DME DME Assessment Results for BARII3 path KDTW:RW03L:DER_HUUTZ

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Jose G-CTR Medina
Project File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW BARII3 DME(lover MEAS) 20240110.tgs
Output File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW [IFPA] BARII3 20240116_0655 CST\KDTW-RW03L-DER_HUUTZ\KDTW BARII3 SID RW03L HUUTZ 20240116_0655 CST.pdf
Procedure Name:	BARII3
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/16/2024 06:55 CST
Databases:	DTED LEVEL 0 MAX

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
KDTW:RW03L:DER	WP	N42° 13' 41.8586", W083° 20' 10.1070"	631.4	VNAV	130	FLY_BY	TF
BESST	WP	N42° 16' 56.6900", W083° 13' 21.0400"	2500	VNAV	230	FLY_BY	TF
SWNDL	WP	N42° 12' 55.8000", W083° 04' 22.4400"	3000	VNAV	230	FLY_BY	TF
WERKN	WP	N41° 59' 20.1300", W083° 12' 54.7500"	3000	VNAV	230	FLY_BY	TF
HUUTZ	WP	N41° 42' 18.6400", W083° 35' 23.7500"	3000	VNAV	230	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 1146.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDTW [IFPA]
Climb Gradient:	500.0 ft/NM up to 1146.0 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 BARII3 path KDTW:RW03L:DER_HUUTZ

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

DME/DME (Continued)

DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	PSI	N42° 42' 03.0947", W083° 31' 57.9835"	-0.0 E	40	L	IFPA	NO	Enabled	24.6 %	24.5 %
2	DXO	N42° 12' 47.2904", W083° 21' 59.9878"	6.0 W	130	H	IFPA	NO	Enabled	56.1 %	56.9 %
3	CRL	N42° 02' 52.8956", W083° 27' 27.2625"	3.0 W	130	DH	IFPA	NO	Enabled	60.2 %	60.5 %
4	SVM	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	L	IFPA	NO	Enabled	37.8 %	37.6 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.0	CRL	SVM				
3.0	CRL	SVM	PSI	DXO		
5.9	PSI	DXO	CRL			
14.0	PSI	CRL	SVM	DXO		
16.0	CRL	SVM	DXO			
29.0	CRL	DXO				
33.1						

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 43.7264", W083° 20' 08.7299"	N42° 14' 36.0238", W083° 19' 30.1622"	0.9936
2	N41° 56' 23.3913", W083° 16' 49.4321"	N41° 42' 18.6400", W083° 35' 23.7500"	19.77

DME DME Assessment Results for BARII3 path KDTW:RW03L:DER_HUUTZ

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
KDTW:RW03L:DER	BESST	PSI, DXO, SVM, CRL	
BESST	SWNDL	PSI, DXO, CRL	
SWNDL	WERKN	PSI, DXO, SVM, CRL	
WERKN	HUUTZ	DXO, CRL	

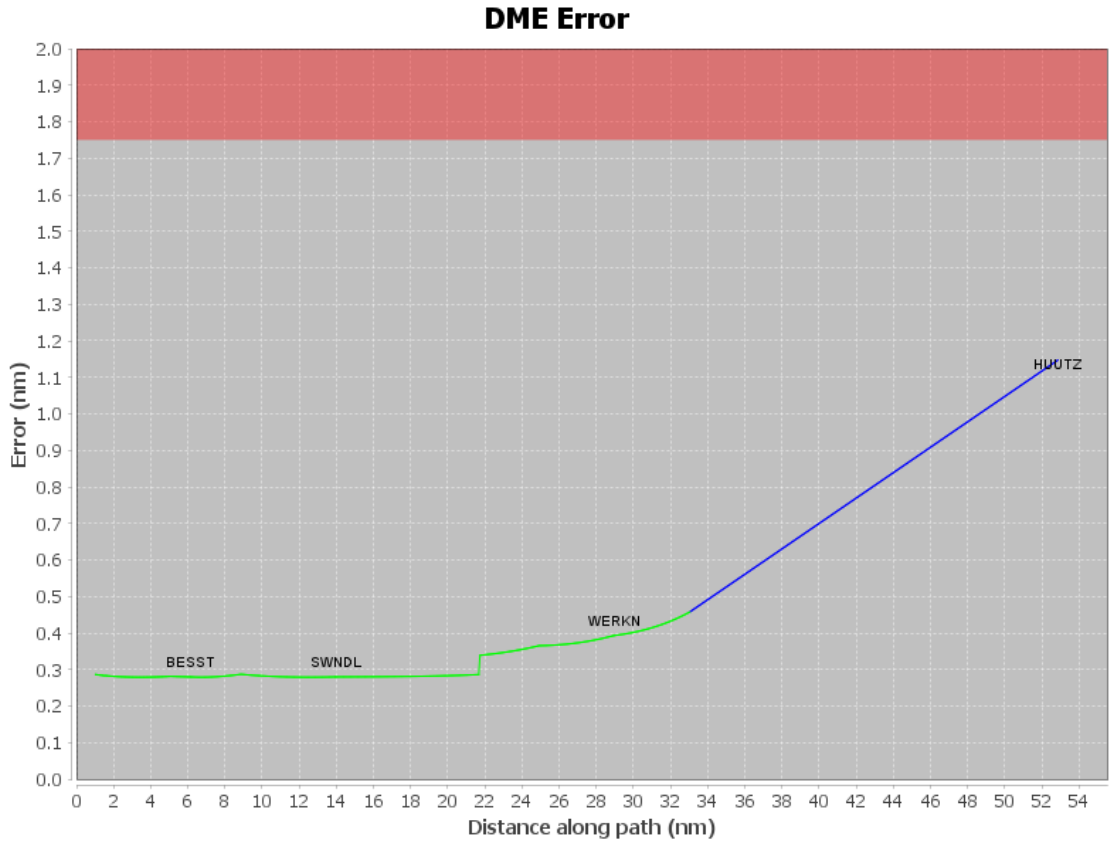
User Data Files

#	File Name
None	

User DMEs

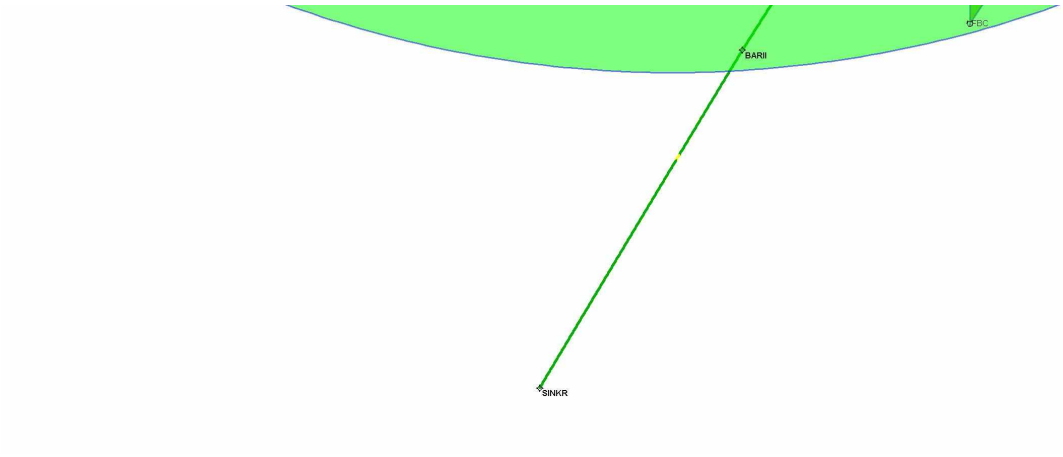
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	FBC FAA 703956-22 FBC [IFPA]	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	822.7	108.2	FBC FAA 703956-22	
	ESV:	Bearing [True]: 354.0º to 27.0º Bearing [Mag]: 356.0º to 29.0º				Arc Distance: Out to 58.0 NM Altitude: 3000.0 to 20000.0 ft		
2	MFD FAA 703963-25 MFD [IFPA]	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	1222	108.8	MFD FAA 703963-25	
	ESV:	Bearing [True]: 297.0º to 314.0º Bearing [Mag]: 300.0º to 317.0º				Arc Distance: Out to 69.0 NM Altitude: 5300.0 to 20000.0 ft		
3	SVM FAA 698158-032 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-032	
	ESV:	Bearing [True]: 171.0º to 192.0º Bearing [Mag]: 174.0º to 195.0º				Arc Distance: Out to 55.0 NM Altitude: 3000.0 to 20000.0 ft		
4	DXO FAA 890060-77 DXO [IFPA]	N42° 12' 47.2915", W083° 21' 59.9856"	6.0 W	130	636.5	113.4	DXO FAA 890060-77	
	ESV:	Bearing [True]: 192.0º to 208.0º Bearing [Mag]: 198.0º to 214.0º				Arc Distance: Out to 50.0 NM Altitude: 3000.0 to 20000.0 ft		
5	JXN FAA 701964-13 JXN [IFPA]	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	994	null	JXN FAA 701964-13	
	ESV:	Bearing [True]: 131.0º to 159.0º Bearing [Mag]: 131.0º to 159.0º				Arc Distance: Out to 63.0 NM Altitude: 3000.0 to 4500.0 ft		
6	SVM FAA 698158-033 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-033	
	ESV:	Bearing [True]: 164.0º to 191.0º Bearing [Mag]: 167.0º to 194.0º				Arc Distance: Out to 51.0 NM Altitude: 3000.0 to 16000.0 ft		

DME DME Assessment Results for BARII3 path KDTW:RW03L:DER_HUUTZ



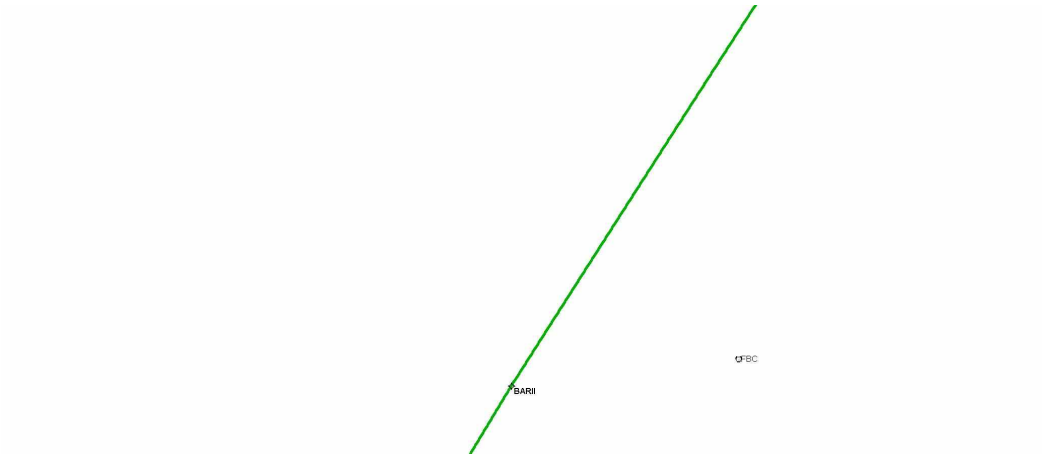
DME DME Assessment Results for BARII3 path KDTW:RW03L:DER_HUUTZ

Graphic Depiction 1



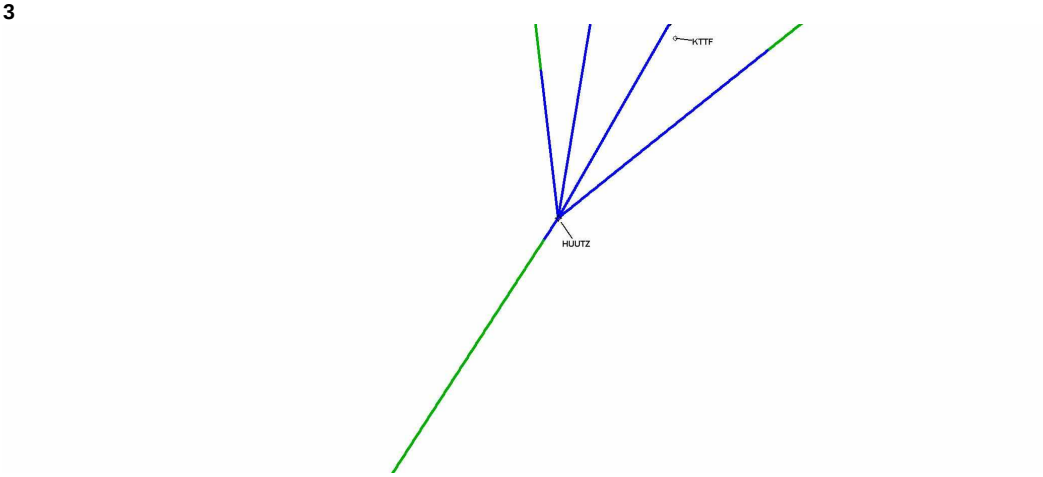
DME DME Assessment Results for BARII3 path KDTW:RW03L:DER_HUUTZ

Graphic Depiction 2



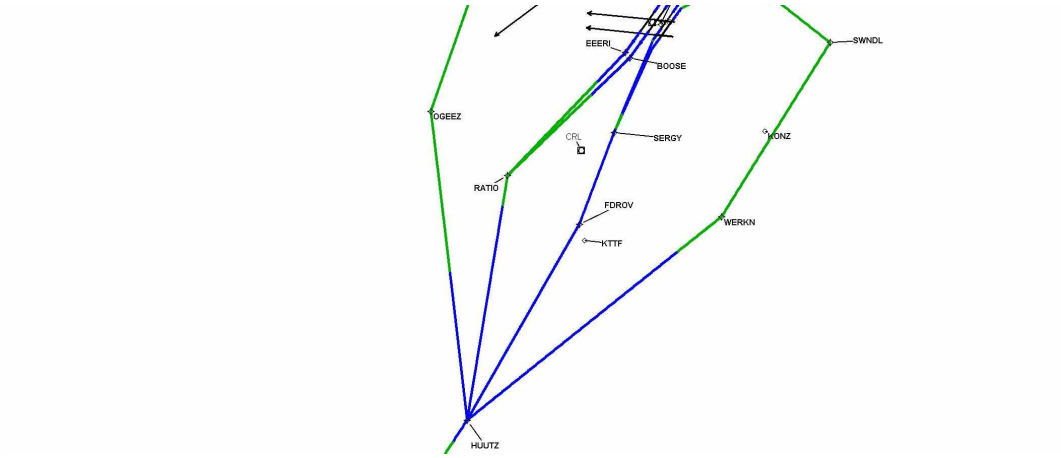
DME DME Assessment Results for BARII3 path KDTW:RW03L:DER_HUUTZ

Graphic Depiction 3



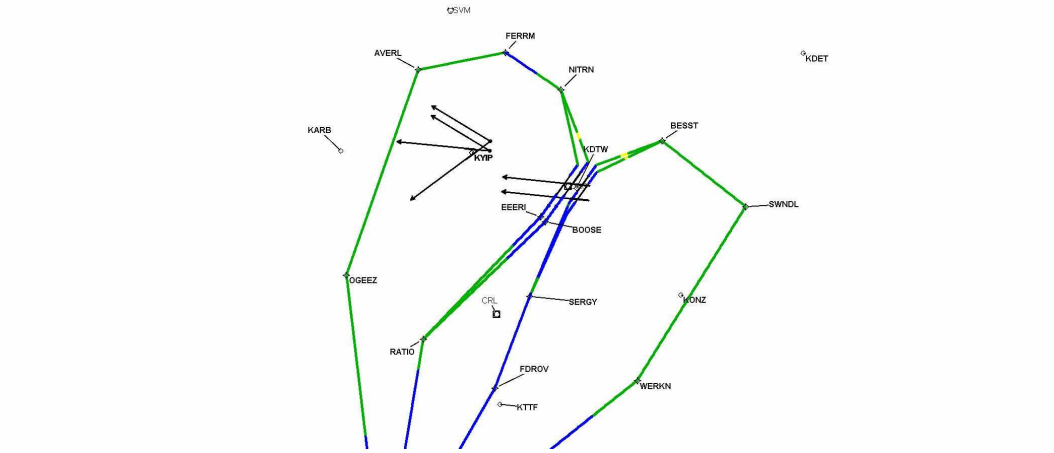
DME DME Assessment Results for BARII3 path KDTW:RW03L:DER_HUUTZ

Graphic Depiction 4



DME DME Assessment Results for BARII3 path KDTW:RW03L:DER_HUUTZ

Graphic Depiction 5



DME DME Assessment Results for BARII3 path KDTW:RW03R:DER_BESST

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Jose G-CTR Medina
Project File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW BARII3 DME(lover MEAS) 20240110.tgs
Output File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW [IFPA] BARII3 20240116_0655 CST\KDTW-RW03R-DER_BESST\KDTW BARII3 SID RW03R BESST 20240116_0655 CST.pdf
Procedure Name:	BARII3
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/16/2024 06:55 CST
Databases:	DTED LEVEL 0 MAX

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
KDTW:RW03R:DER	WP	N42° 13' 10.8552", W083° 20' 02.6517"	631.8	VNAV	130	FLY_BY	TF
BESST	WP	N42° 16' 56.6900", W083° 13' 21.0400"	2500	VNAV	230	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 1146.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDTW [IFPA]
Climb Gradient:	500.0 ft/NM up to 1146.0 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 BARII3 path KDTW:RW03R:DER_BESST

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

DME/DME (Continued)

DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	PSI	N42° 42' 03.0947", W083° 31' 57.9835"	-0.0 E	40	L	IFPA	NO	Enabled	42.9 %	47.1 %
2	DXO	N42° 12' 47.2904", W083° 21' 59.9878"	6.0 W	130	H	IFPA	NO	Enabled	42.9 %	47.1 %
3	CRL	N42° 02' 52.8956", W083° 27' 27.2625"	3.0 W	130	DH	IFPA	NO	Enabled	77.4 %	83.8 %
4	SVM	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	L	IFPA	NO	Enabled	77.4 %	83.8 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.0	CRL	SVM				
3.4	CRL	SVM	PSI	DXO		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 12.7219", W083° 20' 01.2758"	N42° 14' 04.9862", W083° 19' 22.7426"	0.9929

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
KDTW:RW03R:DER	BESST	PSI, DXO, SVM, CRL	

DME DME Assessment Results for BARII3 path KDTW:RW03R:DER_BESST

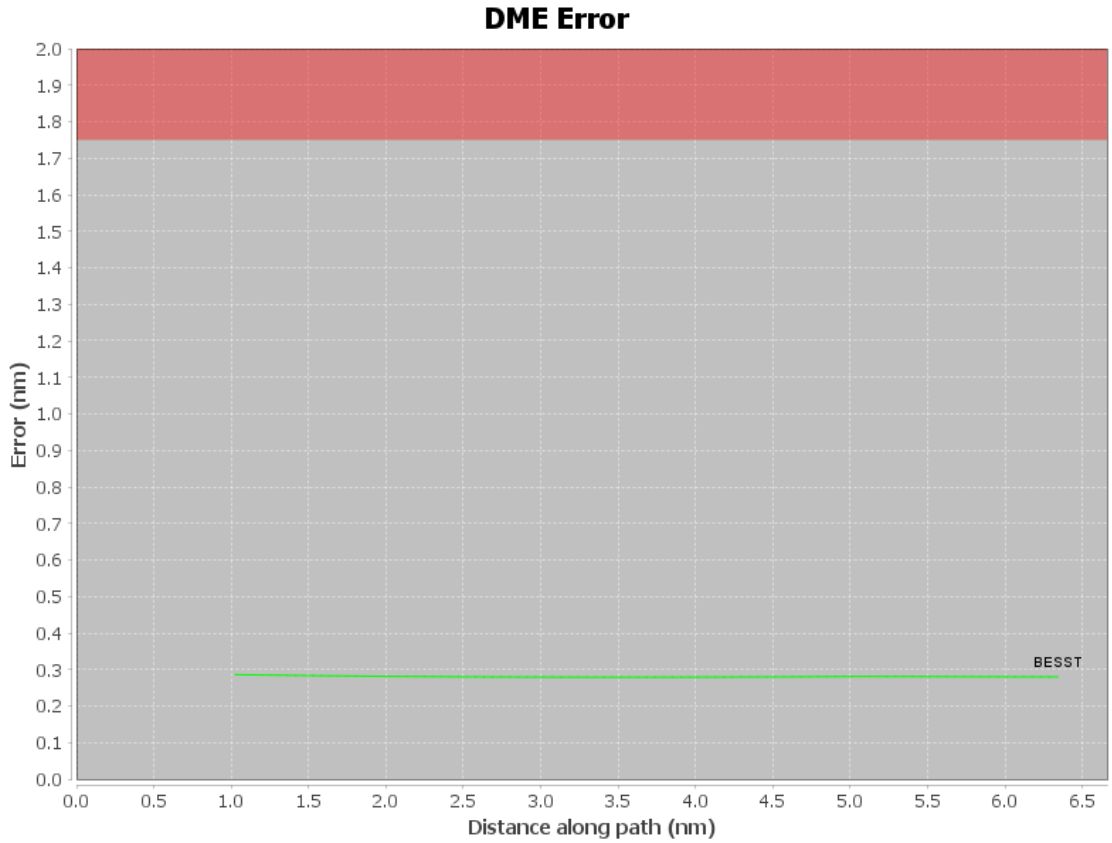
User Data Files

#	File Name
None	

User DMEs

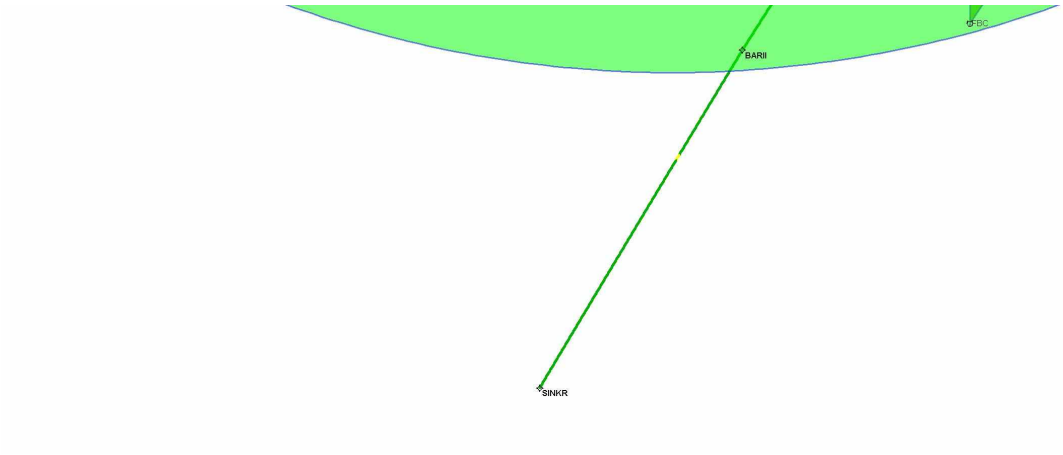
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	FBC FAA 703956-22 FBC [IFPA]	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	822.7	108.2	FBC FAA 703956-22	
	ESV:	Bearing [True]: 354.0º to 27.0º Bearing [Mag]: 356.0º to 29.0º				Arc Distance: Out to 58.0 NM Altitude: 3000.0 to 20000.0 ft		
2	MFD FAA 703963-25 MFD [IFPA]	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	1222	108.8	MFD FAA 703963-25	
	ESV:	Bearing [True]: 297.0º to 314.0º Bearing [Mag]: 300.0º to 317.0º				Arc Distance: Out to 69.0 NM Altitude: 5300.0 to 20000.0 ft		
3	SVM FAA 698158-032 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-032	
	ESV:	Bearing [True]: 171.0º to 192.0º Bearing [Mag]: 174.0º to 195.0º				Arc Distance: Out to 55.0 NM Altitude: 3000.0 to 20000.0 ft		
4	DXO FAA 890060-77 DXO [IFPA]	N42° 12' 47.2915", W083° 21' 59.9856"	6.0 W	130	636.5	113.4	DXO FAA 890060-77	
	ESV:	Bearing [True]: 192.0º to 208.0º Bearing [Mag]: 198.0º to 214.0º				Arc Distance: Out to 50.0 NM Altitude: 3000.0 to 20000.0 ft		
5	JXN FAA 701964-13 JXN [IFPA]	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	994	null	JXN FAA 701964-13	
	ESV:	Bearing [True]: 131.0º to 159.0º Bearing [Mag]: 131.0º to 159.0º				Arc Distance: Out to 63.0 NM Altitude: 3000.0 to 4500.0 ft		
6	SVM FAA 698158-033 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-033	
	ESV:	Bearing [True]: 164.0º to 191.0º Bearing [Mag]: 167.0º to 194.0º				Arc Distance: Out to 51.0 NM Altitude: 3000.0 to 16000.0 ft		

DME DME Assessment Results for BARII3 path KDTW:RW03R:DER_BESST



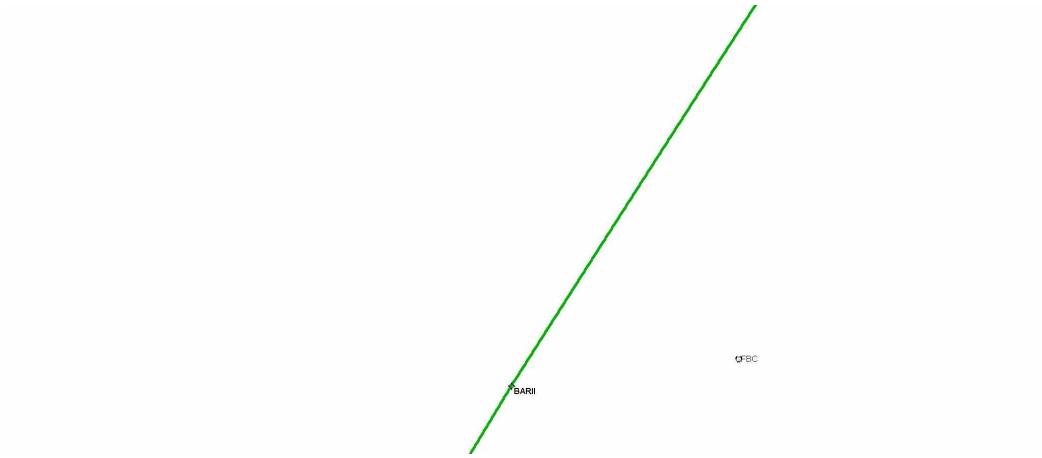
DME DME Assessment Results for BARII3 path KDTW:RW03R:DER_BESST

Graphic Depiction 1



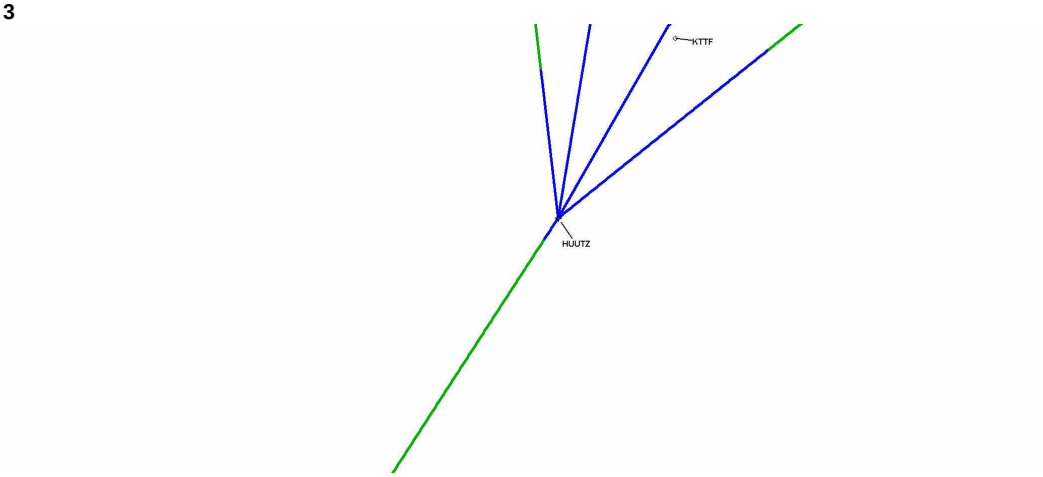
DME DME Assessment Results for BARII3 path KDTW:RW03R:DER_BESST

Graphic Depiction 2



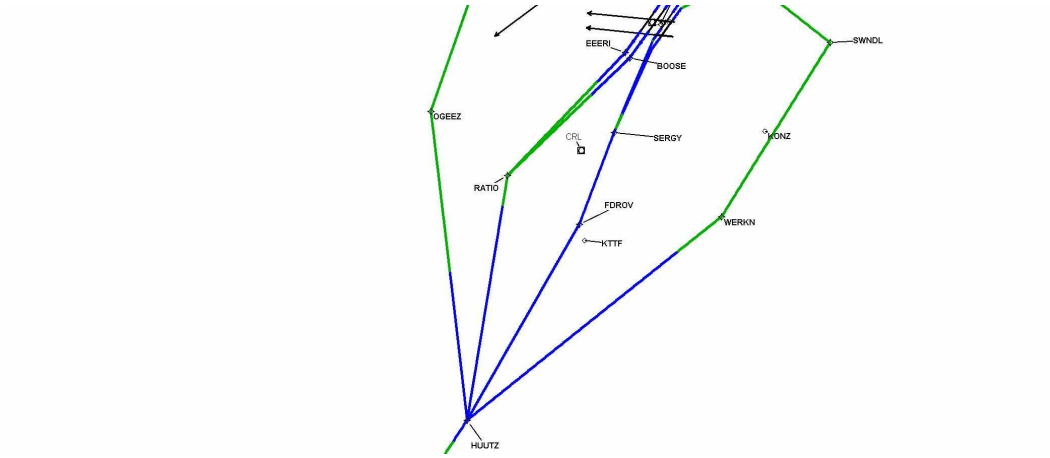
DME DME Assessment Results for BARII3 path KDTW:RW03R:DER_BESST

Graphic Depiction 3



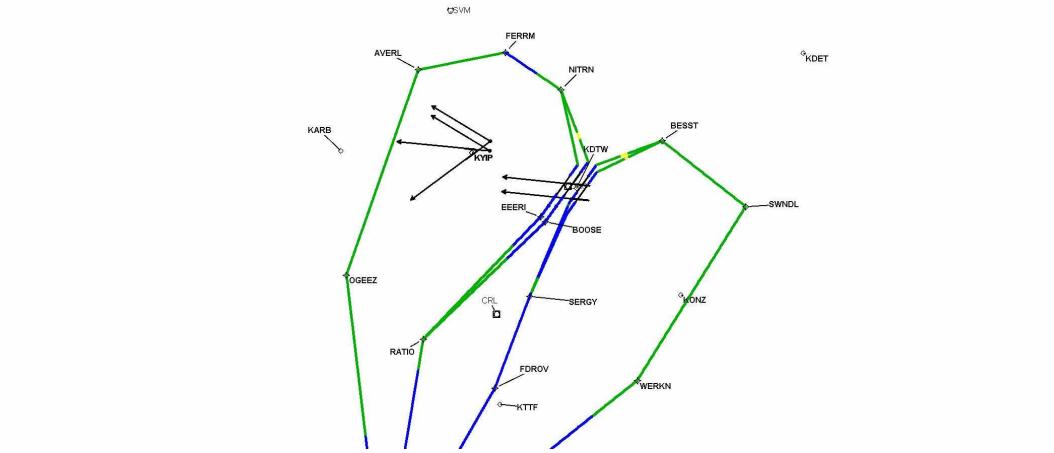
DME DME Assessment Results for BARII3 path KDTW:RW03R:DER_BESST

Graphic Depiction 4



DME DME Assessment Results for BARII3 path KDTW:RW03R:DER_BESST

Graphic Depiction 5



DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Jose G-CTR Medina
Project File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW BARII3 DME(lover MEAS) 20240110.tgs
Output File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW [IFPA] BARII3 20240116_0655 CST\KDTW-RW04L-DER_SINKR\KDTW BARII3 SID RW04L SINKR 20240116_0655 CST.pdf
Procedure Name:	BARII3
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/16/2024 06:55 CST
Databases:	DTED LEVEL 0 MAX

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
KDTW:RW04L:DER	WP	N42° 13' 34.4821", W083° 21' 58.6115"	642.1	VNAV	130	FLY_BY	TF
NITRN	WP	N42° 19' 43.9500", W083° 23' 52.2800"	2500	VNAV	230	FLY_BY	TF
FERRM	WP	N42° 21' 58.0900", W083° 29' 45.6200"	3000	VNAV	230	FLY_BY	TF
AVERL	WP	N42° 19' 55.5400", W083° 38' 05.4800"	3000	VNAV	230	FLY_BY	TF
OGEEZ	WP	N42° 04' 23.5500", W083° 42' 40.0400"	3000	VNAV	230	FLY_BY	TF
HUUTZ	WP	N41° 42' 18.6400", W083° 35' 23.7500"	3000	VNAV	230	FLY_BY	TF
BARII	WP	N40° 53' 22.5000", W084° 07' 19.6900"	9000	VNAV	230	FLY_BY	TF
SINKR	WP	N40° 27' 04.6500", W084° 23' 06.7300"	9000	VNAV	230	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 1146.0 ft MSL 200.0 ft/NM							

DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

Flyability	
Flight Type:	SID
Selected Airport:	KDTW [IFPA]
Climb Gradient:	500.0 ft/NM up to 1146.0 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:	None

DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

DME/DME (Continued)

DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	PSI	N42° 42' 03.0947", W083° 31' 57.9835"	-0.0 E	40	L	IFPA	NO	Enabled	17.3 %	17.4 %
2	DXO	N42° 12' 47.2904", W083° 21' 59.9878"	6.0 W	130	H	IFPA	NO	Enabled	31.3 %	31.6 %
3	FBC	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	L	IFPA	NO	Enabled	55.2 %	55.8 %
4	CRL	N42° 02' 52.8956", W083° 27' 27.2625"	3.0 W	130	DH	IFPA	NO	Enabled	85.8 %	86.2 %
5	DJB	N41° 21' 29.0339", W082° 09' 43.0873"	5.0 W	130	DH	IFPA	NO	Enabled	36 %	36.4 %
6	SHB	N39° 37' 57.1525", W085° 49' 27.5388"	1.0 E	130	DH	IFPA	NO	Enabled	14.1 %	14.2 %
7	JXN	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	DH	IFPA	NO	Enabled	73 %	73.8 %
8	SVM	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	L	IFPA	NO	Enabled	33.1 %	32.9 %
9	ROD	N40° 17' 16.0830", W084° 02' 35.1471"	5.0 W	130	H	IFPA	NO	Enabled	21.7 %	21.9 %
10	DQN	N40° 00' 59.1995", W084° 23' 48.8332"	1.0 W	40	L	IFPA	NO	Enabled	9.4 %	9.5 %
11	MFD	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	L	IFPA	NO	Enabled	0.5 %	0.5 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.0	CRL	SVM				
2.4	CRL	SVM	DXO			
2.8	CRL	SVM				
5.3	CRL	SVM	PSI			
7.4	CRL	SVM				
8.7						
11.6	CRL	JXN	PSI	DXO	SVM	
11.9	CRL	JXN	PSI	DXO		
17.9	SVM	DXO	CRL	JXN	PSI	
34.0	JXN	SVM	CRL	DXO		
45.1	CRL	SVM				
45.7						
58.5	JXN	DXO	CRL	FBC	SVM	
68.9	MFD	DXO	CRL	JXN	FBC	
69.0	FBC	DJB	CRL	JXN		
109.4	ROD	FBC	JXN	DJB	CRL	
119.6	ROD	FBC	JXN	CRL		
120.1	ROD	FBC	DJB	JXN	SHB	CRL
120.6	ROD	FBC	JXN	SHB		
121.2	ROD	FBC	JXN	SHB	CRL	
128.4	ROD	FBC	SHB	CRL	DQN	
136.7	SHB	ROD	CRL	DQN		
138.0	SHB	ROD	DQN			

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 36.3771", W083° 21' 57.2160"	N42° 14' 25.6460", W083° 21' 20.9240"	0.9358
2	N42° 20' 42.0949", W083° 26' 25.2909"	N42° 21' 58.0900", W083° 29' 45.6200"	2.7737
3	N41° 52' 55.1115", W083° 38' 52.6913"	N41° 40' 39.0877", W083° 36' 29.6008"	12.7733

DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
KDTW:RW04L:DER	NITRN	PSI, DXO, SVM, CRL	
NITRN	FERRM	PSI, SVM, CRL	
FERRM	AVERL	JXN, PSI, DXO, SVM, CRL	
AVERL	OGEEZ	JXN, PSI, DXO, SVM, CRL	
OGEEZ	HUUTZ	JXN, DXO, SVM, CRL	
HUUTZ	BARII	JXN, FBC, ROD, DXO, MFD, SVM, CRL, DJB	
BARII	SINKR	DQN, JXN, FBC, ROD, CRL, SHB, DJB	

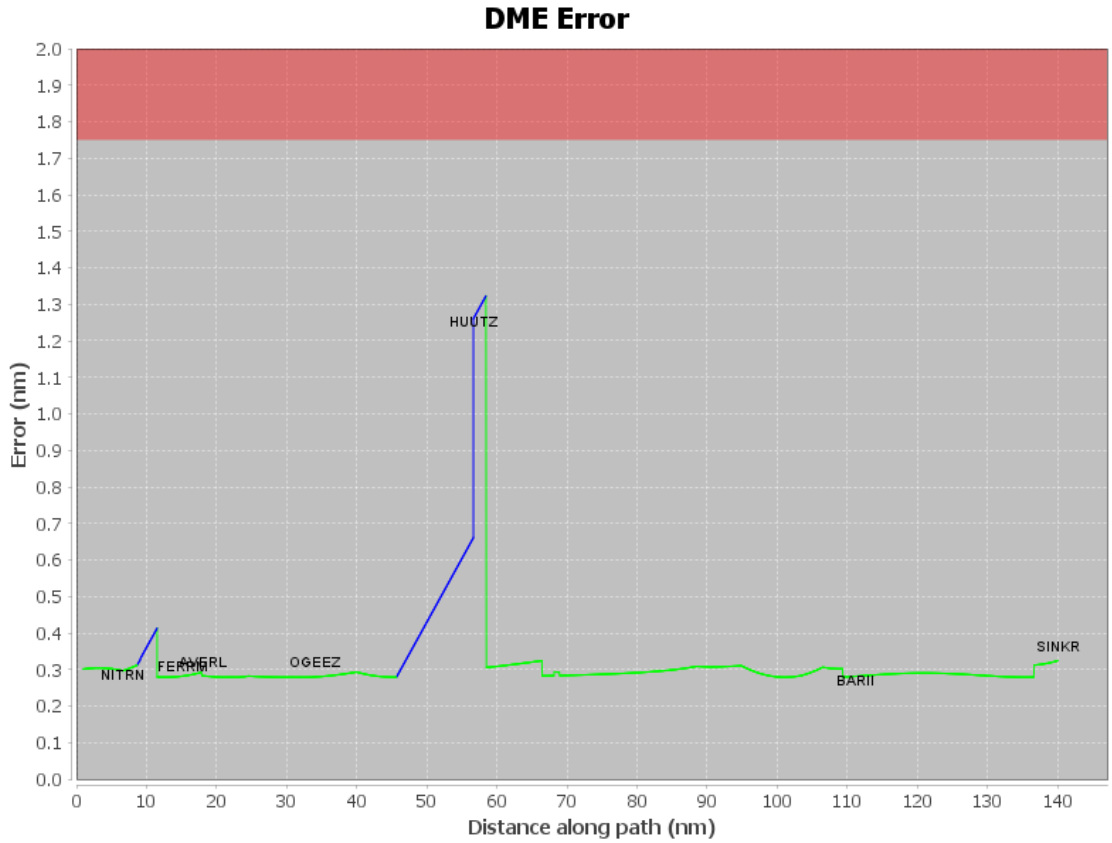
User Data Files

#	File Name
None	

User DMEs

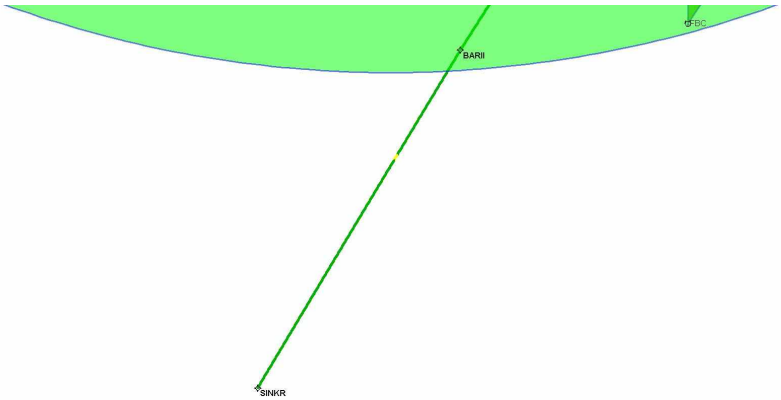
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	FBC FAA 703956-22 FBC [IFPA]	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	822.7	108.2	FBC FAA 703956-22	
	ESV:	Bearing [True]: 354.0º to 27.0º Bearing [Mag]: 356.0º to 29.0º				Arc Distance: Out to 58.0 NM Altitude: 3000.0 to 20000.0 ft		
2	MFD FAA 703963-25 MFD [IFPA]	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	1222	108.8	MFD FAA 703963-25	
	ESV:	Bearing [True]: 297.0º to 314.0º Bearing [Mag]: 300.0º to 317.0º				Arc Distance: Out to 69.0 NM Altitude: 5300.0 to 20000.0 ft		
3	SVM FAA 698158-032 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-032	
	ESV:	Bearing [True]: 171.0º to 192.0º Bearing [Mag]: 174.0º to 195.0º				Arc Distance: Out to 55.0 NM Altitude: 3000.0 to 20000.0 ft		
4	DXO FAA 890060-77 DXO [IFPA]	N42° 12' 47.2915", W083° 21' 59.9856"	6.0 W	130	636.5	113.4	DXO FAA 890060-77	
	ESV:	Bearing [True]: 192.0º to 208.0º Bearing [Mag]: 198.0º to 214.0º				Arc Distance: Out to 50.0 NM Altitude: 3000.0 to 20000.0 ft		
5	JXN FAA 701964-13 JXN [IFPA]	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	994	null	JXN FAA 701964-13	
	ESV:	Bearing [True]: 131.0º to 159.0º Bearing [Mag]: 131.0º to 159.0º				Arc Distance: Out to 63.0 NM Altitude: 3000.0 to 4500.0 ft		
6	SVM FAA 698158-033 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-033	
	ESV:	Bearing [True]: 164.0º to 191.0º Bearing [Mag]: 167.0º to 194.0º				Arc Distance: Out to 51.0 NM Altitude: 3000.0 to 16000.0 ft		

DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR



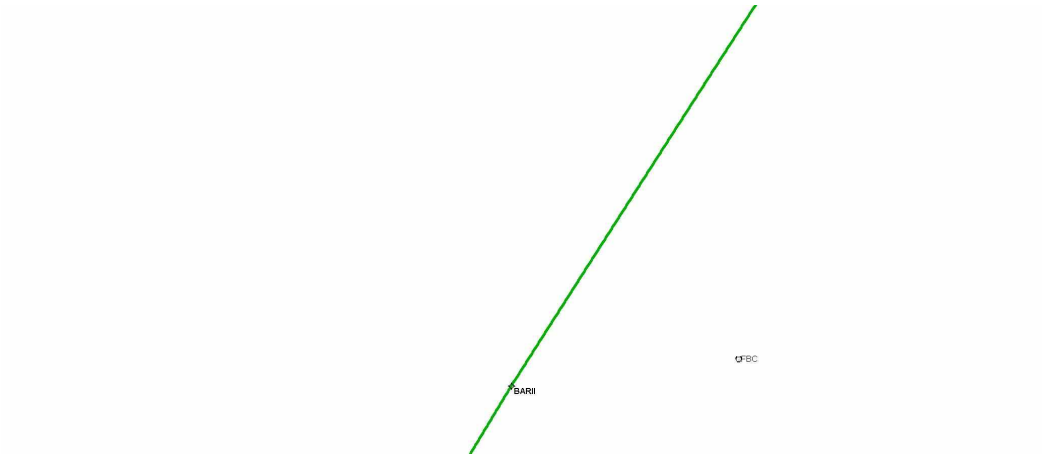
DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

Graphic Depiction 1



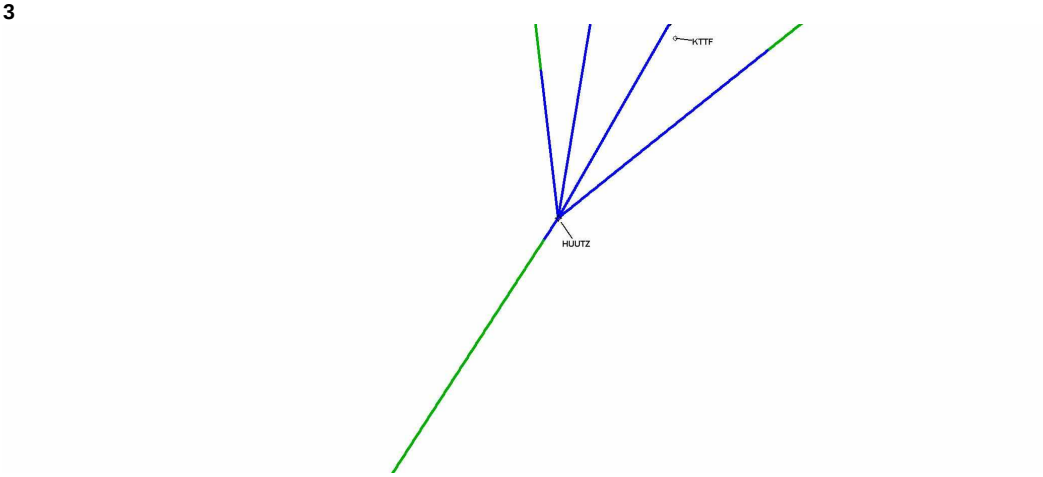
DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

Graphic Depiction 2



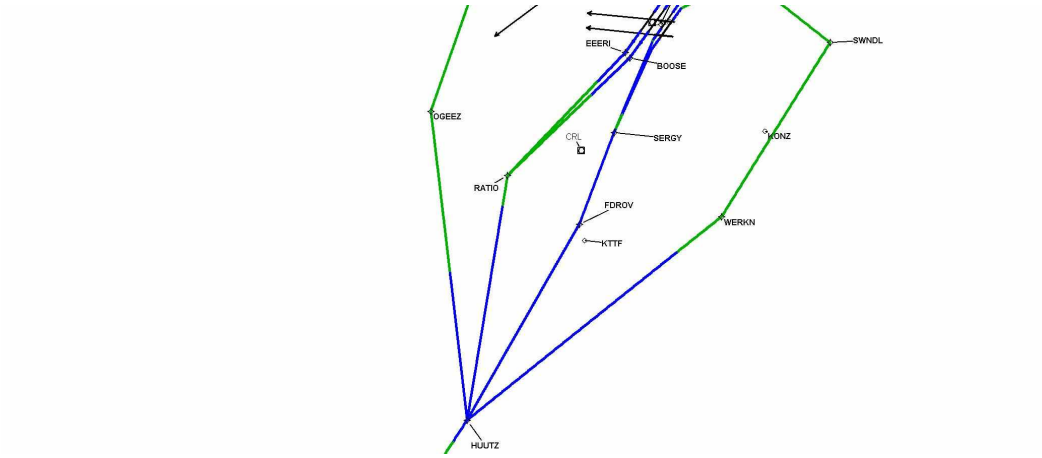
DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

Graphic Depiction 3



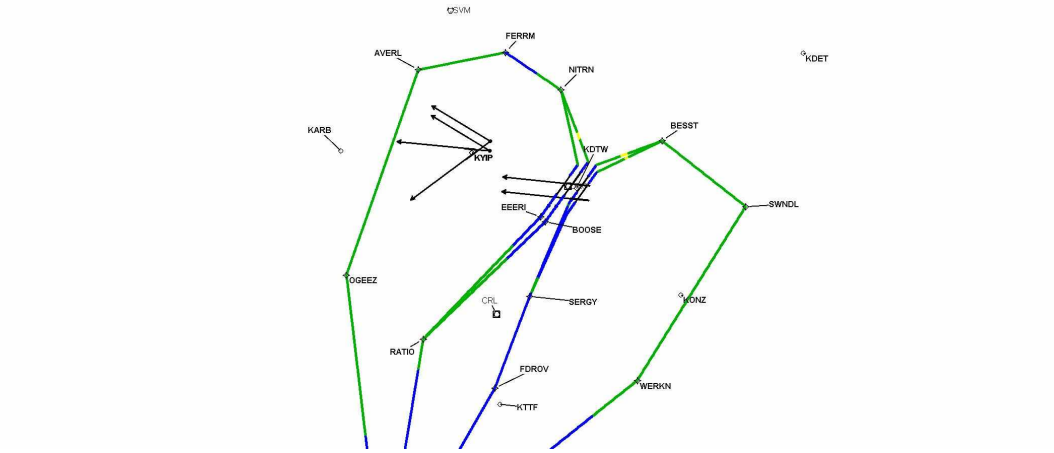
DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

Graphic Depiction 4



DME DME Assessment Results for BARII3 path KDTW:RW04L:DER_SINKR

Graphic Depiction 5



DME DME Assessment Results for BARII3 path KDTW:RW04R:DER_NITRN

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Jose G-CTR Medina
Project File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW BARII3 DME(lover MEAS) 20240110.tgs
Output File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW [IFPA] BARII3 20240116_0655 CST\KDTW-RW04R-DER_NITRN\KDTW BARII3 SID RW04R NITRN 20240116_0655 CST.pdf
Procedure Name:	BARII3
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/16/2024 06:55 CST
Databases:	DTED LEVEL 0 MAX

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
KDTW:RW04R:DER	WP	N42° 13' 52.3644", W083° 20' 59.9655"	635.8	VNAV	130	FLY_BY	TF
NITRN	WP	N42° 19' 43.9500", W083° 23' 52.2800"	2500	VNAV	230	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 1146.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDTW [IFPA]
Climb Gradient:	500.0 ft/NM up to 1146.0 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 BARII3 path KDTW:RW04R:DER_NITRN

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

DME/DME (Continued)

DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	PSI	N42° 42' 03.0947", W083° 31' 57.9835"	-0.0 E	40	L	IFPA	NO	Enabled	19.9 %	22.4 %
2	DXO	N42° 12' 47.2904", W083° 21' 59.9878"	6.0 W	130	H	IFPA	NO	Enabled	11.7 %	12.4 %
3	CRL	N42° 02' 52.8956", W083° 27' 27.2625"	3.0 W	130	DH	IFPA	NO	Enabled	79.2 %	85.1 %
4	SVM	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	L	IFPA	NO	Enabled	79.2 %	85.1 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.0	CRL	SVM				
2.1	CRL	SVM	DXO			
2.6	CRL	SVM				
2.8	CRL	SVM	DXO	PSI		
3.3	CRL	SVM				
5.6	CRL	SVM	PSI			

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 54.2167", W083° 20' 58.6004"	N42° 14' 44.2257", W083° 20' 21.7343"	0.95

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
KDTW:RW04R:DER	NITRN	PSI, DXO, SVM, CRL	

DME DME Assessment Results for BARII3 path KDTW:RW04R:DER_NITRN

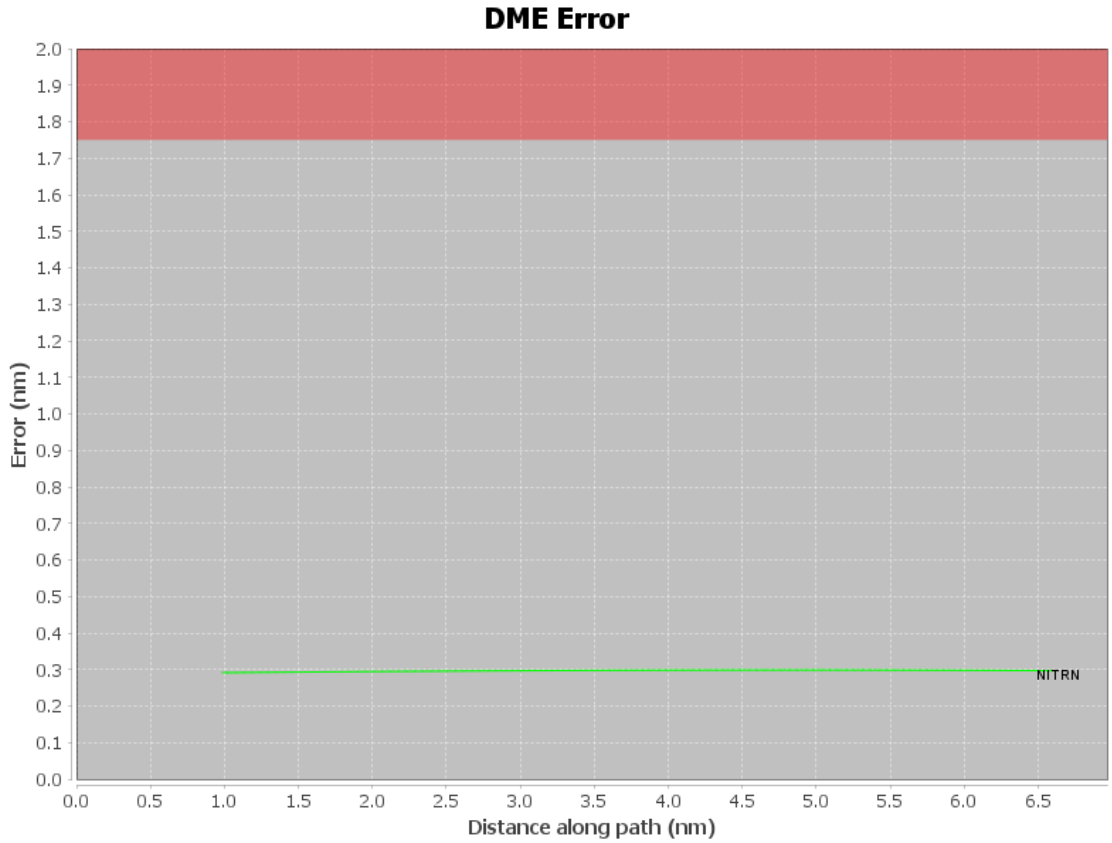
User Data Files

#	File Name
None	

User DMEs

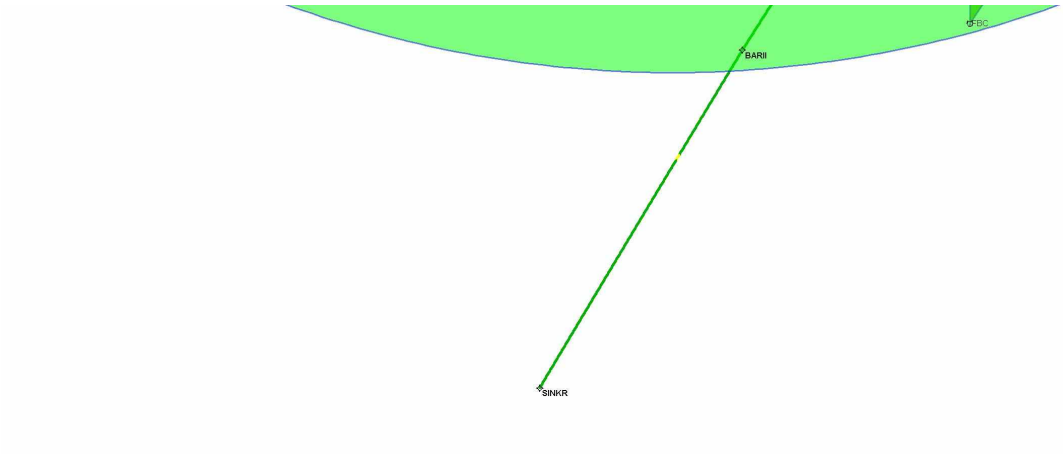
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	FBC FAA 703956-22 FBC [IFPA]	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	822.7	108.2	FBC FAA 703956-22	
	ESV:	Bearing [True]: 354.0º to 27.0º Bearing [Mag]: 356.0º to 29.0º				Arc Distance: Out to 58.0 NM Altitude: 3000.0 to 20000.0 ft		
2	MFD FAA 703963-25 MFD [IFPA]	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	1222	108.8	MFD FAA 703963-25	
	ESV:	Bearing [True]: 297.0º to 314.0º Bearing [Mag]: 300.0º to 317.0º				Arc Distance: Out to 69.0 NM Altitude: 5300.0 to 20000.0 ft		
3	SVM FAA 698158-032 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-032	
	ESV:	Bearing [True]: 171.0º to 192.0º Bearing [Mag]: 174.0º to 195.0º				Arc Distance: Out to 55.0 NM Altitude: 3000.0 to 20000.0 ft		
4	DXO FAA 890060-77 DXO [IFPA]	N42° 12' 47.2915", W083° 21' 59.9856"	6.0 W	130	636.5	113.4	DXO FAA 890060-77	
	ESV:	Bearing [True]: 192.0º to 208.0º Bearing [Mag]: 198.0º to 214.0º				Arc Distance: Out to 50.0 NM Altitude: 3000.0 to 20000.0 ft		
5	JXN FAA 701964-13 JXN [IFPA]	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	994	null	JXN FAA 701964-13	
	ESV:	Bearing [True]: 131.0º to 159.0º Bearing [Mag]: 131.0º to 159.0º				Arc Distance: Out to 63.0 NM Altitude: 3000.0 to 4500.0 ft		
6	SVM FAA 698158-033 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-033	
	ESV:	Bearing [True]: 164.0º to 191.0º Bearing [Mag]: 167.0º to 194.0º				Arc Distance: Out to 51.0 NM Altitude: 3000.0 to 16000.0 ft		

DME DME Assessment Results for BARII3 path KDTW:RW04R:DER_NITRN



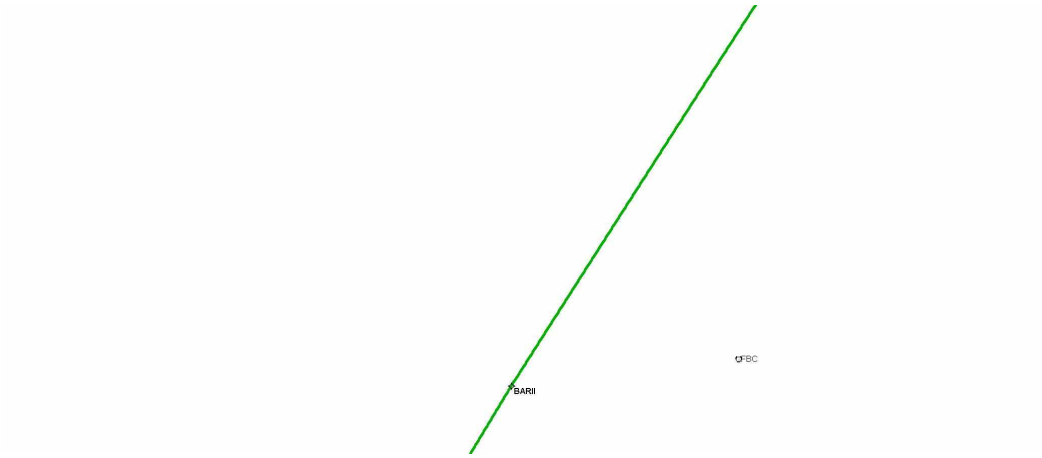
DME DME Assessment Results for BARII3 path KDTW:RW04R:DER_NITRN

Graphic Depiction 1



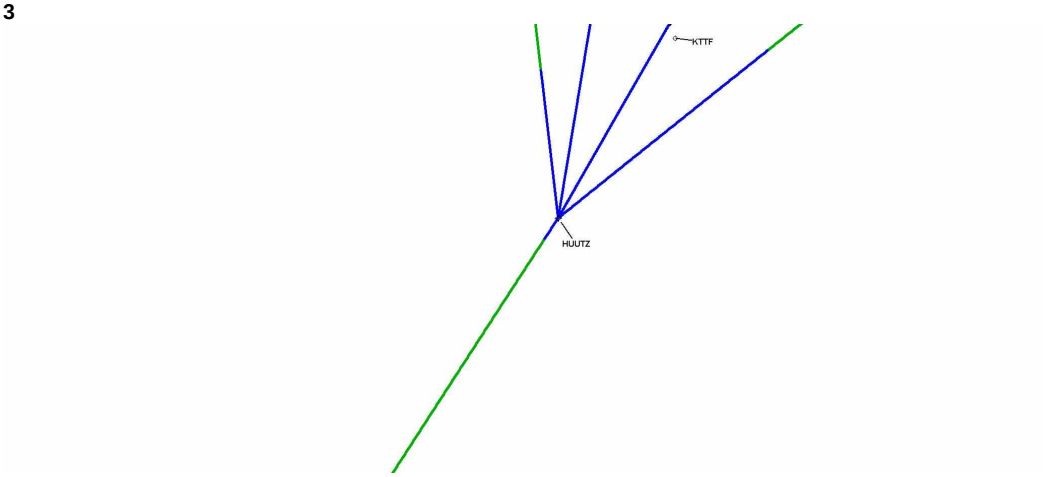
DME DME Assessment Results for BARII3 path KDTW:RW04R:DER_NITRN

Graphic Depiction 2



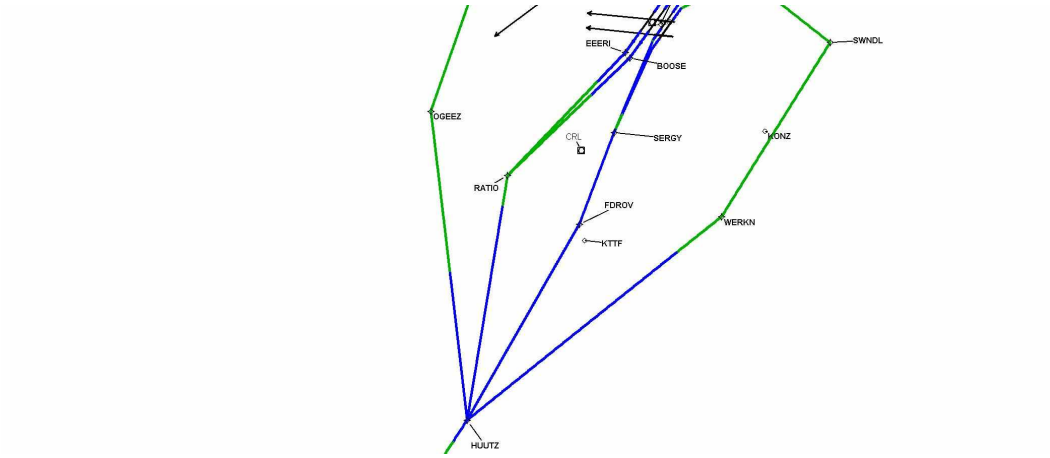
DME DME Assessment Results for BARII3 path KDTW:RW04R:DER_NITRN

Graphic Depiction 3



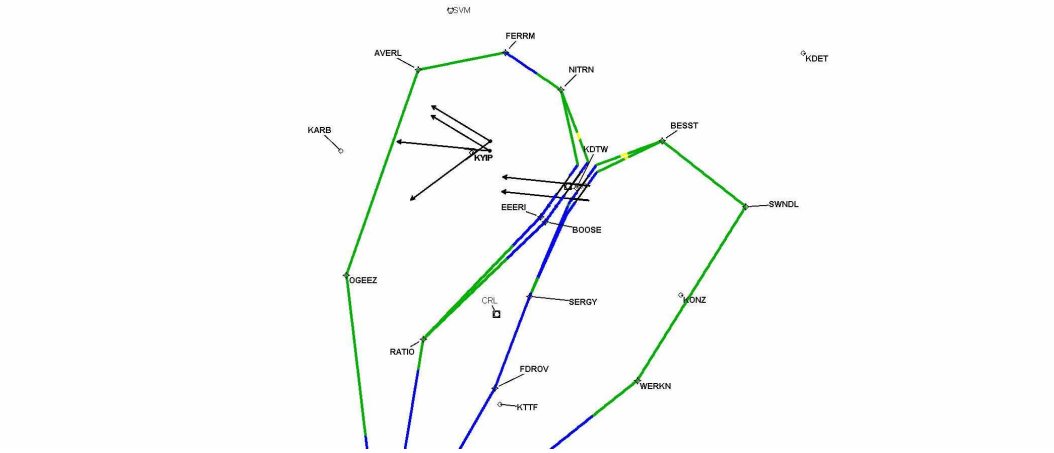
DME DME Assessment Results for BARII3 path KDTW:RW04R:DER_NITRN

Graphic Depiction 4



DME DME Assessment Results for BARII3 path KDTW:RW04R:DER_NITRN

Graphic Depiction 5



DME DME Assessment Results for BARII3 path KDTW:RW21L:DER_HUUTZ

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Jose G-CTR Medina
Project File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW BARII3 DME(lover MEAS) 20240110.tgs
Output File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW [IFPA] BARII3 20240116_0655 CST\KDTW-RW21L-DER_HUUTZ\KDTW BARII3 SID RW21L HUUTZ 20240116_0655 CST.pdf
Procedure Name:	BARII3
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/16/2024 06:55 CST
Databases:	DTED LEVEL 0 MAX

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
KDTW:RW21L:DER	WP	N42° 11' 44.2115", W083° 21' 06.4868"	632.8	VNAV	130	FLY_BY	TF
SERGY	WP	N42° 04' 29.1700", W083° 24' 27.2900"	2620.6	VNAV	200	FLY_BY	TF
FDROV	WP	N41° 57' 31.9500", W083° 26' 45.3500"	3000	VNAV	200	FLY_BY	TF
HUUTZ	WP	N41° 42' 18.6400", W083° 35' 23.7500"	3000	VNAV	230	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 1146.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDTW [IFPA]
Climb Gradient:	500.0 ft/NM up to 1146.0 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 BARII3 path KDTW:RW21L:DER_HUUTZ

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

DME/DME (Continued)

DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.2904", W083° 21' 59.9878"	6.0 W	130	H	IFPA	NO	Enabled	3.7 %	3.7 %
2	CRL	N42° 02' 52.8956", W083° 27' 27.2625"	3.0 W	130	DH	IFPA	NO	Enabled	3.7 %	3.7 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
6.2	CRL	DXO				
7.4						

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 11' 42.3483", W083° 21' 07.8589"	N42° 05' 54.9017", W083° 23' 51.1072"	6.1477
2	N42° 04' 45.0465", W083° 24' 20.5915"	N41° 42' 18.6400", W083° 35' 23.7500"	23.968

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
KDTW:RW21L:DER	SERGY	DXO, CRL	
SERGY	FDROV		
FDROV	HUUTZ		

DME DME Assessment Results for BARII3 path KDTW:RW21L:DER_HUUTZ

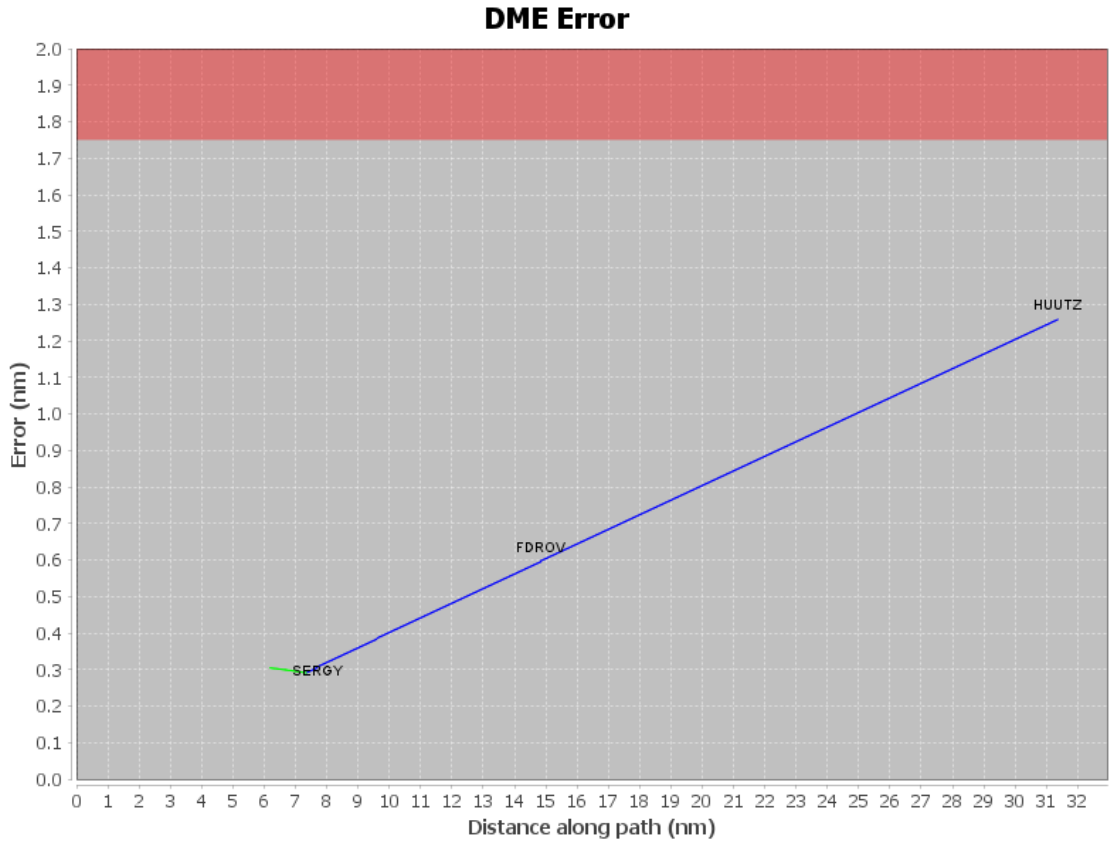
User Data Files

#	File Name
None	

User DMEs

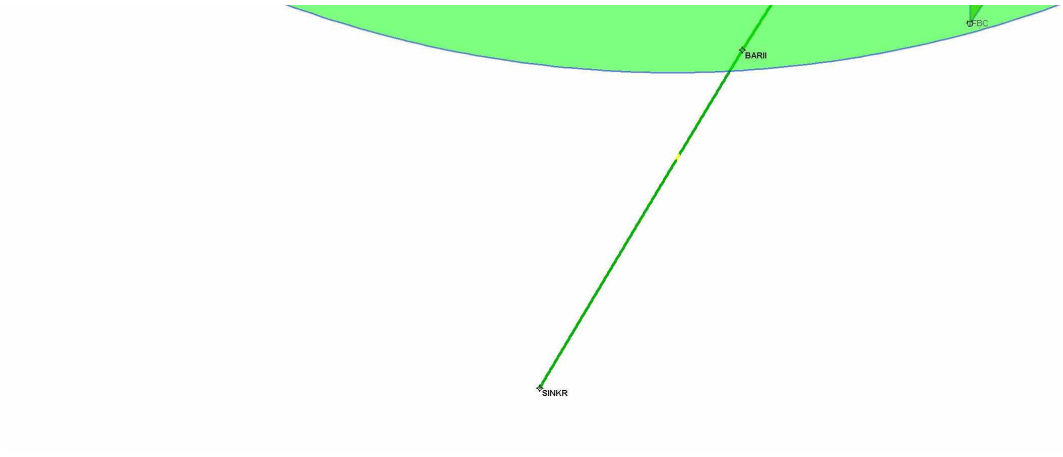
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	FBC FAA 703956-22 FBC [IFPA]	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	822.7	108.2	FBC FAA 703956-22	
	ESV:	Bearing [True]: 354.0º to 27.0º Bearing [Mag]: 356.0º to 29.0º				Arc Distance: Out to 58.0 NM Altitude: 3000.0 to 20000.0 ft		
2	MFD FAA 703963-25 MFD [IFPA]	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	1222	108.8	MFD FAA 703963-25	
	ESV:	Bearing [True]: 297.0º to 314.0º Bearing [Mag]: 300.0º to 317.0º				Arc Distance: Out to 69.0 NM Altitude: 5300.0 to 20000.0 ft		
3	SVM FAA 698158-032 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-032	
	ESV:	Bearing [True]: 171.0º to 192.0º Bearing [Mag]: 174.0º to 195.0º				Arc Distance: Out to 55.0 NM Altitude: 3000.0 to 20000.0 ft		
4	DXO FAA 890060-77 DXO [IFPA]	N42° 12' 47.2915", W083° 21' 59.9856"	6.0 W	130	636.5	113.4	DXO FAA 890060-77	
	ESV:	Bearing [True]: 192.0º to 208.0º Bearing [Mag]: 198.0º to 214.0º				Arc Distance: Out to 50.0 NM Altitude: 3000.0 to 20000.0 ft		
5	JXN FAA 701964-13 JXN [IFPA]	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	994	null	JXN FAA 701964-13	
	ESV:	Bearing [True]: 131.0º to 159.0º Bearing [Mag]: 131.0º to 159.0º				Arc Distance: Out to 63.0 NM Altitude: 3000.0 to 4500.0 ft		
6	SVM FAA 698158-033 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-033	
	ESV:	Bearing [True]: 164.0º to 191.0º Bearing [Mag]: 167.0º to 194.0º				Arc Distance: Out to 51.0 NM Altitude: 3000.0 to 16000.0 ft		

DME DME Assessment Results for BARII3 path KDTW:RW21L:DER_HUUTZ



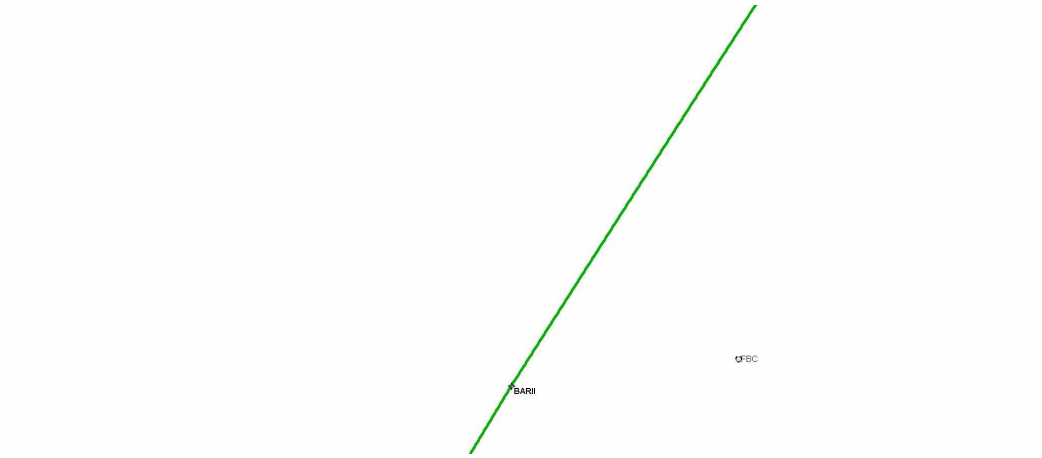
DME DME Assessment Results for BARII3 path KDTW:RW21L:DER_HUUTZ

Graphic Depiction 1



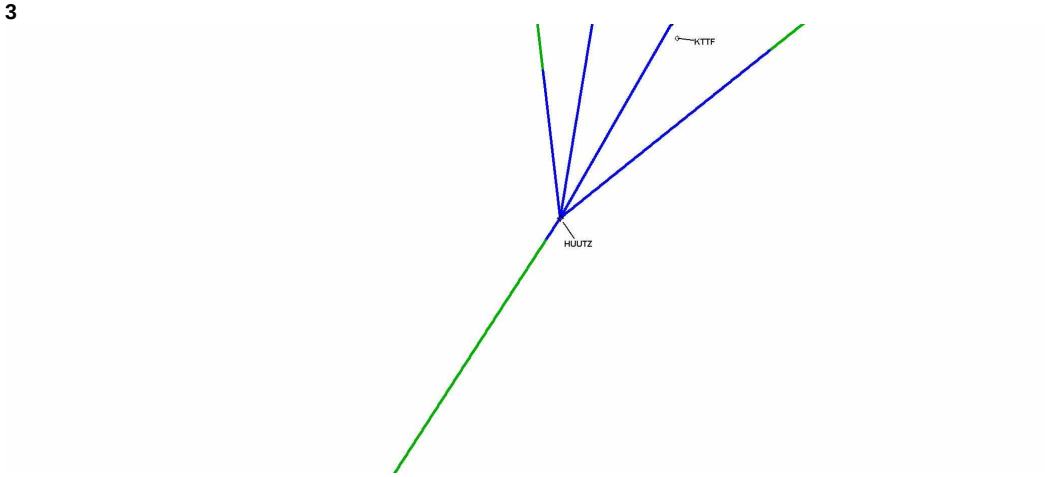
DME DME Assessment Results for BARII3 path KDTW:RW21L:DER_HUUTZ

Graphic Depiction 2



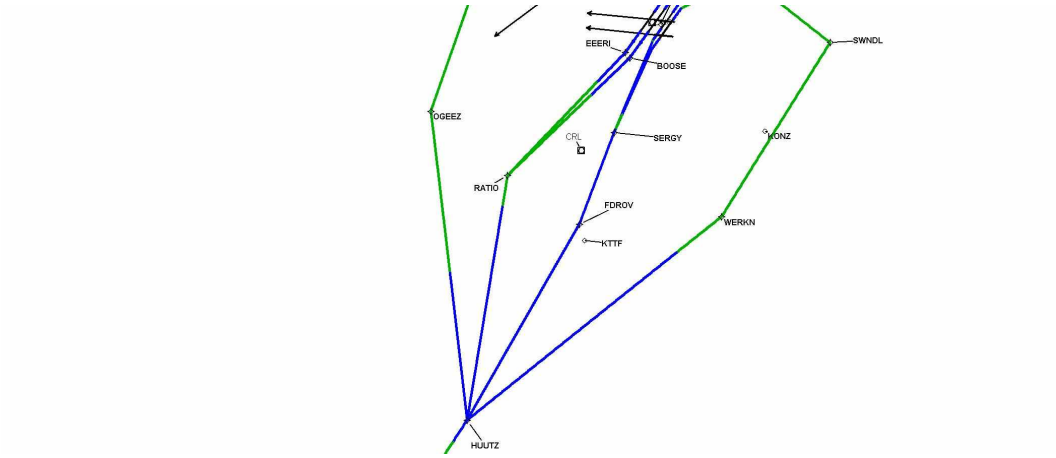
DME DME Assessment Results for BARII3 path KDTW:RW21L:DER_HUUTZ

Graphic Depiction 3



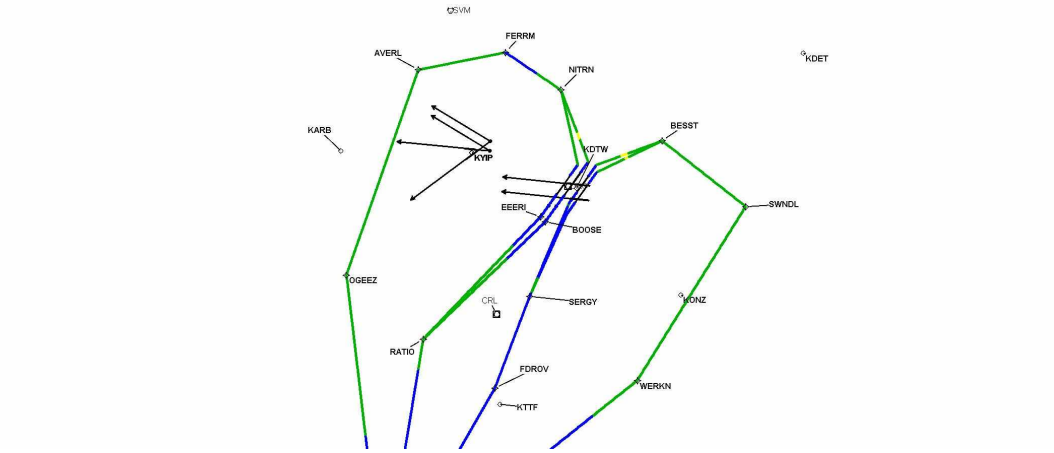
DME DME Assessment Results for BARII3 path KDTW:RW21L:DER_HUUTZ

Graphic Depiction 4



DME DME Assessment Results for BARII3 path KDTW:RW21L:DER_HUUTZ

Graphic Depiction 5



DME DME Assessment Results for BARII3 path KDTW:RW21R:DER_SERGY

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Jose G-CTR Medina
Project File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW BARII3 DME(lover MEAS) 20240110.tgs
Output File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW [IFPA] BARII3 20240116_0655 CST\KDTW-RW21R-DER_SERGY\KDTW BARII3 SID RW21R SERGY 20240116_0655 CST.pdf
Procedure Name:	BARII3
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/16/2024 06:55 CST
Databases:	DTED LEVEL 0 MAX

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
KDTW:RW21R:DER	WP	N42° 12' 28.2081", W083° 21' 04.3881"	636.5	VNAV	130	FLY_BY	TF
SERGY	WP	N42° 04' 29.1700", W083° 24' 27.2900"	2620.6	VNAV	200	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 1146.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDTW [IFPA]
Climb Gradient:	500.0 ft/NM up to 1146.0 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 BARII3 path KDTW:RW21R:DER_SERGY

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

DME/DME (Continued)

DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.2904", W083° 21' 59.9878"	6.0 W	130	H	IFPA	NO	Enabled	9.9 %	12 %
2	CRL	N42° 02' 52.8956", W083° 27' 27.2625"	3.0 W	130	DH	IFPA	NO	Enabled	11.9 %	13.9 %
3	SVM	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	L	IFPA	NO	Enabled	2 %	1.9 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.1	CRL	SVM				
1.2						
7.1	CRL	DXO				
8.1						

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 12' 26.3583", W083° 21' 05.7509"	N42° 11' 34.4846", W083° 21' 43.9562"	0.985
2	N42° 11' 22.8650", W083° 21' 48.4269"	N42° 05' 45.8715", W083° 23' 57.8812"	5.8393
3	N42° 04' 45.4402", W083° 24' 21.0534"	N42° 04' 29.1700", W083° 24' 27.2900"	0.2819

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
KDTW:RW21R:DER	SERGY	DXO, SVM, CRL	

DME DME Assessment Results for BARII3 path KDTW:RW21R:DER_SERGY

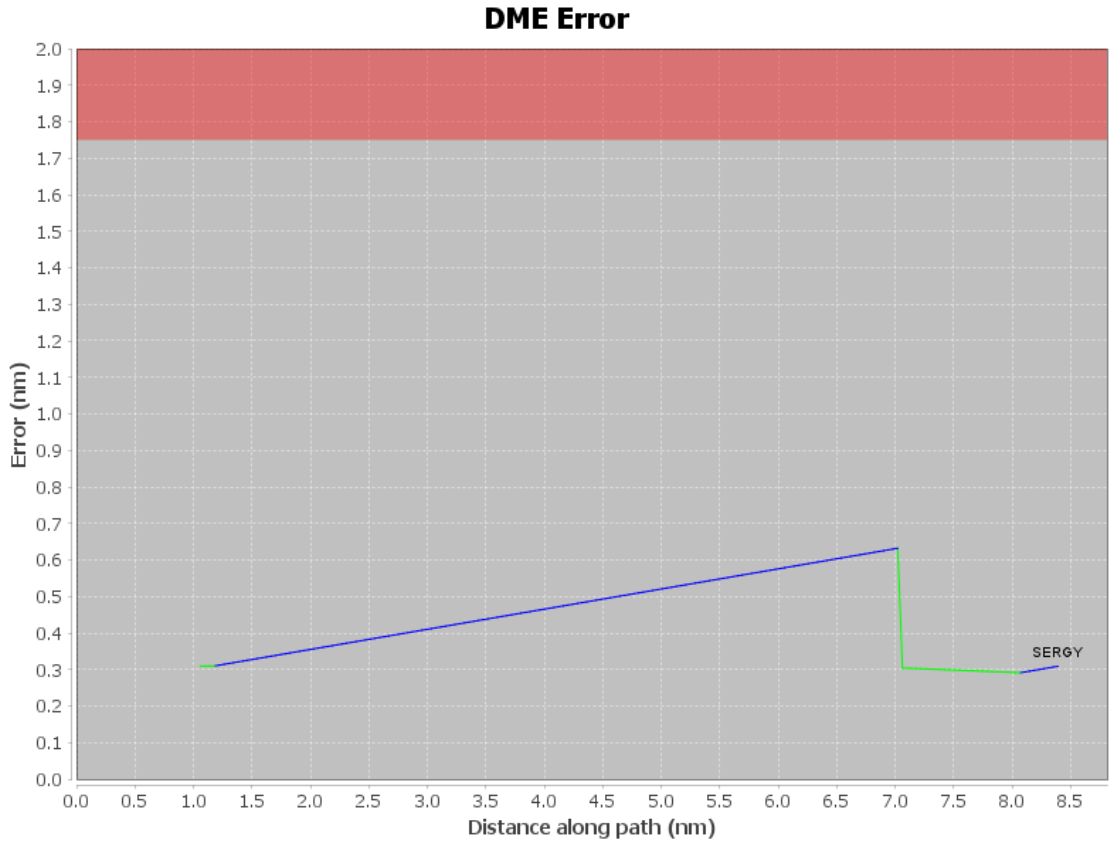
User Data Files

#	File Name
None	

User DMEs

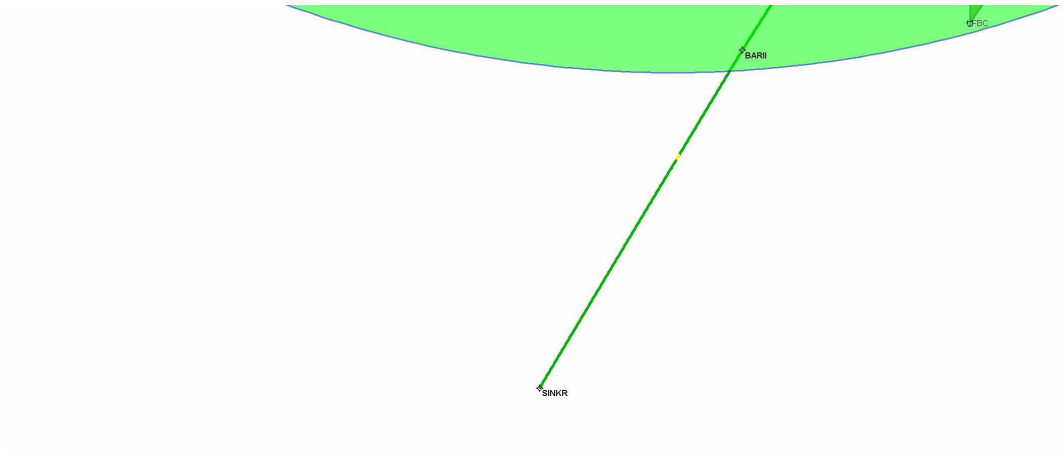
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	FBC FAA 703956-22 FBC [IFPA]	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	822.7	108.2	FBC FAA 703956-22	
	ESV:	Bearing [True]: 354.0º to 27.0º Bearing [Mag]: 356.0º to 29.0º				Arc Distance: Out to 58.0 NM Altitude: 3000.0 to 20000.0 ft		
2	MFD FAA 703963-25 MFD [IFPA]	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	1222	108.8	MFD FAA 703963-25	
	ESV:	Bearing [True]: 297.0º to 314.0º Bearing [Mag]: 300.0º to 317.0º				Arc Distance: Out to 69.0 NM Altitude: 5300.0 to 20000.0 ft		
3	SVM FAA 698158-032 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-032	
	ESV:	Bearing [True]: 171.0º to 192.0º Bearing [Mag]: 174.0º to 195.0º				Arc Distance: Out to 55.0 NM Altitude: 3000.0 to 20000.0 ft		
4	DXO FAA 890060-77 DXO [IFPA]	N42° 12' 47.2915", W083° 21' 59.9856"	6.0 W	130	636.5	113.4	DXO FAA 890060-77	
	ESV:	Bearing [True]: 192.0º to 208.0º Bearing [Mag]: 198.0º to 214.0º				Arc Distance: Out to 50.0 NM Altitude: 3000.0 to 20000.0 ft		
5	JXN FAA 701964-13 JXN [IFPA]	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	994	null	JXN FAA 701964-13	
	ESV:	Bearing [True]: 131.0º to 159.0º Bearing [Mag]: 131.0º to 159.0º				Arc Distance: Out to 63.0 NM Altitude: 3000.0 to 4500.0 ft		
6	SVM FAA 698158-033 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-033	
	ESV:	Bearing [True]: 164.0º to 191.0º Bearing [Mag]: 167.0º to 194.0º				Arc Distance: Out to 51.0 NM Altitude: 3000.0 to 16000.0 ft		

DME DME Assessment Results for BARII3 path KDTW:RW21R:DER_SERGY



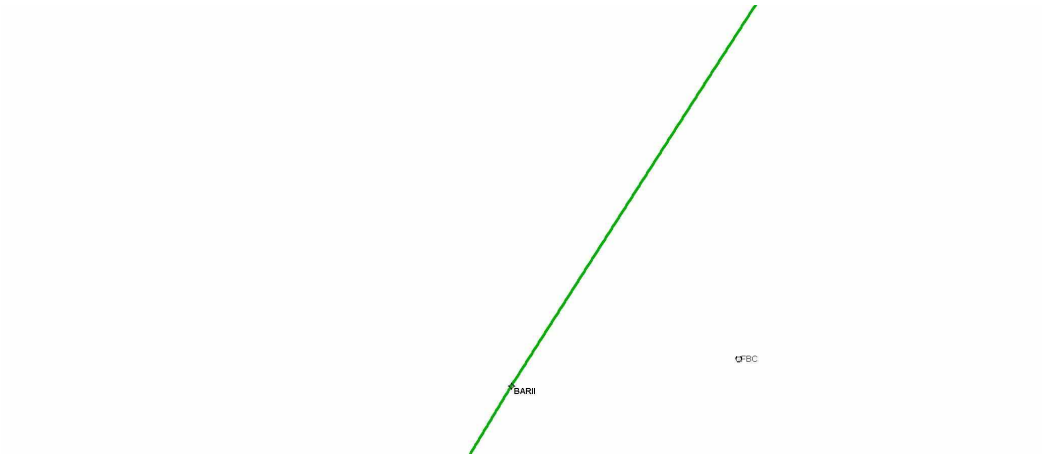
DME DME Assessment Results for BARII3 path KDTW:RW21R:DER_SERGY

Graphic Depiction 1



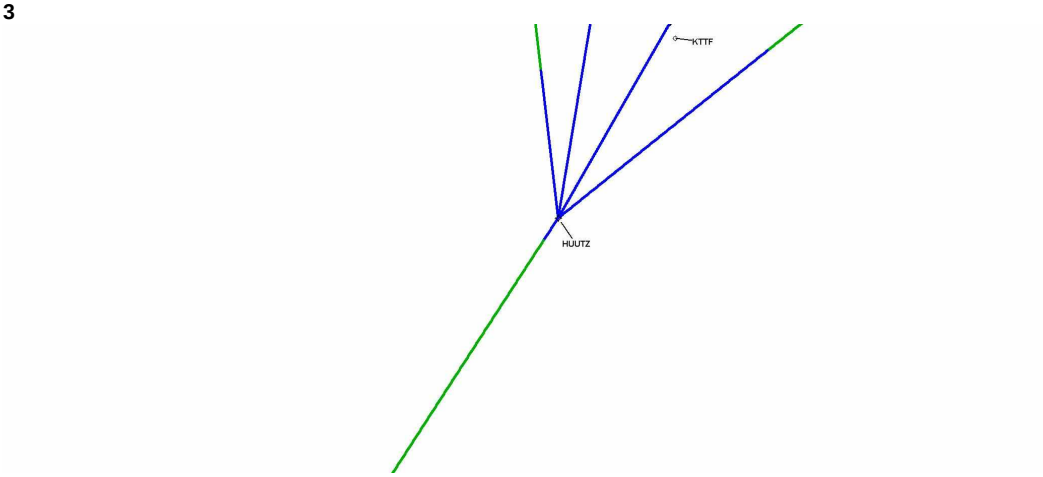
DME DME Assessment Results for BARII3 path KDTW:RW21R:DER_SERGY

Graphic Depiction 2



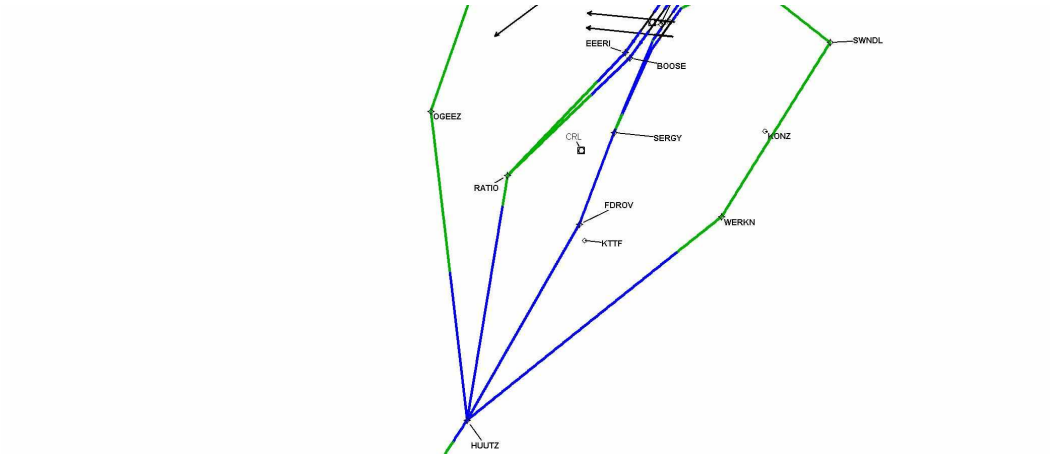
DME DME Assessment Results for BARII3 path KDTW:RW21R:DER_SERGY

Graphic Depiction 3



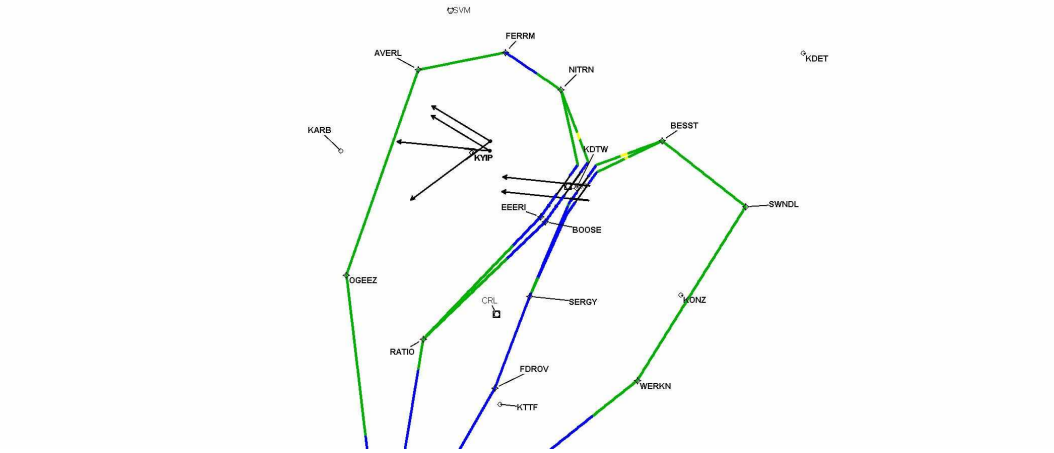
DME DME Assessment Results for BARII3 path KDTW:RW21R:DER_SERGY

Graphic Depiction 4



DME DME Assessment Results for BARII3 path KDTW:RW21R:DER_SERGY

Graphic Depiction 5



DME DME Assessment Results for BARII3 path KDTW:RW22L:DER_HUUTZ

Results Summary	
Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Jose G-CTR Medina
Project File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW BARII3 DME(lover MEAS) 20240110.tgs
Output File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW [IFPA] BARII3 20240116_0655 CST\KDTW-RW22L-DER_HUUTZ\KDTW BARII3 SID RW22L HUUTZ 20240116_0655 CST.pdf
Procedure Name:	BARII3
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/16/2024 06:55 CST
Databases:	DTED LEVEL 0 MAX

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
KDTW:RW22L:DER	WP	N42° 12' 08.3656", W083° 22' 16.5697"	637.5	VNAV	130	FLY_OVER	TF
BOOSE	WP	N42° 10' 02.0000", W083° 23' 49.5600"	1422.6	VNAV	200	FLY_BY	TF
RATIO	WP	N42° 00' 25.8400", W083° 34' 22.4500"	3000	VNAV	200	FLY_BY	TF
HUUTZ	WP	N41° 42' 18.6400", W083° 35' 23.7500"	3000	VNAV	230	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 1146.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDTW [IFPA]
Climb Gradient:	500.0 ft/NM up to 1146.0 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 BARII3 path KDTW:RW22L:DER_HUUTZ

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

DME/DME (Continued)

DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.2904", W083° 21' 59.9878"	6.0 W	130	H	IFPA	NO	Enabled	32 %	32.6 %
2	CRL	N42° 02' 52.8956", W083° 27' 27.2625"	3.0 W	130	DH	IFPA	NO	Enabled	5.6 %	5.7 %
3	SVM	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	L	IFPA	NO	Enabled	32 %	32.6 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
6.3	SVM	DXO	CRL			
7.1	SVM	DXO				
14.3	CRL	SVM	DXO			
14.9	SVM	DXO				
15.0	CRL	SVM	DXO			
15.6	SVM	DXO				
17.1						

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 12' 06.5193", W083° 22' 17.9290"	N42° 07' 01.4896", W083° 27' 08.3030"	6.252
2	N41° 58' 09.5280", W083° 34' 30.1676"	N41° 42' 18.6400", W083° 35' 23.7500"	15.8551

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
KDTW:RW22L:DER	BOOSE		
BOOSE	RATIO	DXO, SVM, CRL	
RATIO	HUUTZ	DXO, SVM, CRL	

DME DME Assessment Results for BARII3 path KDTW:RW22L:DER_HUUTZ

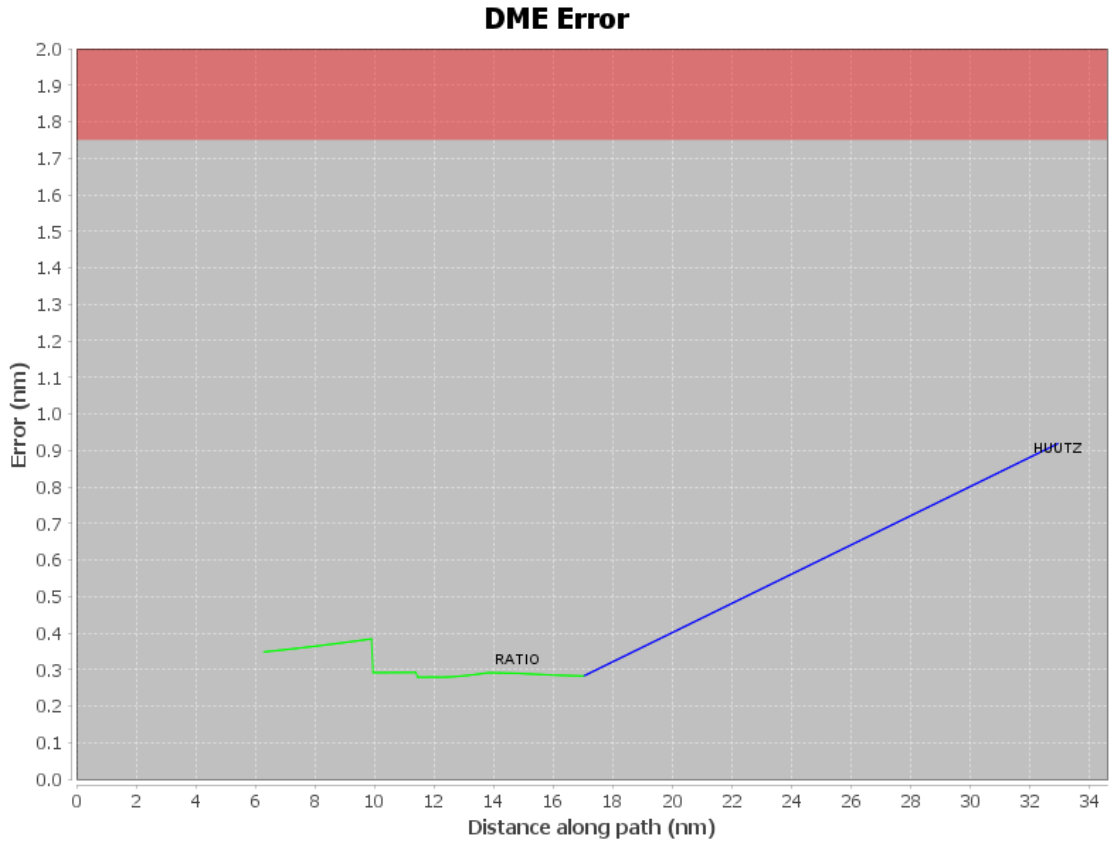
User Data Files

#	File Name
None	

User DMEs

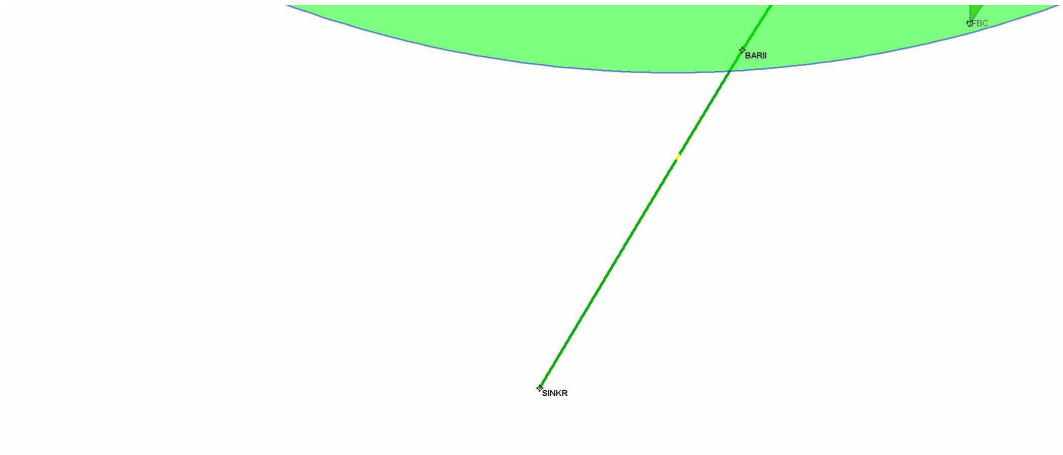
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	FBC FAA 703956-22 FBC [IFPA]	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	822.7	108.2	FBC FAA 703956-22	
	ESV:	Bearing [True]: 354.0º to 27.0º Bearing [Mag]: 356.0º to 29.0º				Arc Distance: Out to 58.0 NM Altitude: 3000.0 to 20000.0 ft		
2	MFD FAA 703963-25 MFD [IFPA]	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	1222	108.8	MFD FAA 703963-25	
	ESV:	Bearing [True]: 297.0º to 314.0º Bearing [Mag]: 300.0º to 317.0º				Arc Distance: Out to 69.0 NM Altitude: 5300.0 to 20000.0 ft		
3	SVM FAA 698158-032 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-032	
	ESV:	Bearing [True]: 171.0º to 192.0º Bearing [Mag]: 174.0º to 195.0º				Arc Distance: Out to 55.0 NM Altitude: 3000.0 to 20000.0 ft		
4	DXO FAA 890060-77 DXO [IFPA]	N42° 12' 47.2915", W083° 21' 59.9856"	6.0 W	130	636.5	113.4	DXO FAA 890060-77	
	ESV:	Bearing [True]: 192.0º to 208.0º Bearing [Mag]: 198.0º to 214.0º				Arc Distance: Out to 50.0 NM Altitude: 3000.0 to 20000.0 ft		
5	JXN FAA 701964-13 JXN [IFPA]	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	994	null	JXN FAA 701964-13	
	ESV:	Bearing [True]: 131.0º to 159.0º Bearing [Mag]: 131.0º to 159.0º				Arc Distance: Out to 63.0 NM Altitude: 3000.0 to 4500.0 ft		
6	SVM FAA 698158-033 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-033	
	ESV:	Bearing [True]: 164.0º to 191.0º Bearing [Mag]: 167.0º to 194.0º				Arc Distance: Out to 51.0 NM Altitude: 3000.0 to 16000.0 ft		

DME DME Assessment Results for BARII3 path KDTW:RW22L:DER_HUUTZ



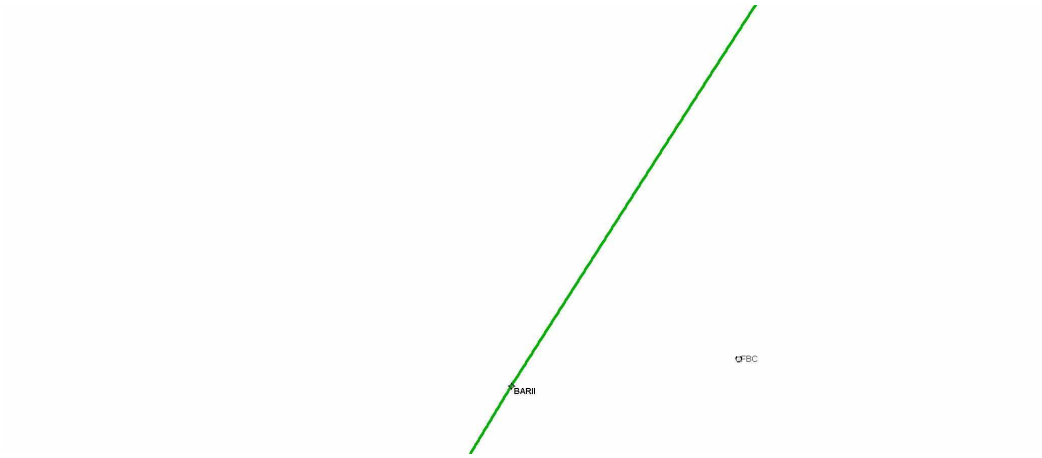
DME DME Assessment Results for BARII3 path KDTW:RW22L:DER_HUUTZ

Graphic Depiction 1



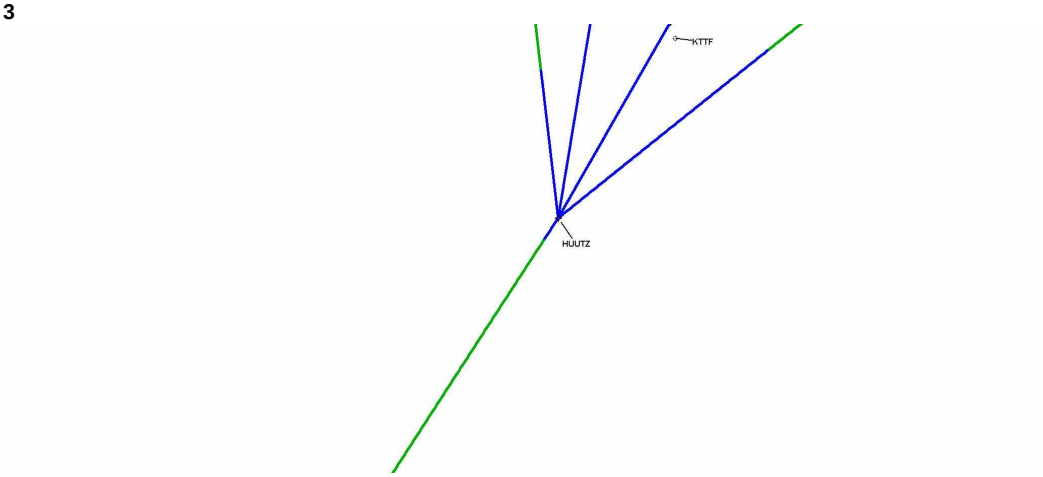
DME DME Assessment Results for BARII3 path KDTW:RW22L:DER_HUUTZ

Graphic Depiction 2



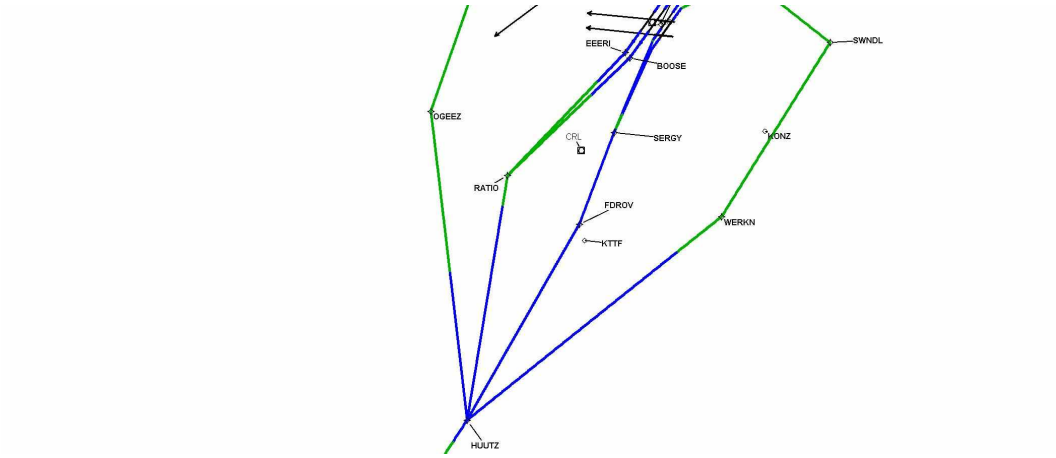
DME DME Assessment Results for BARII3 path KDTW:RW22L:DER_HUUTZ

Graphic Depiction 3



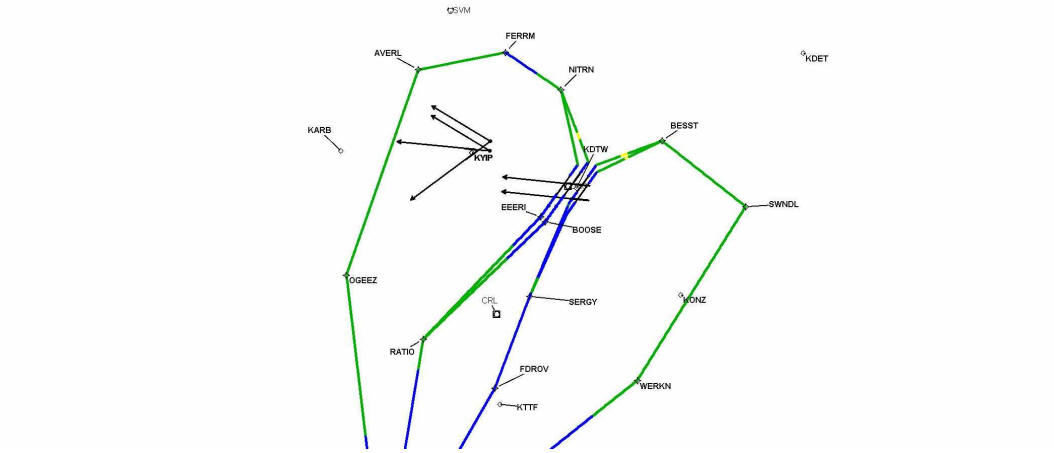
DME DME Assessment Results for BARII3 path KDTW:RW22L:DER_HUUTZ

Graphic Depiction 4



DME DME Assessment Results for BARII3 path KDTW:RW22L:DER_HUUTZ

Graphic Depiction 5



DME DME Assessment Results for BARII3 path KDTW:RW22R:DER_RATIO

Results Summary	
Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Jose G-CTR Medina
Project File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW BARII3 DME(lover MEAS) 20240110.tgs
Output File:	C:\Users\Jose G-CTR Medina\OneDrive - Federal Aviation Administration\Documents\01. Projects\DME EVALUATIONS\KDTW 20230125\DME Screens\Submitted\New DMEs\Possible solutions\KDTW [IFPA] BARII3 20240116_0655 CST\KDTW-RW22R-DER_RATIO\KDTW BARII3 SID RW22R RATIO 20240116_0655 CST.pdf
Procedure Name:	BARII3
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/16/2024 06:55 CST
Databases:	DTED LEVEL 0 MAX

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
KDTW:RW22R:DER	WP	N42° 12' 07.8216", W083° 23' 02.4003"	645.2	VNAV	130	FLY_OVER	TF
EEERI	WP	N42° 10' 22.3900", W083° 24' 19.9400"	1346.1	VNAV	200	FLY_BY	TF
RATIO	WP	N42° 00' 25.8400", W083° 34' 22.4500"	3000	VNAV	200	FLY_BY	TF
Climb Gradient: 500.0 ft/NM up to 1146.0 ft MSL 200.0 ft/NM							

Flyability

Flight Type:	SID
Selected Airport:	KDTW [IFPA]
Climb Gradient:	500.0 ft/NM up to 1146.0 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 BARII3 path KDTW:RW22R:DER_RATIO

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

DME/DME (Continued)

DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.2904", W083° 21' 59.9878"	6.0 W	130	H	IFPA	NO	Enabled	62.9 %	65.8 %
2	CRL	N42° 02' 52.8956", W083° 27' 27.2625"	3.0 W	130	DH	IFPA	NO	Enabled	14.3 %	15 %
3	SVM	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	L	IFPA	NO	Enabled	62.2 %	65 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
4.9	CRL	DXO				
5.1	SVM	DXO	CRL			
6.7	SVM	DXO				
14.0	CRL	SVM	DXO			

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 12' 05.9380", W083° 23' 03.7862"	N42° 08' 01.3773", W083° 26' 42.7268"	4.9071

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
KDTW:RW22R:DER	EEERI		
EEERI	RATIO	DXO, SVM, CRL	

DME DME Assessment Results for BARII3 path KDTW:RW22R:DER_RATIO

User Data Files

#	File Name
None	

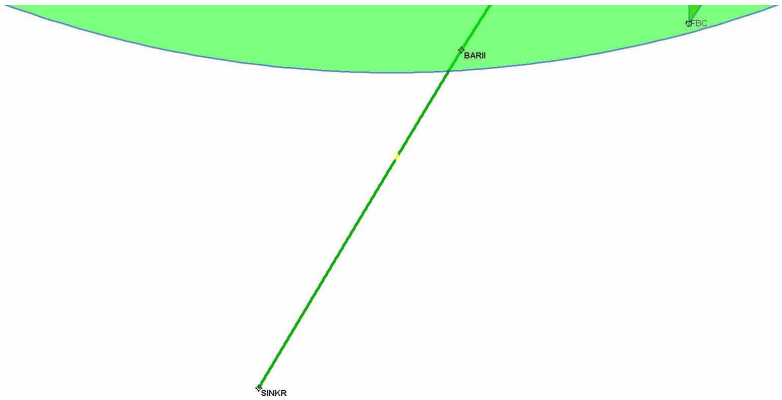
User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	FBC FAA 703956-22 FBC [IFPA]	N40° 57' 19.2018", W083° 45' 21.6886"	2.0 W	40	822.7	108.2	FBC FAA 703956-22	
	ESV:	Bearing [True]: 354.0º to 27.0º Bearing [Mag]: 356.0º to 29.0º				Arc Distance: Out to 58.0 NM Altitude: 3000.0 to 20000.0 ft		
2	MFD FAA 703963-25 MFD [IFPA]	N40° 52' 07.0036", W082° 35' 27.4614"	3.0 W	40	1222	108.8	MFD FAA 703963-25	
	ESV:	Bearing [True]: 297.0º to 314.0º Bearing [Mag]: 300.0º to 317.0º				Arc Distance: Out to 69.0 NM Altitude: 5300.0 to 20000.0 ft		
3	SVM FAA 698158-032 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-032	
	ESV:	Bearing [True]: 171.0º to 192.0º Bearing [Mag]: 174.0º to 195.0º				Arc Distance: Out to 55.0 NM Altitude: 3000.0 to 20000.0 ft		
4	DXO FAA 890060-77 DXO [IFPA]	N42° 12' 47.2915", W083° 21' 59.9856"	6.0 W	130	636.5	113.4	DXO FAA 890060-77	
	ESV:	Bearing [True]: 192.0º to 208.0º Bearing [Mag]: 198.0º to 214.0º				Arc Distance: Out to 50.0 NM Altitude: 3000.0 to 20000.0 ft		
5	JXN FAA 701964-13 JXN [IFPA]	N42° 15' 33.2631", W084° 27' 30.7776"	0.0 E	130	994	null	JXN FAA 701964-13	
	ESV:	Bearing [True]: 131.0º to 159.0º Bearing [Mag]: 131.0º to 159.0º				Arc Distance: Out to 63.0 NM Altitude: 3000.0 to 4500.0 ft		
6	SVM FAA 698158-033 SVM [IFPA]	N42° 24' 31.1055", W083° 35' 38.0455"	3.0 W	40	955.6	114.3	SVM FAA 698158-033	
	ESV:	Bearing [True]: 164.0º to 191.0º Bearing [Mag]: 167.0º to 194.0º				Arc Distance: Out to 51.0 NM Altitude: 3000.0 to 16000.0 ft		

DME DME Assessment Results for BARII3 path KDTW:RW22R:DER_RATIO

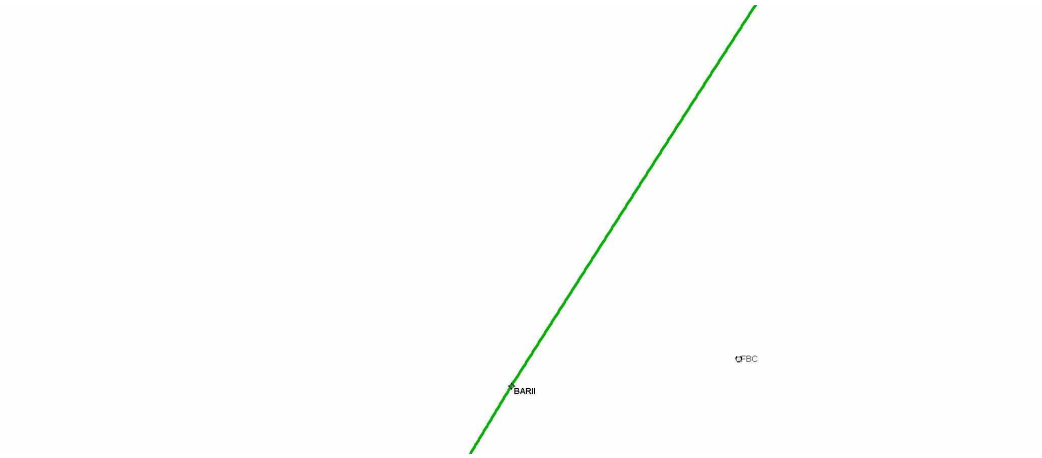
DME DME Assessment Results for BARII3 path KDTW:RW22R:DER_RATIO

Graphic Depiction 1



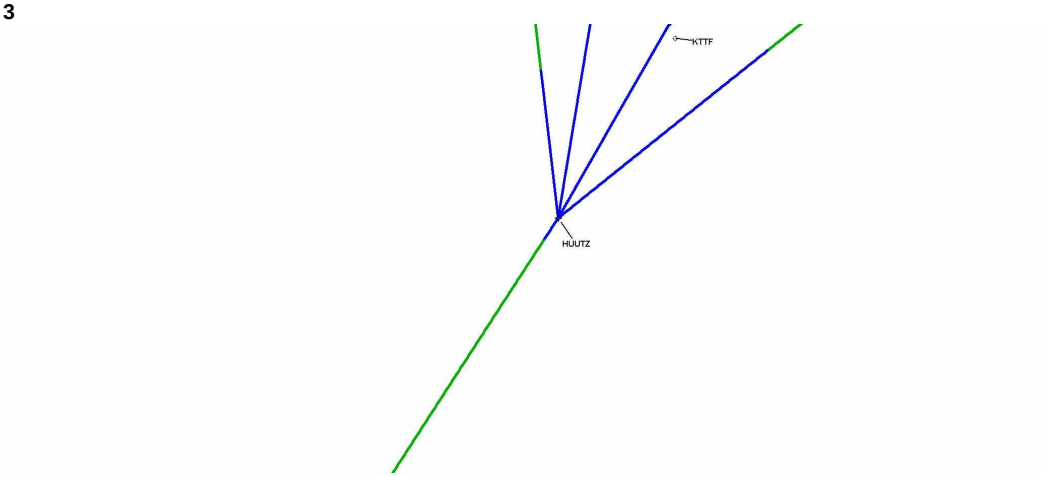
DME DME Assessment Results for BARII3 path KDTW:RW22R:DER_RATIO

Graphic Depiction 2



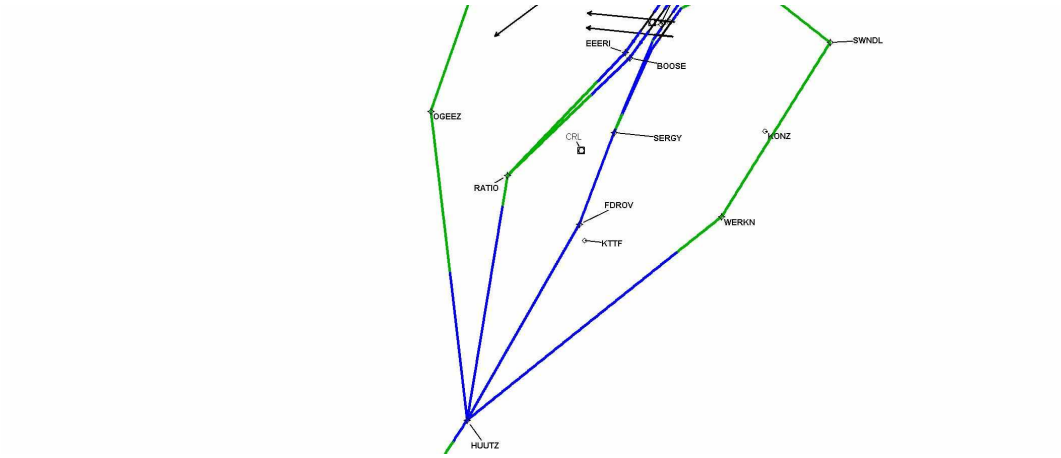
DME DME Assessment Results for BARII3 path KDTW:RW22R:DER_RATIO

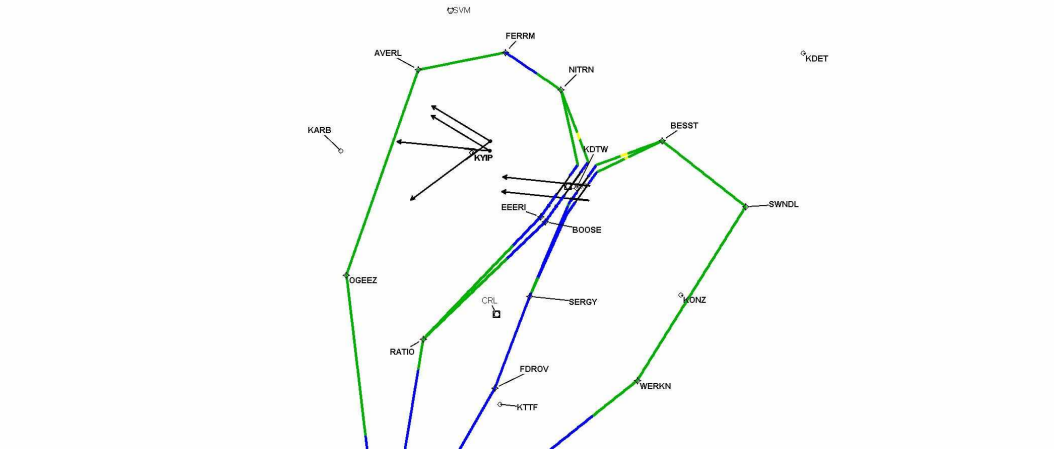
Graphic Depiction 3



DME DME Assessment Results for BARII3 path KDTW:RW22R:DER_RATIO

Graphic Depiction 4



DME DME Assessment Results for BARII3 path KDTW:RW22R:DER_RATIO

Graphic Depiction 5