			
38.5	FAK	CSN	PXT	RIC		
39.9	BRV	PXT	RIC			
41.8	BRV	PXT	OTT	RIC		
43.6	FAK	CSN	OTT	PXT		
45.0	FAK	CSN	OTT	EMI	PXT	
45.5	OTT	BRV	PXT			
45.8	OTT	BRV	ADW	PXT		
46.8	OTT	BRV	PXT	DCA	ADW	
49.8	CSN	OTT	FAK	PXT	DCA	ADW
52.2	PXT	DCA	EMI	ADW	OTT	
52.4	PXT	DCA	ADW	OTT		
56.6	PXT	DCA	OTT			
57.7	PXT	DCA	ADW	OTT		
61.4	ADW	PXT	DCA	AML	OTT	
79.9	AML	BAL	DCA	PXT	ADW	
80.2	AML	BAL	DCA	PXT		
80.5	AML	BAL	DCA	PXT	ADW	
82.3	BAL	DCA	ADW	PXT		

<b>Inertial Drift Segments</b>			
<b>#</b>	<b>Start Location</b>	<b>End Location</b>	<b>Length [NM]</b>

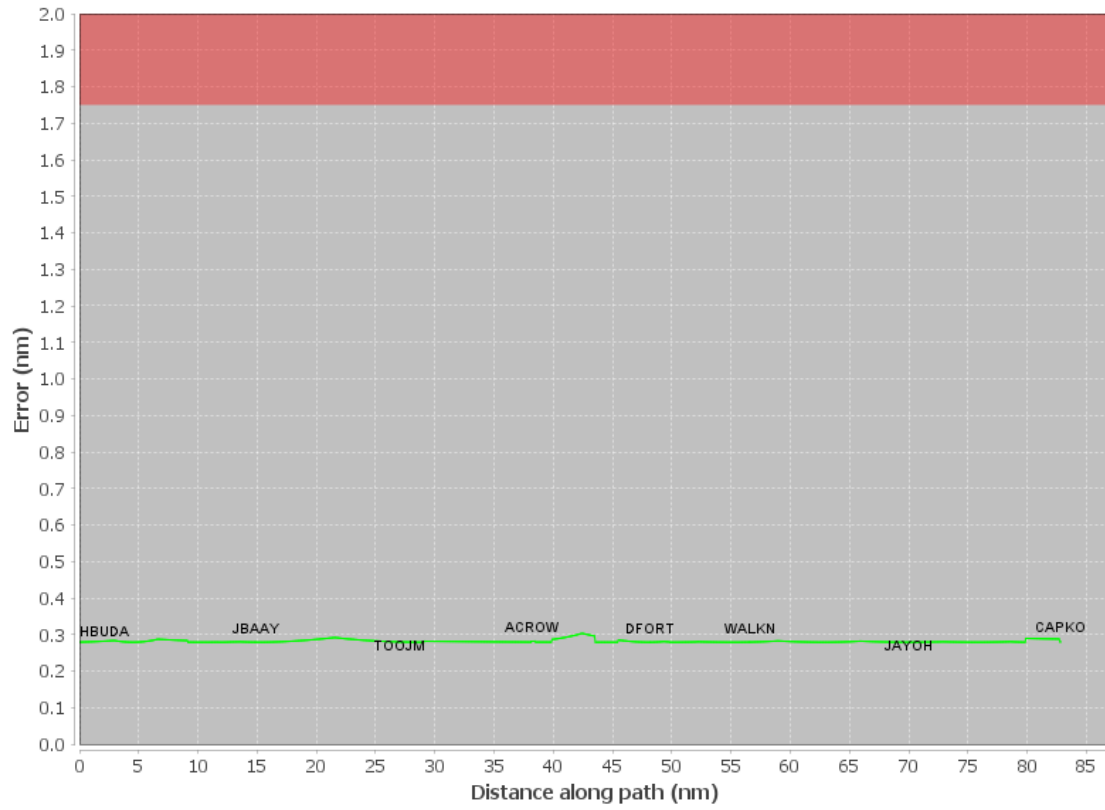
<b>Available DMEs by Waypoints</b>			
<b>Waypoint Before</b>	<b>Waypoint After</b>	<b>DME List</b>	<b>Suggested DMEs</b>
HBUDA	JBAAY	FAK, LVL, GVE, RIC, PXT, HPW	
JBAAY	TOOJM	FAK, LVL, RIC, PXT, HPW, CSN	
TOOJM	ACROW	FAK, RIC, HPW, CSN	
ACROW	DFORT	EMI, FAK, DCA, ADW, BRV, RIC, PXT, OTT, CSN	
DFORT	WALKN	EMI, FAK, DCA, ADW, BRV, PXT, OTT, CSN	
WALKN	JAYOH	AML, DCA, ADW, PXT, OTT	
JAYOH	CAPKO	AML, DCA, ADW, PXT, BAL, OTT	

**DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO**

<b>User Data Files</b>								
#	File Name							
None								
<b>User DMEs</b>								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

# DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO

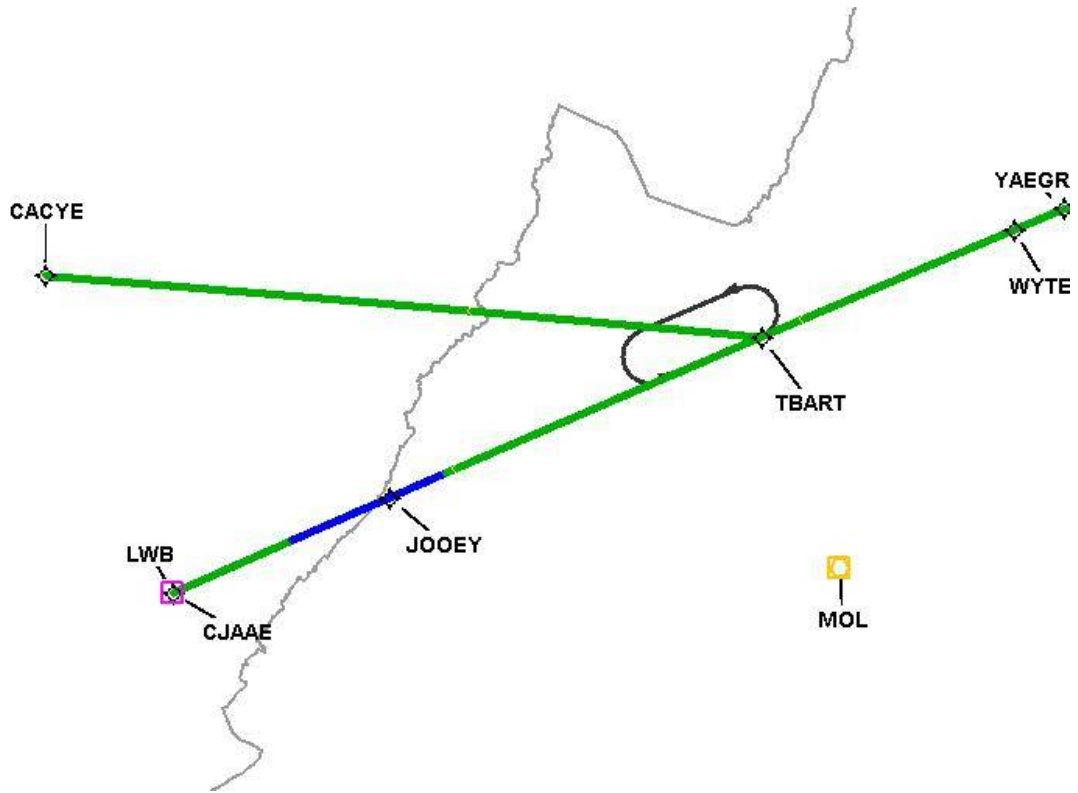
## DME Error





# DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO

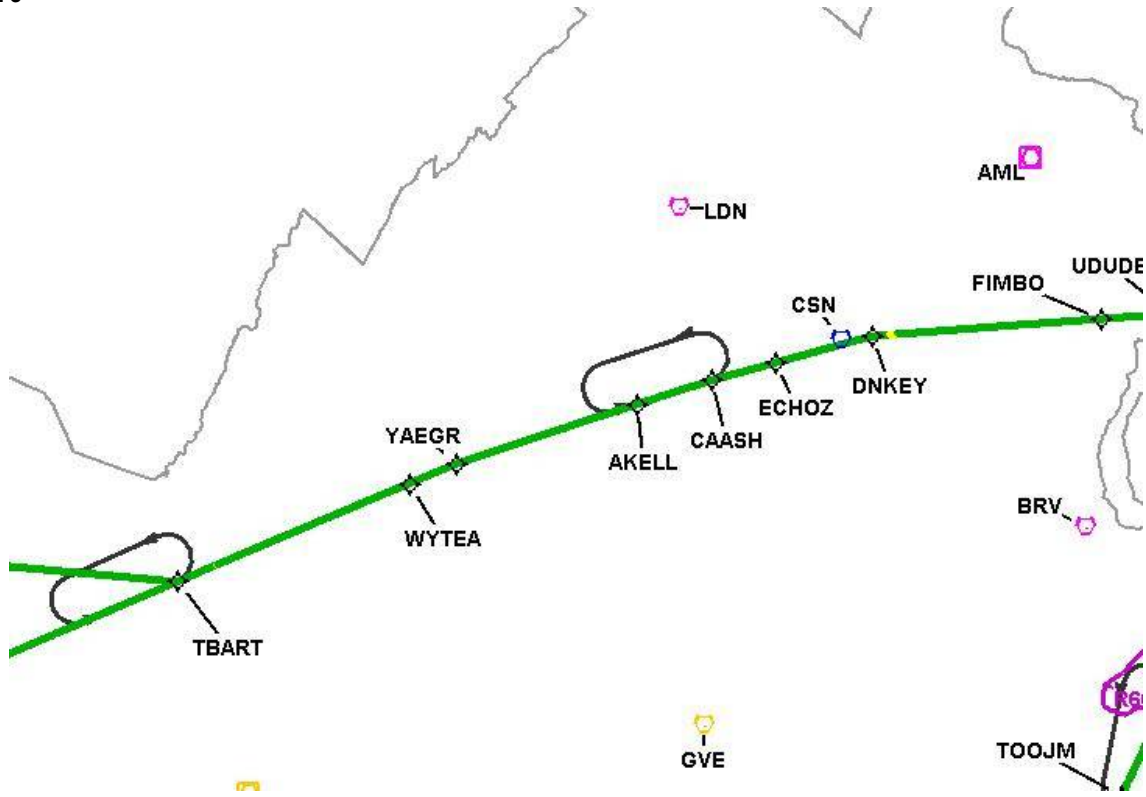
Graphic Depiction 2





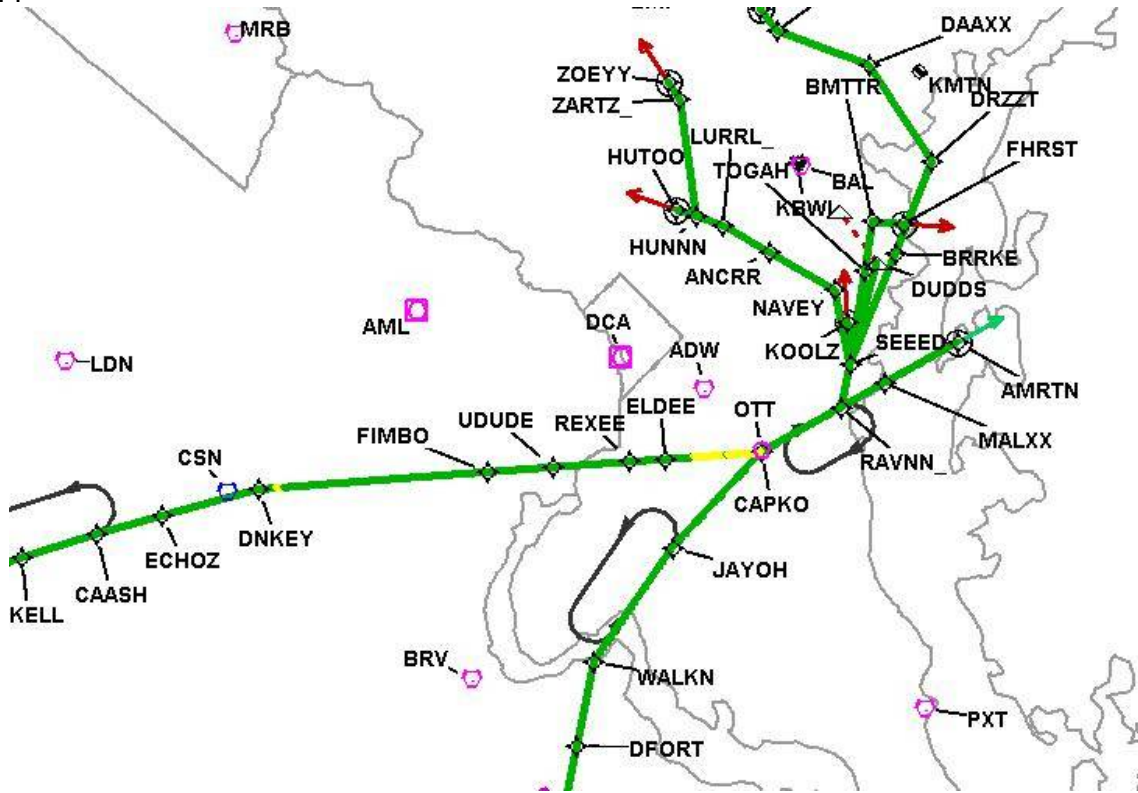
# DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO

Graphic Depiction 3



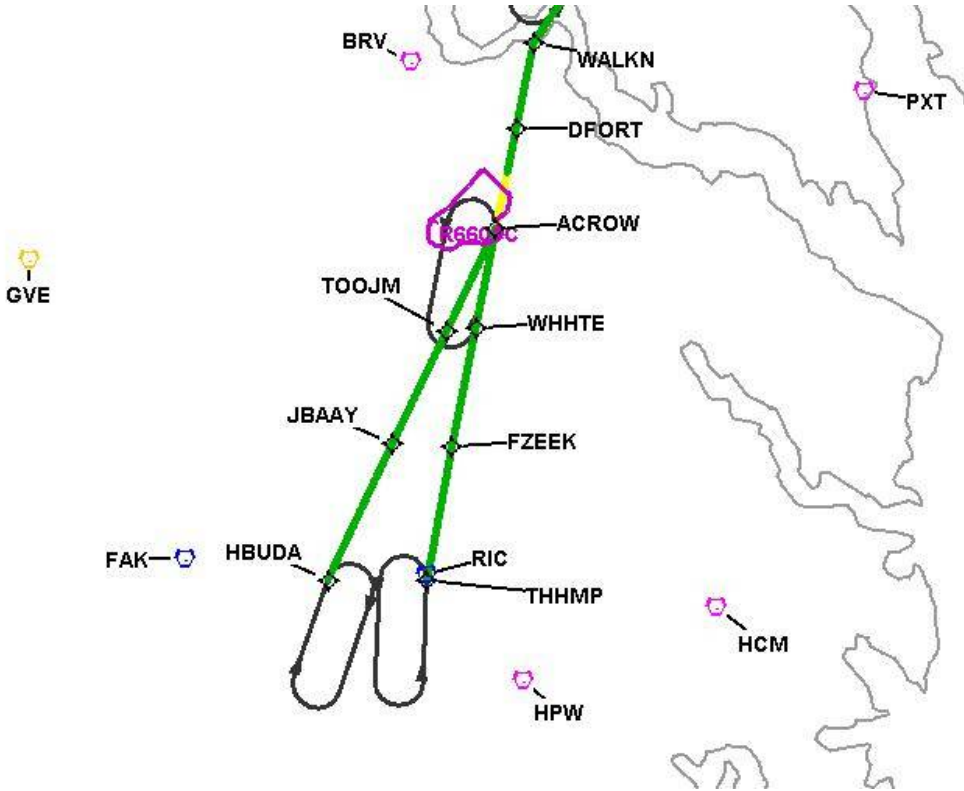
# DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO

Graphic Depiction 4



DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO

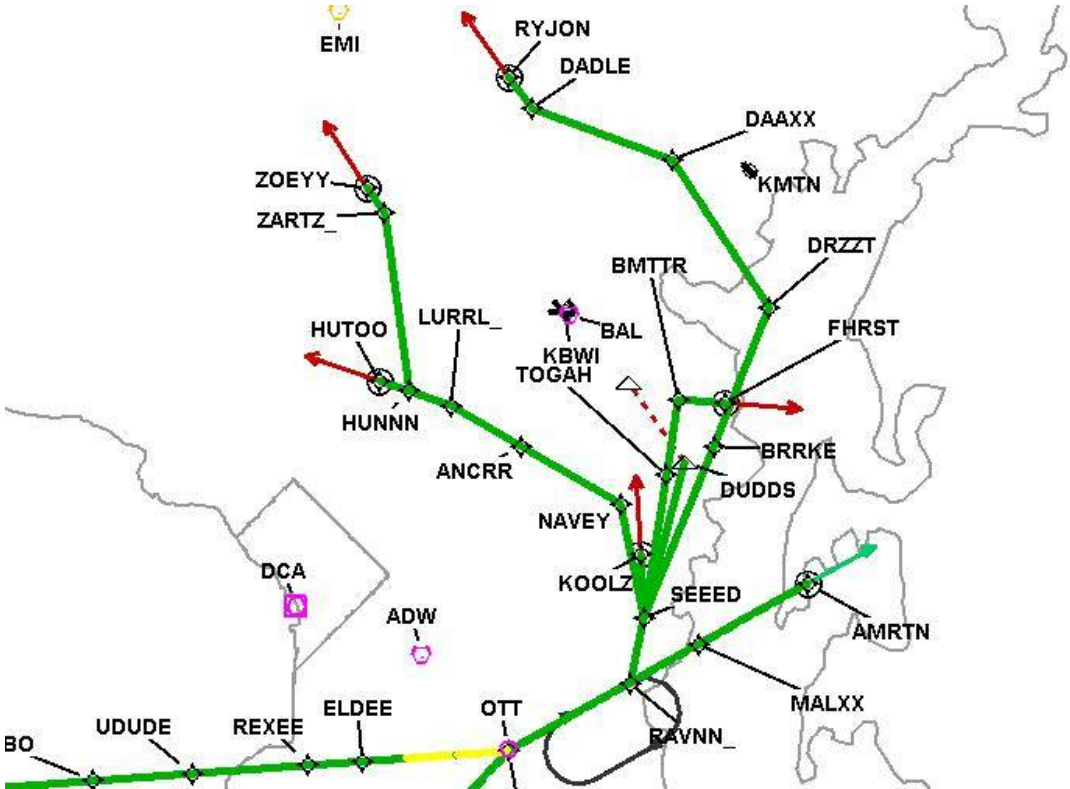
Graphic Depiction 5





DME DME Assessment Results for RAVNN7 path HBUDA\_CAPKO

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

Results Summary	
Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\HUNNN_HUTOO\KBWI RAVNN7 RNAV STAR HUNNN HUTOO 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

Failures
No Failures

Warnings
No Warnings

Informational
No Informational

Notes For Flight Check
None

Flight Plan							
Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
HUNNN	WP	N39° 05' 23.1000", W076° 52' 54.3500"	4000	VNAV	210	FLY_BY	TF
HUTOO	WP	N39° 06' 02.0204", W076° 55' 20.1701"	4000	VNAV	210	FLY_OVER	TF

Flyability	
Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path HUNNN\_HUTOO

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, TACAN
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:	FKN

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
2	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
3	AML	N38° 56' 04.5329", W077° 28' 00.1263"	8.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
4	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
5	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
6	EMI	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	H	IFPA	NO	Enabled	100 %	100 %
7	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	AML	OTT	EMI	BAL	ADW	DCA

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
HUNNN	HUTOO	AML, EMI, DCA, ADW, BAL, OTT	

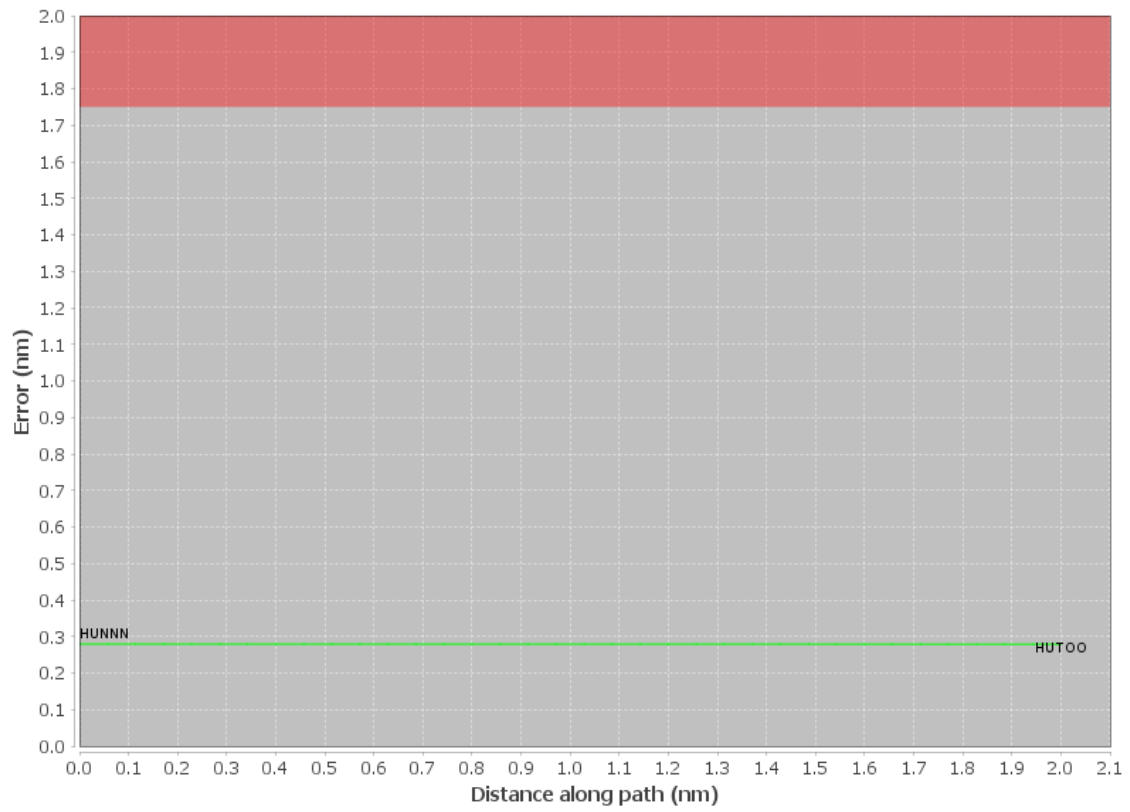
**DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO**

<b>User Data Files</b>								
#	File Name							
None								
<b>User DMEs</b>								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		



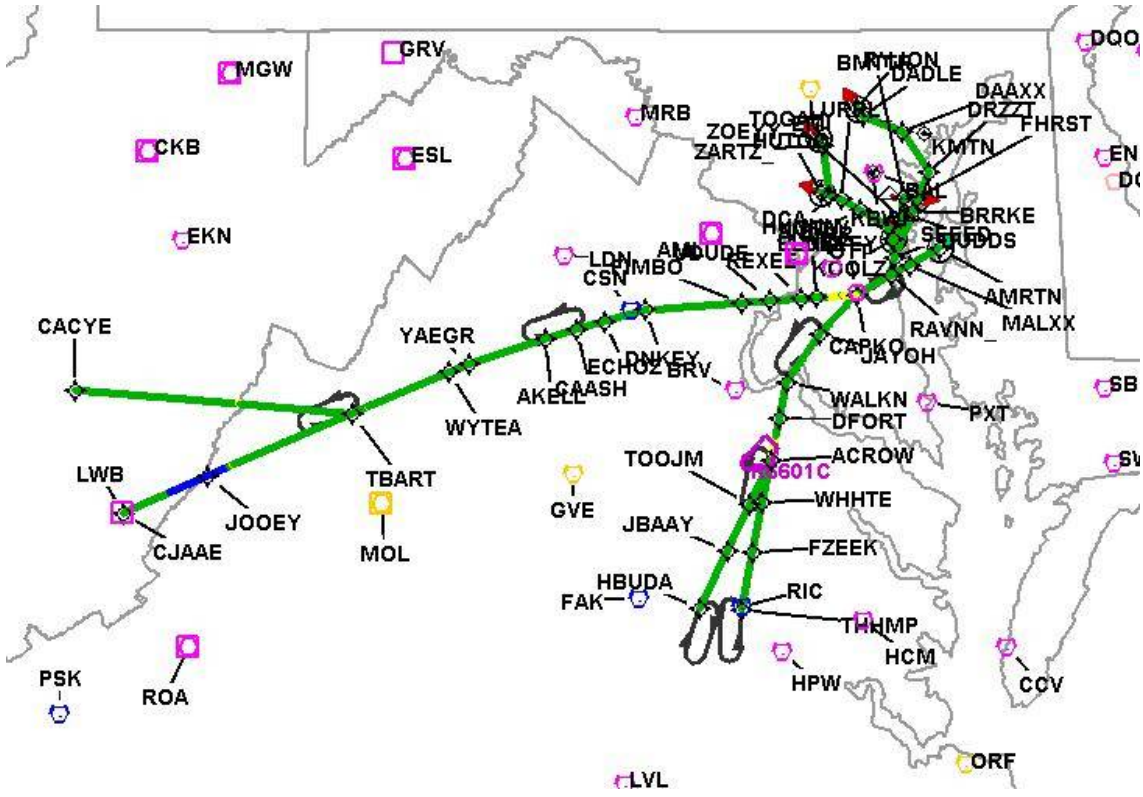
# DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

## DME Error



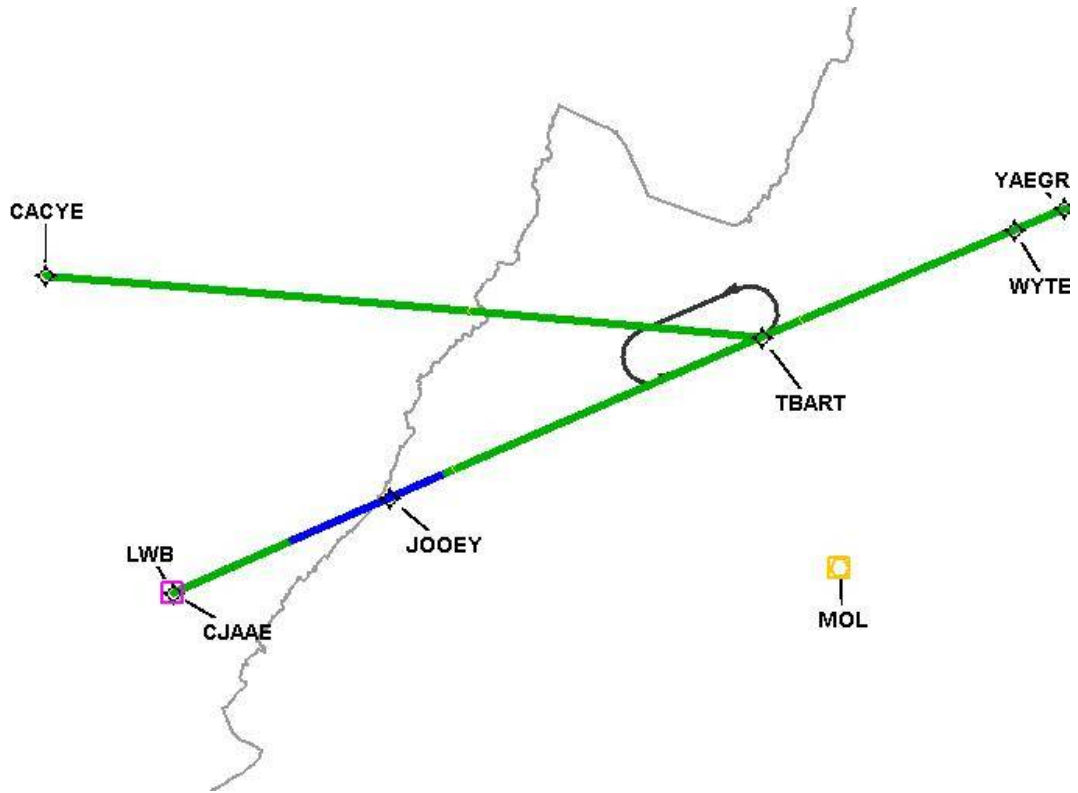
# DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

Graphic Depiction 1



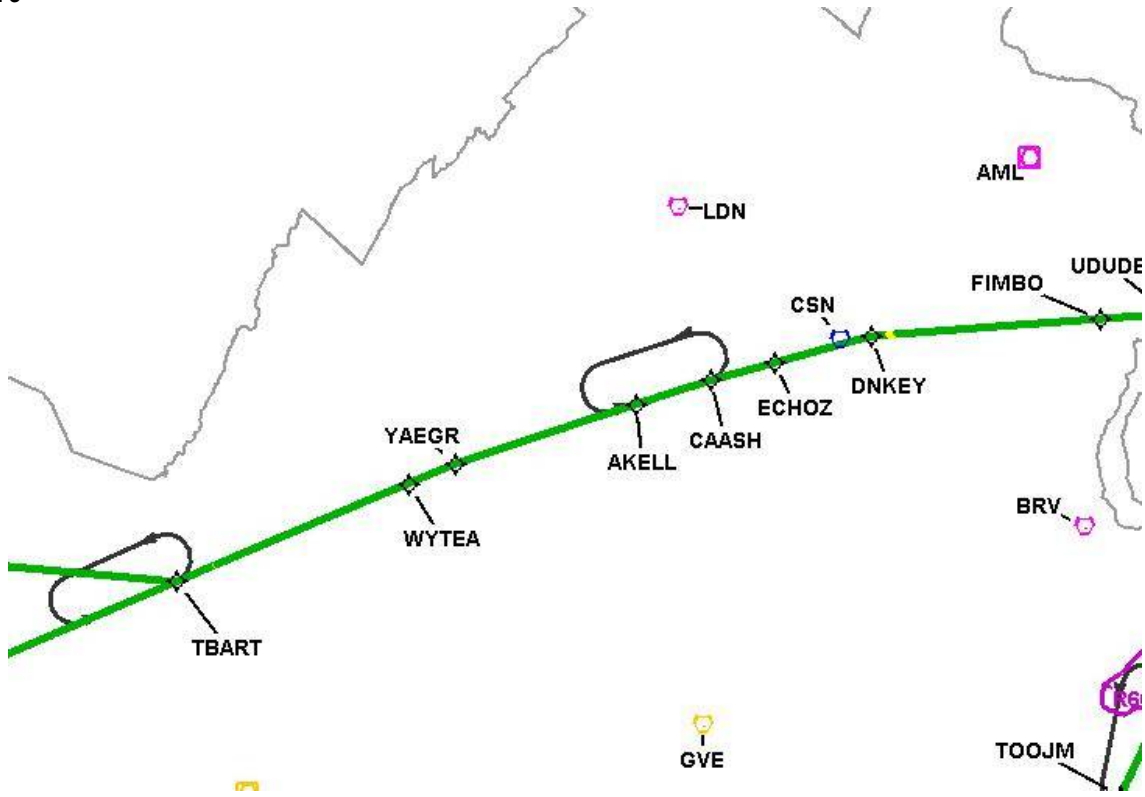
# DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

Graphic Depiction 2



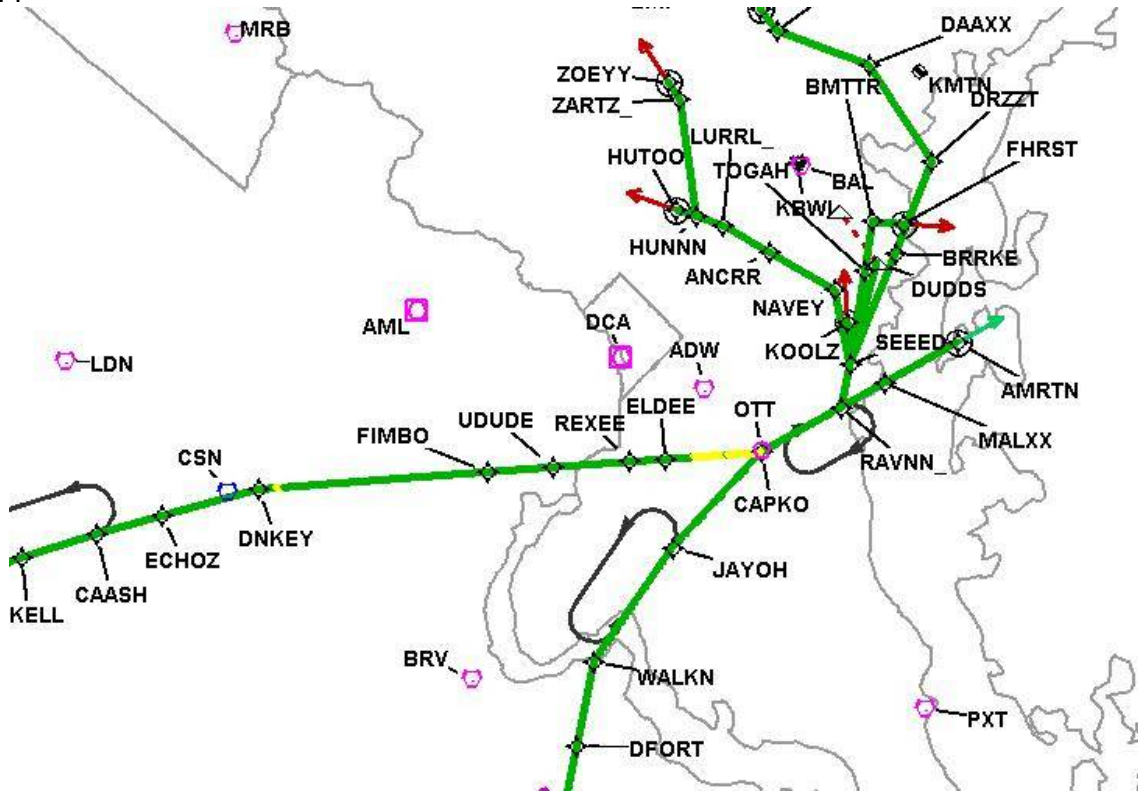
# DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

Graphic Depiction 3



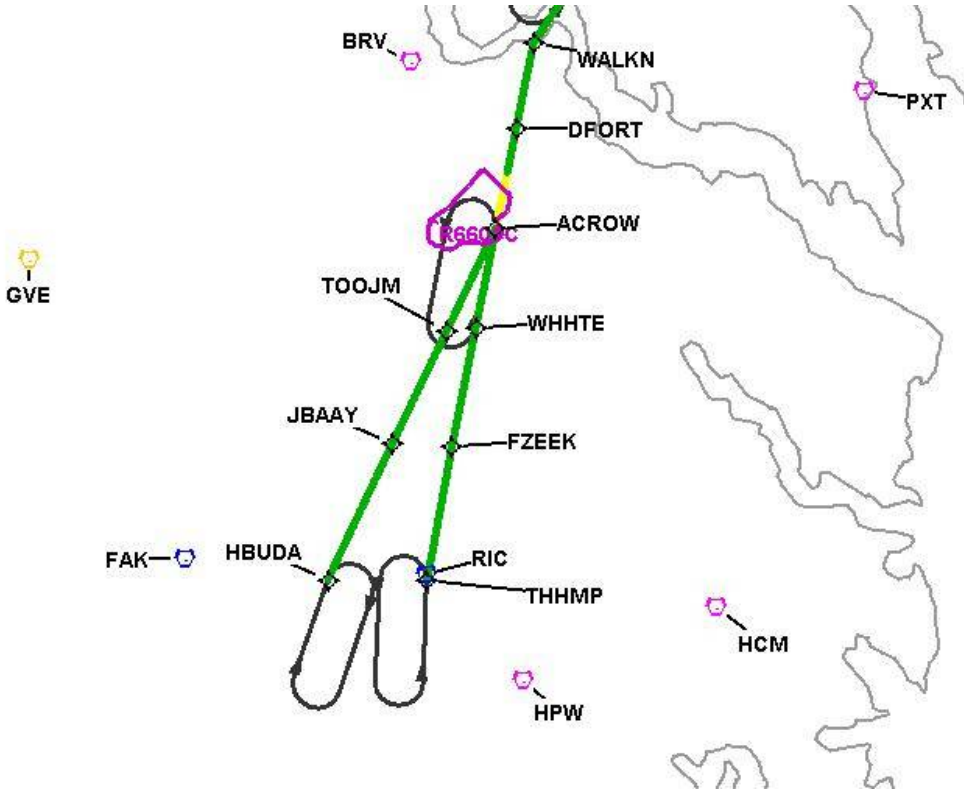
# DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

Graphic Depiction 4



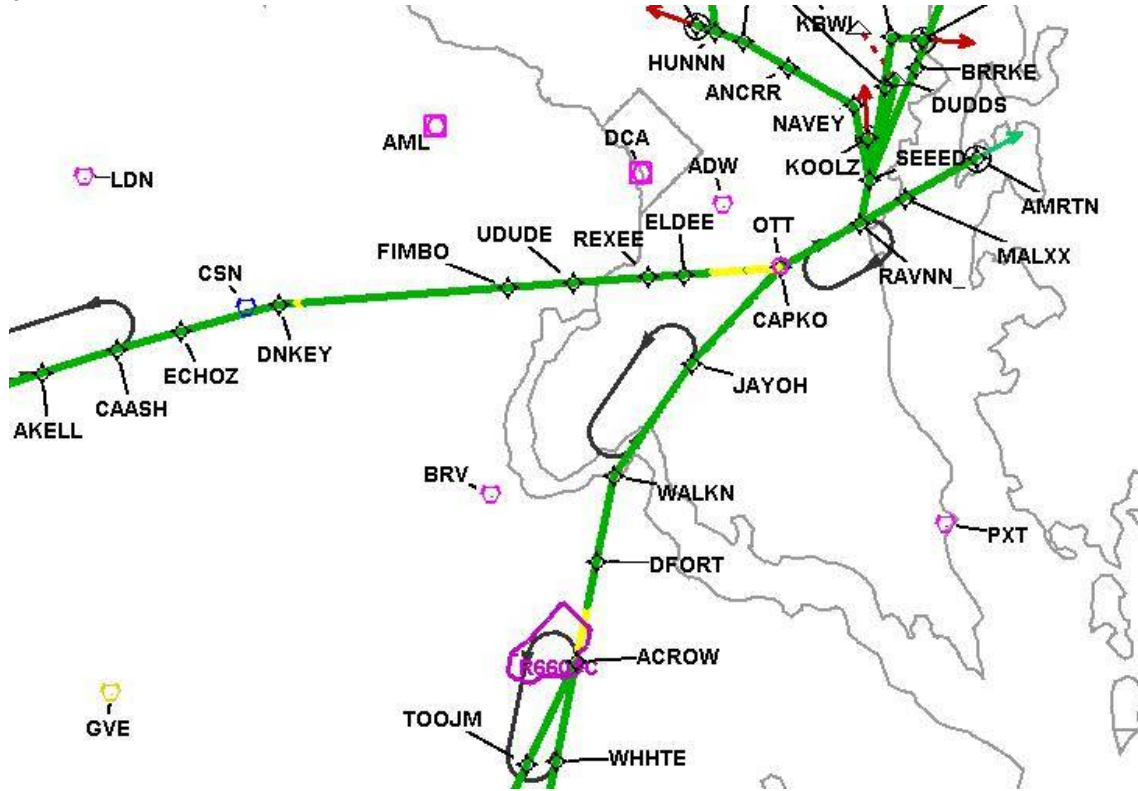
DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

Graphic Depiction 5



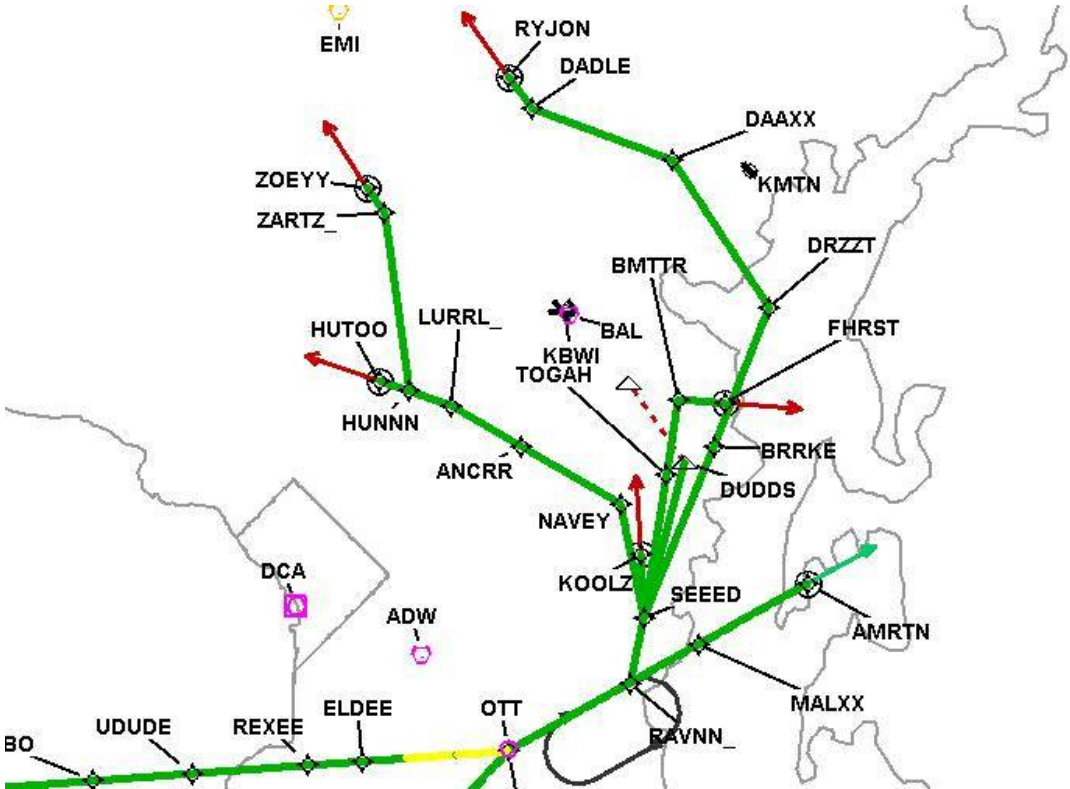
# DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

Graphic Depiction 6



DME DME Assessment Results for RAVNN7 path HUNNN\_HUTOO

Graphic Depiction 7





## DME DME Assessment Results for RAVNN7 path RAVNN\_\_AMRTN

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\RAVNN__AMRTN\KBWI RAVNN7 RNAV STAR RAVNN AMRTN 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
RAVNN_	WP	N38° 46' 43.0607", W076° 34' 39.2326"	5000	VNAV	250	FLY_BY	TF
MALXX	WP	N38° 49' 08.5409", W076° 29' 03.5313"	5000	VNAV	250	FLY_BY	TF
AMRTN	WP	N38° 53' 04.2700", W076° 19' 57.5500"	5000	VNAV	250	FLY_OVER	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path RAVNN\_\_AMRTN**

<b>DME/DME</b>	
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, TACAN
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:	FKN

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	81 %	81 %
2	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	82 %	82 %
3	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
4	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
5	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
6	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

<b>Flight Check DME Selection</b>						
Distance [NM]	Selected DMEs					Alternate
0.0	OTT	PXT	BAL	ADW	DCA	
10.7	PXT	DCA	ADW	BAL		
10.8	PXT	DCA	ADW			

<b>Inertial Drift Segments</b>			
#	Start Location	End Location	Length [NM]

<b>Available DMEs by Waypoints</b>			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
RAVNN_	MALXX	DCA, ADW, BAL, PXT, OTT	
MALXX	AMRTN	DCA, ADW, BAL, PXT, OTT	

**DME DME Assessment Results for RAVNN7 path RAVNN\_AMRTN**

**User Data Files**

# File Name

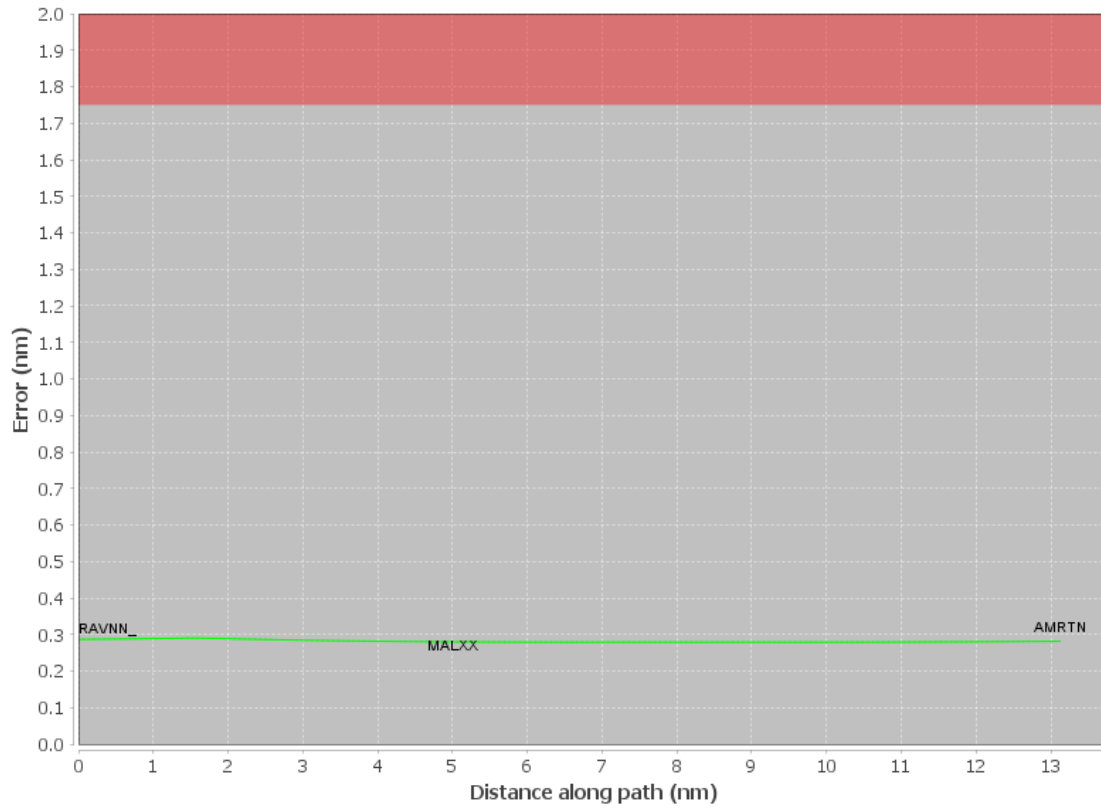
None

**User DMEs**

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
	ESV:	Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
	ESV:	Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
	ESV:	Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
	ESV:	Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
	ESV:	Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
	ESV:	Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
	ESV:	Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
	ESV:	Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

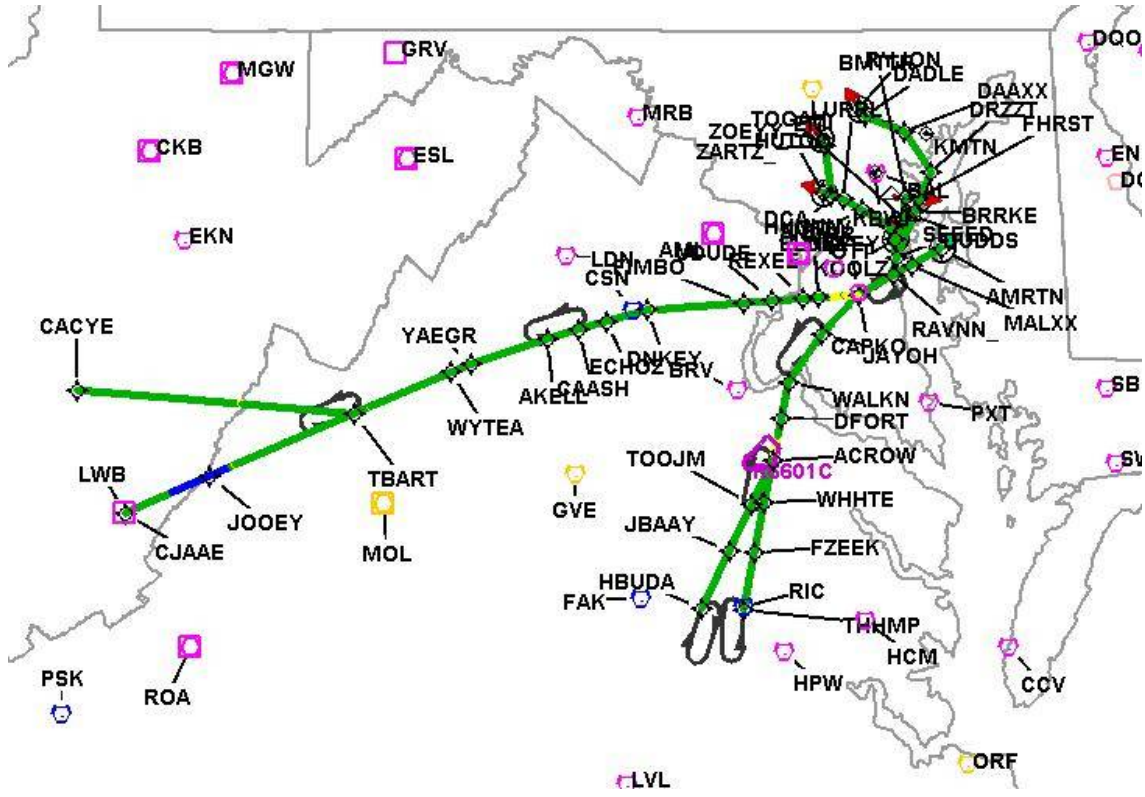
# DME DME Assessment Results for RAVNN7 path RAVNN\_\_AMRTN

## DME Error



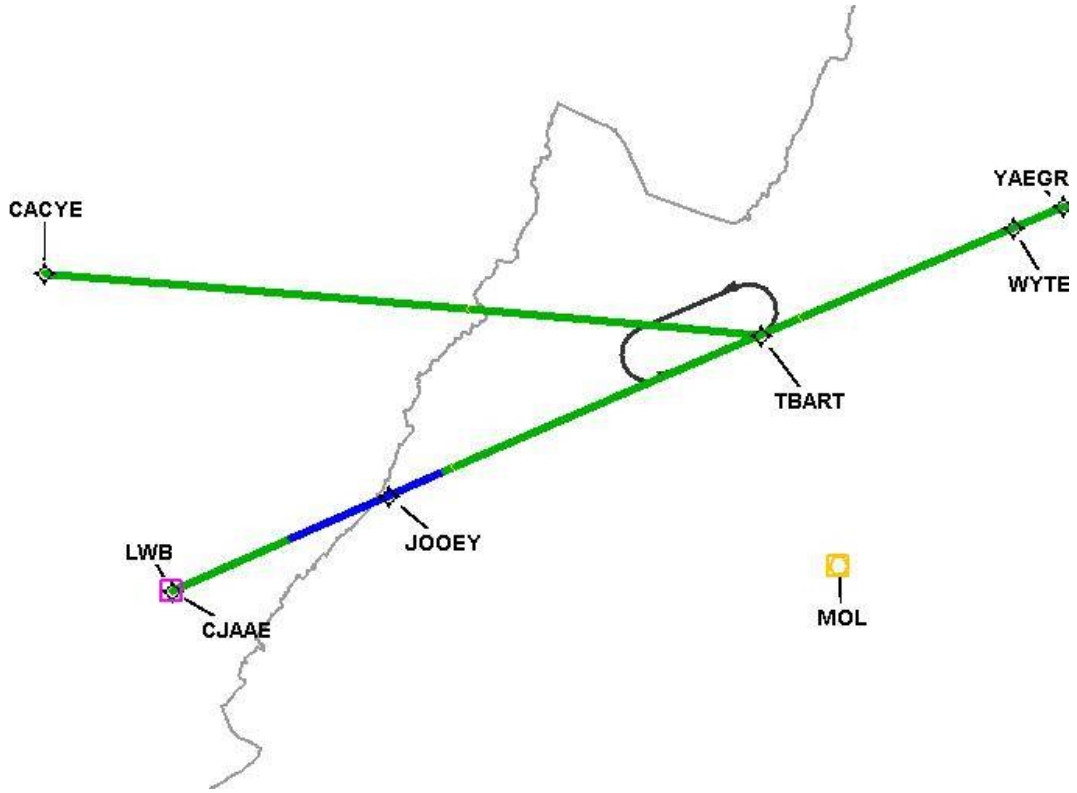
# DME DME Assessment Results for RAVNN7 path RAVNN\_AMRTN

Graphic Depiction 1



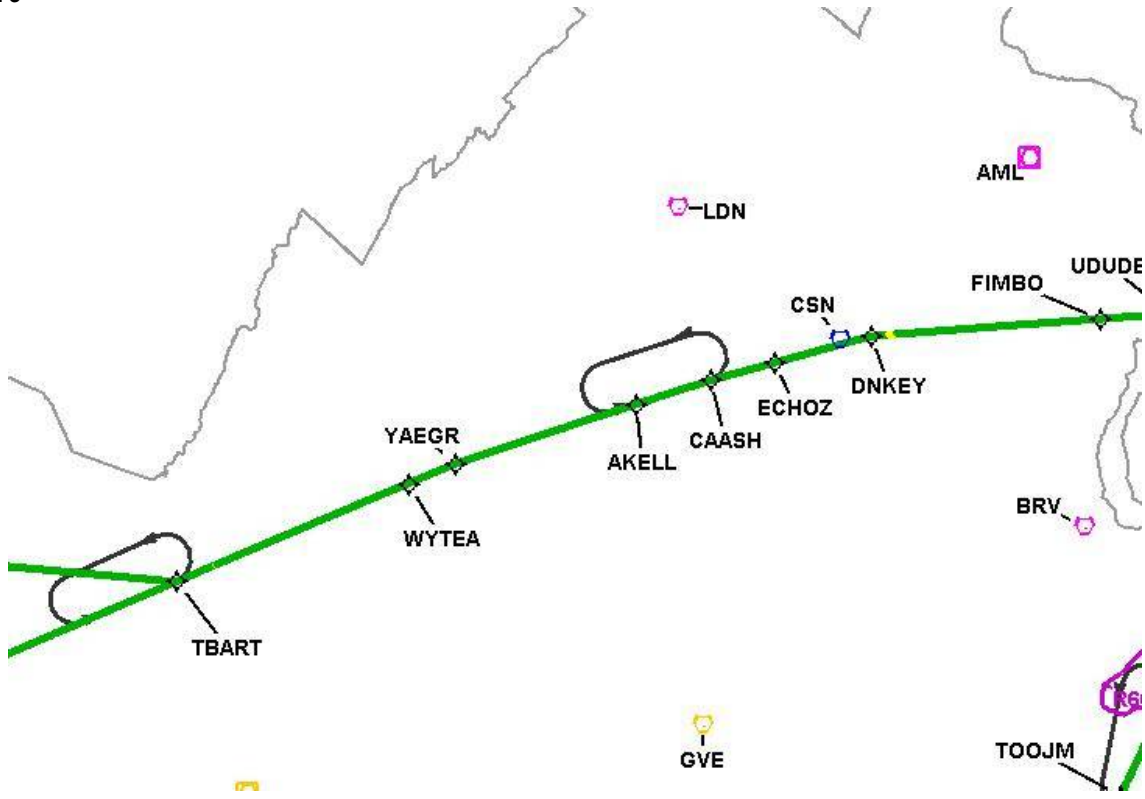
DME DME Assessment Results for RAVNN7 path RAVNN\_AMRTN

Graphic Depiction 2



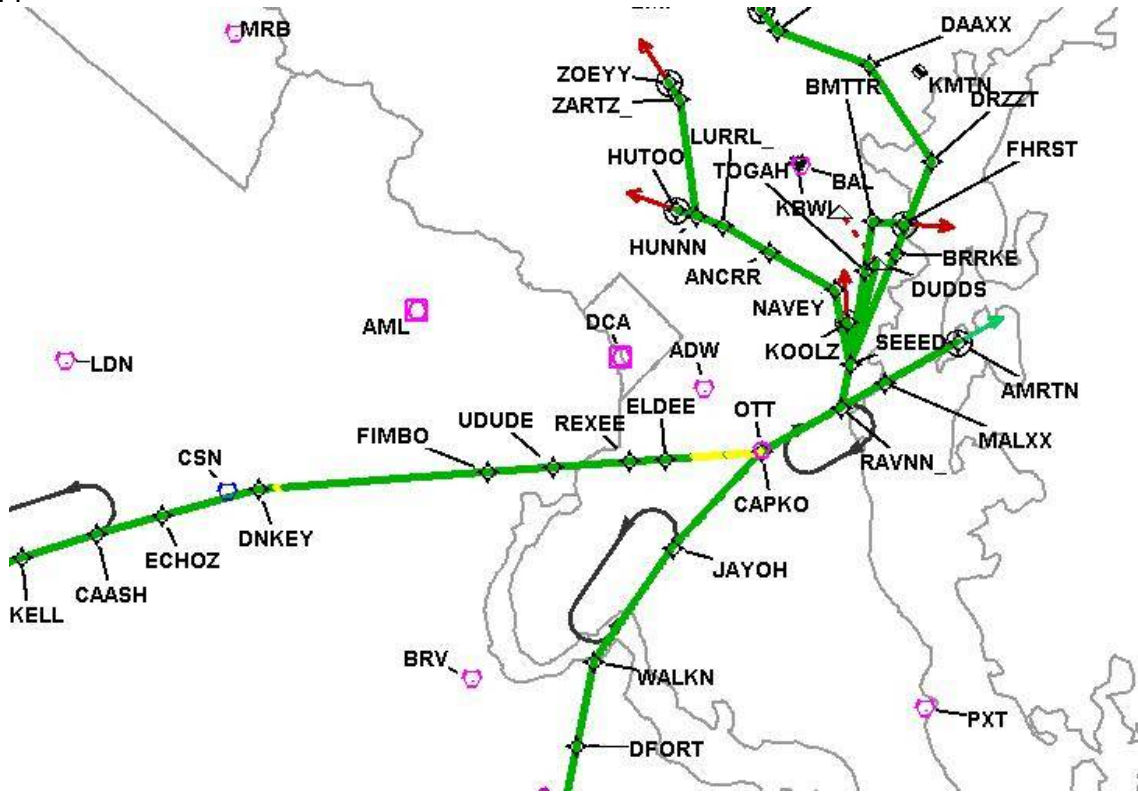
DME DME Assessment Results for RAVNN7 path RAVNN\_AMRTN

Graphic Depiction 3



# DME DME Assessment Results for RAVNN7 path RAVNN\_AMRTN

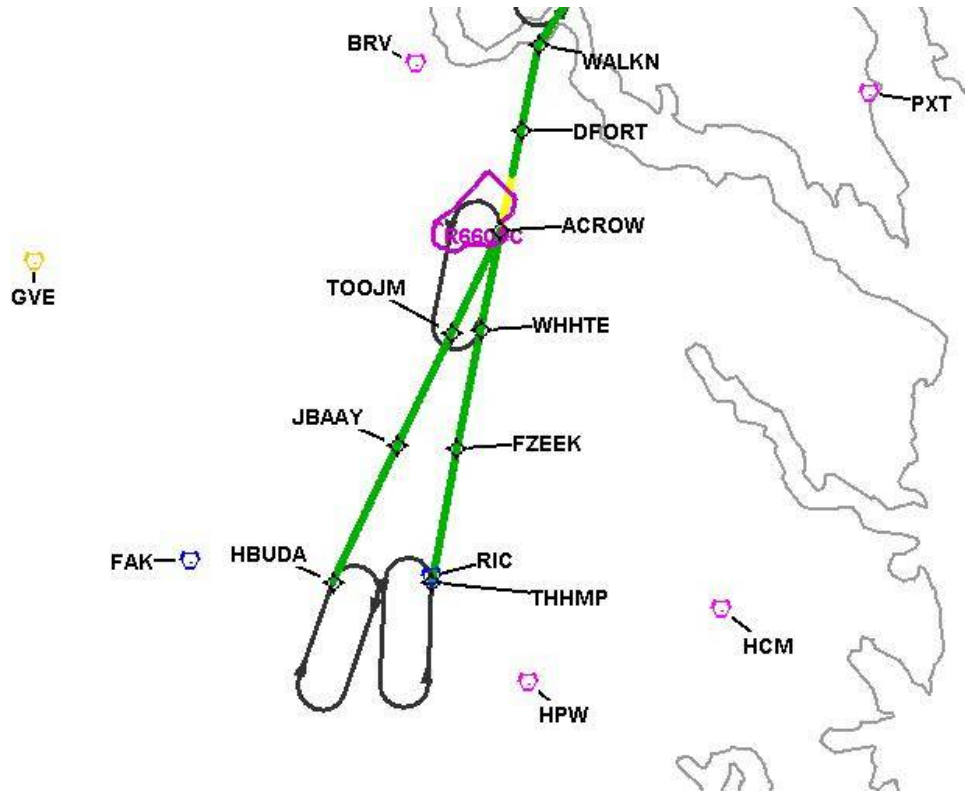
Graphic Depiction 4





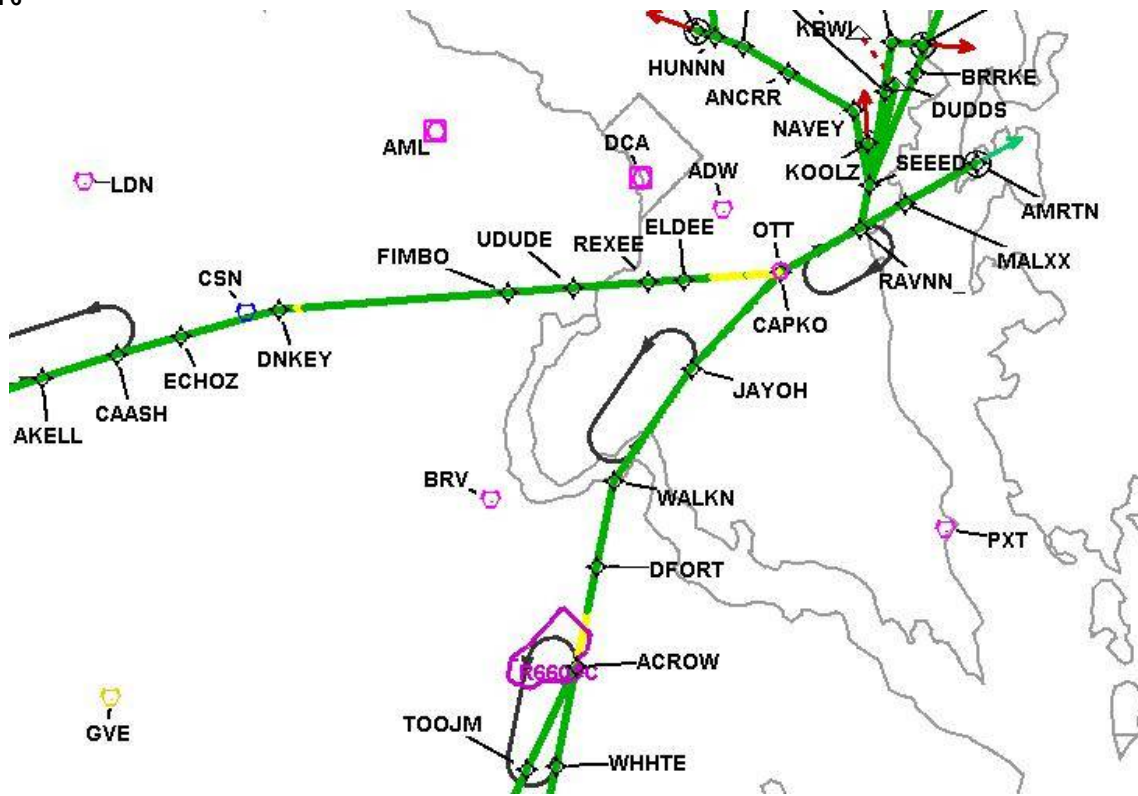
DME DME Assessment Results for RAVNN7 path RAVNN\_AMRTN

Graphic Depiction 5



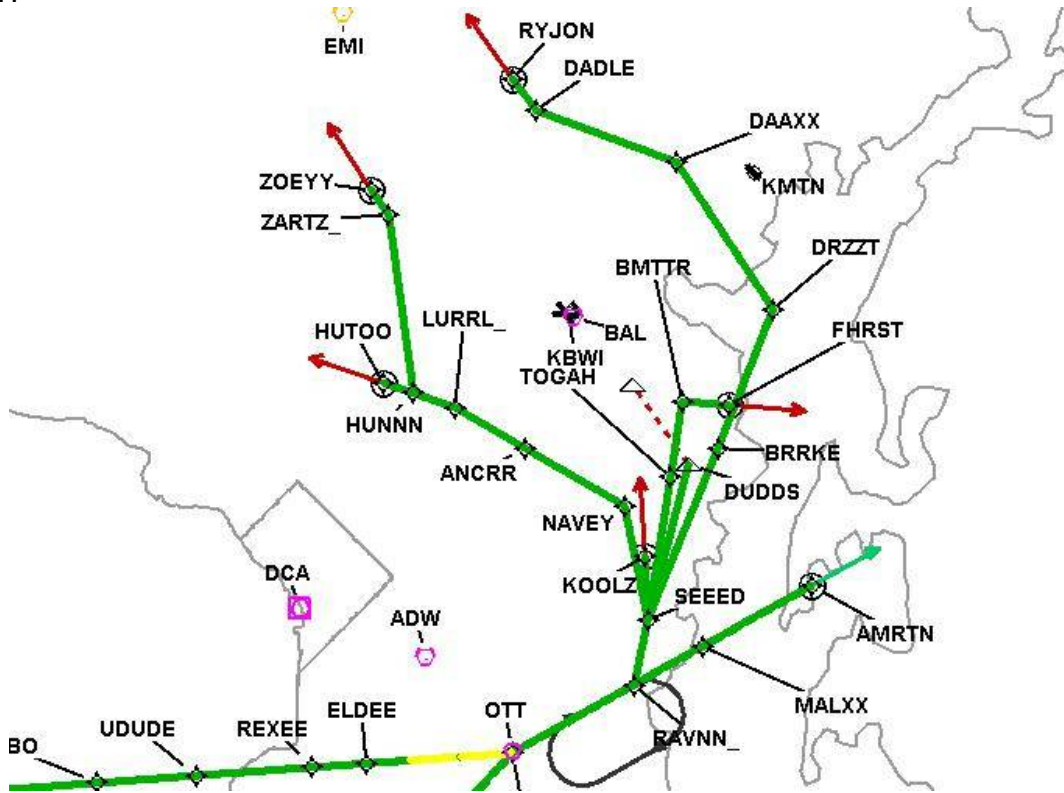
# DME DME Assessment Results for RAVNN7 path RAVNN\_AMRTN

Graphic Depiction 6



DME DME Assessment Results for RAVNN7 path RAVNN\_AMRTN

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\REXEE_CAPKOKBWI RAVNN7 RNAV STAR REXEE CAPKO 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
REXEE	WP	N38° 41' 26.7000", W077° 01' 20.4900"	8000	VNAV	280	FLY_BY	TF
ELDEE	WP	N38° 41' 41.5719", W076° 56' 49.1141"	8000	VNAV	280	FLY_BY	TF
CAPKO	WP	N38° 42' 20.5200", W076° 44' 42.5400"	5000	VNAV	250	FLY_BY	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path REXEE\_CAPKO

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, TACAN
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:	FKN

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	75.1 %	75.1 %
2	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
3	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	90.5 %	90.5 %
4	BRV	N38° 20' 10.5264", W077° 21' 10.3159"	9.0 W	40	L	IFPA	NO	Enabled	7.7 %	7.7 %
5	CSN	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	H	IFPA	NO	Enabled	9.5 %	9.5 %
6	AML	N38° 56' 04.5329", W077° 28' 00.1263"	8.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
7	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
8	EMI	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	H	IFPA	NO	Enabled	10.1 %	10.1 %
9	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	51.5 %	51.5 %
10	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	OTT	DCA	CSN	AML	BAL	
0.2	OTT	DCA	AML	BAL		
1.2	AML	BAL	OTT	DCA	PXT	
9.6	AML	BAL	DCA	PXT	ADW	

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

**DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO**

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
REXEE	ELDEE	AML, DCA, ADW, BRV, BAL, PXT, OTT, CSN	

**User Data Files**

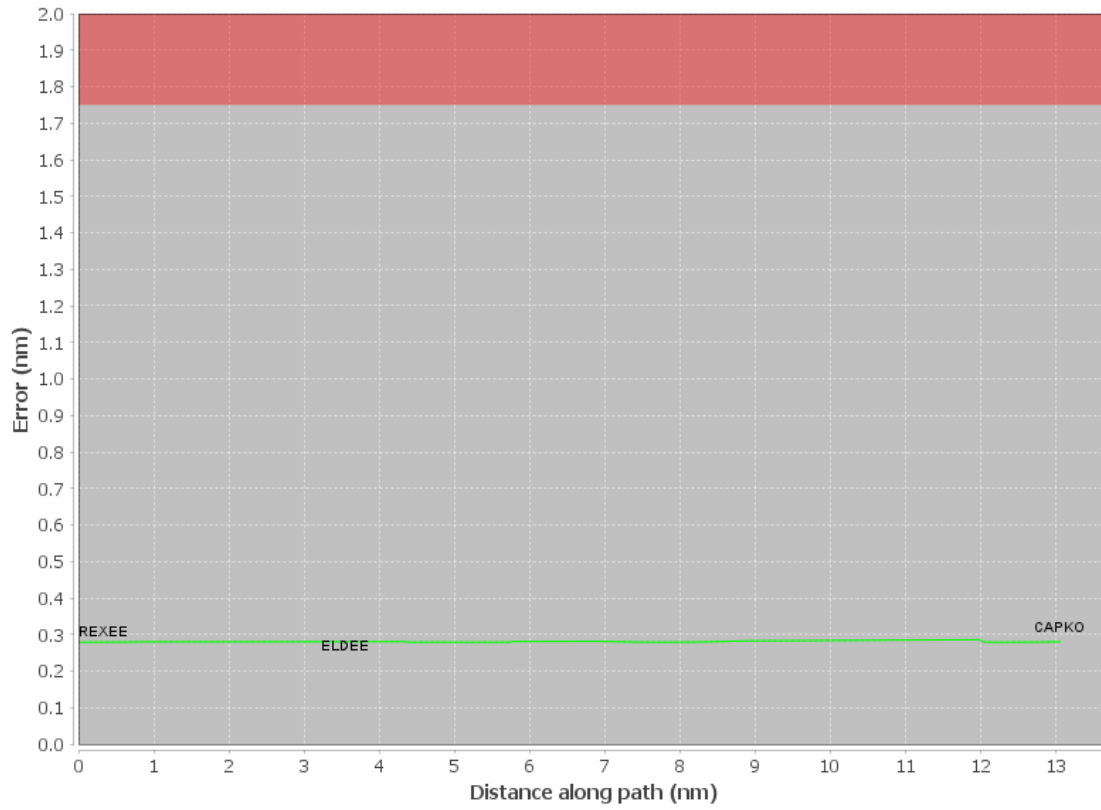
#	File Name
	None

**User DMEs**

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
	ESV:	Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
	ESV:	Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
	ESV:	Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
	ESV:	Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
	ESV:	Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
	ESV:	Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
	ESV:	Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
	ESV:	Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

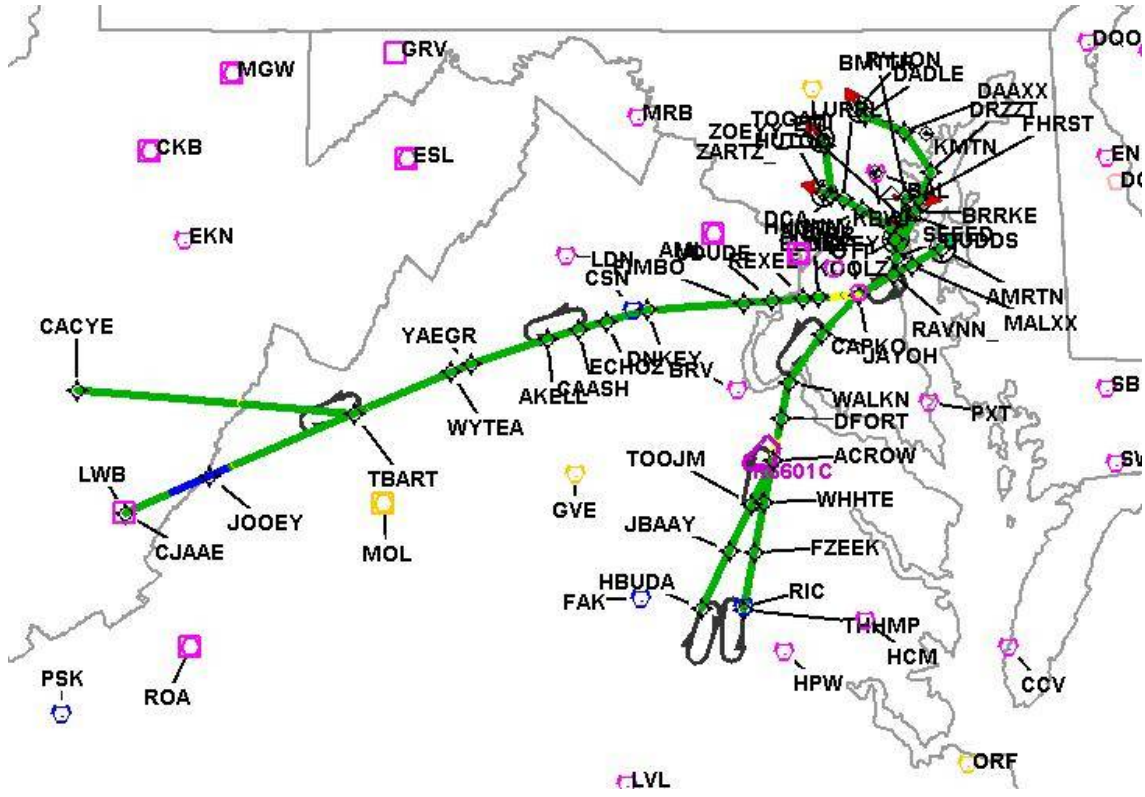
# DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO

## DME Error



# DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO

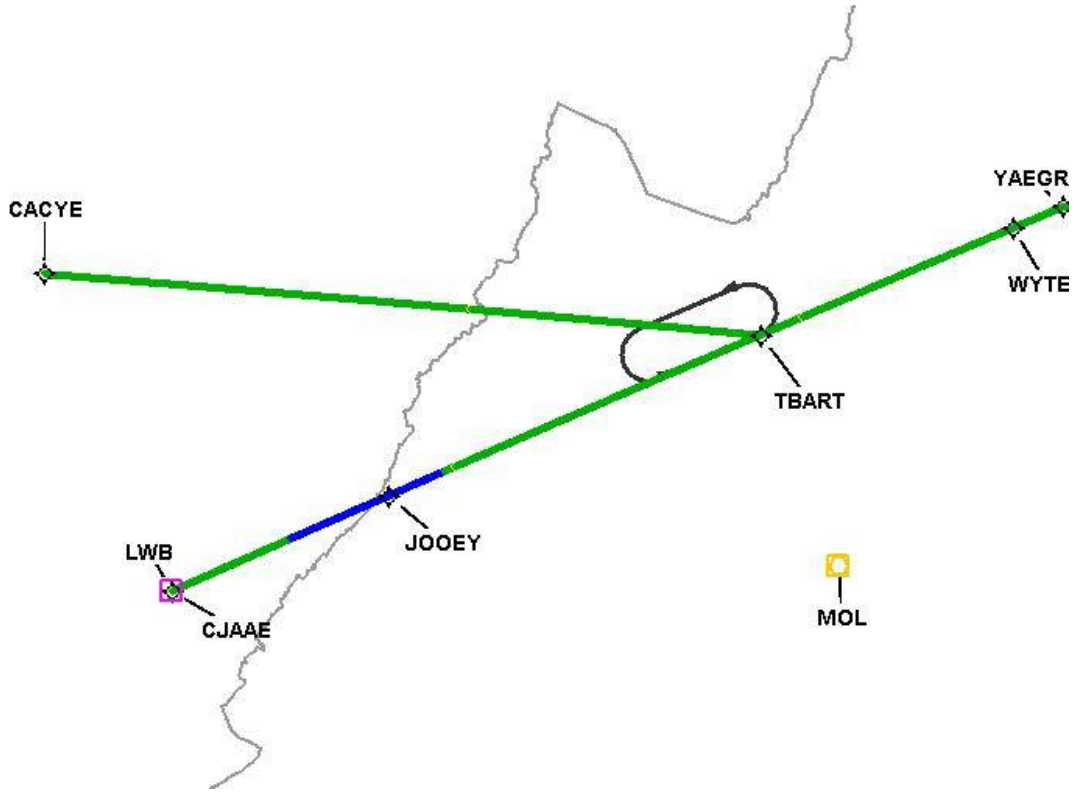
Graphic Depiction 1





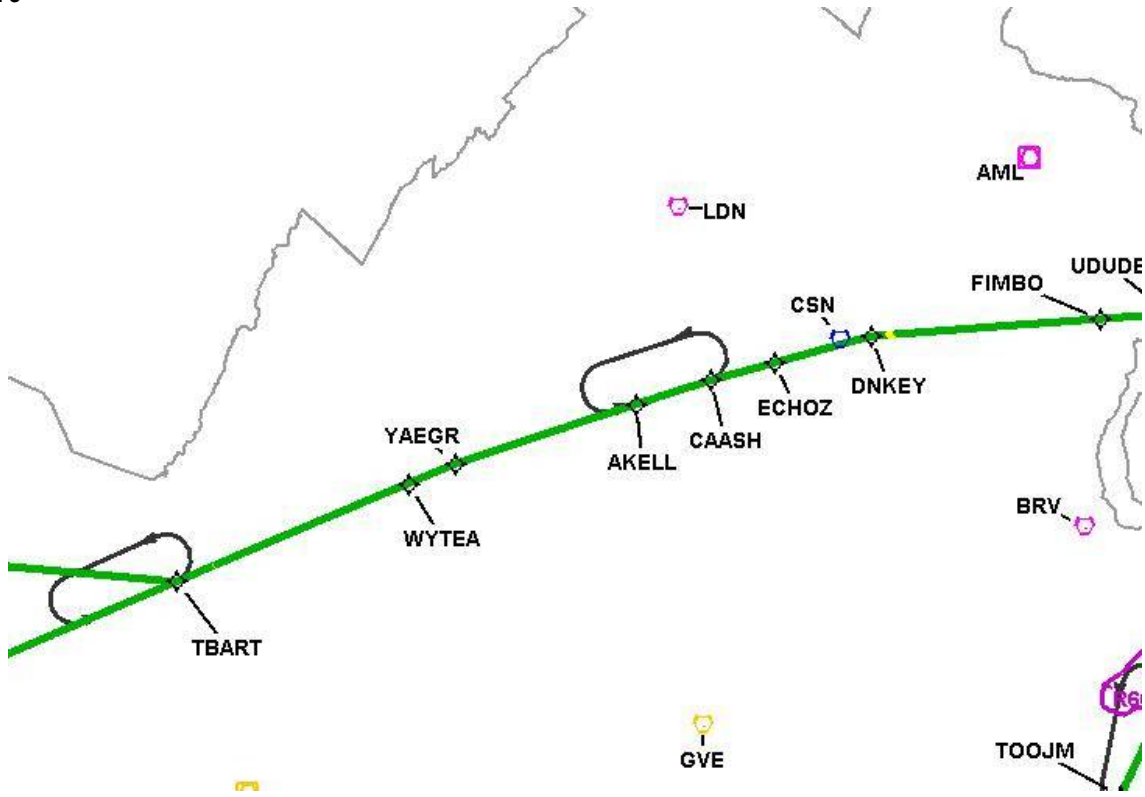
# DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO

Graphic Depiction 2



# DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO

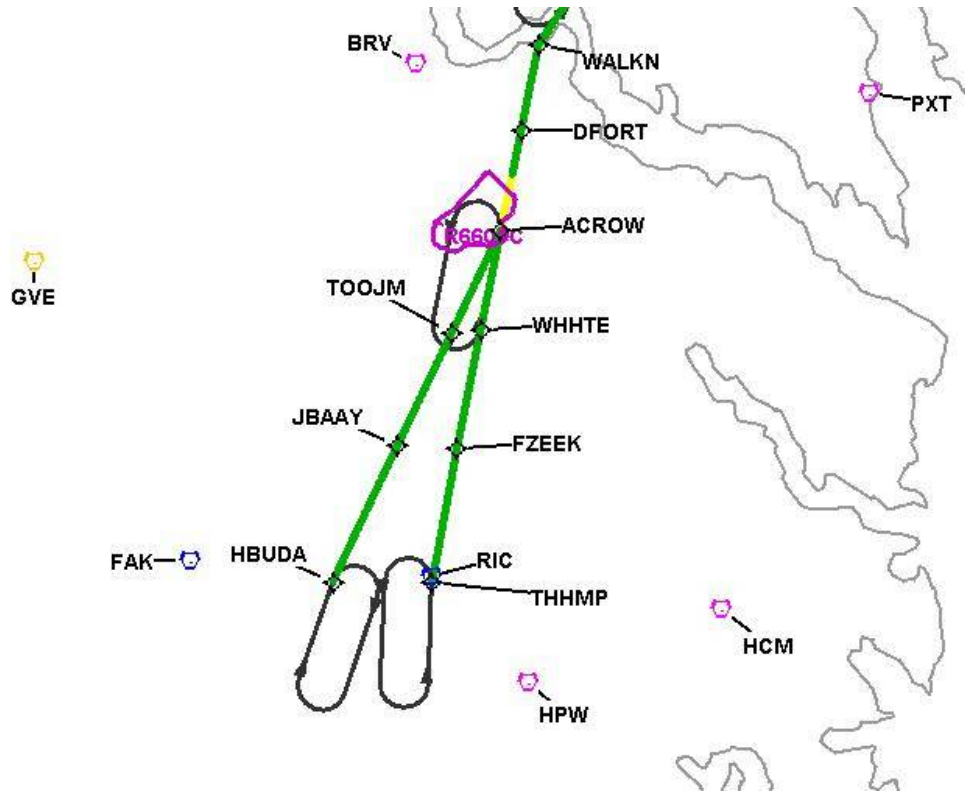
Graphic Depiction 3





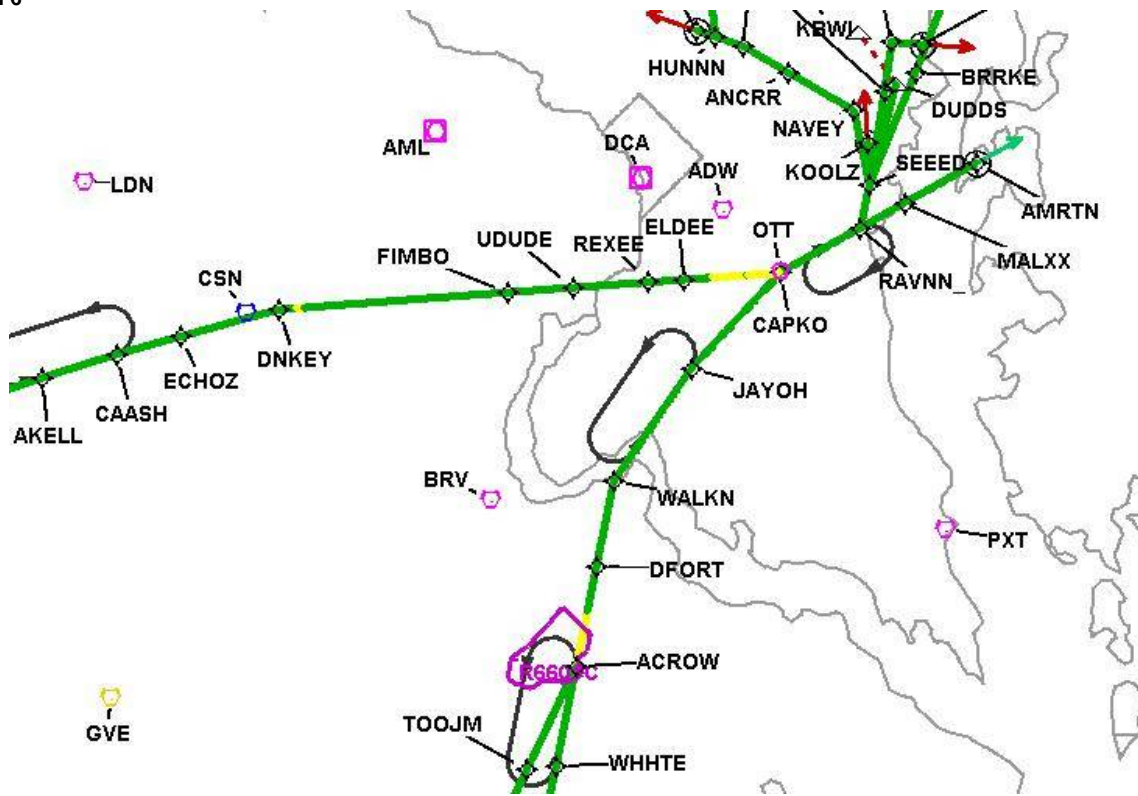
DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO

Graphic Depiction 5



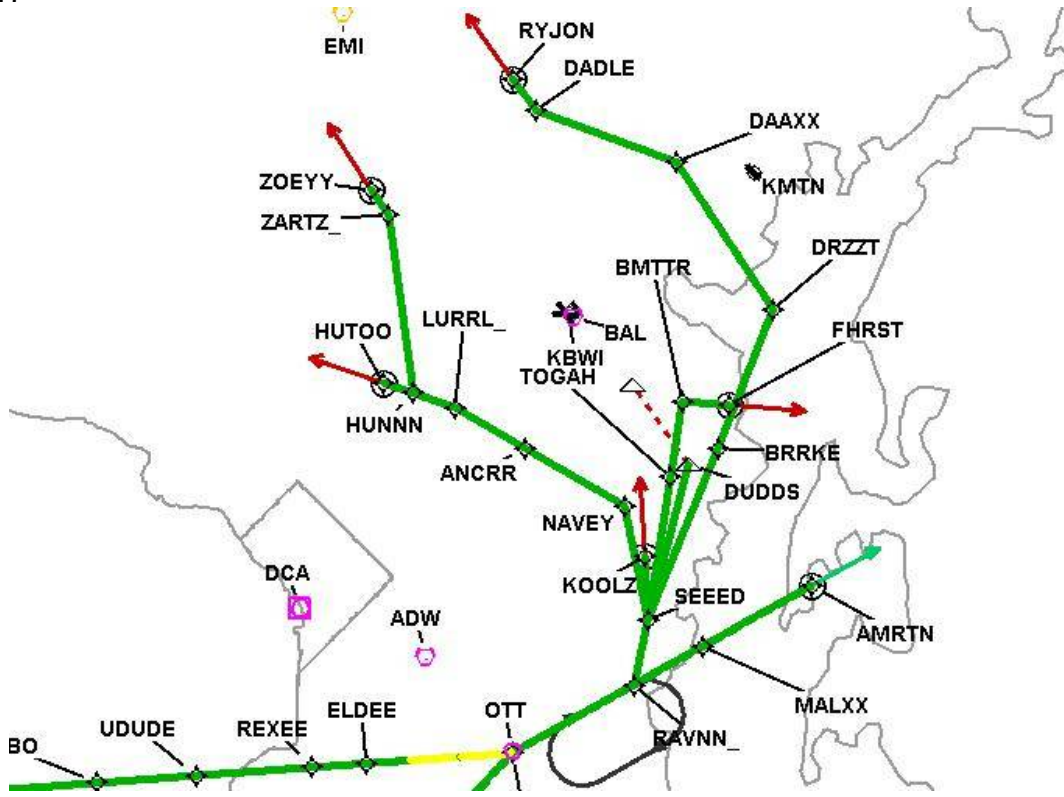
# DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO

Graphic Depiction 6



# DME DME Assessment Results for RAVNN7 path REXEE\_CAPKO

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path SEED\_DUDDS

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\SEED_DUDDSKBWI RAVNN7 RNAV STAR SEED DUDDS 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
SEED	WP	N38° 50' 51.6600", W076° 33' 32.3200"	5000	VNAV	250	FLY_BY	TF
DUDDS	WP	N39° 00' 48.2100", W076° 30' 10.6100"	3000	VNAV	250	FLY_BY	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path SEED\_DUDDS

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, TACAN
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:	FKN

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	65.5 %	65.5 %
2	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
3	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	40.5 %	40.5 %
4	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
5	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
6	EMI	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	H	IFPA	NO	Enabled	6.1 %	6.1 %
7	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	ADW	PXT	BAL	DCA	OTT	
4.2	BAL	ADW	DCA	OTT		
6.8	BAL	ADW	DCA			
9.6	BAL	ADW	EMI	DCA		

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
SEED	DUDDS	EMI, DCA, ADW, PXT, BAL, OTT	

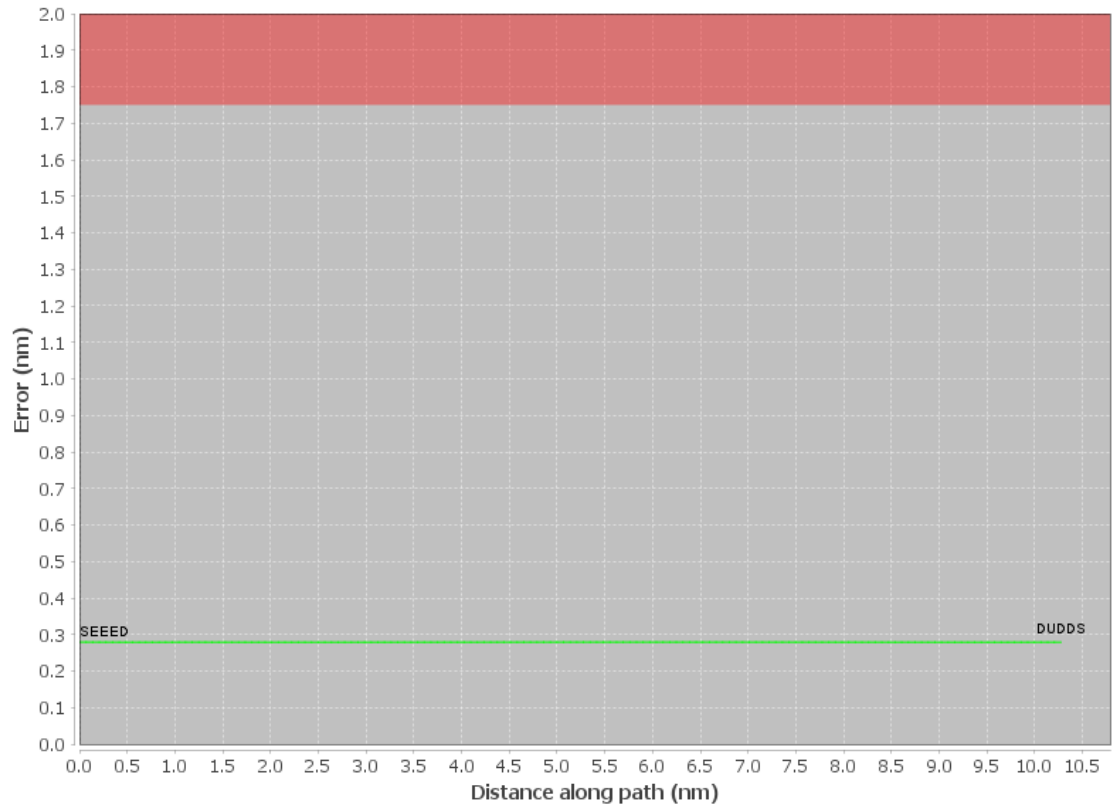


**DME DME Assessment Results for RAVNN7 path SEED\_DUDDS**

<b>User Data Files</b>								
#	File Name							
None								
<b>User DMEs</b>								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

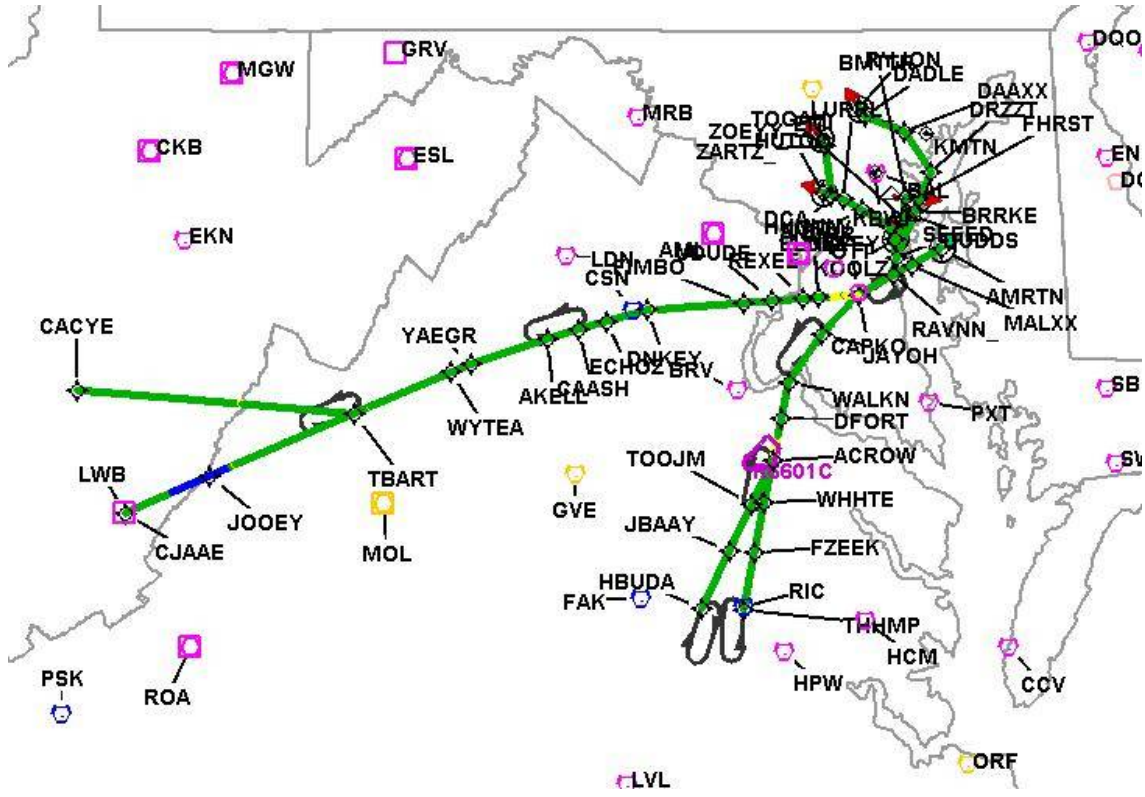
# DME DME Assessment Results for RAVNN7 path SEEED\_DUDDS

## DME Error



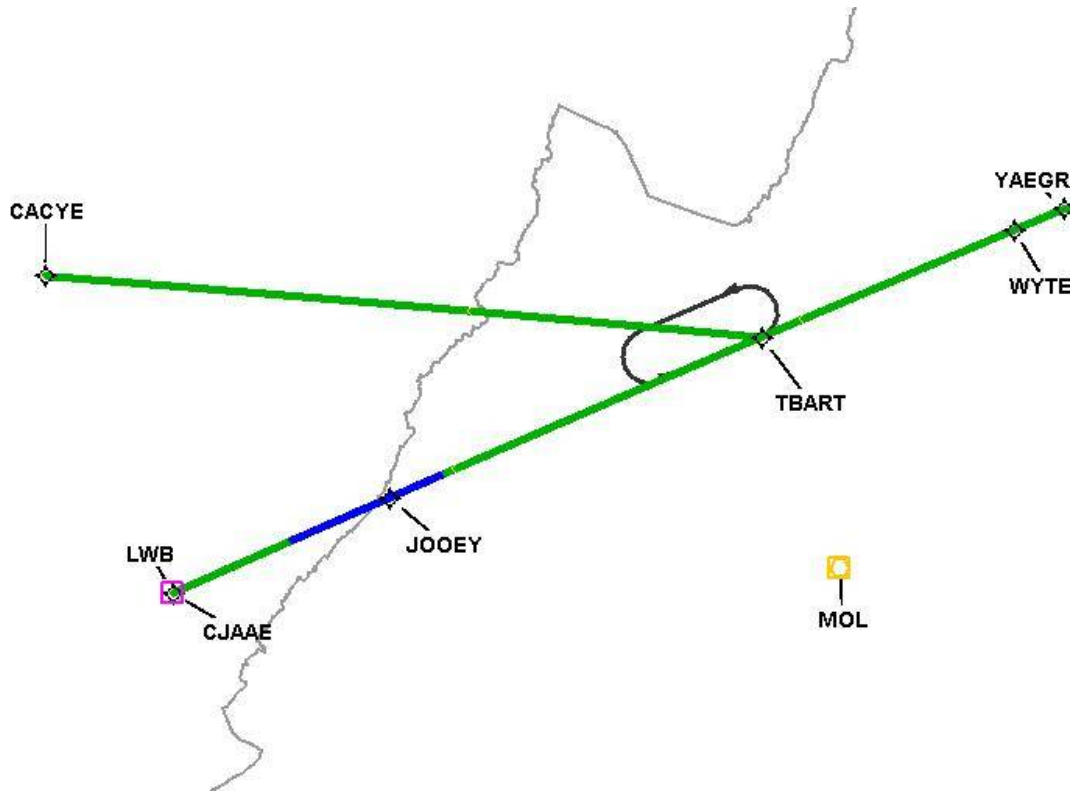
# DME DME Assessment Results for RAVNN7 path SEED\_DUDDS

Graphic Depiction 1



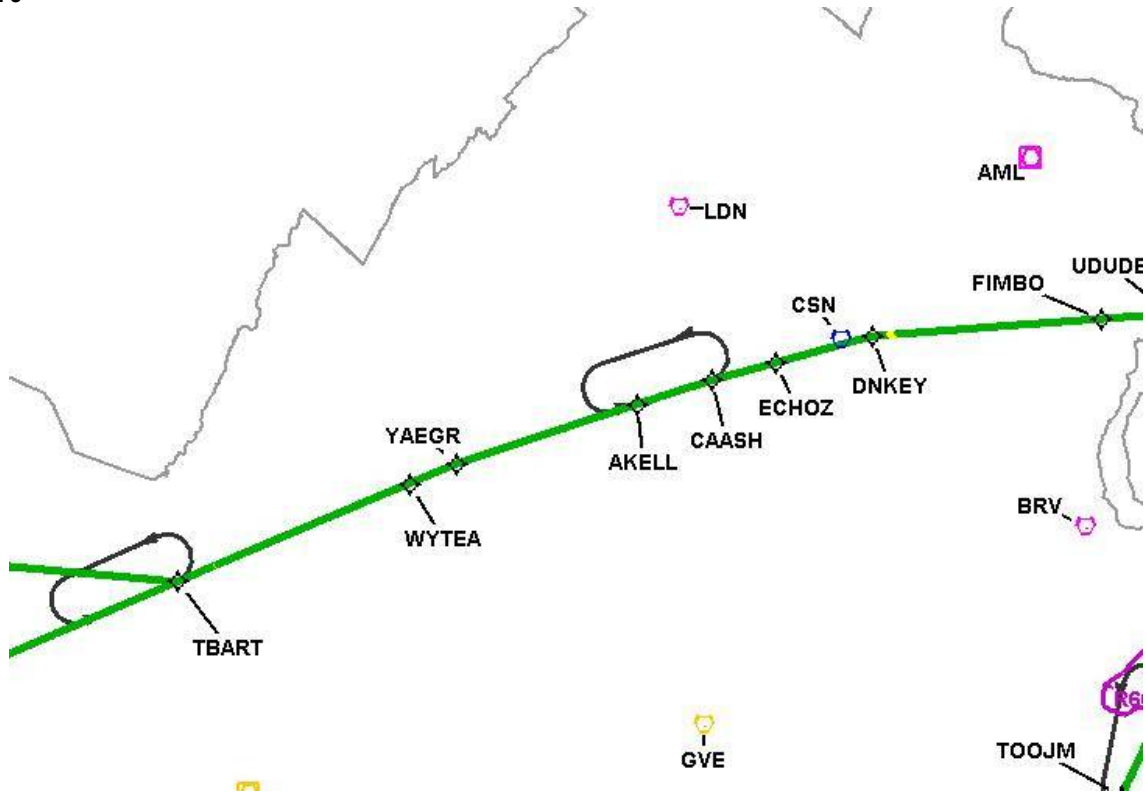
# DME DME Assessment Results for RAVNN7 path SEED\_DUDDS

Graphic Depiction 2



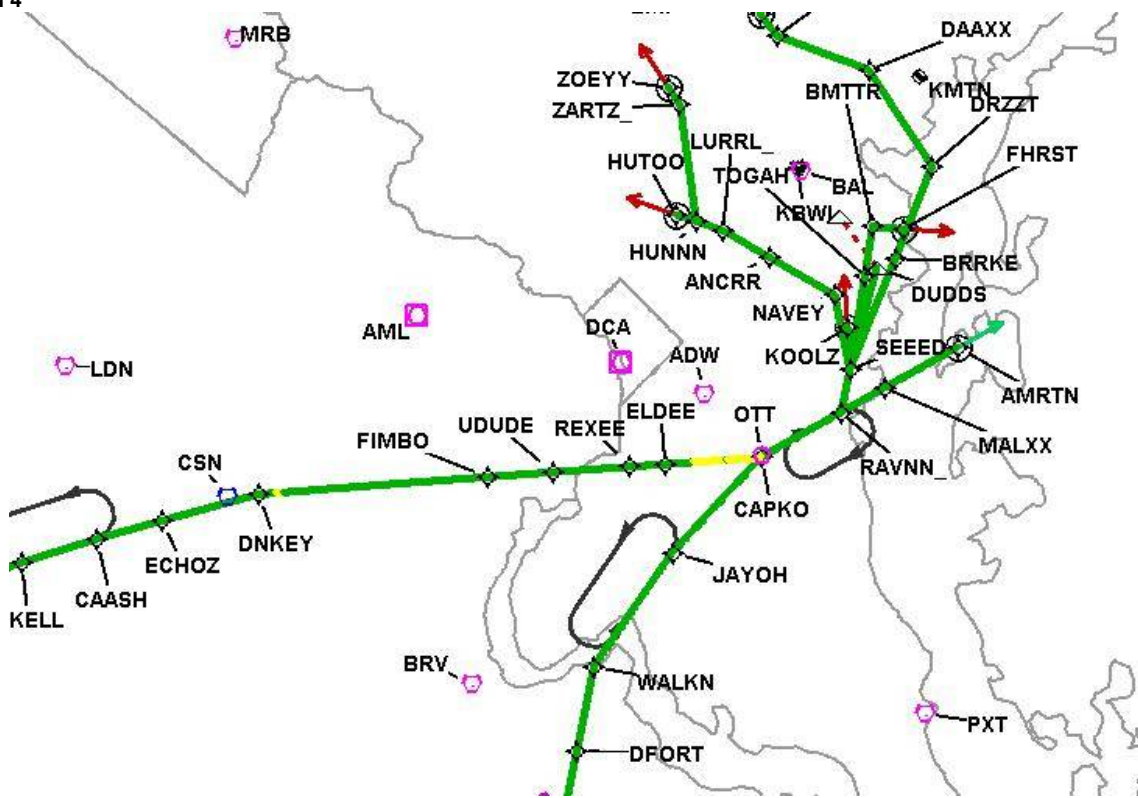
# DME DME Assessment Results for RAVNN7 path SEEED\_DUDDS

Graphic Depiction 3



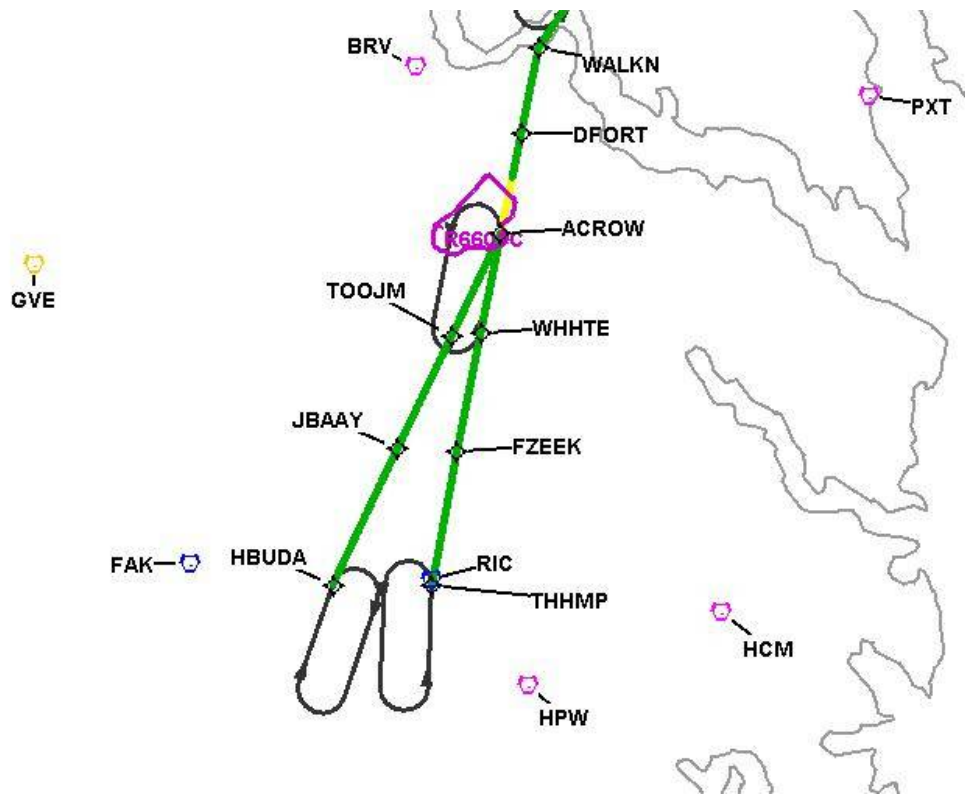
# DME DME Assessment Results for RAVNN7 path SEED\_DUDDS

Graphic Depiction 4



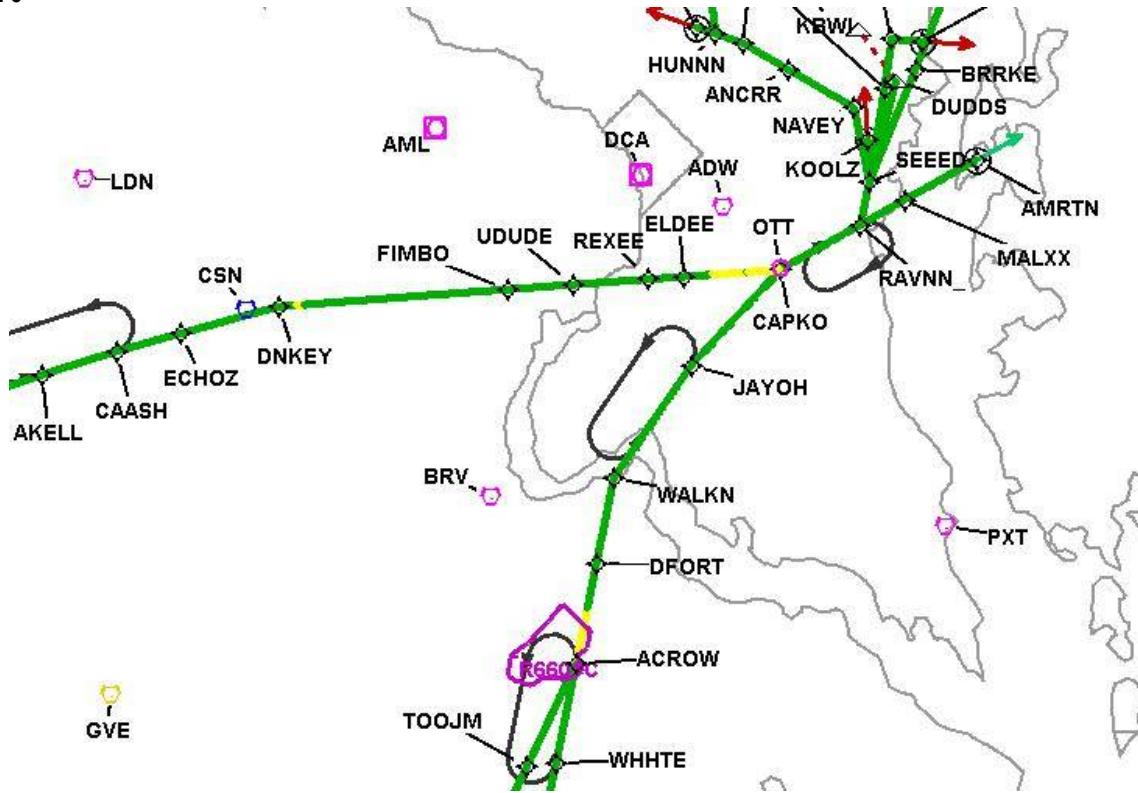
# DME DME Assessment Results for RAVNN7 path SEED\_DUDDS

Graphic Depiction 5



DME DME Assessment Results for RAVNN7 path SEED\_DUDDS

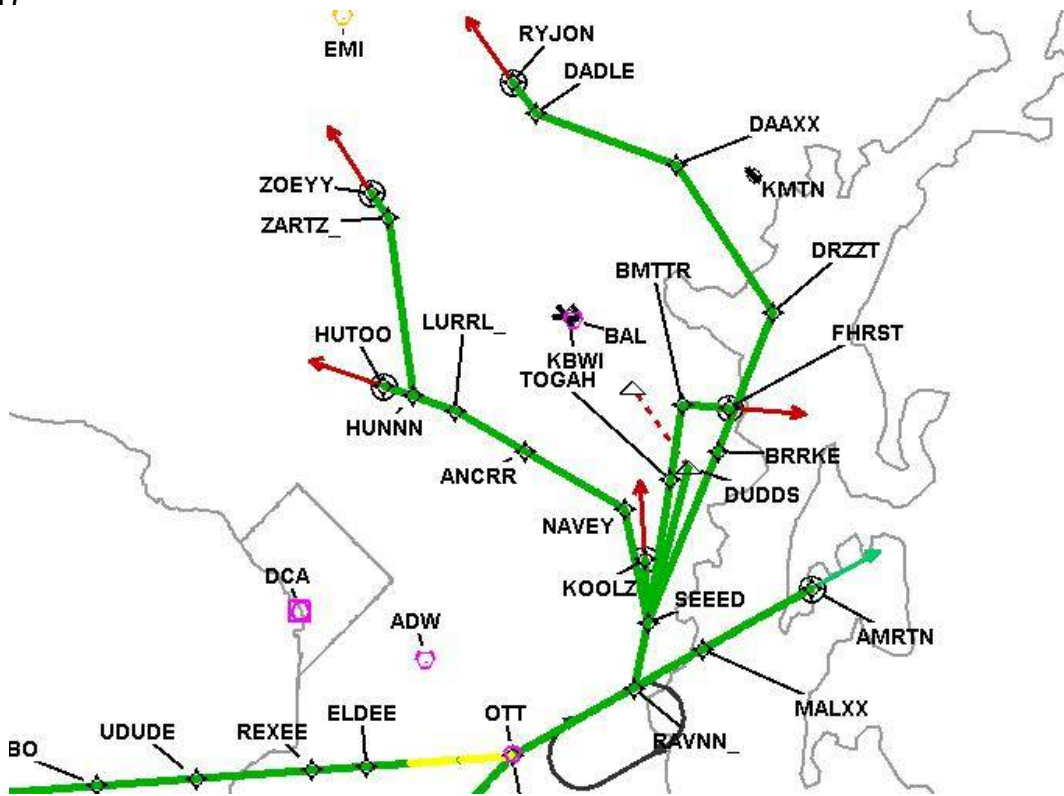
Graphic Depiction 6





# DME DME Assessment Results for RAVNN7 path SEED\_DUDDS

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path SEED\_FHRST

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\SEED_FHRST\KBWI RAVNN7 RNAV STAR SEED FHRST 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
SEED	WP	N38° 50' 51.6600", W076° 33' 32.3200"	5000	VNAV	250	FLY_BY	TF
TOGAH	WP	N39° 00' 01.2900", W076° 31' 39.4200"	5000	VNAV	210	FLY_BY	TF
BMTTR	WP	N39° 04' 52.2100", W076° 30' 42.5900"	4000	VNAV	210	FLY_BY	TF
FHRST	WP	N39° 04' 37.8022", W076° 26' 52.1775"	4000	VNAV	210	FLY_OVER	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path SEED\_FHRST

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, TACAN
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:	FKN

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	54 %	56.6 %
2	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
3	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	23.3 %	25.4 %
4	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
5	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
6	EMI	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	H	IFPA	NO	Enabled	56.3 %	52.4 %
7	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	ADW	PXT	BAL	DCA	OTT	
4.4	BAL	ADW	DCA	OTT		
6.8	BAL	ADW	DCA			
8.2	ADW	EMI	BAL	DCA		
8.2	ADW	EMI	BAL	DCA	OTT	
11.3	BAL	ADW	EMI	DCA		

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

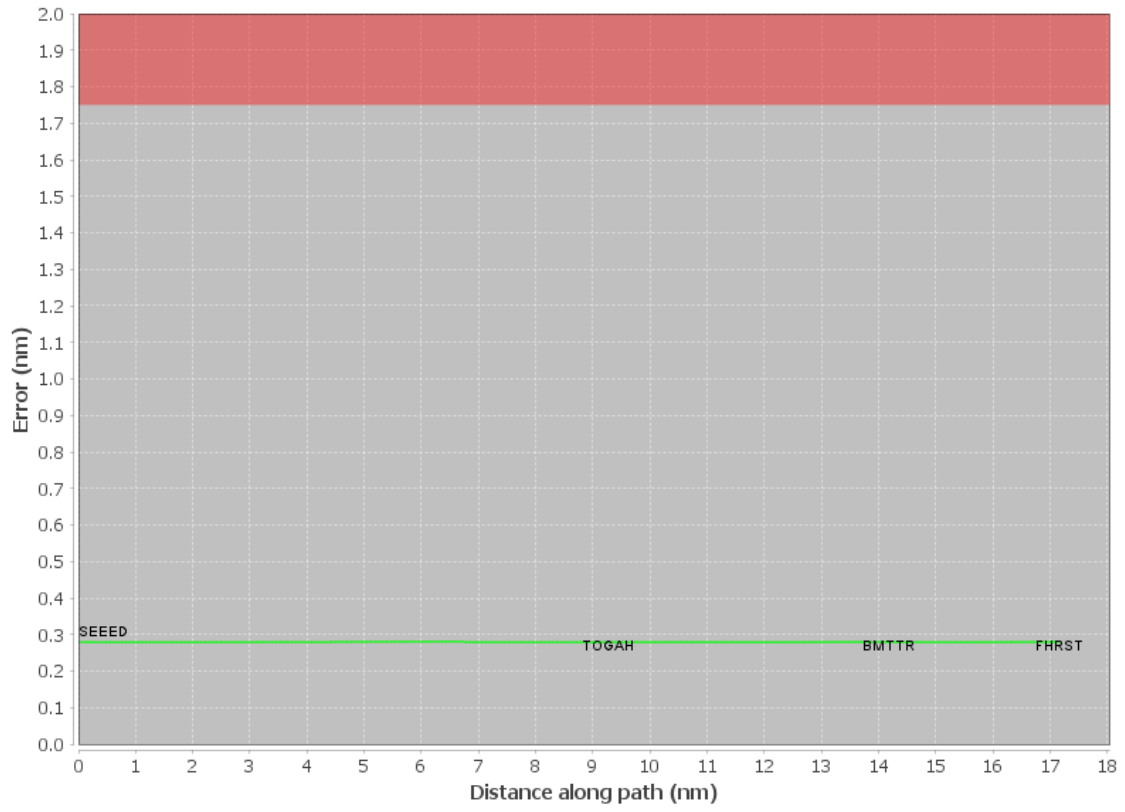
Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
SEED	TOGAH	EMI, DCA, ADW, PXT, BAL, OTT	
TOGAH	BMTRR	EMI, DCA, ADW, BAL, OTT	
BMTRR	FHRST	EMI, DCA, ADW, BAL	

**DME DME Assessment Results for RAVNN7 path SEED\_FHRST**

<b>User Data Files</b>								
#	File Name							
None								
<b>User DMEs</b>								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

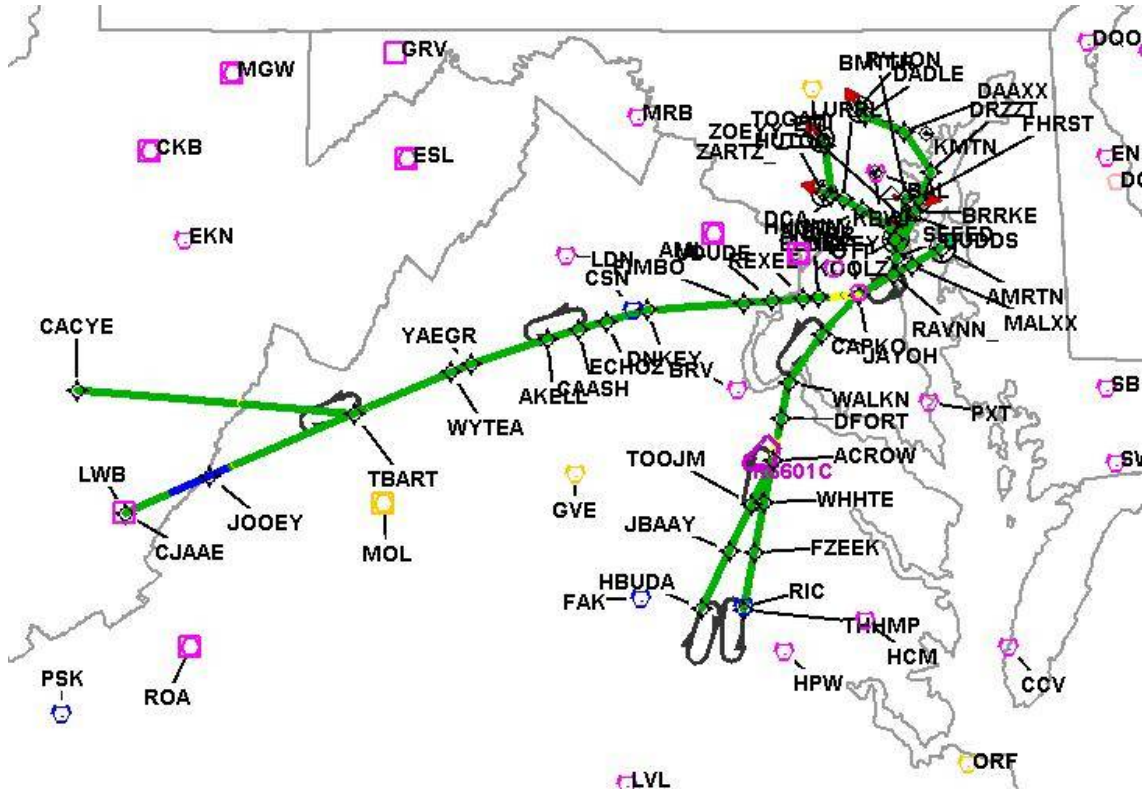
# DME DME Assessment Results for RAVNN7 path SEED\_FHRST

## DME Error



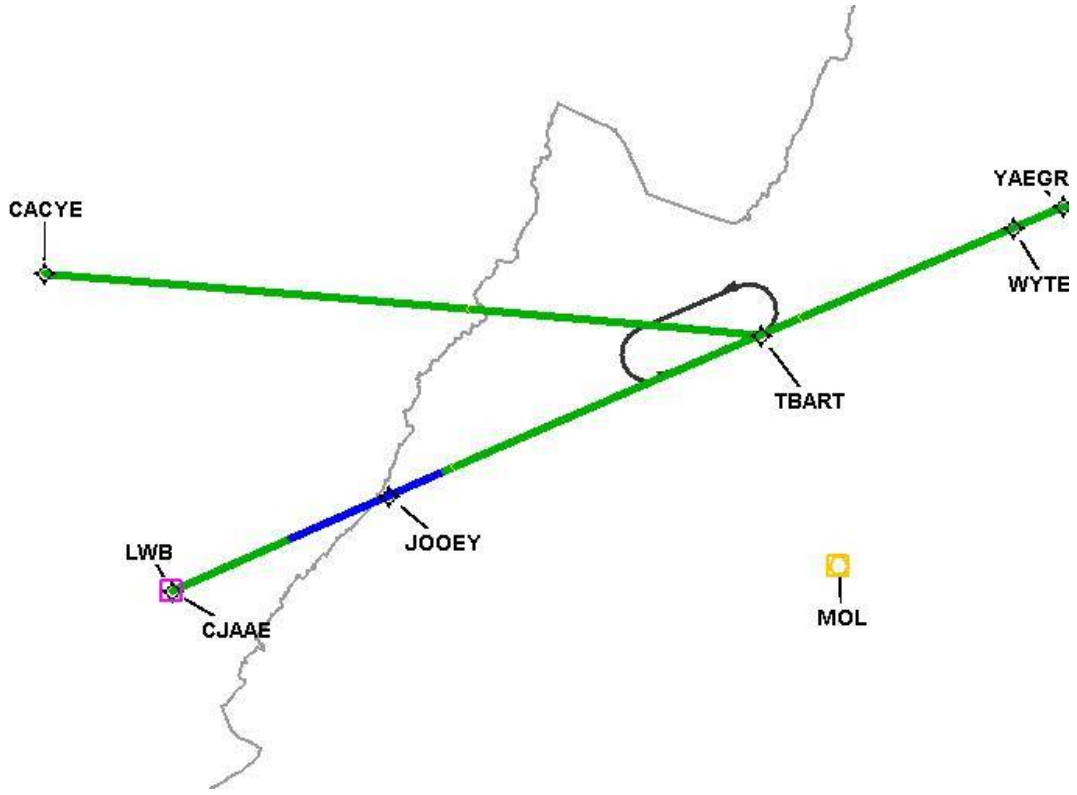
# DME DME Assessment Results for RAVNN7 path SEED\_FHRST

Graphic Depiction 1



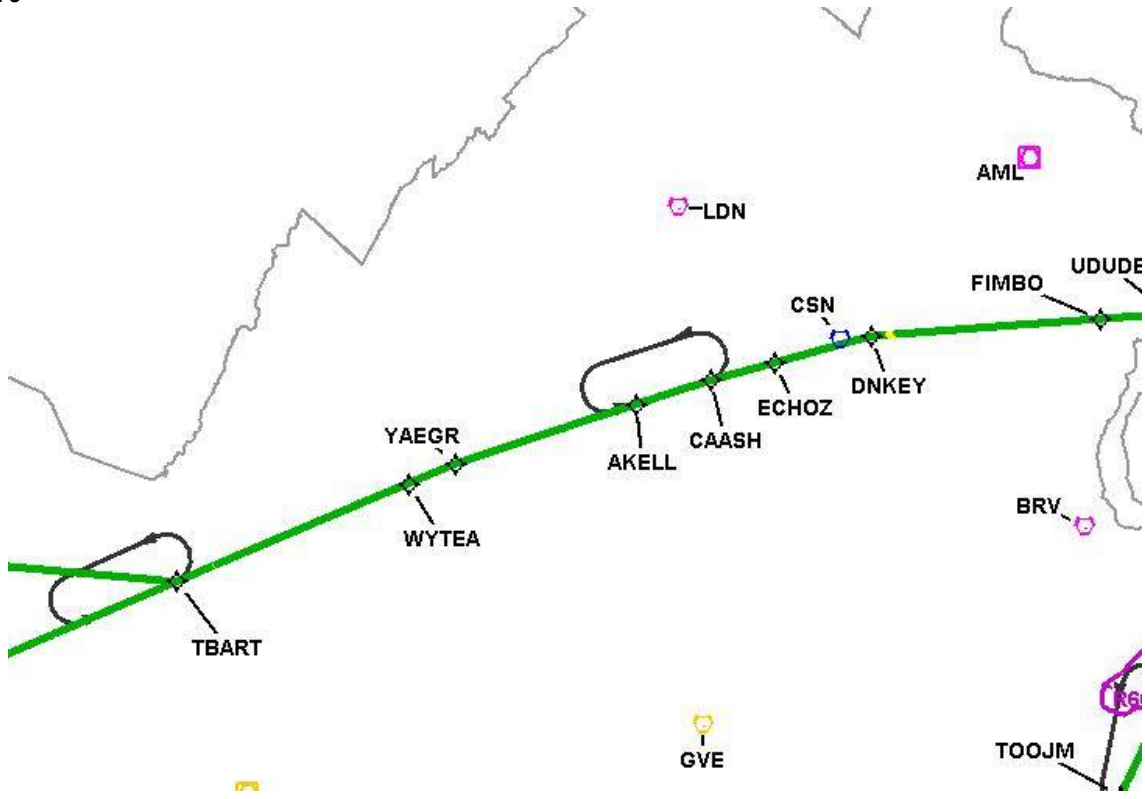
DME DME Assessment Results for RAVNN7 path SEED\_FHRST

Graphic Depiction 2



# DME DME Assessment Results for RAVNN7 path SEEED\_FHRST

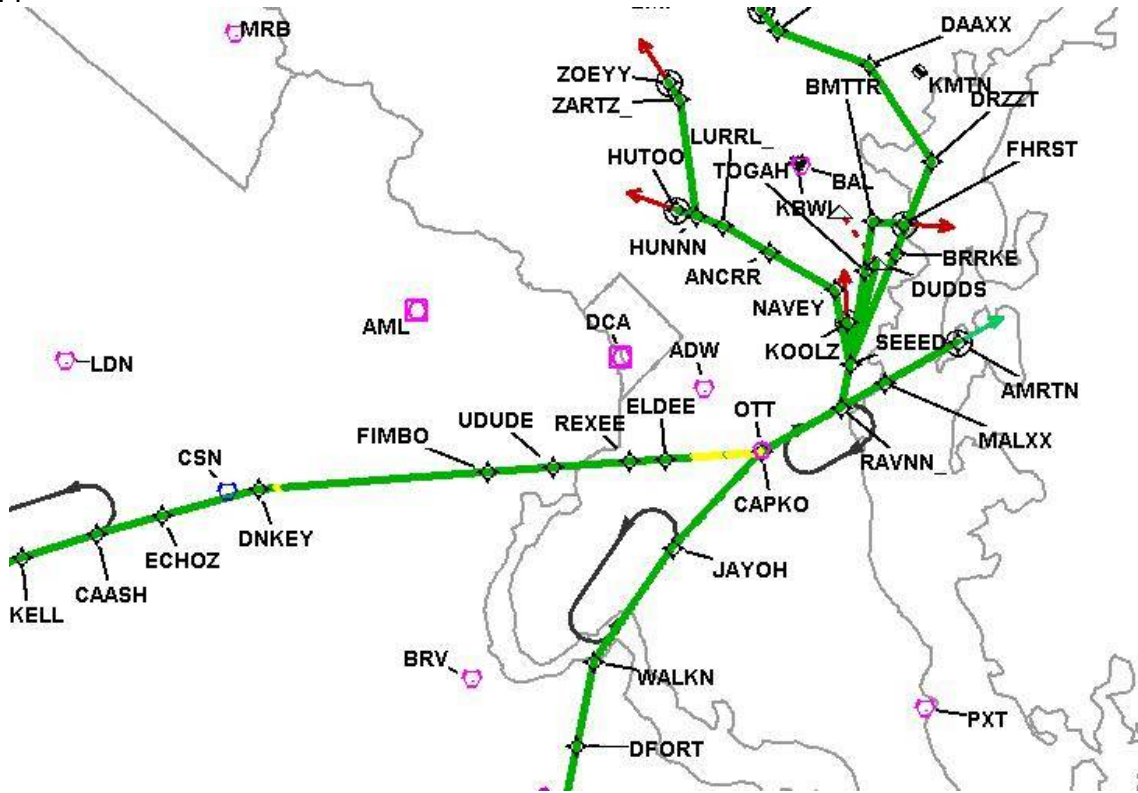
Graphic Depiction 3





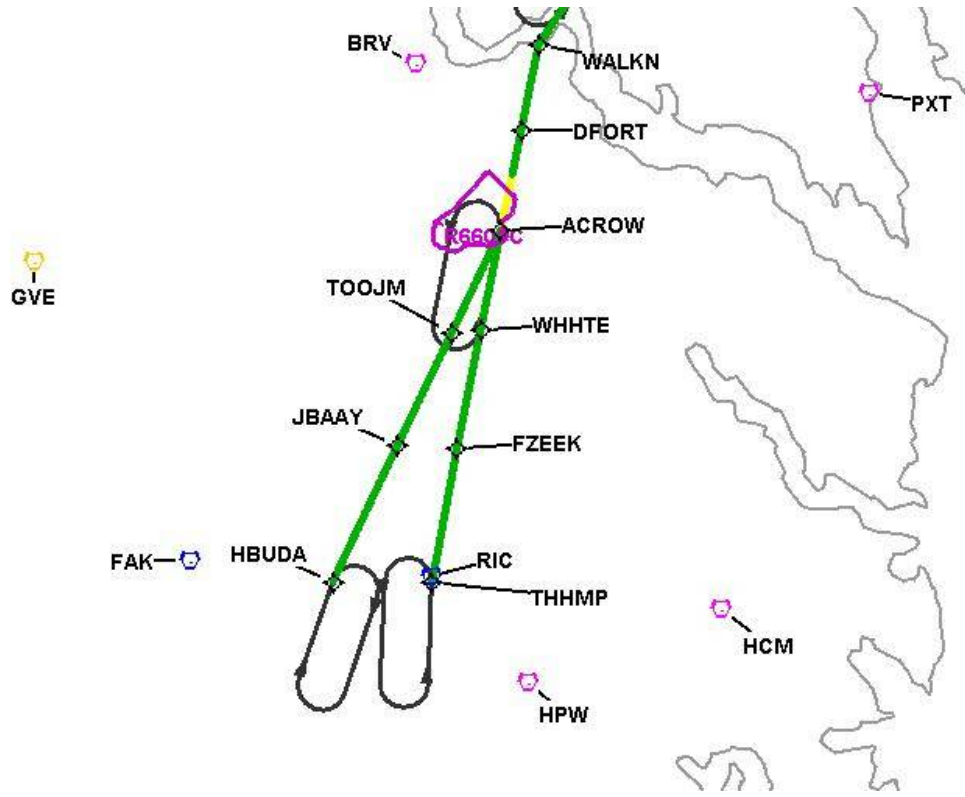
# DME DME Assessment Results for RAVNN7 path SEED\_FHRST

Graphic Depiction 4



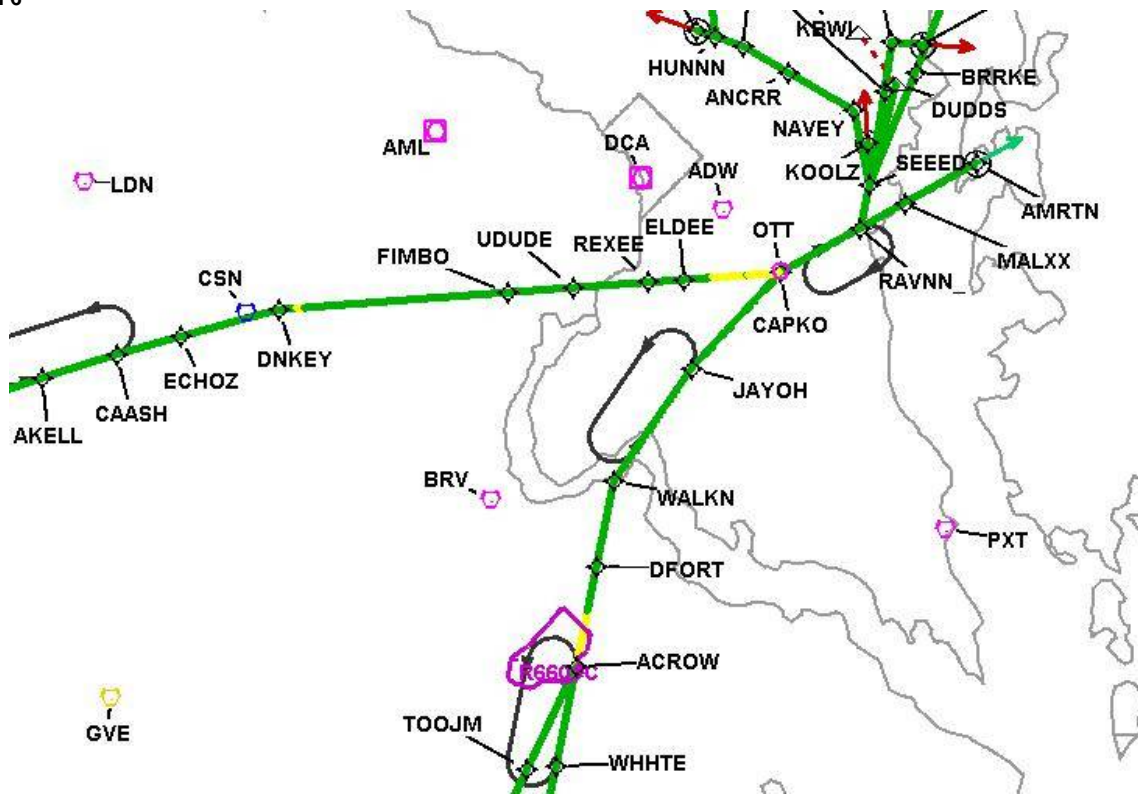
DME DME Assessment Results for RAVNN7 path SEED\_FHRST

Graphic Depiction 5



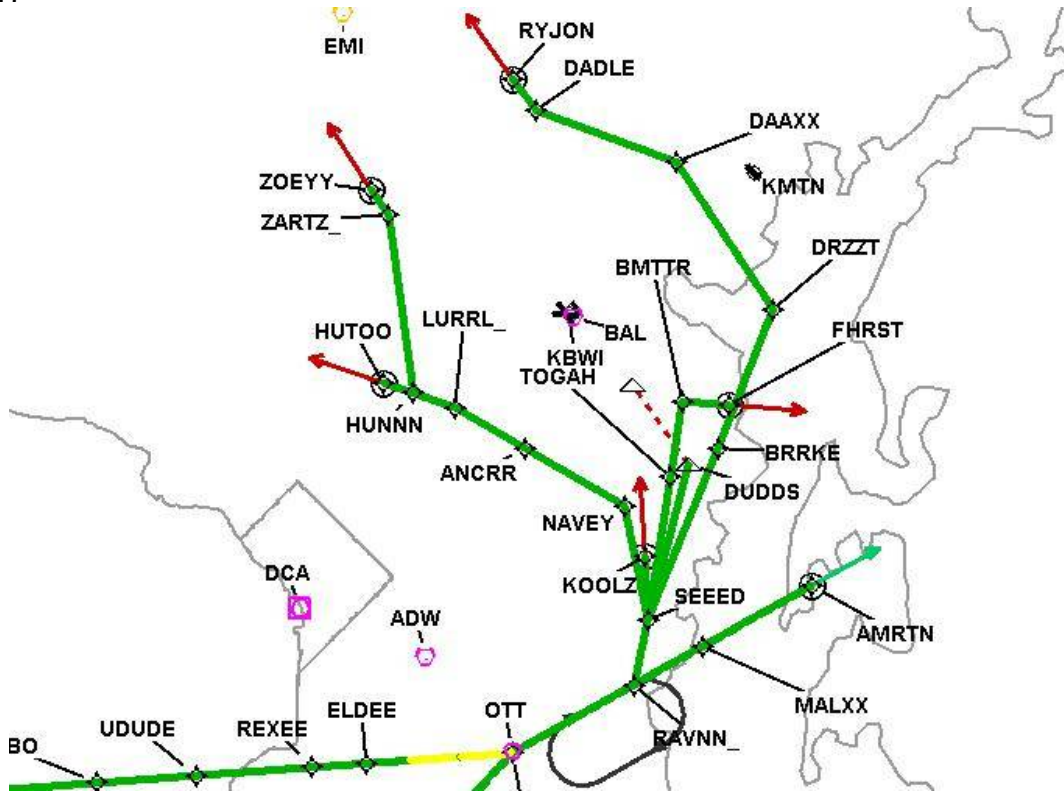
# DME DME Assessment Results for RAVNN7 path SEEED\_FHRST

Graphic Depiction 6



DME DME Assessment Results for RAVNN7 path SEED\_FHRST

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\SEED_KOOLZ\KBWI RAVNN7 RNAV STAR SEED KOOLZ 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
SEED	WP	N38° 50' 51.6600", W076° 33' 32.3200"	5000	VNAV	250	FLY_BY	TF
KOOLZ	WP	N38° 54' 59.7757", W076° 33' 49.2012"	5000	VNAV	210	FLY_OVER	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path SEED\_KOOLZ

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, TACAN
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:	FKN

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
2	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
3	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
4	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
5	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	100 %	100 %
6	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	ADW	PXT	BAL	DCA	OTT	

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
SEED	KOOLZ	DCA, ADW, BAL, PXT, OTT	

**DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ**

**User Data Files**

#	File Name
None	

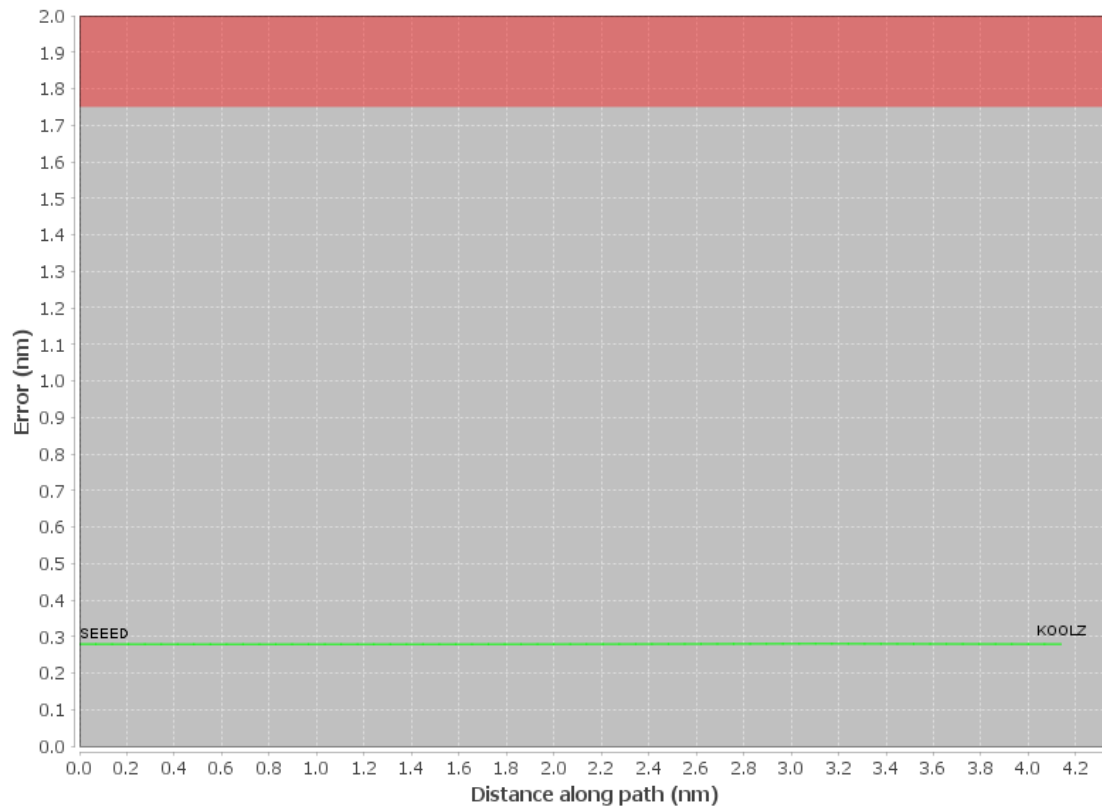
None

**User DMEs**

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

# DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

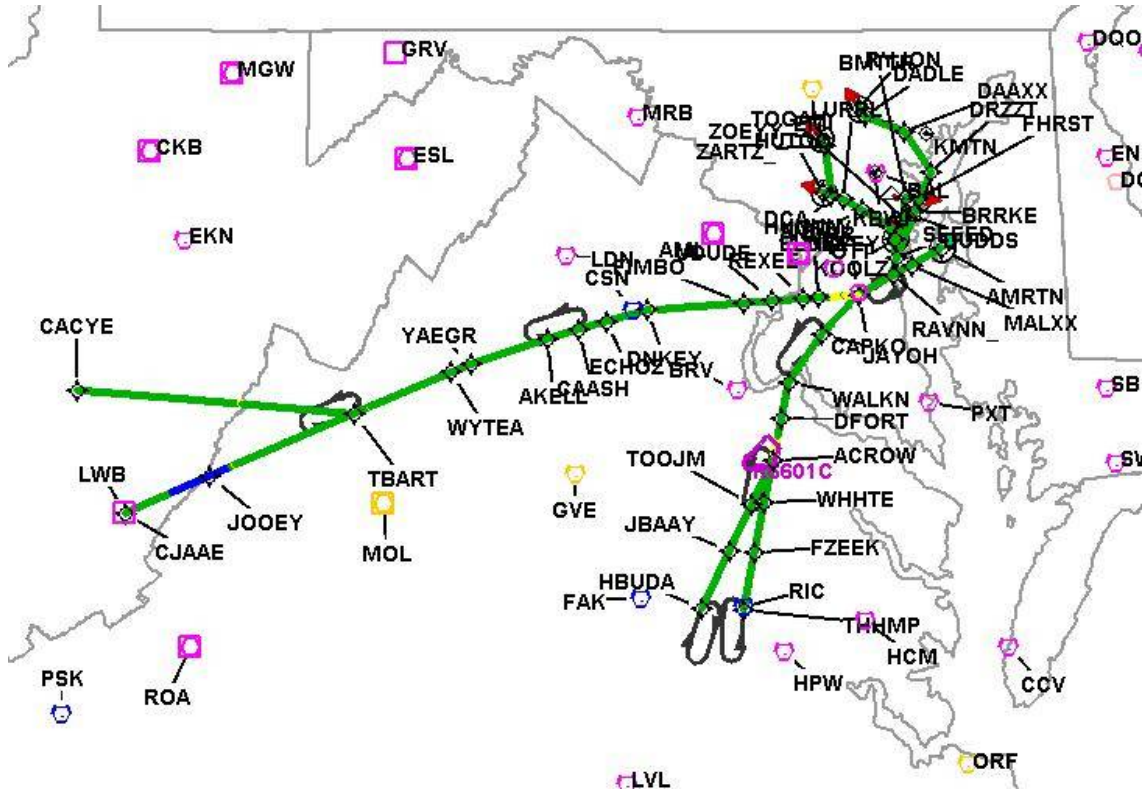
## DME Error





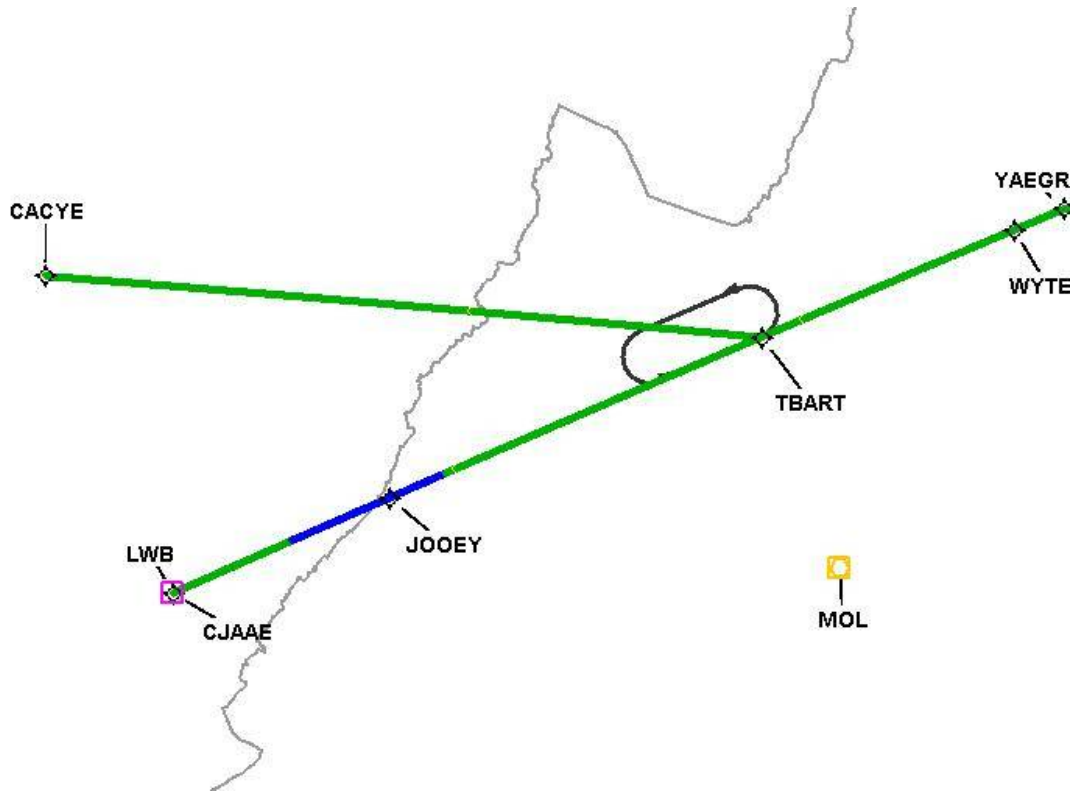
# DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

Graphic Depiction 1



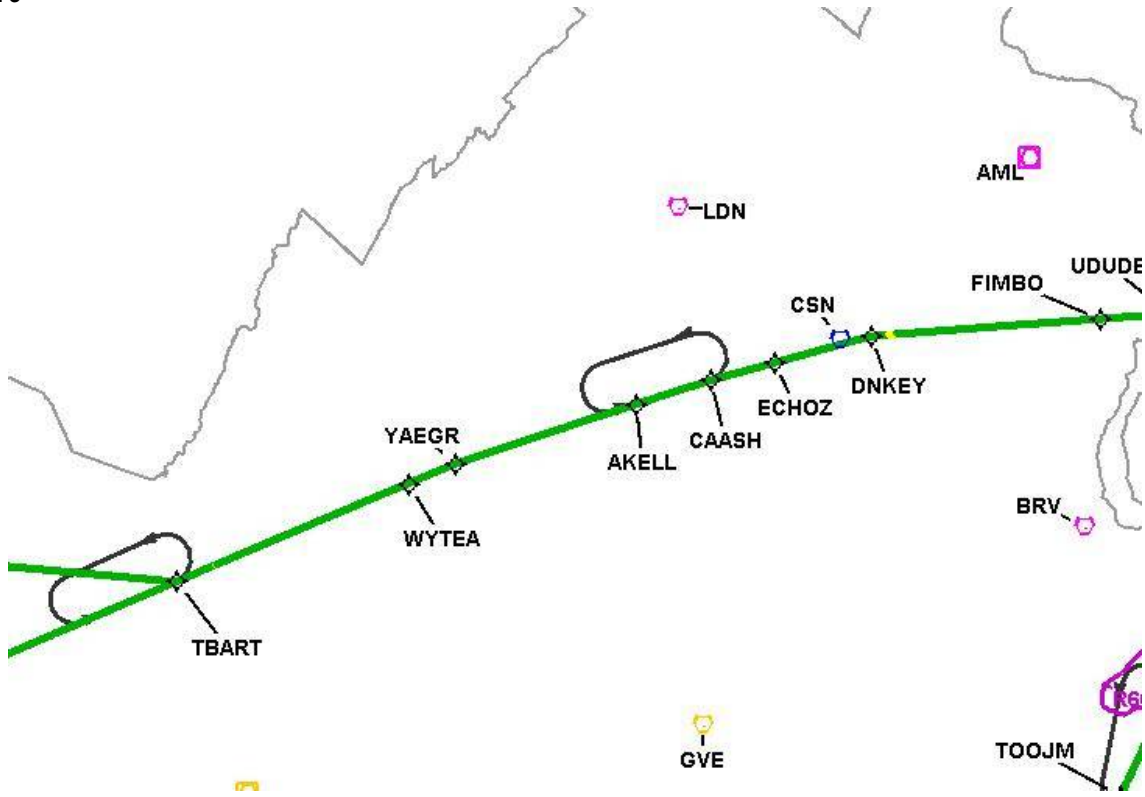
# DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

Graphic Depiction 2



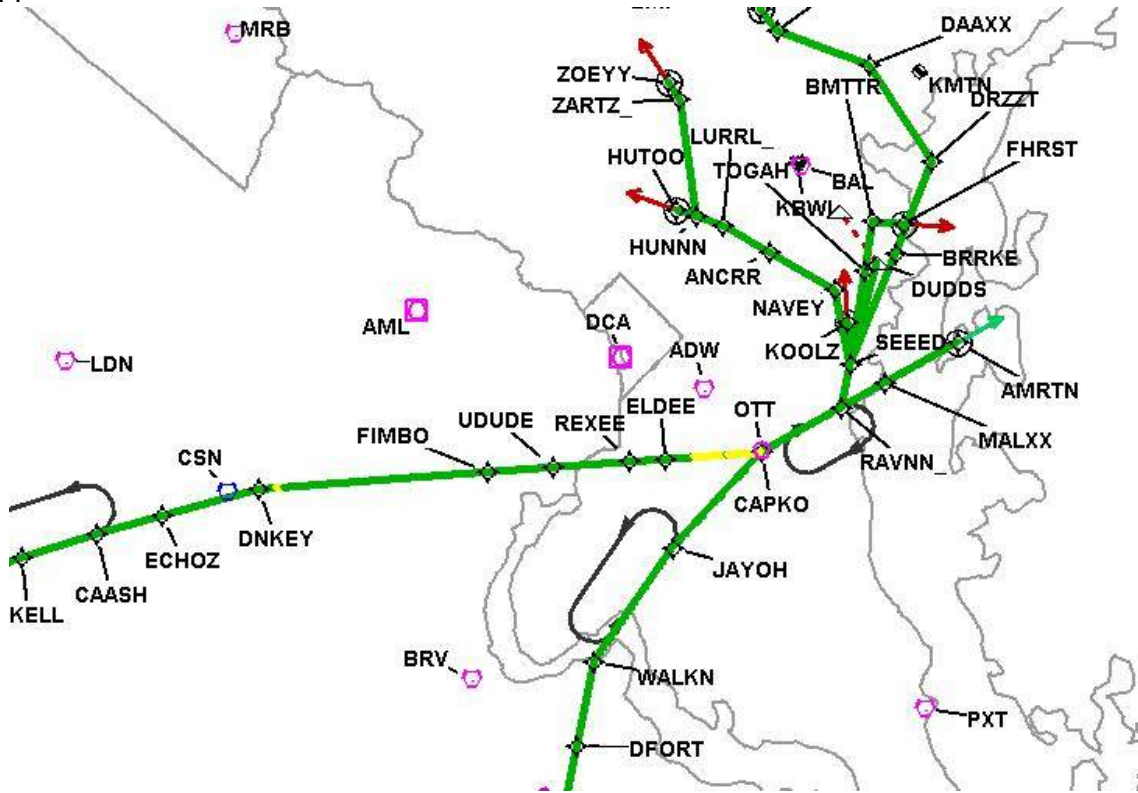
DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

Graphic Depiction 3



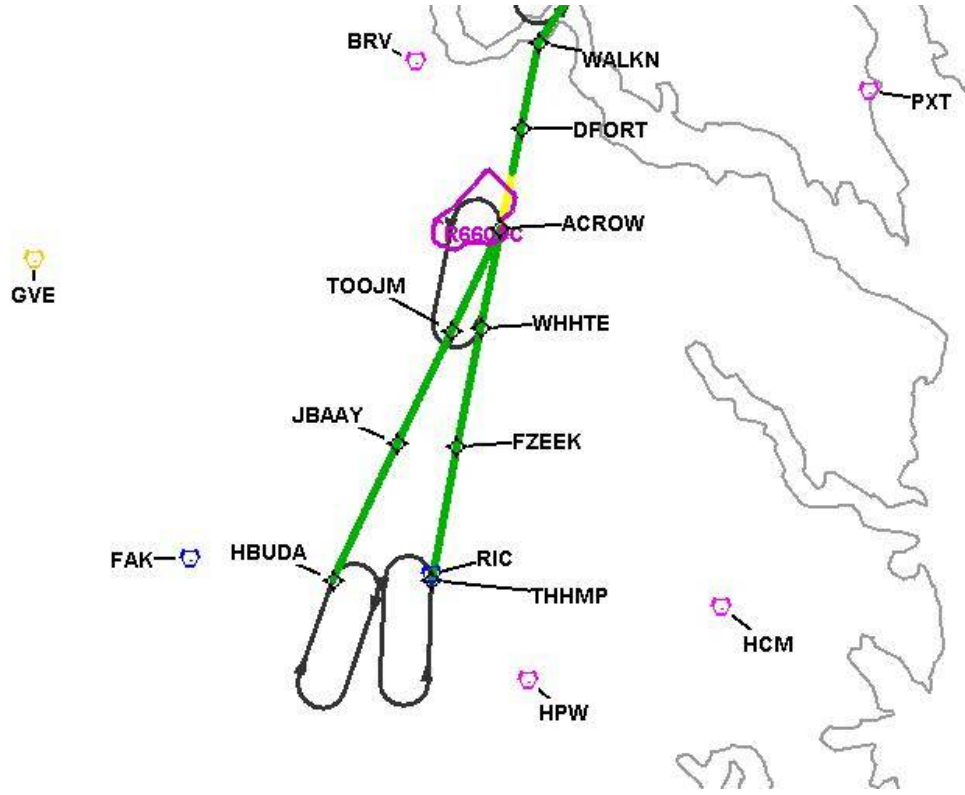
# DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

Graphic Depiction 4



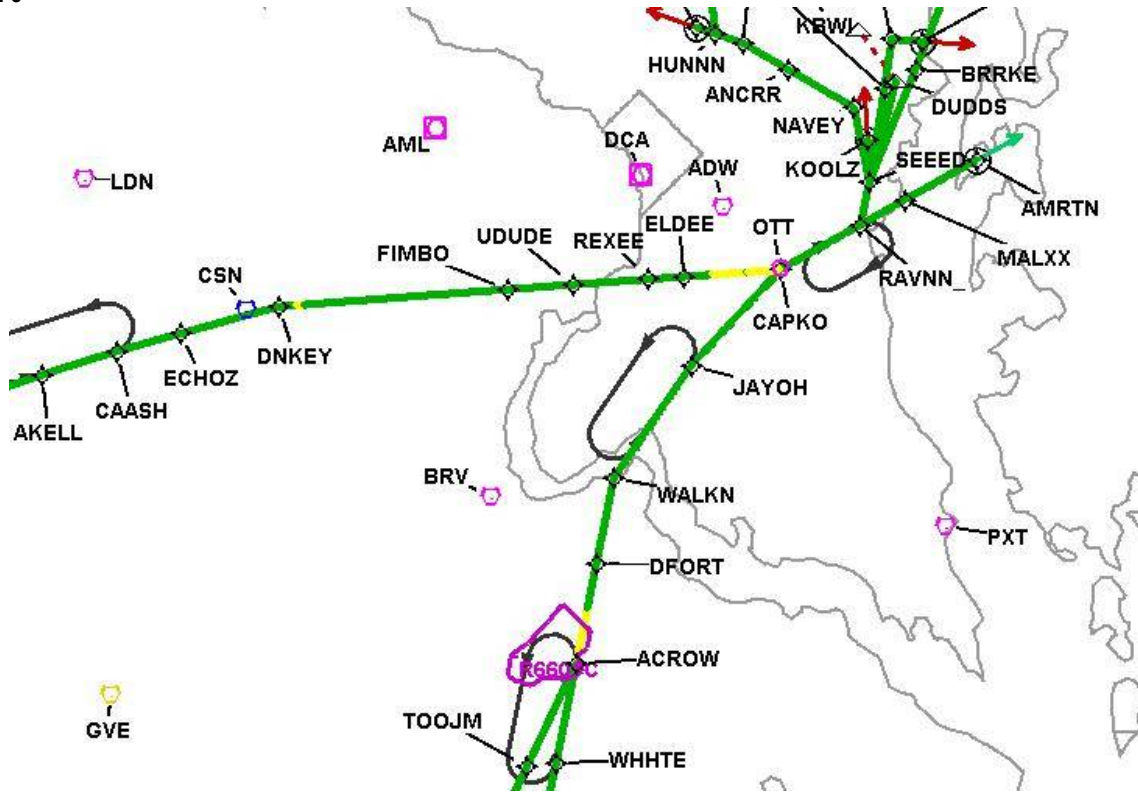
DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

Graphic Depiction 5



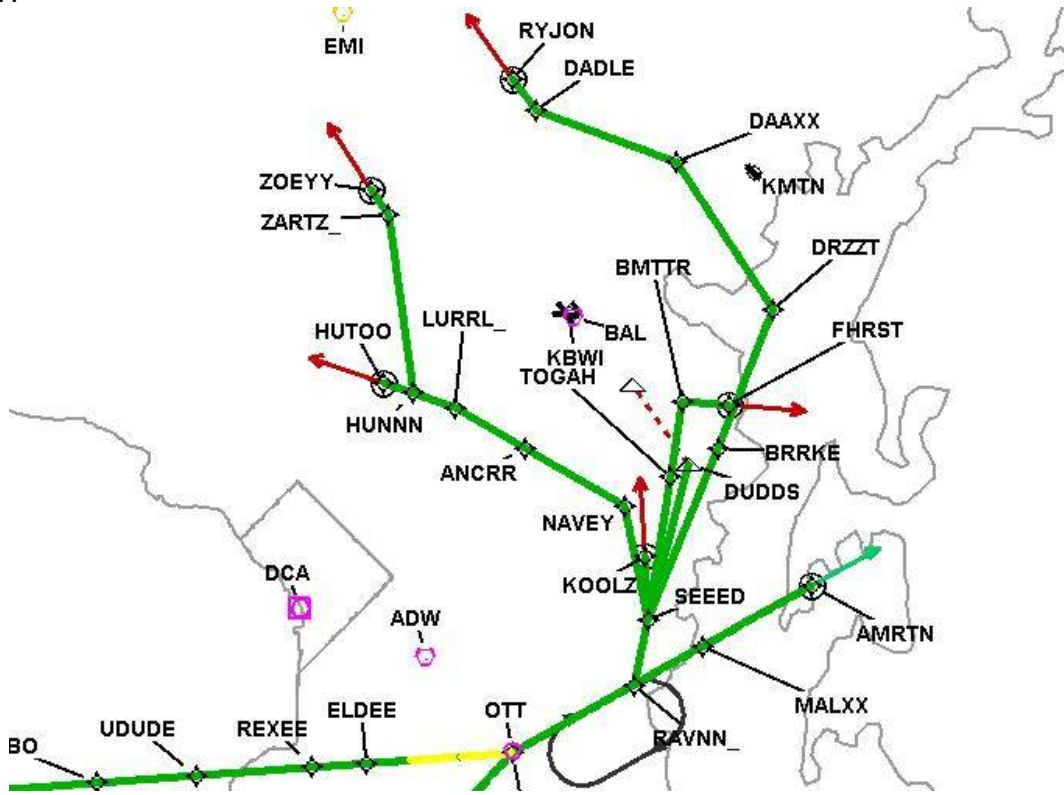
# DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

Graphic Depiction 6



DME DME Assessment Results for RAVNN7 path SEED\_KOOLZ

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path SEED\_RYJON

Results Summary	
Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\SEED_RYJON\KBWI RAVNN7 RNAV STAR SEED RYJON 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

Failures
No Failures

Warnings
No Warnings

Informational
No Informational

Notes For Flight Check
None

Flight Plan							
Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
SEED	WP	N38° 50' 51.6600", W076° 33' 32.3200"	5000	VNAV	250	FLY_BY	TF
BRRKE	WP	N39° 01' 47.7910", W076° 27' 45.3362"	4000	VNAV	250	FLY_BY	TF
DRZZT	WP	N39° 10' 44.4000", W076° 23' 10.5200"	4000	VNAV	250	FLY_BY	TF
DAAXX	WP	N39° 20' 09.9400", W076° 31' 09.0300"	4000	VNAV	250	FLY_BY	TF
DADLE	WP	N39° 23' 27.8798", W076° 42' 43.5018"	4000	VNAV	210	FLY_BY	TF
RYJON	WP	N39° 25' 31.5666", W076° 44' 43.8109"	4000	VNAV	210	FLY_OVER	TF

Flyability	
Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path SEED\_RYJON

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, TACAN
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:	FKN

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.1352", W076° 44' 41.0854"	10.0 W	40	L	IFPA	NO	Enabled	14.9 %	15.1 %
2	BAL	N39° 10' 15.8283", W076° 39' 40.5225"	11.0 W	40	L	IFPA	NO	Enabled	91.7 %	92.7 %
3	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	8.7 %	8.8 %
4	DCA	N38° 51' 34.0300", W077° 02' 11.1700"	9.0 W	40	L	IFPA	NO	Enabled	73.4 %	73.2 %
5	ADW	N38° 48' 25.9900", W076° 51' 58.5200"	10.0 W	40	L	IFPA	NO	Enabled	97.9 %	98.2 %
6	EMI	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	H	IFPA	NO	Enabled	71.6 %	71.4 %
7	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	ADW	PXT	BAL	DCA	OTT	
4.0	BAL	ADW	DCA	OTT		
6.8	BAL	ADW	DCA			
12.7	ADW	EMI	BAL	DCA		
25.5	ADW	EMI	BAL			
37.3	ADW	EMI	DCA	BAL		
41.7	DCA	EMI	ADW			
44.1	DCA	EMI				
44.8						

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N39° 25' 28.8184", W076° 44' 41.1361"	N39° 25' 31.5666", W076° 44' 43.8109"	0.0573

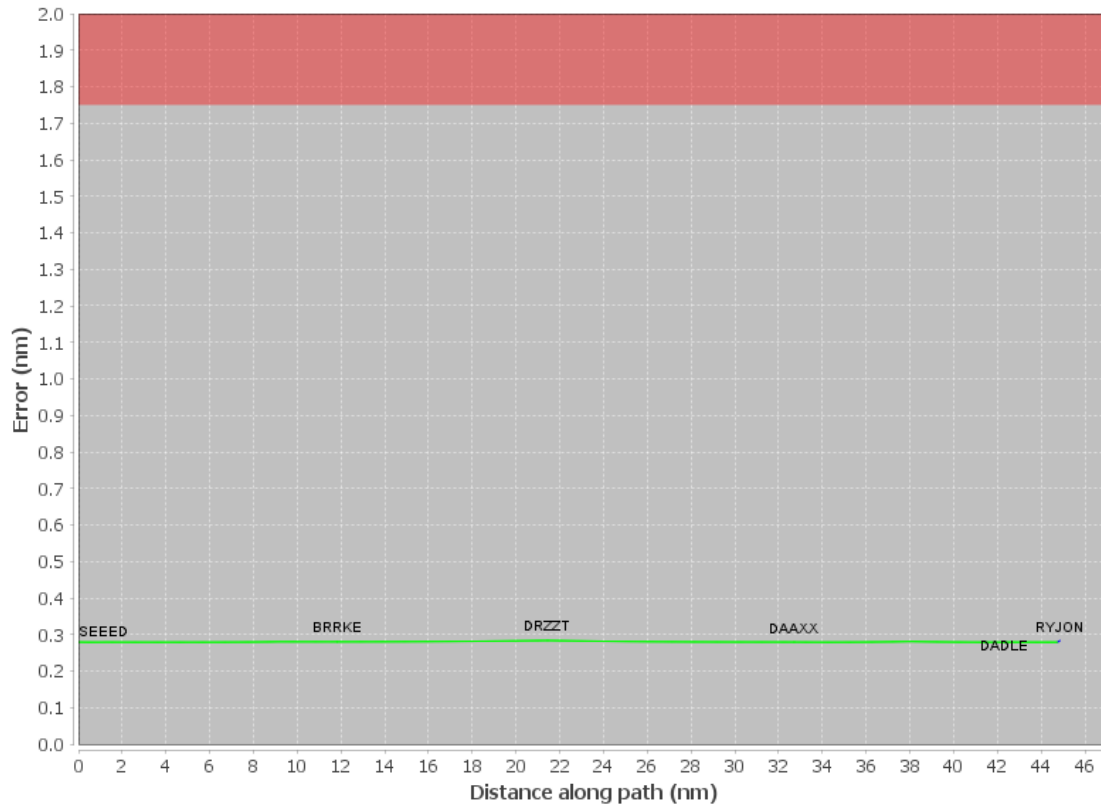
## DME DME Assessment Results for RAVNN7 path SEEED\_RYJON

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
SEEED	BRRKE	DCA, ADW, PXT, BAL, OTT	
BRRKE	DRZZT	EMI, DCA, ADW, BAL	
DRZZT	DAAXX	EMI, DCA, ADW, BAL	
DAAXX	DADLE	EMI, DCA, ADW, BAL	
DADLE	RYJON	EMI, DCA, ADW	

User Data Files								
#	File Name							
None								
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

# DME DME Assessment Results for RAVNN7 path SEED\_RYJON

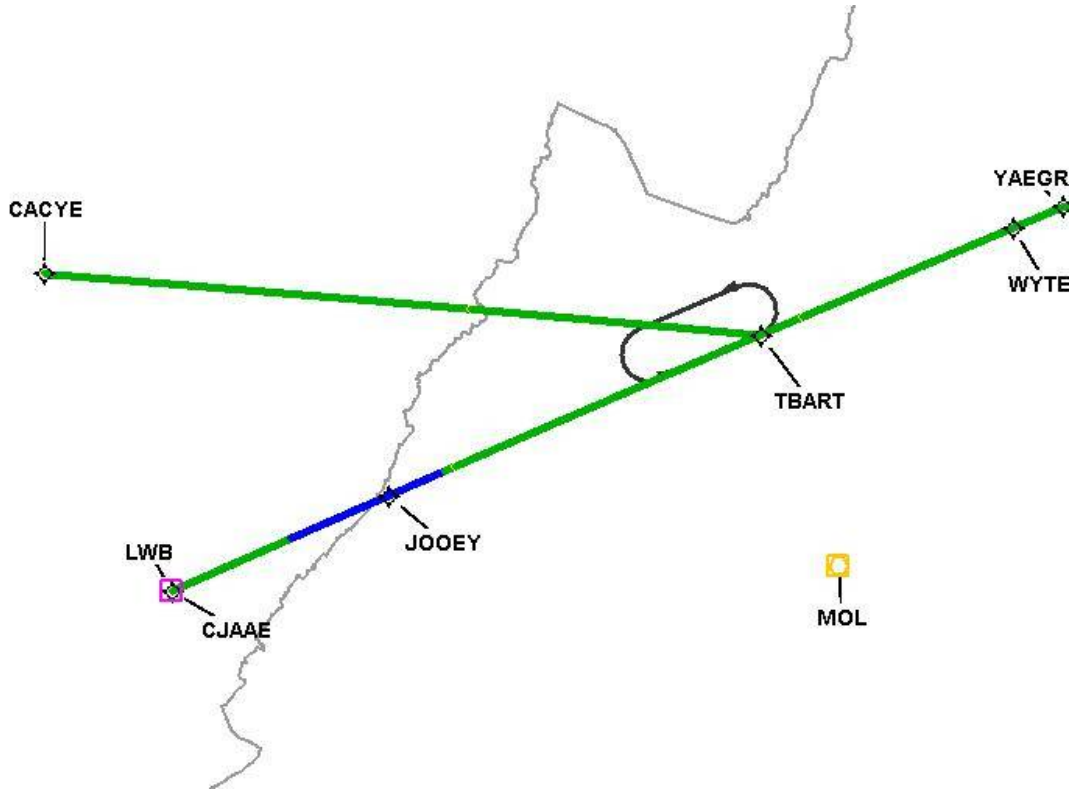
## DME Error





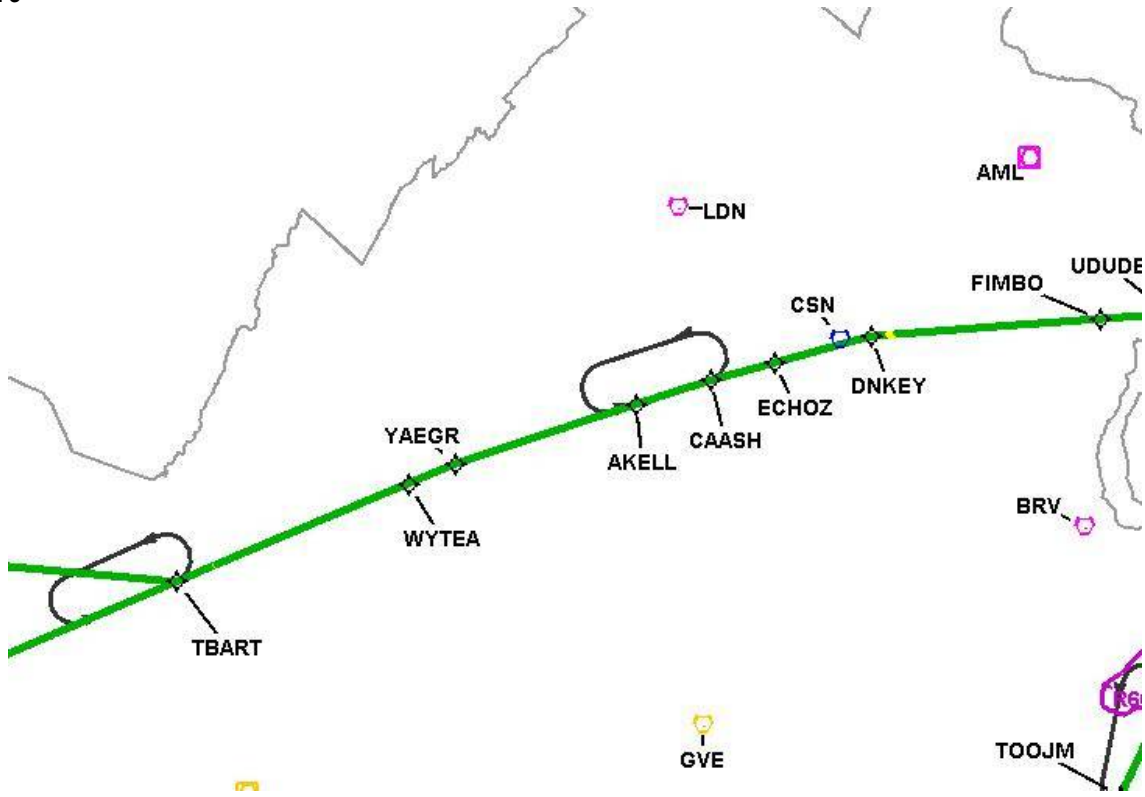
DME DME Assessment Results for RAVNN7 path SEED\_RYJON

Graphic Depiction 2



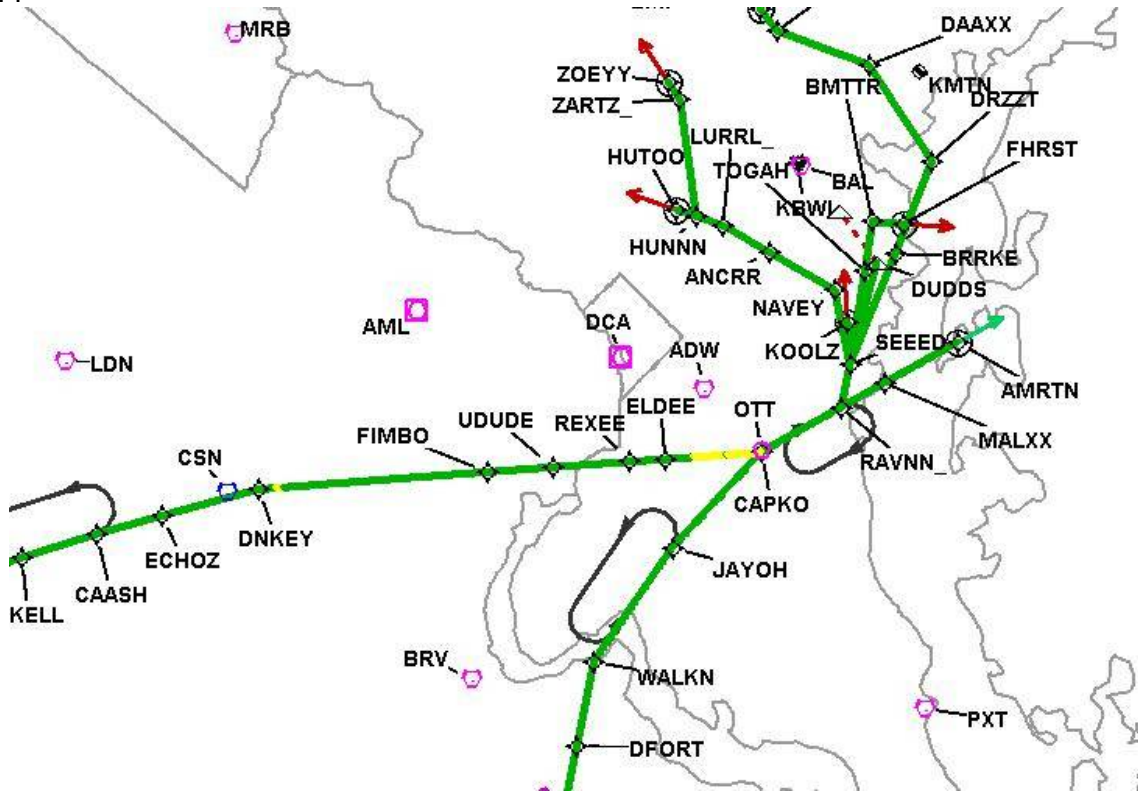
# DME DME Assessment Results for RAVNN7 path SEEED\_RYJON

Graphic Depiction 3



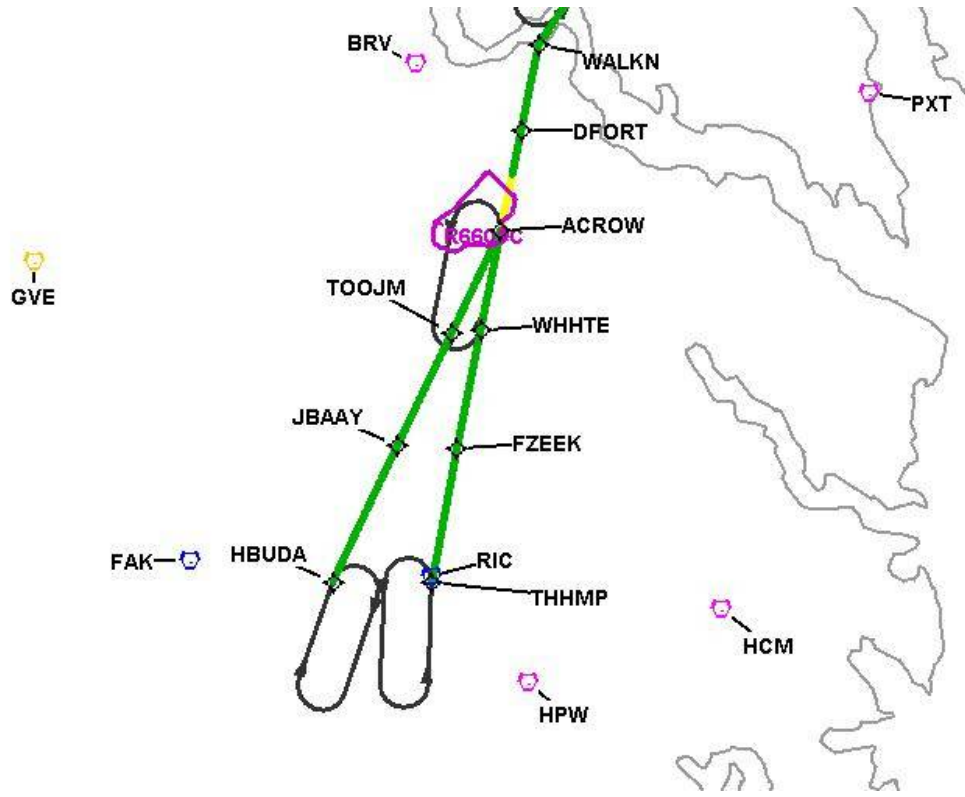
# DME DME Assessment Results for RAVNN7 path SEED\_RYJON

Graphic Depiction 4



# DME DME Assessment Results for RAVNN7 path SEED\_RYJON

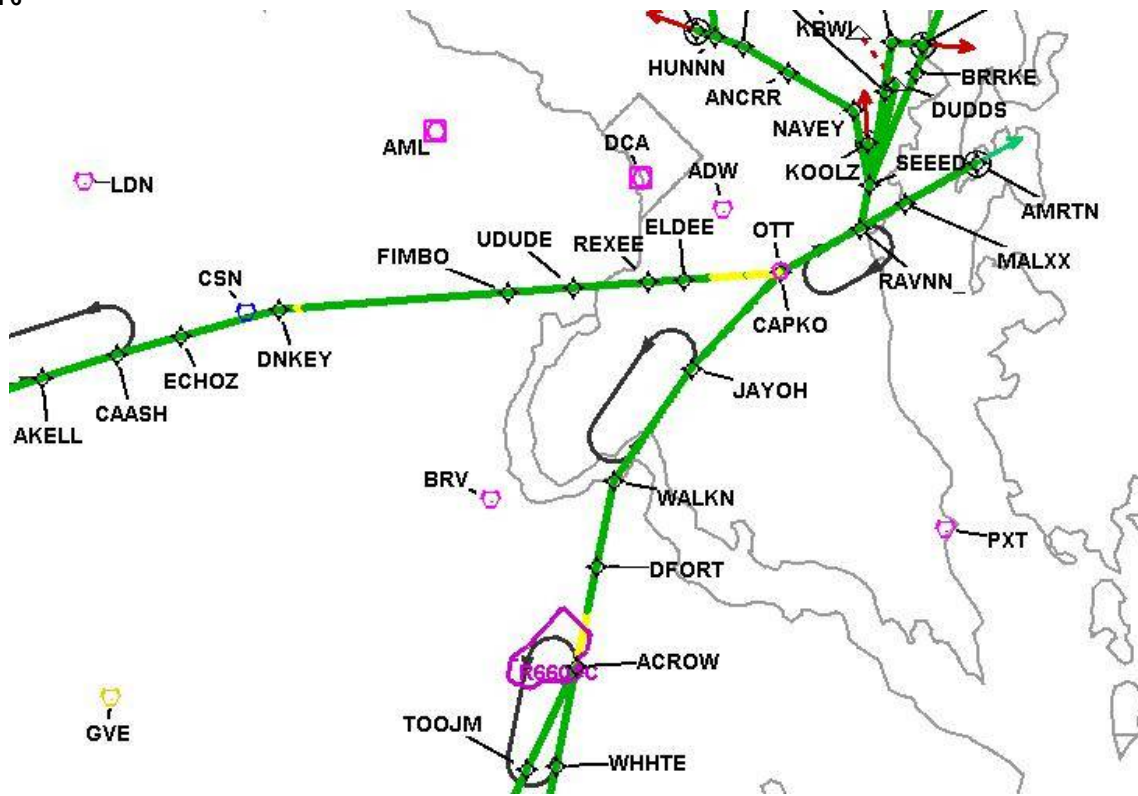
Graphic Depiction 5





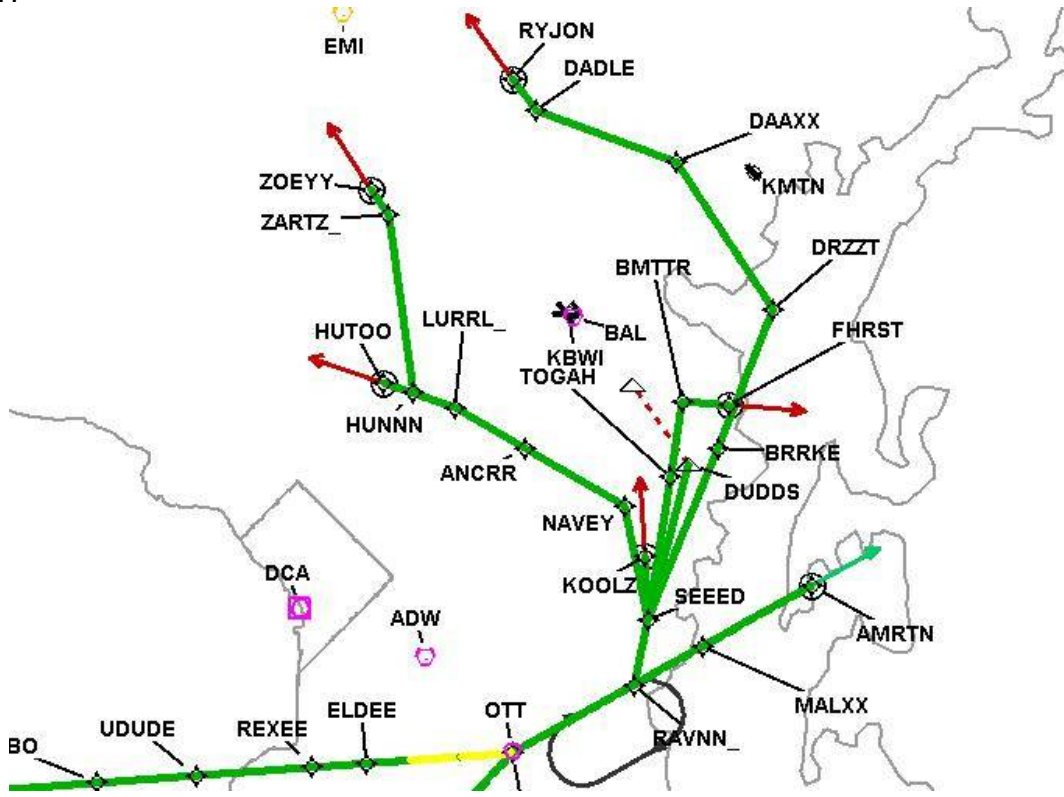
DME DME Assessment Results for RAVNN7 path SEED\_RYJON

Graphic Depiction 6



# DME DME Assessment Results for RAVNN7 path SEED\_RYJON

Graphic Depiction 7



## DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

Results Summary	
Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	David C-CTR Cook
Project File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI RAVNN7 (RNAV) STAR DME DME_20231211 MITRE 3DEP 3 arcsec_LOW ALT.tgs
Output File:	C:\Users\David C-CTR Cook\Documents\TARGETS WORK\KBWI\LOWER RUNS FOR CHRIS\KBWI [IFPA] RAVNN7 20240208_1144 EST\THHMP_ACROW\KBWI RAVNN7 RNAV STAR THHMP ACROW 20240208_1144 EST.pdf
Procedure Name:	RAVNN7
Software: DmeDmePlugin:	7.2.1
Date/Time:	02/08/2024 11:44 EST
Databases:	MITRE 3DEP 3 arcsec

Failures
No Failures

Warnings
No Warnings

Informational
No Informational

Notes For Flight Check
None

Flight Plan							
Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
THHMP	WP	N37° 29' 29.4700", W077° 19' 08.7500"	9000	VNAV	280	FLY_BY	TF
FZEEK	WP	N37° 42' 39.5200", W077° 15' 59.4300"	9000	VNAV	280	FLY_BY	TF
WHHTE	WP	N37° 54' 11.4200", W077° 13' 00.1300"	9000	VNAV	280	FLY_BY	TF
ACROW	WP	N38° 03' 51.9300", W077° 10' 28.9800"	9000	VNAV	280	FLY_BY	TF

Flyability	
Flight Type:	RNAV_STAR
Selected Airport:	KBWI [IFPA]
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 Assessment Results for RAVNN7 path THHMP\_ACROW

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, TACAN
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:	FKN

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	HPW	N37° 19' 43.9320", W077° 06' 57.3970"	6.0 W	40	L	IFPA	NO	Enabled	83.1 %	83.1 %
2	HCM	N37° 26' 55.1756", W076° 42' 40.8741"	7.0 W	40	L	IFPA	NO	Enabled	73.8 %	73.8 %
3	RIC	N37° 30' 08.4521", W077° 19' 12.9944"	9.0 W	130	H	IFPA	NO	Enabled	89.6 %	89.6 %
4	FAK	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	H	IFPA	NO	Enabled	99.3 %	99.3 %
5	LVL	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	L	IFPA	NO	Enabled	10.2 %	10.2 %
6	PXT	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	L	IFPA	NO	Enabled	4.4 %	4.4 %
7	BRV	N38° 20' 10.5264", W077° 21' 10.3159"	9.0 W	40	L	IFPA	NO	Enabled	0.4 %	0.4 %
8	CSN	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	H	IFPA	NO	Enabled	25.3 %	25.3 %
9	FKN	N36° 42' 51.2443", W077° 00' 44.5488"	9.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	LVL	HPW	FAK	HCM		
2.2	PXT	HPW	LVL	HCM	FAK	
3.6	HCM	RIC	HPW	FAK		
25.9	CSN	FAK	HPW	RIC		
29.2	FAK	CSN	RIC			
34.8	FAK	CSN	PXT	RIC		
34.9	BRV	PXT	RIC			

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

## DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
THHMP	FZEEK	FAK, HCM, LVL, PXT, RIC, HPW	
FZEEK	WHHTE	FAK, HCM, RIC, HPW	
WHHTE	ACROW	FAK, HCM, BRV, RIC, PXT, HPW, CSN	

### User Data Files

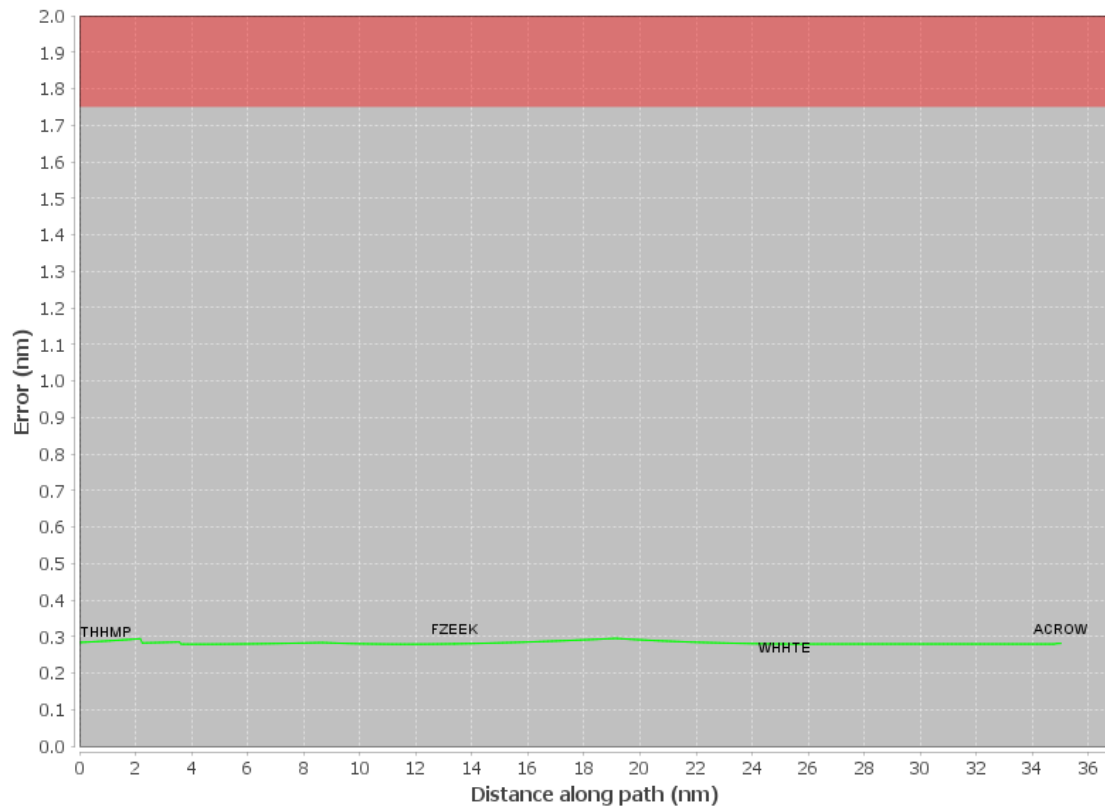
#	File Name
None	

### User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	ESV LVL [IFPA] LVL [IFPA]	N36° 49' 04.9290", W077° 54' 10.6850"	8.0 W	40	350	112.9	ESV LVL [IFPA]	
ESV:		Bearing [True]: 12.0° to 45.0° Bearing [Mag]: 20.0° to 53.0°				Arc Distance: Out to 60.0 NM Altitude: 8000.0 to 17000.0 ft		
2	GVE FAA 698194-10 GVE [IFPA]	N38° 00' 48.9578", W078° 09' 10.8957"	6.0 W	130	382.6	115.6	GVE FAA 698194-10	
ESV:		Bearing [True]: 122.0° to 150.0° Bearing [Mag]: 128.0° to 156.0°				Arc Distance: Out to 51.0 NM Altitude: 4000.0 to 16000.0 ft		
3	EMI FAA 701388-7 EMI [IFPA]	N39° 29' 42.0266", W076° 58' 42.8591"	8.0 W	130	820	117.9	EMI FAA 701388-7	
ESV:		Bearing [True]: 112.0° to 192.0° Bearing [Mag]: 120.0° to 200.0°				Arc Distance: Out to 80.0 NM Altitude: 6900.0 to 16000.0 ft		
4	FAK FAA 698146-16 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-16	
ESV:		Bearing [True]: 4.0° to 104.0° Bearing [Mag]: 10.0° to 110.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		
5	FAK FAA 698146-14 FAK [IFPA]	N37° 31' 42.6340", W077° 49' 41.5890"	6.0 W	130	460	113.3	FAK FAA 698146-14	
ESV:		Bearing [True]: 309.0° to 3.0° Bearing [Mag]: 315.0° to 9.0°				Arc Distance: Out to 86.0 NM Altitude: 5000.0 to 16000.0 ft		
6	PXT FAA 670753-15 PXT [IFPA]	N38° 17' 16.2825", W076° 24' 00.8315"	10.0 W	40	17.8	117.6	PXT FAA 670753-15	
ESV:		Bearing [True]: 220.0° to 239.0° Bearing [Mag]: 230.0° to 249.0°				Arc Distance: Out to 65.0 NM Altitude: 6000.0 to 20000.0 ft		
7	ESL FAA 703995-18 ESL [IFPA]	N39° 13' 31.7740", W078° 59' 22.2000"	6.0 W	40	2590	110.8	ESL FAA 703995-18	
ESV:		Bearing [True]: 128.0° to 201.0° Bearing [Mag]: 134.0° to 207.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 14000.0 ft		
8	CSN FAA 682017-21 CSN [IFPA]	N38° 38' 28.3277", W077° 51' 55.7979"	6.0 W	130	441.8	116.3	CSN FAA 682017-21	
ESV:		Bearing [True]: 44.0° to 154.0° Bearing [Mag]: 50.0° to 160.0°				Arc Distance: Out to 82.0 NM Altitude: 7000.0 to 16000.0 ft		

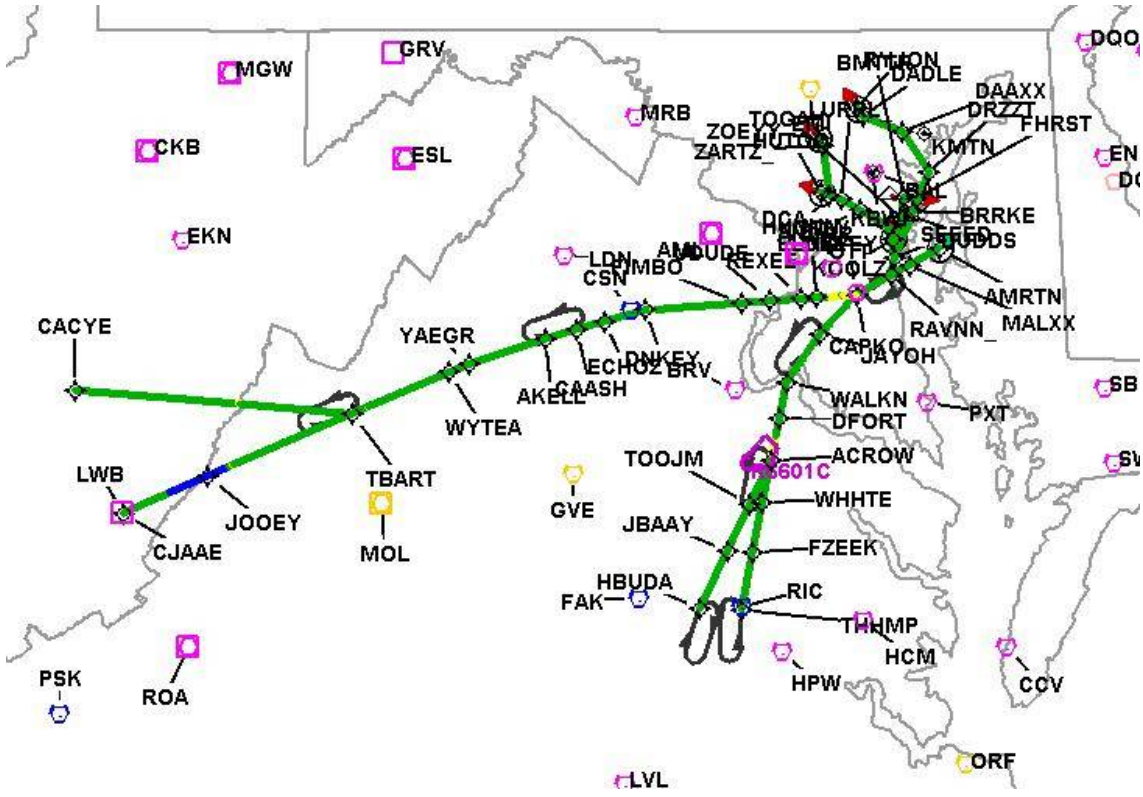
# DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

## DME Error



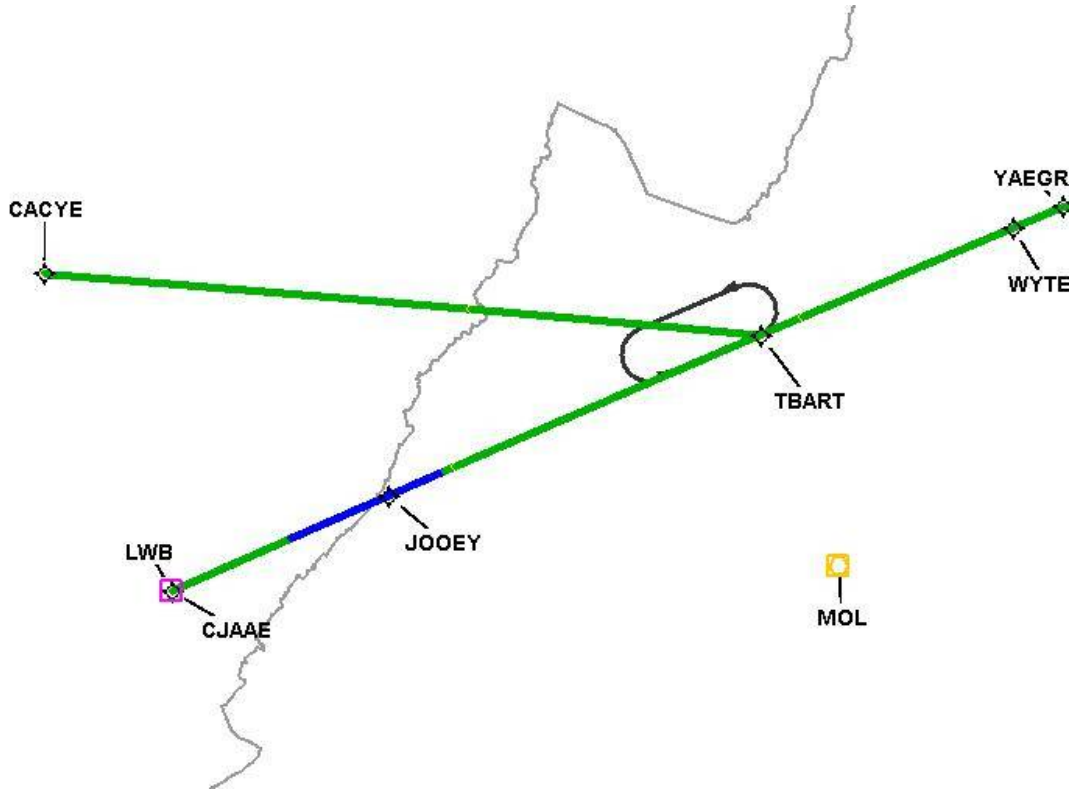
# DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

Graphic Depiction 1



DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

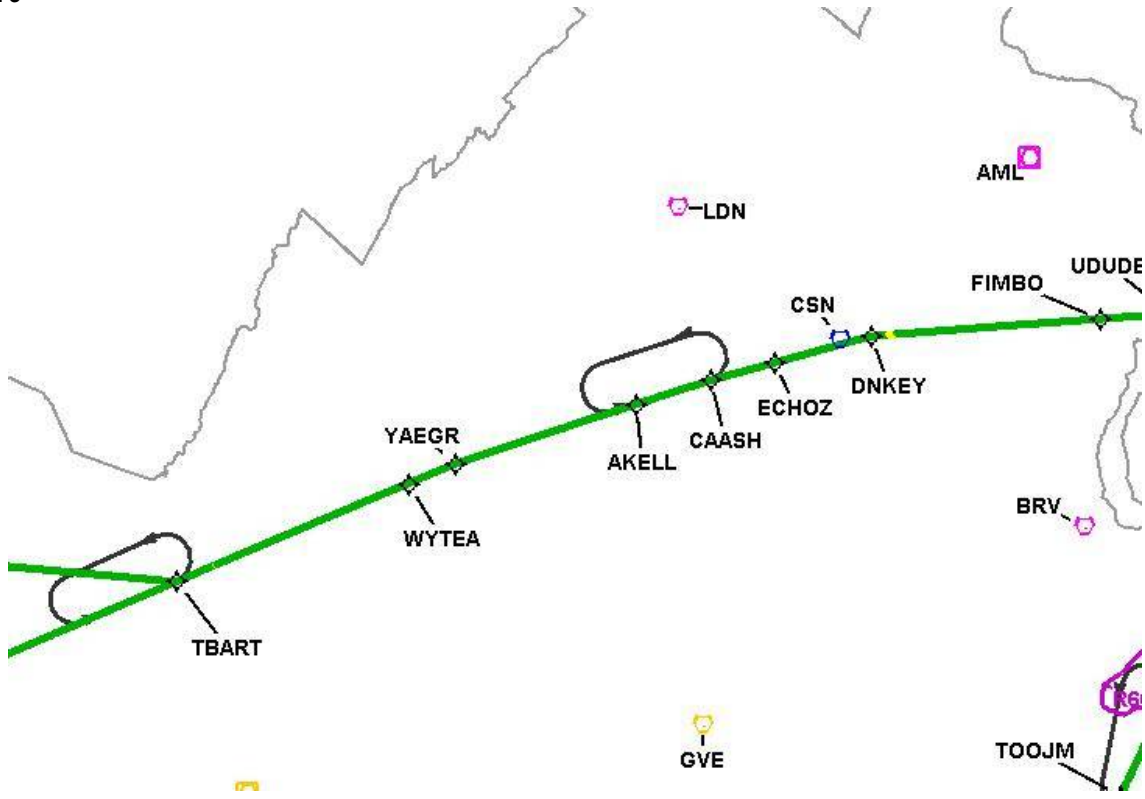
Graphic Depiction 2





DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

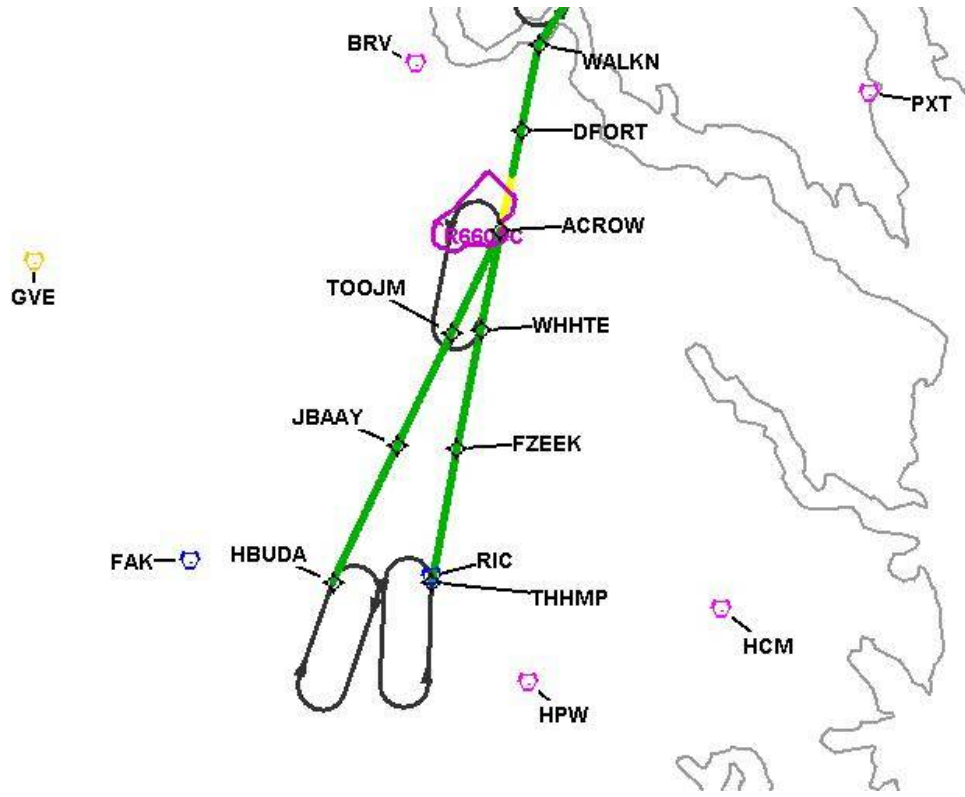
Graphic Depiction 3





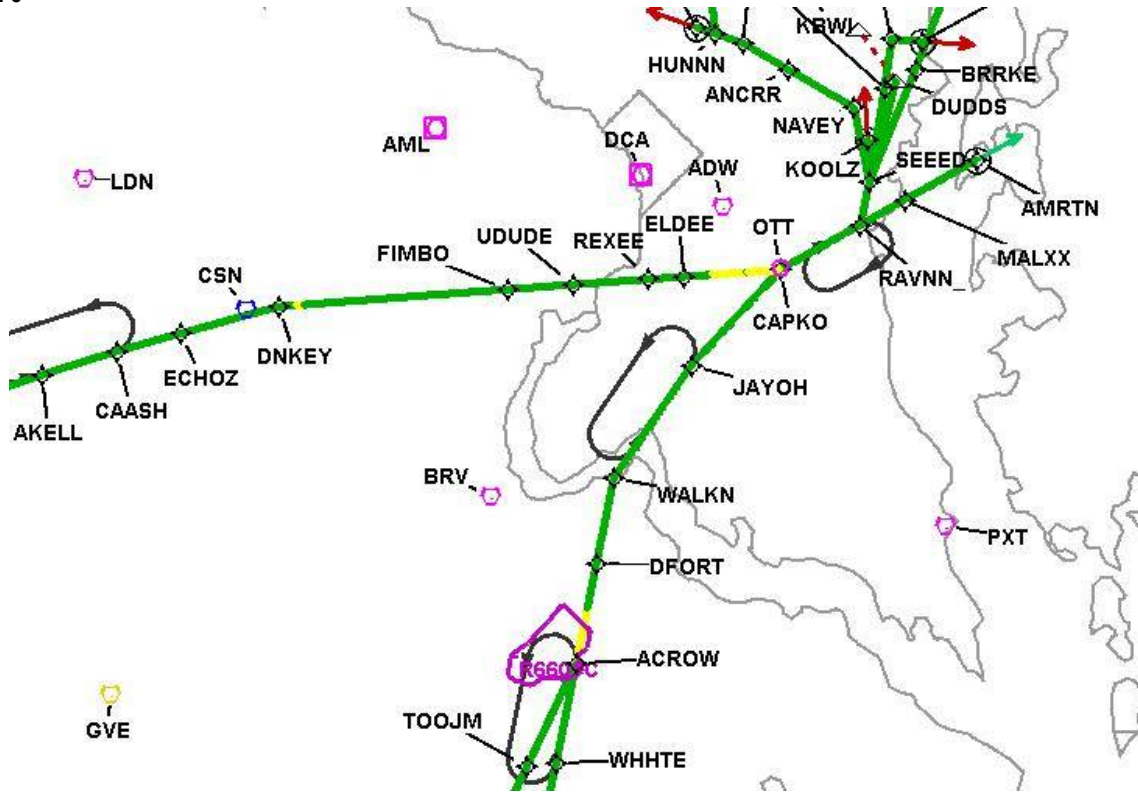
DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

Graphic Depiction 5



# DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

Graphic Depiction 6



# DME DME Assessment Results for RAVNN7 path THHMP\_ACROW

Graphic Depiction 7

