

DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	William CTR Roth
Project File:	C:\Work Folder\DME DME Files\DTW work\DTW STAR LECTR THREE 20190318.tgs
Output File:	C:\Work Folder\DME DME Files\DTW work\LECTR\KDTW LECTR (RNAV)_2019-04-04_0117\TORRR_SHANX\KDTW LECTR (RNAV) RNAV STAR_TORRR_SHANX_2019-04-04_0117.pdf
Procedure Name:	LECTR (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	04/04/2019 01:17 PM CDT
Databases:	DTED Level 0 MAX

Failures

No Failures

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	IAS (kts)	Turn Type	Leg Type
TORRR	WP	N40° 44' 29.770000000", W084° 24' 58.890000000"	10000	VNAV	280	FLY_BY	TF
SHANX	WP	N41° 26' 26.590000000", W084° 25' 31.070000000"	10000	VNAV	280	FLY_BY	TF

Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KDTW
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 LECTR (RNAV) path TORRR_SHANX

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:	AGC,AUW,BDF,BFD,BRD,BVT,CIP,C KB,CMK,CRI,CTW,DNV,DNY,DWN,E CB,ELX,EON,ESL,ETG,EWO,FJC,FL M,FQM,GFL,GGT,GIJ,GRV,GSH,HIC, HML,HNK,HNN,HTO,HUO,IHD,JFN,J VL,LAN,LFD,LGA,LNR,LVZ,MIP,MKG, MNM,MSS,MXE,ODI,PLL,PLN,PMM,P NT,PWL,RBS,REC,RKA,RST,SAM,SF K,SLK,SLT,TDT,THS,UCA,UIN,ULW,V LA,YRK

DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	FBC	N40° 57' 19.201800000", W083° 45' 21.688600000"	2.0 W	40	L	AIRNAV2	NO	Enabled	80.2 %	80.2 %
2	ROD	N40° 17' 16.083000000", W084° 02' 35.147100000"	5.0 W	130	H	AIRNAV2	NO	Enabled	100 %	100 %
3	DXO	N42° 12' 47.291500000", W083° 21' 59.985600000"	6.0 W	130	H	AIRNAV2	NO	Enabled	99.6 %	99.6 %
4	VWV	N41° 27' 05.338200000", W083° 38' 19.303900000"	2.0 W	40	L	AIRNAV2	NO	Enabled	15.6 %	15.6 %
5	OXI	N41° 19' 19.350000000", W086° 38' 57.454000000"	0.0 E	130	H	AIRNAV2	NO	Enabled	57 %	57 %
6	FWA	N40° 58' 44.631500000", W085° 11' 17.009200000"	6.0 W	130	H	AIRNAV2	NO	Enabled	45.9 %	45.9 %
7	AGC	N40° 16' 43.117900000", W080° 02' 27.076900000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
8	AUW	N44° 50' 48.396300000", W089° 35' 11.680600000"	2.0 E	40	L	AIRNAV2	NO	Disabled		
9	BDF	N41° 09' 35.033000000", W089° 35' 16.343000000"	0.0 E	130	H	AIRNAV2	NO	Disabled		
10	BFD	N41° 47' 10.991700000", W078° 37' 09.654800000"	7.0 W	40	L	AIRNAV2	NO	Disabled		
11	BVT	N40° 33' 22.217800000", W087° 04' 09.748100000"	1.0 E	130	H	AIRNAV2	NO	Disabled		
12	CIP	N41° 08' 46.656000000", W079° 27' 28.705900000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
13	CKB	N39° 15' 11.584100000", W080° 16' 04.301800000"	4.0 W	40	L	AIRNAV2	NO	Disabled		
14	CMK	N41° 16' 48.321000000", W073° 34' 52.773300000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
15	CRI	N40° 36' 44.900000000", W073° 53' 40.000000000"	11.0 W	25	T	AIRNAV2	NO	Disabled		
16	CTW	N40° 13' 45.151000000", W081° 28' 35.316000000"	7.0 W	40	L	AIRNAV2	NO	Disabled		
17	DNV	N40° 17' 37.558600000", W087° 33' 26.136600000"	2.0 E	40	L	AIRNAV2	NO	Disabled		
18	DNY	N42° 10' 41.810000000", W074° 57' 24.986000000"	11.0 W	40	L	AIRNAV2	NO	Disabled		

DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
19	DWN	N45° 05' 14.865000000", W094° 27' 13.859000000"	7.0 E	40	L	AIRNAV2	NO	Disabled		
20	ECB	N38° 09' 30.105000000", W082° 54' 36.197000000"	2.0 W	40	L	AIRNAV2	NO	Disabled		
21	ELX	N42° 08' 39.884500000", W086° 07' 21.740800000"	0.0 E	40	L	AIRNAV2	NO	Disabled		
22	EON	N41° 16' 10.676500000", W087° 47' 27.792500000"	2.0 E	40	L	AIRNAV2	NO	Disabled		
23	ESL	N39° 13' 31.774000000", W078° 59' 22.200000000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
24	ETG	N41° 12' 53.819000000", W078° 08' 33.923000000"	10.0 W	130	H	AIRNAV2	NO	Disabled		
25	EWO	N37° 37' 54.521000000", W085° 40' 33.159000000"	1.0 E	40	L	AIRNAV2	NO	Disabled		
26	FJC	N40° 43' 36.119300000", W075° 27' 17.115200000"	10.0 W	40	L	AIRNAV2	NO	Disabled		
27	FLM	N38° 38' 57.989900000", W084° 18' 38.165700000"	4.0 W	130	H	AIRNAV2	NO	Disabled		
28	FQM	N41° 20' 18.810600000", W076° 46' 29.519700000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
29	GFL	N43° 20' 30.094200000", W073° 36' 42.322600000"	14.0 W	40	L	AIRNAV2	NO	Disabled		
30	GGT	N42° 47' 20.241000000", W075° 49' 36.290000000"	11.0 W	40	L	AIRNAV2	NO	Disabled		
31	GIJ	N41° 46' 07.002800000", W086° 19' 06.421900000"	0.0 E	130	H	AIRNAV2	NO	Disabled		
32	GRV	N39° 38' 06.112000000", W079° 03' 01.900000000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
33	GSH	N41° 31' 30.558600000", W086° 01' 40.631600000"	0.0 E	130	H	AIRNAV2	NO	Disabled		
34	HIC	N43° 34' 29.473000000", W085° 42' 58.183000000"	1.0 W	40	L	AIRNAV2	NO	Disabled		
35	HML	N48° 52' 09.092400000", W097° 07' 01.511200000"	9.0 E	130	H	AIRNAV2	NO	Disabled		
36	HNK	N42° 03' 47.005000000", W075° 18' 58.624000000"	11.0 W	130	H	AIRNAV2	NO	Disabled		

DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
37	HNN	N38° 45' 14.848700000", W082° 01' 34.203100000"	3.0 W	130	H	AIRNAV2	NO	Disabled		
38	HTO	N40° 55' 08.384600000", W072° 19' 00.135700000"	13.0 W	130	H	AIRNAV2	NO	Disabled		
39	HUO	N41° 24' 34.871800000", W074° 35' 29.739300000"	11.0 W	130	H	AIRNAV2	NO	Disabled		
40	IHD	N39° 58' 27.270000000", W079° 21' 30.123000000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
41	JFN	N41° 45' 36.421600000", W080° 44' 53.200200000"	5.0 W	40	L	AIRNAV2	NO	Disabled		
42	JVL	N42° 33' 28.833800000", W089° 06' 18.928300000"	3.0 E	40	L	AIRNAV2	NO	Disabled		
43	LFD	N42° 03' 44.962000000", W084° 45' 54.477000000"	5.0 W	40	L	AIRNAV2	NO	Disabled		
44	LGA	N40° 47' 01.376100000", W073° 52' 06.961700000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
45	LNR	N43° 17' 39.850000000", W090° 07' 59.325700000"	0.0 E	40	L	AIRNAV2	NO	Disabled		
46	LVZ	N41° 16' 22.104000000", W075° 41' 22.073900000"	10.0 W	40	L	AIRNAV2	NO	Disabled		
47	MIP	N41° 01' 24.210900000", W076° 39' 55.043800000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
48	MKG	N43° 10' 09.310100000", W086° 02' 21.760800000"	1.0 W	40	L	AIRNAV2	NO	Disabled		
49	MNM	N45° 10' 48.578500000", W087° 38' 49.827600000"	0.0 E	40	L	AIRNAV2	NO	Disabled		
50	MSS	N44° 54' 51.917800000", W074° 43' 21.784800000"	14.0 W	130	H	AIRNAV2	NO	Disabled		
51	MXE	N39° 55' 04.980100000", W075° 40' 14.957400000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
52	ODI	N43° 54' 44.383600000", W091° 28' 03.064700000"	1.0 E	130	H	AIRNAV2	NO	Disabled		
53	PLL	N41° 57' 56.310000000", W089° 31' 27.193000000"	3.0 E	40	L	AIRNAV2	NO	Disabled		
54	PLN	N45° 37' 50.332000000", W084° 39' 50.793100000"	6.0 W	40	L	AIRNAV2	NO	Disabled		

DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
55	PMM	N42° 27' 57.732600000", W086° 06' 17.315600000"	0.0 E	130	H	AIRNAV2	NO	Disabled		
56	PNT	N40° 49' 16.322000000", W088° 44' 00.633000000"	3.0 E	40	L	AIRNAV2	NO	Disabled		
57	PWL	N41° 46' 11.177000000", W073° 36' 01.985000000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
58	RBS	N40° 34' 54.125000000", W088° 09' 51.364000000"	2.0 E	40	L	AIRNAV2	NO	Disabled		
59	REC	N40° 32' 47.253000000", W078° 44' 49.281000000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
60	RKA	N42° 27' 58.912700000", W075° 14' 21.508900000"	11.0 W	40	L	AIRNAV2	NO	Disabled		
61	RST	N43° 46' 58.450100000", W092° 35' 49.056000000"	5.0 E	40	L	AIRNAV2	NO	Disabled		
62	SAM	N38° 29' 06.677000000", W088° 05' 08.903000000"	3.0 E	40	L	AIRNAV2	NO	Disabled		
63	SFK	N41° 41' 42.911500000", W077° 25' 11.660800000"	8.0 W	40	L	AIRNAV2	NO	Disabled		
64	SLK	N44° 23' 04.415600000", W074° 12' 16.221500000"	14.0 W	40	L	AIRNAV2	NO	Disabled		
65	SLT	N41° 30' 45.934000000", W077° 58' 12.395000000"	8.0 W	130	H	AIRNAV2	NO	Disabled		
66	TDT	N41° 42' 46.915000000", W079° 25' 02.174000000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
67	THS	N39° 55' 59.621000000", W077° 57' 03.400000000"	7.0 W	40	L	AIRNAV2	NO	Disabled		
68	UCA	N43° 01' 35.451000000", W075° 09' 52.279000000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
69	UIN	N39° 50' 52.348900000", W091° 16' 44.128100000"	5.0 E	130	H	AIRNAV2	NO	Disabled		
70	ULW	N42° 05' 39.162200000", W077° 01' 28.534600000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
71	VLA	N39° 05' 37.820500000", W089° 09' 44.079100000"	4.0 E	40	L	AIRNAV2	NO	Disabled		
72	YRK	N38° 38' 38.879000000", W082° 58' 42.022000000"	5.0 W	40	L	AIRNAV2	NO	Disabled		

DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	ROD	FBC	FWA			
0.2	ROD	FBC	DXO			
5.1	ROD	FBC	DXO	FWA		
18.0	ROD	FWA	FBC	DXO	OXI	
24.4	DXO	FBC	ROD	OXI		
33.7	ROD	DXO	OXI			
35.4	ROD	VWV	DXO	OXI		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N40° 58' 37.264198058", W085° 05' 34.652864400"	N40° 59' 59.175960063", W085° 03' 28.590494217"	2.0928
2	N41° 27' 21.739410703", W084° 24' 44.988465894"	N41° 40' 01.473347867", W084° 14' 07.502444370"	14.9527

Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
TORRR	SHANX	FWA, OXI, VWV, ROD, FBC, DXO

DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX

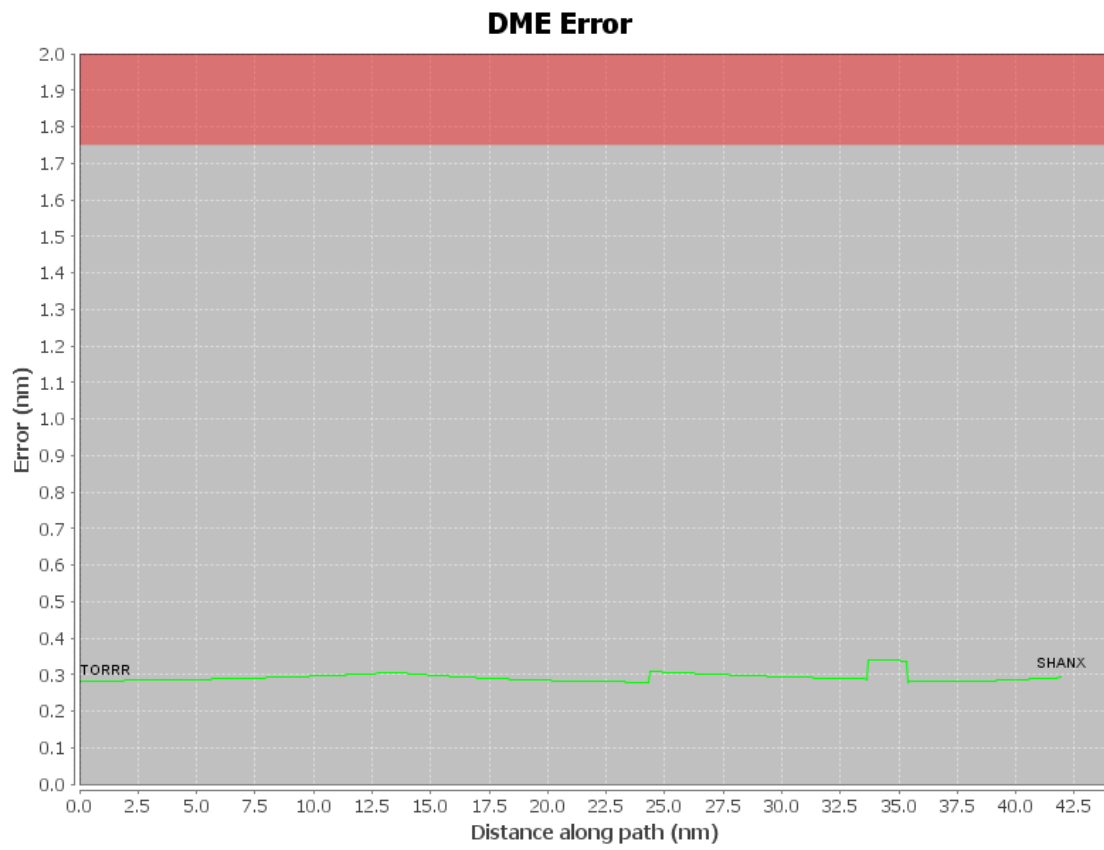
User Data Files

#	File Name
1	UserDMEs_KDTW LECTR1 STAR SHANX SYKOE 20180306_1328_Post_FC.udt
2	UserDMEs_KDTW LECTR1 STAR TORRR SHANX 20180308_1018_Post_FC.udt
3	UserDMEs_KDTW LECTR1 STAR WWODD SHANX 20180306_1048_Post_FC.udt

User DMEs

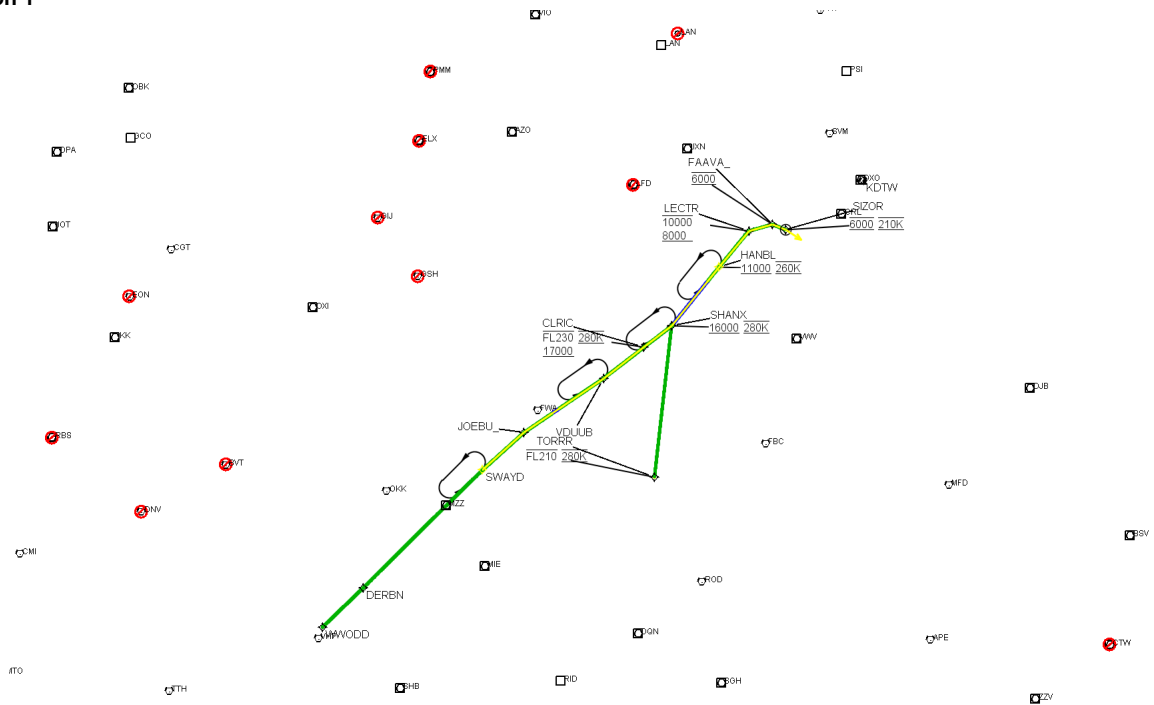
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV ROD ROD [AIRNAV2]	N40° 17' 16.083000000", W084° 02' 35.147100000"	5.0 W	130	1079	117.5	UDT ESV ROD	
ESV:		Bearing [True]: 296.0° to 354.0° Bearing [Mag]: 301.0° to 359.0°				Arc Distance: Out to 84.0 NM Altitude: 10000.0 to 16000.0 ft		
2	UDT ESV OXI OXI [AIRNAV2]	N41° 19' 19.350000000", W086° 38' 57.454000000"	0.0 E	130	690	115.6	UDT ESV OXI	
ESV:		Bearing [True]: 0.0° to 138.0° Bearing [Mag]: 0.0° to 138.0°				Arc Distance: Out to 106.0 NM Altitude: 10000.0 to 20000.0 ft		
3	UDT ESV DXO DXO [AIRNAV2]	N42° 12' 47.291500000", W083° 21' 59.985600000"	6.0 W	130	669.3	113.4	UDT ESV DXO	
ESV:		Bearing [True]: 184.0° to 239.0° Bearing [Mag]: 190.0° to 245.0°				Arc Distance: Out to 102.0 NM Altitude: 9900.0 to 20000.0 ft		
4	UDT ESV OXI OXI [AIRNAV2]	N41° 19' 19.350000000", W086° 38' 57.454000000"	0.0 E	130	690	115.6	UDT ESV OXI	
ESV:		Bearing [True]: 0.0° to 138.0° Bearing [Mag]: 0.0° to 138.0°				Arc Distance: Out to 106.0 NM Altitude: 10000.0 to 20000.0 ft		
5	UDT ESV DXO DXO [AIRNAV2]	N42° 12' 47.291500000", W083° 21' 59.985600000"	6.0 W	130	669.3	113.4	UDT ESV DXO	
ESV:		Bearing [True]: 184.0° to 239.0° Bearing [Mag]: 190.0° to 245.0°				Arc Distance: Out to 102.0 NM Altitude: 9900.0 to 20000.0 ft		
6	UDT ESV OXI OXI [AIRNAV2]	N41° 19' 19.350000000", W086° 38' 57.454000000"	0.0 E	130	690	115.6	UDT ESV OXI	
ESV:		Bearing [True]: 0.0° to 138.0° Bearing [Mag]: 0.0° to 138.0°				Arc Distance: Out to 106.0 NM Altitude: 10000.0 to 20000.0 ft		
7	UDT ESV ROD ROD [AIRNAV2]	N40° 17' 16.083000000", W084° 02' 35.147100000"	5.0 W	130	1079	117.5	UDT ESV ROD	
ESV:		Bearing [True]: 296.0° to 354.0° Bearing [Mag]: 301.0° to 359.0°				Arc Distance: Out to 84.0 NM Altitude: 10000.0 to 16000.0 ft		
8	UDT ESV DXO DXO [AIRNAV2]	N42° 12' 47.291500000", W083° 21' 59.985600000"	6.0 W	130	669.3	113.4	UDT ESV DXO	
ESV:		Bearing [True]: 184.0° to 239.0° Bearing [Mag]: 190.0° to 245.0°				Arc Distance: Out to 102.0 NM Altitude: 9900.0 to 20000.0 ft		
9	UDT ESV ROD ROD [AIRNAV2]	N40° 17' 16.083000000", W084° 02' 35.147100000"	5.0 W	130	1079	117.5	UDT ESV ROD	
ESV:		Bearing [True]: 296.0° to 354.0° Bearing [Mag]: 301.0° to 359.0°				Arc Distance: Out to 84.0 NM Altitude: 10000.0 to 16000.0 ft		

DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX



DME DME Assessment Results for LECTR (RNAV) path TORRR_SHANX

Graphic Depiction 1



DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	William CTR Roth
Project File:	C:\Work Folder\DME DME Files\DTW work\DTW STAR LECTR THREE 20190318.tgs
Output File:	C:\Work Folder\DME DME Files\DTW work\LECTR\KDTW LECTR (RNAV)_2019-04-04_0117\WWODD_SIZOR\KDTW LECTR (RNAV) RNAV STAR_WWODD_SIZOR_2019-04-04_0117.pdf
Procedure Name:	LECTR (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	04/04/2019 01:17 PM CDT
Databases:	DTED Level 0 MAX

Failures

No Failures

Notes For Flight Check

None

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	IAS (kts)	Turn Type	Leg Type
WWODD	WP	N39° 52' 04.050000000", W086° 21' 11.610000000"	10000	VNAV	280	FLY_BY	TF
DERBN	WP	N40° 04' 13.140000000", W086° 07' 52.660000000"	10000	VNAV	280	FLY_BY	TF
SWAYD	WP	N40° 40' 34.140000000", W085° 29' 02.700000000"	10000	VNAV	280	FLY_BY	TF
JOEBU_	WP	N40° 52' 14.500000000", W085° 15' 21.800000000"	10000	VNAV	280	FLY_BY	TF
VDUUB	WP	N41° 09' 49.610000000", W084° 48' 15.560000000"	10000	VNAV	280	FLY_BY	TF
CLRIC	WP	N41° 19' 44.140000000", W084° 34' 43.200000000"	10000	VNAV	280	FLY_BY	TF
SHANX	WP	N41° 26' 26.590000000", W084° 25' 31.070000000"	10000	VNAV	280	FLY_BY	TF
HANBL	WP	N41° 44' 09.250000000", W084° 10' 38.510000000"	8000	VNAV	260	FLY_BY	TF
LECTR	WP	N41° 55' 05.780000000", W084° 01' 11.450000000"	8000	VNAV	260	FLY_BY	TF
FAAVA_	WP	N41° 57' 44.080000000", W083° 52' 46.920000000"	6000	VNAV	260	FLY_BY	TF
SIZOR	WP	N41° 56' 41.148000000", W083° 47' 36.119000000"	6000	VNAV	210	FLY_OVER	TF

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

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

DME/DME	
RNP:	RNP 2
Flight Mode:	Manual
Line of Sight (DTED Level 0 Max):	Evaluated
Inertial Drift:	Enabled
Initial Drift:	0.558 NM
INS Drift Rate:	8.0 NM/Hour
Range Mode:	OSV
RNP Edges:	Evaluated
Min DME Range:	3.0 NM
DME Types:	DME, VOR-DME, VORTAC
DME Include Angles:	30 to 150
Critical DMEs:	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:	AGC,AUW,BDF,BFD,BRD,BVT,CIP,C KB,CMK,CRI,CTW,DNV,DNY,DWN,E CB,ELX,EON,ESL,ETG,EWO,FJC,FL M,FQM,GFL,GGT,GJJ,GRV,GSH,HIC, HML,HNK,HNN,HTO,HUO,IHD,JFN,J VL,LAN,LFD,LGA,LNR,LVZ,MIP,MKG, MNM,MSS,MXE,ODI,PLL,PLN,PMM,P NT,PWL,RBS,REC,RKA,RST,SAM,SF K,SLK,SLT,TDT,THS,UCA,UIN,ULW,V LA,YRK

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	VHP	N39° 48' 53.024600000", W086° 22' 02.999200000"	1.0 E	130	H	AIRNAV2	NO	Enabled	20.9 %	21.1 %
2	DXO	N42° 12' 47.291500000", W083° 21' 59.985600000"	6.0 W	130	H	AIRNAV2	NO	Enabled	30.2 %	29.8 %
3	OKK	N40° 31' 40.007800000", W086° 03' 28.795000000"	5.0 W	130	H	AIRNAV2	NO	Enabled	38.9 %	39.4 %
4	MIE	N40° 14' 14.253300000", W085° 23' 38.531500000"	3.0 W	40	L	AIRNAV2	NO	Enabled	36.6 %	37 %
5	ROD	N40° 17' 16.083000000", W084° 02' 35.147100000"	5.0 W	130	H	AIRNAV2	NO	Enabled	31.5 %	31.8 %
6	JXN	N42° 15' 33.263100000", W084° 27' 30.777600000"	5.0 W	40	L	AIRNAV2	NO	Enabled	17.4 %	16.5 %
7	VWV	N41° 27' 05.338200000", W083° 38' 19.303900000"	2.0 W	40	L	AIRNAV2	NO	Enabled	19.4 %	18.5 %
8	SVM	N42° 24' 31.105100000", W083° 35' 38.049000000"	3.0 W	40	L	AIRNAV2	NO	Enabled	9.6 %	9 %
9	MZZ	N40° 29' 35.990400000", W085° 40' 45.300000000"	3.0 W	40	L	AIRNAV2	NO	Enabled	40.6 %	41.1 %
10	OXI	N41° 19' 19.350000000", W086° 38' 57.454000000"	0.0 E	130	H	AIRNAV2	NO	Enabled	39.8 %	40.2 %
11	SHB	N39° 37' 57.152500000", W085° 49' 27.538800000"	1.0 E	40	L	AIRNAV2	NO	Enabled	16.4 %	16.6 %
12	FWA	N40° 58' 44.631500000", W085° 11' 17.009200000"	6.0 W	130	H	AIRNAV2	NO	Enabled	40.1 %	40.5 %
13	CRL	N42° 02' 52.895600000", W083° 27' 27.262500000"	3.0 W	130	H	AIRNAV2	NO	Enabled	15.1 %	14.2 %
14	AGC	N40° 16' 43.117900000", W080° 02' 27.076900000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
15	AUW	N44° 50' 48.396300000", W089° 35' 11.680600000"	2.0 E	40	L	AIRNAV2	NO	Disabled		
16	BDF	N41° 09' 35.033000000", W089° 35' 16.343000000"	0.0 E	130	H	AIRNAV2	NO	Disabled		
17	BFD	N41° 47' 10.991700000", W078° 37' 09.654800000"	7.0 W	40	L	AIRNAV2	NO	Disabled		
18	BVT	N40° 33' 22.217800000", W087° 04' 09.748100000"	1.0 E	130	H	AIRNAV2	NO	Disabled		

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
19	CIP	N41° 08' 46.656000000", W079° 27' 28.705900000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
20	CKB	N39° 15' 11.584100000", W080° 16' 04.301800000"	4.0 W	40	L	AIRNAV2	NO	Disabled		
21	CMK	N41° 16' 48.321000000", W073° 34' 52.773300000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
22	CRI	N40° 36' 44.900000000", W073° 53' 40.000000000"	11.0 W	25	T	AIRNAV2	NO	Disabled		
23	CTW	N40° 13' 45.151000000", W081° 28' 35.316000000"	7.0 W	40	L	AIRNAV2	NO	Disabled		
24	DNV	N40° 17' 37.558600000", W087° 33' 26.136600000"	2.0 E	40	L	AIRNAV2	NO	Disabled		
25	DNY	N42° 10' 41.810000000", W074° 57' 24.986000000"	11.0 W	40	L	AIRNAV2	NO	Disabled		
26	DWN	N45° 05' 14.865000000", W094° 27' 13.859000000"	7.0 E	40	L	AIRNAV2	NO	Disabled		
27	ECB	N38° 09' 30.105000000", W082° 54' 36.197000000"	2.0 W	40	L	AIRNAV2	NO	Disabled		
28	ELX	N42° 08' 39.884500000", W086° 07' 21.740800000"	0.0 E	40	L	AIRNAV2	NO	Disabled		
29	EON	N41° 16' 10.676500000", W087° 47' 27.792500000"	2.0 E	40	L	AIRNAV2	NO	Disabled		
30	ESL	N39° 13' 31.774000000", W078° 59' 22.200000000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
31	ETG	N41° 12' 53.819000000", W078° 08' 33.923000000"	10.0 W	130	H	AIRNAV2	NO	Disabled		
32	EWO	N37° 37' 54.521000000", W085° 40' 33.159000000"	1.0 E	40	L	AIRNAV2	NO	Disabled		
33	FJC	N40° 43' 36.119300000", W075° 27' 17.115200000"	10.0 W	40	L	AIRNAV2	NO	Disabled		
34	FLM	N38° 38' 57.989900000", W084° 18' 38.165700000"	4.0 W	130	H	AIRNAV2	NO	Disabled		
35	FQM	N41° 20' 18.810600000", W076° 46' 29.519700000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
36	GFL	N43° 20' 30.094200000", W073° 36' 42.322600000"	14.0 W	40	L	AIRNAV2	NO	Disabled		

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
37	GGT	N42° 47' 20.241000000", W075° 49' 36.290000000"	11.0 W	40	L	AIRNAV2	NO	Disabled		
38	GIJ	N41° 46' 07.002800000", W086° 19' 06.421900000"	0.0 E	130	H	AIRNAV2	NO	Disabled		
39	GRV	N39° 38' 06.112000000", W079° 03' 01.900000000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
40	GSH	N41° 31' 30.558600000", W086° 01' 40.631600000"	0.0 E	130	H	AIRNAV2	NO	Disabled		
41	HIC	N43° 34' 29.473000000", W085° 42' 58.183000000"	1.0 W	40	L	AIRNAV2	NO	Disabled		
42	HML	N48° 52' 09.092400000", W097° 07' 01.511200000"	9.0 E	130	H	AIRNAV2	NO	Disabled		
43	HNK	N42° 03' 47.005000000", W075° 18' 58.624000000"	11.0 W	130	H	AIRNAV2	NO	Disabled		
44	HNN	N38° 45' 14.848700000", W082° 01' 34.203100000"	3.0 W	130	H	AIRNAV2	NO	Disabled		
45	HTO	N40° 55' 08.384600000", W072° 19' 00.135700000"	13.0 W	130	H	AIRNAV2	NO	Disabled		
46	HUO	N41° 24' 34.871800000", W074° 35' 29.739300000"	11.0 W	130	H	AIRNAV2	NO	Disabled		
47	IHD	N39° 58' 27.270000000", W079° 21' 30.123000000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
48	JFN	N41° 45' 36.421600000", W080° 44' 53.200200000"	5.0 W	40	L	AIRNAV2	NO	Disabled		
49	JVL	N42° 33' 28.833800000", W089° 06' 18.928300000"	3.0 E	40	L	AIRNAV2	NO	Disabled		
50	LFD	N42° 03' 44.962000000", W084° 45' 54.477000000"	5.0 W	40	L	AIRNAV2	NO	Disabled		
51	LGA	N40° 47' 01.376100000", W073° 52' 06.961700000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
52	LNR	N43° 17' 39.850000000", W090° 07' 59.325700000"	0.0 E	40	L	AIRNAV2	NO	Disabled		
53	LVZ	N41° 16' 22.104000000", W075° 41' 22.073900000"	10.0 W	40	L	AIRNAV2	NO	Disabled		
54	MIP	N41° 01' 24.210900000", W076° 39' 55.043800000"	9.0 W	40	L	AIRNAV2	NO	Disabled		

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
55	MKG	N43° 10' 09.310100000", W086° 02' 21.760800000"	1.0 W	40	L	AIRNAV2	NO	Disabled		
56	MNM	N45° 10' 48.578500000", W087° 38' 49.827600000"	0.0 E	40	L	AIRNAV2	NO	Disabled		
57	MSS	N44° 54' 51.917800000", W074° 43' 21.784800000"	14.0 W	130	H	AIRNAV2	NO	Disabled		
58	MXE	N39° 55' 04.980100000", W075° 40' 14.957400000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
59	ODI	N43° 54' 44.383600000", W091° 28' 03.064700000"	1.0 E	130	H	AIRNAV2	NO	Disabled		
60	PLL	N41° 57' 56.310000000", W089° 31' 27.193000000"	3.0 E	40	L	AIRNAV2	NO	Disabled		
61	PLN	N45° 37' 50.332000000", W084° 39' 50.793100000"	6.0 W	40	L	AIRNAV2	NO	Disabled		
62	PMM	N42° 27' 57.732600000", W086° 06' 17.315600000"	0.0 E	130	H	AIRNAV2	NO	Disabled		
63	PNT	N40° 49' 16.322000000", W088° 44' 00.633000000"	3.0 E	40	L	AIRNAV2	NO	Disabled		
64	PWL	N41° 46' 11.177000000", W073° 36' 01.985000000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
65	RBS	N40° 34' 54.125000000", W088° 09' 51.364000000"	2.0 E	40	L	AIRNAV2	NO	Disabled		
66	REC	N40° 32' 47.253000000", W078° 44' 49.281000000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
67	RKA	N42° 27' 58.912700000", W075° 14' 21.508900000"	11.0 W	40	L	AIRNAV2	NO	Disabled		
68	RST	N43° 46' 58.450100000", W092° 35' 49.056000000"	5.0 E	40	L	AIRNAV2	NO	Disabled		
69	SAM	N38° 29' 06.677000000", W088° 05' 08.903000000"	3.0 E	40	L	AIRNAV2	NO	Disabled		
70	SFK	N41° 41' 42.911500000", W077° 25' 11.660800000"	8.0 W	40	L	AIRNAV2	NO	Disabled		
71	SLK	N44° 23' 04.415600000", W074° 12' 16.221500000"	14.0 W	40	L	AIRNAV2	NO	Disabled		
72	SLT	N41° 30' 45.934000000", W077° 58' 12.395000000"	8.0 W	130	H	AIRNAV2	NO	Disabled		

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
73	TDT	N41° 42' 46.915000000", W079° 25' 02.174000000"	9.0 W	40	L	AIRNAV2	NO	Disabled		
74	THS	N39° 55' 59.621000000", W077° 57' 03.400000000"	7.0 W	40	L	AIRNAV2	NO	Disabled		
75	UCA	N43° 01' 35.451000000", W075° 09' 52.279000000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
76	UIN	N39° 50' 52.348900000", W091° 16' 44.128100000"	5.0 E	130	H	AIRNAV2	NO	Disabled		
77	ULW	N42° 05' 39.162200000", W077° 01' 28.534600000"	12.0 W	40	L	AIRNAV2	NO	Disabled		
78	VLA	N39° 05' 37.820500000", W089° 09' 44.079100000"	4.0 E	40	L	AIRNAV2	NO	Disabled		
79	YRK	N38° 38' 38.879000000", W082° 58' 42.022000000"	5.0 W	40	L	AIRNAV2	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	VHP	SHB				
4.0	VHP	SHB	OKK			
8.9	SHB	MZZ	VHP	OKK		
12.9	MIE	SHB	MZZ	VHP	OKK	
29.0	MIE	OKK	MZZ	VHP		
36.9	OKK	MZZ	MIE			
43.5	MIE	MZZ				
45.7	MIE	FWA	OKK			
53.4	MIE	OKK	MZZ	FWA		
54.3	OXI	MZZ	FWA	MIE	OKK	
74.8	ROD	FWA	OXI	MZZ	MIE	
77.4	ROD	FWA	OXI	MZZ		
82.2	ROD	MZZ	OXI			
88.2						
90.3	ROD	FWA				
93.1	ROD	FWA	OXI			
93.9	ROD	FWA	DXO	OXI		
124.5	ROD	DXO	OXI			
126.7	ROD	VWV	DXO	OXI		
129.4	DXO	VWV				
130.4						
145.3	VWV	JXN				
149.3	CRL	JXN	VWV			
158.4	DXO	JXN	VWV	CRL	SVM	
158.5	CRL	JXN	VWV	SVM		
158.6	DXO	JXN	VWV	CRL	SVM	

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N40° 58' 37.264198058", W085° 05' 34.652864400"	N40° 59' 59.175960063", W085° 03' 28.590494217"	2.0928
2	N41° 27' 21.739410703", W084° 24' 44.988465894"	N41° 40' 01.473347867", W084° 14' 07.502444370"	14.9527

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
WWODD	DERBN	MIE, SHB, MZZ, OKK, VHP
DERBN	SWAYD	FWA, OXI, MIE, SHB, MZZ, OKK, VHP
SWAYD	JOEBU_	OXI, FWA, ROD, MIE, MZZ, OKK
JOEBU_	VDUUB	FWA, OXI, ROD, DXO, MZZ
VDUUB	CLRIC	FWA, OXI, ROD, DXO
CLRIC	SHANX	FWA, OXI, VWV, ROD, DXO
SHANX	HANBL	OXI, JXN, VWV, ROD, DXO, CRL
HANBL	LECTR	JXN, VWV, DXO, SVM, CRL
LECTR	FAAVA_	JXN, VWV, DXO, SVM, CRL
FAAVA_	SIZOR	JXN, VWV, DXO, SVM, CRL

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

User Data Files

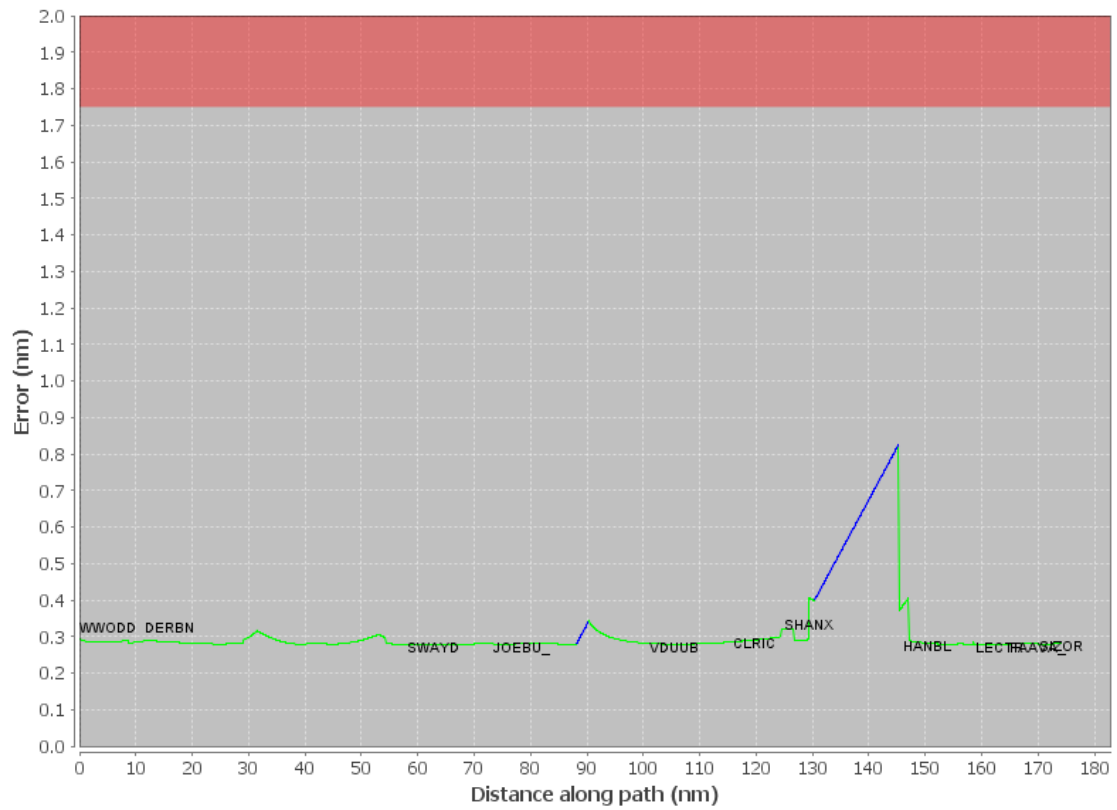
#	File Name
1	UserDMEs_KDTW LECTR1 STAR SHANX SYKOE 20180306_1328_Post_FC.udt
2	UserDMEs_KDTW LECTR1 STAR TORRR SHANX 20180308_1018_Post_FC.udt
3	UserDMEs_KDTW LECTR1 STAR WWODD SHANX 20180306_1048_Post_FC.udt

User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV ROD ROD [AIRNAV2]	N40° 17' 16.083000000", W084° 02' 35.147100000"	5.0 W	130	1079	117.5	UDT ESV ROD	
ESV:		Bearing [True]: 296.0° to 354.0° Bearing [Mag]: 301.0° to 359.0°				Arc Distance: Out to 84.0 NM Altitude: 10000.0 to 16000.0 ft		
2	UDT ESV OXI OXI [AIRNAV2]	N41° 19' 19.350000000", W086° 38' 57.454000000"	0.0 E	130	690	115.6	UDT ESV OXI	
ESV:		Bearing [True]: 0.0° to 138.0° Bearing [Mag]: 0.0° to 138.0°				Arc Distance: Out to 106.0 NM Altitude: 10000.0 to 20000.0 ft		
3	UDT ESV DXO DXO [AIRNAV2]	N42° 12' 47.291500000", W083° 21' 59.985600000"	6.0 W	130	669.3	113.4	UDT ESV DXO	
ESV:		Bearing [True]: 184.0° to 239.0° Bearing [Mag]: 190.0° to 245.0°				Arc Distance: Out to 102.0 NM Altitude: 9900.0 to 20000.0 ft		
4	UDT ESV OXI OXI [AIRNAV2]	N41° 19' 19.350000000", W086° 38' 57.454000000"	0.0 E	130	690	115.6	UDT ESV OXI	
ESV:		Bearing [True]: 0.0° to 138.0° Bearing [Mag]: 0.0° to 138.0°				Arc Distance: Out to 106.0 NM Altitude: 10000.0 to 20000.0 ft		
5	UDT ESV DXO DXO [AIRNAV2]	N42° 12' 47.291500000", W083° 21' 59.985600000"	6.0 W	130	669.3	113.4	UDT ESV DXO	
ESV:		Bearing [True]: 184.0° to 239.0° Bearing [Mag]: 190.0° to 245.0°				Arc Distance: Out to 102.0 NM Altitude: 9900.0 to 20000.0 ft		
6	UDT ESV OXI OXI [AIRNAV2]	N41° 19' 19.350000000", W086° 38' 57.454000000"	0.0 E	130	690	115.6	UDT ESV OXI	
ESV:		Bearing [True]: 0.0° to 138.0° Bearing [Mag]: 0.0° to 138.0°				Arc Distance: Out to 106.0 NM Altitude: 10000.0 to 20000.0 ft		
7	UDT ESV ROD ROD [AIRNAV2]	N40° 17' 16.083000000", W084° 02' 35.147100000"	5.0 W	130	1079	117.5	UDT ESV ROD	
ESV:		Bearing [True]: 296.0° to 354.0° Bearing [Mag]: 301.0° to 359.0°				Arc Distance: Out to 84.0 NM Altitude: 10000.0 to 16000.0 ft		
8	UDT ESV DXO DXO [AIRNAV2]	N42° 12' 47.291500000", W083° 21' 59.985600000"	6.0 W	130	669.3	113.4	UDT ESV DXO	
ESV:		Bearing [True]: 184.0° to 239.0° Bearing [Mag]: 190.0° to 245.0°				Arc Distance: Out to 102.0 NM Altitude: 9900.0 to 20000.0 ft		
9	UDT ESV ROD ROD [AIRNAV2]	N40° 17' 16.083000000", W084° 02' 35.147100000"	5.0 W	130	1079	117.5	UDT ESV ROD	
ESV:		Bearing [True]: 296.0° to 354.0° Bearing [Mag]: 301.0° to 359.0°				Arc Distance: Out to 84.0 NM Altitude: 10000.0 to 16000.0 ft		

DME DME Assessment Results for LECTR (RNAV) path WWODD_SIZOR

DME Error



Graphic Depiction 1

