

## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03L:DER\_KZLOV

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Paul CTR Jackson
Project File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\DTW SID LIDDS TWO 20190301 DME.tgs
Output File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\LIDDS2\KDTW LIDDS (RNAV)_2019-03-04_0337\KDTW-RW03L-DER_KZLOV\KDTW LIDDS (RNAV) DEPARTURE_KDTW_RW03L_DER_KZLOV_2019-03-04_0337.pdf
Procedure Name:	LIDDS (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	03/04/2019 03:37 PM CST
Databases:	DTED 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
KDTW:RW03L:DER	WP	N42° 13' 41.85", W083° 20' 10.11"	631.4	VNAV	130	FLY_BY	TF
KDTW:RW03L-VI End	WP	N42° 14' 36.02", W083° 19' 30.16"	1146	VNAV	145	FLY_BY	TF
BESST_	WP	N42° 16' 56.69", W083° 13' 21.04"	2500	VNAV	230	FLY_BY	TF
SWNDL	WP	N42° 12' 55.80", W083° 04' 22.44"	4000	VNAV	230	FLY_BY	TF
KZLOV	WP	N42° 04' 24.81", W082° 44' 07.44"	4000	VNAV	230	FLY_BY	TF

### Flyability

Flight Type:	DEPARTURE
Selected Airport:	KDTW
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03L:DER\_KZLOV

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,BVT,CIP,CKB,C MK,CRI,CTW,DNV,DNY,DWN,ECB,EL X,EON,ESL,ETG,EWO,FJC,FLM,FQM ,GFL,GGT,GIJ,GRV,GSH,HIC,HML,H NK,HNN,HTO,HUO,IHD,JFN,JVL,LAN, LGA,LNR,LVZ,MIP,MKG,MNM,MSS,O DI,PLL,PLN,PMM,PNT,PWL,RBS,REC ,RKA,RST,SAM,SFK,SLK,SLT,TDT,T HS,UCA,UIN,ULW,VLA,YRK

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03L:DER\_KZLOV**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DJB	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	H	AIRNAV2	NO	Enabled	27.2 %	29.2 %
2	DXO	N42° 12' 47.29", W083° 21' 59.99"	6.0 W	130	H	AIRNAV2	NO	Enabled	60.3 %	63 %
3	SVM	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	L	AIRNAV2	NO	Enabled	84.5 %	85.7 %
4	PSI	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	L	AIRNAV2	NO	Enabled	71 %	74.4 %
5	CRL	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	H	AIRNAV2	NO	Enabled	94.8 %	96.7 %
6	AGC	N40° 16' 43.12", W080° 02' 27.08"	9.0 W	40	L	AIRNAV2	NO	Disabled		
7	AUW	N44° 50' 48.40", W089° 35' 11.68"	2.0 E	40	L	AIRNAV2	NO	Disabled		
8	BDF	N41° 09' 35.03", W089° 35' 16.34"	0.0 E	130	H	AIRNAV2	NO	Disabled		
9	BFD	N41° 47' 10.99", W078° 37' 09.65"	7.0 W	40	L	AIRNAV2	NO	Disabled		
10	BVT	N40° 33' 22.22", W087° 04' 09.75"	1.0 E	130	H	AIRNAV2	NO	Disabled		
11	CIP	N41° 08' 46.66", W079° 27' 28.71"	6.0 W	40	L	AIRNAV2	NO	Disabled		
12	CKB	N39° 15' 11.58", W080° 16' 04.30"	4.0 W	40	L	AIRNAV2	NO	Disabled		
13	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	AIRNAV2	NO	Disabled		
14	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	AIRNAV2	NO	Disabled		
15	CTW	N40° 13' 45.15", W081° 28' 35.32"	7.0 W	40	L	AIRNAV2	NO	Disabled		
16	DNV	N40° 17' 37.56", W087° 33' 26.14"	2.0 E	40	L	AIRNAV2	NO	Disabled		
17	DNY	N42° 10' 41.81", W074° 57' 24.99"	11.0 W	40	L	AIRNAV2	NO	Disabled		
18	DWN	N45° 05' 14.87", W094° 27' 13.86"	7.0 E	40	L	AIRNAV2	NO	Disabled		
19	ECB	N38° 09' 30.11", W082° 54' 36.20"	2.0 W	40	L	AIRNAV2	NO	Disabled		
20	ELX	N42° 08' 39.88", W086° 07' 21.74"	0.0 E	40	L	AIRNAV2	NO	Disabled		
21	EON	N41° 16' 10.68", W087° 47' 27.79"	2.0 E	40	L	AIRNAV2	NO	Disabled		
22	ESL	N39° 13' 31.77", W078° 59' 22.20"	6.0 W	40	L	AIRNAV2	NO	Disabled		
23	ETG	N41° 12' 53.82", W078° 08' 33.92"	10.0 W	130	H	AIRNAV2	NO	Disabled		
24	EWO	N37° 37' 54.52", W085° 40' 33.16"	1.0 E	40	L	AIRNAV2	NO	Disabled		
25	FJC	N40° 43' 36.12", W075° 27' 17.12"	10.0 W	40	L	AIRNAV2	NO	Disabled		
26	FLM	N38° 38' 57.99", W084° 18' 38.17"	4.0 W	130	H	AIRNAV2	NO	Disabled		
27	FQM	N41° 20' 18.81", W076° 46' 29.52"	9.0 W	40	L	AIRNAV2	NO	Disabled		
28	GFL	N43° 20' 30.09", W073° 36' 42.32"	14.0 W	40	L	AIRNAV2	NO	Disabled		
29	GGT	N42° 47' 20.24", W075° 49' 36.29"	11.0 W	40	L	AIRNAV2	NO	Disabled		
30	GIJ	N41° 46' 07.00", W086° 19' 06.42"	0.0 E	130	H	AIRNAV2	NO	Disabled		
31	GRV	N39° 38' 06.11", W079° 03' 01.90"	6.0 W	40	L	AIRNAV2	NO	Disabled		
32	GSH	N41° 31' 30.56", W086° 01' 40.63"	0.0 E	130	H	AIRNAV2	NO	Disabled		
33	HIC	N43° 34' 29.47", W085° 42' 58.18"	1.0 W	40	L	AIRNAV2	NO	Disabled		

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03L:DER\_KZLOV**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	HML	N48° 52' 09.09", W097° 07' 01.51"	9.0 E	130	H	AIRNAV2	NO	Disabled		
35	HNK	N42° 03' 47.01", W075° 18' 58.62"	11.0 W	130	H	AIRNAV2	NO	Disabled		
36	HNN	N38° 45' 14.85", W082° 01' 34.20"	3.0 W	130	H	AIRNAV2	NO	Disabled		
37	HTO	N40° 55' 08.38", W072° 19' 00.14"	13.0 W	130	H	AIRNAV2	NO	Disabled		
38	HUO	N41° 24' 34.87", W074° 35' 29.74"	11.0 W	130	H	AIRNAV2	NO	Disabled		
39	IHD	N39° 58' 27.27", W079° 21' 30.12"	6.0 W	40	L	AIRNAV2	NO	Disabled		
40	JFN	N41° 45' 36.42", W080° 44' 53.20"	5.0 W	40	L	AIRNAV2	NO	Disabled		
41	JVL	N42° 33' 28.83", W089° 06' 18.93"	3.0 E	40	L	AIRNAV2	NO	Disabled		
42	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	AIRNAV2	NO	Disabled		
43	LNR	N43° 17' 39.85", W090° 07' 59.33"	0.0 E	40	L	AIRNAV2	NO	Disabled		
44	LVZ	N41° 16' 22.10", W075° 41' 22.07"	10.0 W	40	L	AIRNAV2	NO	Disabled		
45	MIP	N41° 01' 24.21", W076° 39' 55.04"	9.0 W	40	L	AIRNAV2	NO	Disabled		
46	MKG	N43° 10' 09.31", W086° 02' 21.76"	1.0 W	40	L	AIRNAV2	NO	Disabled		
47	MNM	N45° 10' 48.58", W087° 38' 49.83"	0.0 E	40	L	AIRNAV2	NO	Disabled		
48	MSS	N44° 54' 51.92", W074° 43' 21.78"	14.0 W	130	H	AIRNAV2	NO	Disabled		
49	ODI	N43° 54' 44.38", W091° 28' 03.06"	1.0 E	130	H	AIRNAV2	NO	Disabled		
50	PLL	N41° 57' 56.31", W089° 31' 27.19"	3.0 E	40	L	AIRNAV2	NO	Disabled		
51	PLN	N45° 37' 50.33", W084° 39' 50.79"	6.0 W	40	L	AIRNAV2	NO	Disabled		
52	PMM	N42° 27' 57.73", W086° 06' 17.32"	0.0 E	130	H	AIRNAV2	NO	Disabled		
53	PNT	N40° 49' 16.32", W088° 44' 00.63"	3.0 E	40	L	AIRNAV2	NO	Disabled		
54	PWL	N41° 46' 11.18", W073° 36' 01.99"	12.0 W	40	L	AIRNAV2	NO	Disabled		
55	RBS	N40° 34' 54.13", W088° 09' 51.36"	2.0 E	40	L	AIRNAV2	NO	Disabled		
56	REC	N40° 32' 47.25", W078° 44' 49.28"	9.0 W	40	L	AIRNAV2	NO	Disabled		
57	RKA	N42° 27' 58.91", W075° 14' 21.51"	11.0 W	40	L	AIRNAV2	NO	Disabled		
58	RST	N43° 46' 58.45", W092° 35' 49.06"	5.0 E	40	L	AIRNAV2	NO	Disabled		
59	SAM	N38° 29' 06.68", W088° 05' 08.90"	3.0 E	40	L	AIRNAV2	NO	Disabled		
60	SFK	N41° 41' 42.91", W077° 25' 11.66"	8.0 W	40	L	AIRNAV2	NO	Disabled		
61	SLK	N44° 23' 04.42", W074° 12' 16.22"	14.0 W	40	L	AIRNAV2	NO	Disabled		
62	SLT	N41° 30' 45.93", W077° 58' 12.39"	8.0 W	130	H	AIRNAV2	NO	Disabled		
63	TDT	N41° 42' 46.91", W079° 25' 02.17"	9.0 W	40	L	AIRNAV2	NO	Disabled		
64	THS	N39° 55' 59.62", W077° 57' 03.40"	7.0 W	40	L	AIRNAV2	NO	Disabled		
65	UCA	N43° 01' 35.45", W075° 09' 52.28"	12.0 W	40	L	AIRNAV2	NO	Disabled		
66	UIN	N39° 50' 52.35", W091° 16' 44.13"	5.0 E	130	H	AIRNAV2	NO	Disabled		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03L:DER\_KZLOV

## DME/DME (Continued)

### DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
67	ULW	N42° 05' 39.16", W077° 01' 28.53"	12.0 W	40	L	AIRNAV2	NO	Disabled		
68	VLA	N39° 05' 37.82", W089° 09' 44.08"	4.0 E	40	L	AIRNAV2	NO	Disabled		
69	YRK	N38° 38' 38.88", W082° 58' 42.02"	5.0 W	40	L	AIRNAV2	NO	Disabled		

### Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.0	SVM	CRL				
3.0	SVM	CRL	PSI	DXO		
16.9	SVM	CRL				
21.9	PSI	CRL	SVM	DXO		
22.1	DJB	CRL	PSI	SVM	DXO	
25.9	DJB	CRL	PSI	SVM		
27.9	DJB	CRL	PSI			
29.5	DJB	CRL	PSI	DXO		

### Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 36.38", W083° 21' 57.22"	N42° 14' 25.64", W083° 21' 20.94"	0.9353
2	N42° 10' 50.17", W083° 21' 46.27"	N42° 09' 47.22", W083° 21' 42.65"	1.0502
3	N42° 11' 42.35", W083° 21' 07.86"	N42° 13' 10.86", W083° 20' 02.65"	1.6807
4	N42° 13' 12.72", W083° 20' 01.28"	N42° 14' 04.99", W083° 19' 22.74"	0.9925
5	N42° 12' 26.35", W083° 21' 05.75"	N42° 13' 52.36", W083° 20' 59.97"	1.4354
6	N42° 13' 54.22", W083° 20' 58.60"	N42° 14' 44.23", W083° 20' 21.73"	0.9496
7	N42° 11' 34.48", W083° 21' 43.96"	N41° 42' 12.20", W081° 49' 25.71"	74.6774
8	N42° 12' 06.52", W083° 22' 17.93"	N42° 09' 44.90", W083° 21' 38.61"	2.4099
9	N42° 11' 14.76", W083° 22' 56.02"	N42° 08' 29.70", W083° 22' 25.66"	2.7769
10	N42° 06' 14.34", W083° 22' 00.80"	N42° 05' 41.32", W083° 21' 54.74"	0.5554
11	N42° 11' 15.08", W083° 23' 41.20"	N42° 16' 56.69", W083° 13' 21.04"	9.5394
12	N42° 12' 05.94", W083° 23' 03.79"	N42° 01' 54.21", W082° 30' 38.74"	40.2011
13	N42° 11' 15.08", W083° 23' 41.19"	N42° 07' 39.69", W083° 22' 43.62"	3.66
14	N42° 06' 37.68", W083° 22' 27.07"	N42° 03' 25.13", W083° 21' 35.72"	3.2718
15	N42° 13' 43.72", W083° 20' 08.74"	N42° 14' 36.02", W083° 19' 30.16"	0.9933

### Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
KDTW:RW03L:DER	KDTW:RW03L-VI End	SVM, CRL
KDTW:RW03L-VI End	BESST_	PSI, DXO, SVM, CRL
BESST_	SWNDL	PSI, DXO, SVM, CRL
SWNDL	KZLOV	PSI, DXO, SVM, CRL, DJB

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03L:DER\_KZLOV

## User Data Files

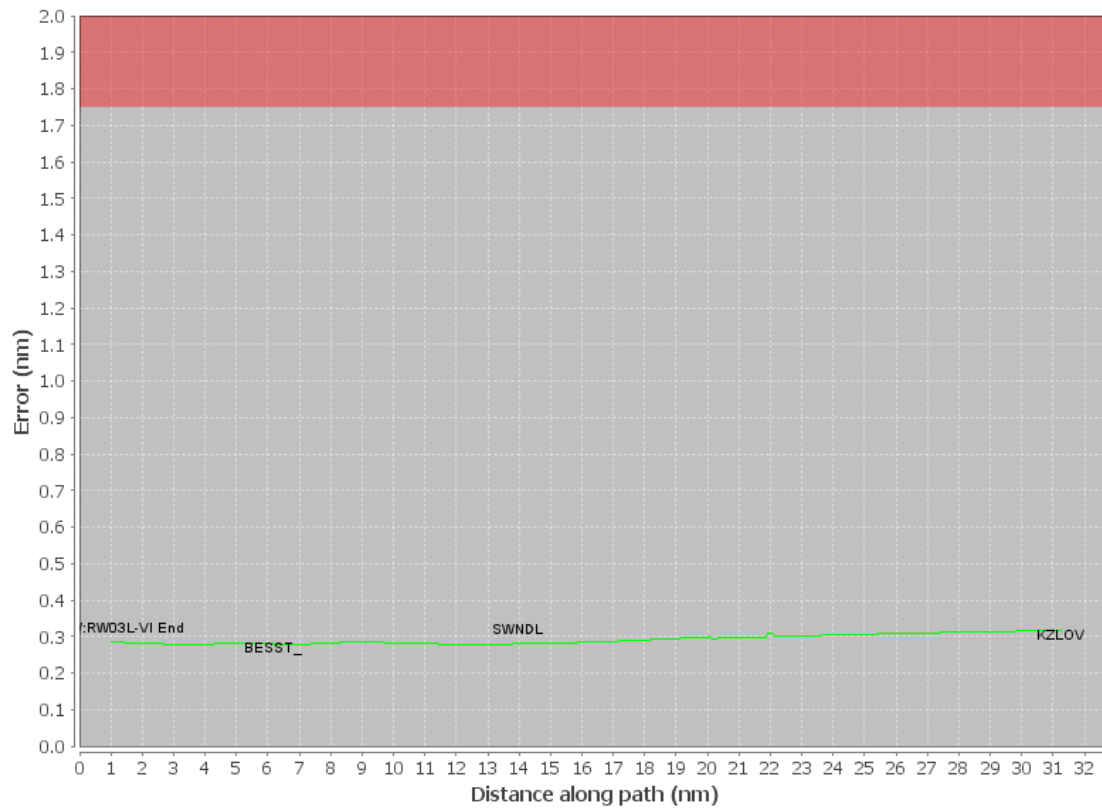
#	File Name
1	UserDMEsKDTW LIDDS (RNAV) DEPARTURE_2018-12-19_0139.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV PSI PSI [AIRNAV2]	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	1149	null	UDT ESV PSI	
ESV:		Bearing [True]: 80.0° to 145.0° Bearing [Mag]: 80.0° to 145.0°				Arc Distance: Out to 65.0 NM Altitude: 3900.0 to 11000.0 ft		
2	UDT ESV MFD MFD [AIRNAV2]	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	1222	108.8	UDT ESV MFD	
ESV:		Bearing [True]: 325.0° to 43.0° Bearing [Mag]: 328.0° to 46.0°				Arc Distance: Out to 80.0 NM Altitude: 6400.0 to 20000.0 ft		
3	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 88.0° to 113.0° Bearing [Mag]: 91.0° to 116.0°				Arc Distance: Out to 84.0 NM Altitude: 9000.0 to 16000.0 ft		
4	UDT ESV SVM SVM [AIRNAV2]	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	955	114.3	UDT ESV SVM	
ESV:		Bearing [True]: 89.0° to 117.0° Bearing [Mag]: 92.0° to 120.0°				Arc Distance: Out to 73.0 NM Altitude: 6200.0 to 20000.0 ft		
5	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 65.0° to 98.0° Bearing [Mag]: 68.0° to 101.0°				Arc Distance: Out to 64.0 NM Altitude: 4000.0 to 16000.0 ft		
6	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 342.0° to 28.0° Bearing [Mag]: 347.0° to 33.0°				Arc Distance: Out to 81.0 NM Altitude: 5000.0 to 16000.0 ft		
7	UDT ESV VWV VWV [AIRNAV2]	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	669.3	113.1	UDT ESV VWV	
ESV:		Bearing [True]: 7.0° to 32.0° Bearing [Mag]: 9.0° to 34.0°				Arc Distance: Out to 47.0 NM Altitude: 2000.0 to 20000.0 ft		
8	UDT ESV BSV BSV [AIRNAV2]	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	1221	112.4	UDT ESV BSV	
ESV:		Bearing [True]: 344.0° to 357.0° Bearing [Mag]: 348.0° to 1.0°				Arc Distance: Out to 49.0 NM Altitude: 3400.0 to 20000.0 ft		
9	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 313.0° to 359.0° Bearing [Mag]: 318.0° to 4.0°				Arc Distance: Out to 60.0 NM Altitude: 4000.0 to 16000.0 ft		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03L:DER\_KZLOV

## DME Error



# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03L:DER\_KZLOV

Graphic Depiction 1





### Graphic Depiction 2



## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03R:DER\_BESST\_

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Paul CTR Jackson
Project File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\DTW SID LIDDS TWO 20190301 DME.tgs
Output File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\LIDDS2\KDTW LIDDS (RNAV)_2019-03-04_0337\KDTW-RW03R-DER_BESST_\KDTW LIDDS (RNAV) DEPARTURE_KDTW_RW03R_DER_BESST__2019-03-04_0337.pdf
Procedure Name:	LIDDS (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	03/04/2019 03:38 PM CST
Databases:	DTED 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
KDTW:RW03R:DER	WP	N42° 13' 10.86", W083° 20' 02.65"	631.8	VNAV	130	FLY_BY	TF
KDTW:RW03R-VI End	WP	N42° 14' 04.99", W083° 19' 22.74"	1146	VNAV	145	FLY_BY	TF
BESST_	WP	N42° 16' 56.69", W083° 13' 21.04"	2500	VNAV	230	FLY_BY	TF

### Flyability

Flight Type:	DEPARTURE
Selected Airport:	KDTW
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

# DME DME Assessment Results for LIDDS (RNAV) 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:	AGC,AUW,BDF,BFD,BVT,CIP,CKB,C MK,CRI,CTW,DNV,DNY,DWN,ECB,EL X,EON,ESL,ETG,EWO,FJC,FLM,FQM ,GFL,GGT,GIJ,GRV,GSH,HIC,HML,H NK,HNN,HTO,HUO,IHD,JFN,JVL,LAN, LGA,LNR,LVZ,MIP,MKG,MNM,MSS,O DI,PLL,PLN,PMM,PNT,PWL,RBS,REC ,RKA,RST,SAM,SFK,SLK,SLT,TDT,T HS,UCA,UIN,ULW,VLA,YRK

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03R:DER\_BESST**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.29", W083° 21' 59.99"	6.0 W	130	H	AIRNAV2	NO	Enabled	40.1 %	47.6 %
2	SVM	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	L	AIRNAV2	NO	Enabled	80 %	83.8 %
3	PSI	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	L	AIRNAV2	NO	Enabled	40.1 %	47.6 %
4	CRL	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	H	AIRNAV2	NO	Enabled	80 %	83.8 %
5	AGC	N40° 16' 43.12", W080° 02' 27.08"	9.0 W	40	L	AIRNAV2	NO	Disabled		
6	AUW	N44° 50' 48.40", W089° 35' 11.68"	2.0 E	40	L	AIRNAV2	NO	Disabled		
7	BDF	N41° 09' 35.03", W089° 35' 16.34"	0.0 E	130	H	AIRNAV2	NO	Disabled		
8	BFD	N41° 47' 10.99", W078° 37' 09.65"	7.0 W	40	L	AIRNAV2	NO	Disabled		
9	BVT	N40° 33' 22.22", W087° 04' 09.75"	1.0 E	130	H	AIRNAV2	NO	Disabled		
10	CIP	N41° 08' 46.66", W079° 27' 28.71"	6.0 W	40	L	AIRNAV2	NO	Disabled		
11	CKB	N39° 15' 11.58", W080° 16' 04.30"	4.0 W	40	L	AIRNAV2	NO	Disabled		
12	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	AIRNAV2	NO	Disabled		
13	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	AIRNAV2	NO	Disabled		
14	CTW	N40° 13' 45.15", W081° 28' 35.32"	7.0 W	40	L	AIRNAV2	NO	Disabled		
15	DNV	N40° 17' 37.56", W087° 33' 26.14"	2.0 E	40	L	AIRNAV2	NO	Disabled		
16	DNY	N42° 10' 41.81", W074° 57' 24.99"	11.0 W	40	L	AIRNAV2	NO	Disabled		
17	DWN	N45° 05' 14.87", W094° 27' 13.86"	7.0 E	40	L	AIRNAV2	NO	Disabled		
18	ECB	N38° 09' 30.11", W082° 54' 36.20"	2.0 W	40	L	AIRNAV2	NO	Disabled		
19	ELX	N42° 08' 39.88", W086° 07' 21.74"	0.0 E	40	L	AIRNAV2	NO	Disabled		
20	EON	N41° 16' 10.68", W087° 47' 27.79"	2.0 E	40	L	AIRNAV2	NO	Disabled		
21	ESL	N39° 13' 31.77", W078° 59' 22.20"	6.0 W	40	L	AIRNAV2	NO	Disabled		
22	ETG	N41° 12' 53.82", W078° 08' 33.92"	10.0 W	130	H	AIRNAV2	NO	Disabled		
23	EWO	N37° 37' 54.52", W085° 40' 33.16"	1.0 E	40	L	AIRNAV2	NO	Disabled		
24	FJC	N40° 43' 36.12", W075° 27' 17.12"	10.0 W	40	L	AIRNAV2	NO	Disabled		
25	FLM	N38° 38' 57.99", W084° 18' 38.17"	4.0 W	130	H	AIRNAV2	NO	Disabled		
26	FQM	N41° 20' 18.81", W076° 46' 29.52"	9.0 W	40	L	AIRNAV2	NO	Disabled		
27	GFL	N43° 20' 30.09", W073° 36' 42.32"	14.0 W	40	L	AIRNAV2	NO	Disabled		
28	GGT	N42° 47' 20.24", W075° 49' 36.29"	11.0 W	40	L	AIRNAV2	NO	Disabled		
29	GIJ	N41° 46' 07.00", W086° 19' 06.42"	0.0 E	130	H	AIRNAV2	NO	Disabled		
30	GRV	N39° 38' 06.11", W079° 03' 01.90"	6.0 W	40	L	AIRNAV2	NO	Disabled		
31	GSH	N41° 31' 30.56", W086° 01' 40.63"	0.0 E	130	H	AIRNAV2	NO	Disabled		
32	HIC	N43° 34' 29.47", W085° 42' 58.18"	1.0 W	40	L	AIRNAV2	NO	Disabled		
33	HML	N48° 52' 09.09", W097° 07' 01.51"	9.0 E	130	H	AIRNAV2	NO	Disabled		

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03R:DER\_BESST**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	HNK	N42° 03' 47.01", W075° 18' 58.62"	11.0 W	130	H	AIRNAV2	NO	Disabled		
35	HNN	N38° 45' 14.85", W082° 01' 34.20"	3.0 W	130	H	AIRNAV2	NO	Disabled		
36	HTO	N40° 55' 08.38", W072° 19' 00.14"	13.0 W	130	H	AIRNAV2	NO	Disabled		
37	HUO	N41° 24' 34.87", W074° 35' 29.74"	11.0 W	130	H	AIRNAV2	NO	Disabled		
38	IHD	N39° 58' 27.27", W079° 21' 30.12"	6.0 W	40	L	AIRNAV2	NO	Disabled		
39	JFN	N41° 45' 36.42", W080° 44' 53.20"	5.0 W	40	L	AIRNAV2	NO	Disabled		
40	JVL	N42° 33' 28.83", W089° 06' 18.93"	3.0 E	40	L	AIRNAV2	NO	Disabled		
41	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	AIRNAV2	NO	Disabled		
42	LNR	N43° 17' 39.85", W090° 07' 59.33"	0.0 E	40	L	AIRNAV2	NO	Disabled		
43	LVZ	N41° 16' 22.10", W075° 41' 22.07"	10.0 W	40	L	AIRNAV2	NO	Disabled		
44	MIP	N41° 01' 24.21", W076° 39' 55.04"	9.0 W	40	L	AIRNAV2	NO	Disabled		
45	MKG	N43° 10' 09.31", W086° 02' 21.76"	1.0 W	40	L	AIRNAV2	NO	Disabled		
46	MNM	N45° 10' 48.58", W087° 38' 49.83"	0.0 E	40	L	AIRNAV2	NO	Disabled		
47	MSS	N44° 54' 51.92", W074° 43' 21.78"	14.0 W	130	H	AIRNAV2	NO	Disabled		
48	ODI	N43° 54' 44.38", W091° 28' 03.06"	1.0 E	130	H	AIRNAV2	NO	Disabled		
49	PLL	N41° 57' 56.31", W089° 31' 27.19"	3.0 E	40	L	AIRNAV2	NO	Disabled		
50	PLN	N45° 37' 50.33", W084° 39' 50.79"	6.0 W	40	L	AIRNAV2	NO	Disabled		
51	PMM	N42° 27' 57.73", W086° 06' 17.32"	0.0 E	130	H	AIRNAV2	NO	Disabled		
52	PNT	N40° 49' 16.32", W088° 44' 00.63"	3.0 E	40	L	AIRNAV2	NO	Disabled		
53	PWL	N41° 46' 11.18", W073° 36' 01.99"	12.0 W	40	L	AIRNAV2	NO	Disabled		
54	RBS	N40° 34' 54.13", W088° 09' 51.36"	2.0 E	40	L	AIRNAV2	NO	Disabled		
55	REC	N40° 32' 47.25", W078° 44' 49.28"	9.0 W	40	L	AIRNAV2	NO	Disabled		
56	RKA	N42° 27' 58.91", W075° 14' 21.51"	11.0 W	40	L	AIRNAV2	NO	Disabled		
57	RST	N43° 46' 58.45", W092° 35' 49.06"	5.0 E	40	L	AIRNAV2	NO	Disabled		
58	SAM	N38° 29' 06.68", W088° 05' 08.90"	3.0 E	40	L	AIRNAV2	NO	Disabled		
59	SFK	N41° 41' 42.91", W077° 25' 11.66"	8.0 W	40	L	AIRNAV2	NO	Disabled		
60	SLK	N44° 23' 04.42", W074° 12' 16.22"	14.0 W	40	L	AIRNAV2	NO	Disabled		
61	SLT	N41° 30' 45.93", W077° 58' 12.39"	8.0 W	130	H	AIRNAV2	NO	Disabled		
62	TDT	N41° 42' 46.91", W079° 25' 02.17"	9.0 W	40	L	AIRNAV2	NO	Disabled		
63	THS	N39° 55' 59.62", W077° 57' 03.40"	7.0 W	40	L	AIRNAV2	NO	Disabled		
64	UCA	N43° 01' 35.45", W075° 09' 52.28"	12.0 W	40	L	AIRNAV2	NO	Disabled		
65	UIN	N39° 50' 52.35", W091° 16' 44.13"	5.0 E	130	H	AIRNAV2	NO	Disabled		
66	ULW	N42° 05' 39.16", W077° 01' 28.53"	12.0 W	40	L	AIRNAV2	NO	Disabled		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03R:DER\_BESST\_

## DME/DME (Continued)

### DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
67	VLA	N39° 05' 37.82", W089° 09' 44.08"	4.0 E	40	L	AIRNAV2	NO	Disabled		
68	YRK	N38° 38' 38.88", W082° 58' 42.02"	5.0 W	40	L	AIRNAV2	NO	Disabled		

## Flight Check DME Selection

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

## Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 36.38", W083° 21' 57.22"	N42° 14' 25.64", W083° 21' 20.94"	0.9353
2	N42° 10' 50.17", W083° 21' 46.27"	N42° 09' 47.22", W083° 21' 42.65"	1.0502
3	N42° 11' 42.35", W083° 21' 07.86"	N42° 13' 10.86", W083° 20' 02.65"	1.6807
4	N42° 13' 12.72", W083° 20' 01.28"	N42° 14' 04.99", W083° 19' 22.74"	0.9925
5	N42° 12' 26.35", W083° 21' 05.75"	N42° 13' 52.36", W083° 20' 59.97"	1.4354
6	N42° 13' 54.22", W083° 20' 58.60"	N42° 14' 44.23", W083° 20' 21.73"	0.9496
7	N42° 11' 34.48", W083° 21' 43.96"	N41° 42' 12.20", W081° 49' 25.71"	74.6774
8	N42° 12' 06.52", W083° 22' 17.93"	N42° 09' 44.90", W083° 21' 38.61"	2.4099
9	N42° 11' 14.76", W083° 22' 56.02"	N42° 08' 29.70", W083° 22' 25.66"	2.7769
10	N42° 06' 14.34", W083° 22' 00.80"	N42° 05' 41.32", W083° 21' 54.74"	0.5554
11	N42° 11' 15.08", W083° 23' 41.20"	N42° 16' 56.69", W083° 13' 21.04"	9.5394
12	N42° 12' 05.94", W083° 23' 03.79"	N42° 01' 54.21", W082° 30' 38.74"	40.2011
13	N42° 11' 15.08", W083° 23' 41.19"	N42° 07' 39.69", W083° 22' 43.62"	3.66
14	N42° 06' 37.68", W083° 22' 27.07"	N42° 03' 25.13", W083° 21' 35.72"	3.2718
15	N42° 13' 43.72", W083° 20' 08.74"	N42° 14' 36.02", W083° 19' 30.16"	0.9933

## Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
KDTW:RW03R:DER	KDTW:RW03R-VI End	SVM, CRL
KDTW:RW03R-VI End	BESST_	PSI, DXO, SVM, CRL

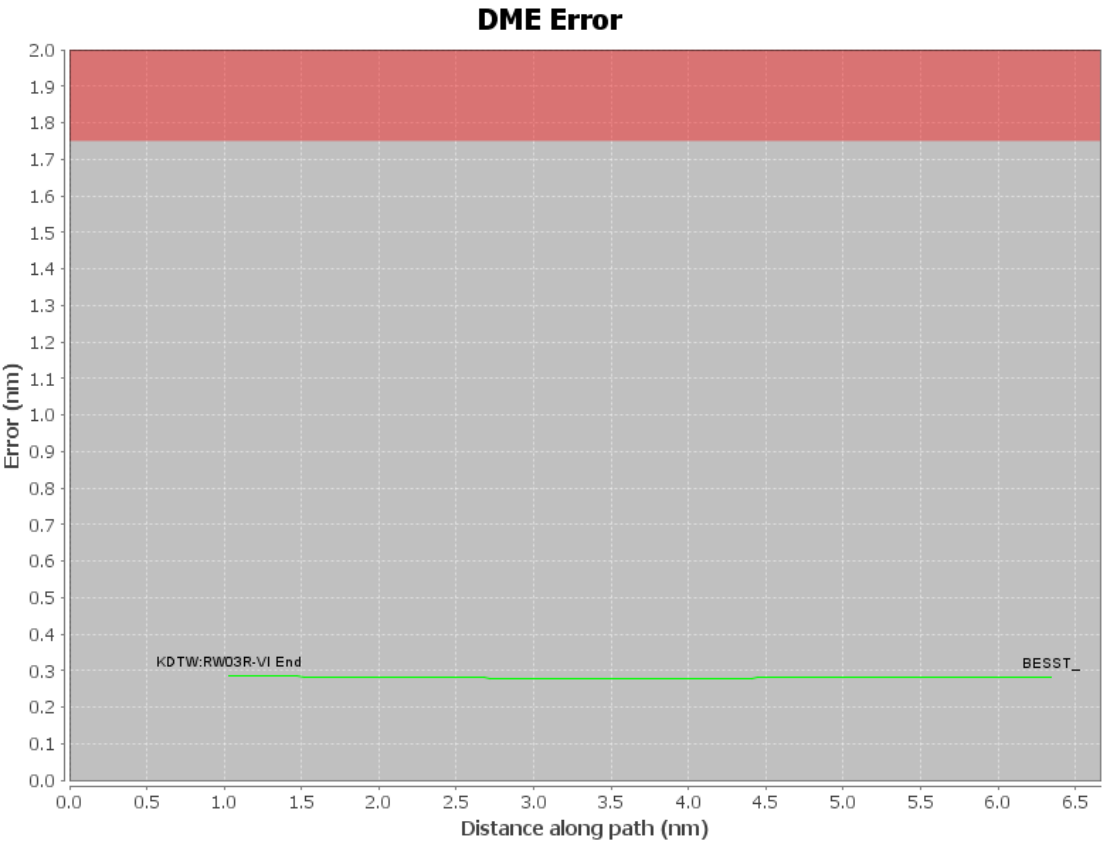
# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03R:DER\_BESST\_

## User Data Files

#	File Name
1	UserDMEsKDTW LIDDS (RNAV) DEPARTURE_2018-12-19_0139.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV PSI PSI [AIRNAV2]	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	1149	null	UDT ESV PSI	
ESV:		Bearing [True]: 80.0° to 145.0° Bearing [Mag]: 80.0° to 145.0°				Arc Distance: Out to 65.0 NM Altitude: 3900.0 to 11000.0 ft		
2	UDT ESV MFD MFD [AIRNAV2]	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	1222	108.8	UDT ESV MFD	
ESV:		Bearing [True]: 325.0° to 43.0° Bearing [Mag]: 328.0° to 46.0°				Arc Distance: Out to 80.0 NM Altitude: 6400.0 to 20000.0 ft		
3	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 88.0° to 113.0° Bearing [Mag]: 91.0° to 116.0°				Arc Distance: Out to 84.0 NM Altitude: 9000.0 to 16000.0 ft		
4	UDT ESV SVM SVM [AIRNAV2]	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	955	114.3	UDT ESV SVM	
ESV:		Bearing [True]: 89.0° to 117.0° Bearing [Mag]: 92.0° to 120.0°				Arc Distance: Out to 73.0 NM Altitude: 6200.0 to 20000.0 ft		
5	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 65.0° to 98.0° Bearing [Mag]: 68.0° to 101.0°				Arc Distance: Out to 64.0 NM Altitude: 4000.0 to 16000.0 ft		
6	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 342.0° to 28.0° Bearing [Mag]: 347.0° to 33.0°				Arc Distance: Out to 81.0 NM Altitude: 5000.0 to 16000.0 ft		
7	UDT ESV VWV VWV [AIRNAV2]	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	669.3	113.1	UDT ESV VWV	
ESV:		Bearing [True]: 7.0° to 32.0° Bearing [Mag]: 9.0° to 34.0°				Arc Distance: Out to 47.0 NM Altitude: 2000.0 to 20000.0 ft		
8	UDT ESV BSV BSV [AIRNAV2]	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	1221	112.4	UDT ESV BSV	
ESV:		Bearing [True]: 344.0° to 357.0° Bearing [Mag]: 348.0° to 1.0°				Arc Distance: Out to 49.0 NM Altitude: 3400.0 to 20000.0 ft		
9	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 313.0° to 359.0° Bearing [Mag]: 318.0° to 4.0°				Arc Distance: Out to 60.0 NM Altitude: 4000.0 to 16000.0 ft		





DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW03R:DER\_BESST\_

Graphic Depiction 1



### Graphic Depiction 2



## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04L:DER\_BESST\_

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Paul CTR Jackson
Project File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\DTW SID LIDDS TWO 20190301 DME.tgs
Output File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\LIDDS2\KDTW LIDDS (RNAV)_2019-03-04_0337\KDTW-RW04L-DER_BESST_\KDTW LIDDS (RNAV) DEPARTURE_KDTW_RW04L_DER_BESST__2019-03-04_0337.pdf
Procedure Name:	LIDDS (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	03/04/2019 03:38 PM CST
Databases:	DTED 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
KDTW:RW04L:DER	WP	N42° 13' 34.48", W083° 21' 58.61"	642.2	VNAV	130	FLY_BY	TF
KDTW:RW04L-VI End	WP	N42° 14' 27.53", W083° 21' 19.54"	1146	VNAV	145	FLY_BY	TF
BESST_	WP	N42° 16' 56.69", W083° 13' 21.04"	2500	VNAV	230	FLY_BY	TF

### Flyability

Flight Type:	DEPARTURE
Selected Airport:	KDTW
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04L: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:	AGC,AUW,BDF,BFD,BVT,CIP,CKB,C MK,CRI,CTW,DNV,DNY,DWN,ECB,EL X,EON,ESL,ETG,EWO,FJC,FLM,FQM ,GFL,GGT,GIJ,GRV,GSH,HIC,HML,H NK,HNN,HTO,HUO,IHD,JFN,JVL,LAN, LGA,LNR,LVZ,MIP,MKG,MNM,MSS,O DI,PLL,PLN,PMM,PNT,PWL,RBS,REC ,RKA,RST,SAM,SFK,SLK,SLT,TDT,T HS,UCA,UIN,ULW,VLA,YRK

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04L:DER\_BESST**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.29", W083° 21' 59.99"	6.0 W	130	H	AIRNAV2	NO	Enabled	39.3 %	46.4 %
2	SVM	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	L	AIRNAV2	NO	Enabled	84.2 %	86.9 %
3	PSI	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	L	AIRNAV2	NO	Enabled	39.3 %	46.4 %
4	CRL	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	H	AIRNAV2	NO	Enabled	84.2 %	86.9 %
5	AGC	N40° 16' 43.12", W080° 02' 27.08"	9.0 W	40	L	AIRNAV2	NO	Disabled		
6	AUW	N44° 50' 48.40", W089° 35' 11.68"	2.0 E	40	L	AIRNAV2	NO	Disabled		
7	BDF	N41° 09' 35.03", W089° 35' 16.34"	0.0 E	130	H	AIRNAV2	NO	Disabled		
8	BFD	N41° 47' 10.99", W078° 37' 09.65"	7.0 W	40	L	AIRNAV2	NO	Disabled		
9	BVT	N40° 33' 22.22", W087° 04' 09.75"	1.0 E	130	H	AIRNAV2	NO	Disabled		
10	CIP	N41° 08' 46.66", W079° 27' 28.71"	6.0 W	40	L	AIRNAV2	NO	Disabled		
11	CKB	N39° 15' 11.58", W080° 16' 04.30"	4.0 W	40	L	AIRNAV2	NO	Disabled		
12	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	AIRNAV2	NO	Disabled		
13	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	AIRNAV2	NO	Disabled		
14	CTW	N40° 13' 45.15", W081° 28' 35.32"	7.0 W	40	L	AIRNAV2	NO	Disabled		
15	DNV	N40° 17' 37.56", W087° 33' 26.14"	2.0 E	40	L	AIRNAV2	NO	Disabled		
16	DNY	N42° 10' 41.81", W074° 57' 24.99"	11.0 W	40	L	AIRNAV2	NO	Disabled		
17	DWN	N45° 05' 14.87", W094° 27' 13.86"	7.0 E	40	L	AIRNAV2	NO	Disabled		
18	ECB	N38° 09' 30.11", W082° 54' 36.20"	2.0 W	40	L	AIRNAV2	NO	Disabled		
19	ELX	N42° 08' 39.88", W086° 07' 21.74"	0.0 E	40	L	AIRNAV2	NO	Disabled		
20	EON	N41° 16' 10.68", W087° 47' 27.79"	2.0 E	40	L	AIRNAV2	NO	Disabled		
21	ESL	N39° 13' 31.77", W078° 59' 22.20"	6.0 W	40	L	AIRNAV2	NO	Disabled		
22	ETG	N41° 12' 53.82", W078° 08' 33.92"	10.0 W	130	H	AIRNAV2	NO	Disabled		
23	EWO	N37° 37' 54.52", W085° 40' 33.16"	1.0 E	40	L	AIRNAV2	NO	Disabled		
24	FJC	N40° 43' 36.12", W075° 27' 17.12"	10.0 W	40	L	AIRNAV2	NO	Disabled		
25	FLM	N38° 38' 57.99", W084° 18' 38.17"	4.0 W	130	H	AIRNAV2	NO	Disabled		
26	FQM	N41° 20' 18.81", W076° 46' 29.52"	9.0 W	40	L	AIRNAV2	NO	Disabled		
27	GFL	N43° 20' 30.09", W073° 36' 42.32"	14.0 W	40	L	AIRNAV2	NO	Disabled		
28	GGT	N42° 47' 20.24", W075° 49' 36.29"	11.0 W	40	L	AIRNAV2	NO	Disabled		
29	GIJ	N41° 46' 07.00", W086° 19' 06.42"	0.0 E	130	H	AIRNAV2	NO	Disabled		
30	GRV	N39° 38' 06.11", W079° 03' 01.90"	6.0 W	40	L	AIRNAV2	NO	Disabled		
31	GSH	N41° 31' 30.56", W086° 01' 40.63"	0.0 E	130	H	AIRNAV2	NO	Disabled		
32	HIC	N43° 34' 29.47", W085° 42' 58.18"	1.0 W	40	L	AIRNAV2	NO	Disabled		
33	HML	N48° 52' 09.09", W097° 07' 01.51"	9.0 E	130	H	AIRNAV2	NO	Disabled		

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04L:DER\_BESST**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	HNK	N42° 03' 47.01", W075° 18' 58.62"	11.0 W	130	H	AIRNAV2	NO	Disabled		
35	HNN	N38° 45' 14.85", W082° 01' 34.20"	3.0 W	130	H	AIRNAV2	NO	Disabled		
36	HTO	N40° 55' 08.38", W072° 19' 00.14"	13.0 W	130	H	AIRNAV2	NO	Disabled		
37	HUO	N41° 24' 34.87", W074° 35' 29.74"	11.0 W	130	H	AIRNAV2	NO	Disabled		
38	IHD	N39° 58' 27.27", W079° 21' 30.12"	6.0 W	40	L	AIRNAV2	NO	Disabled		
39	JFN	N41° 45' 36.42", W080° 44' 53.20"	5.0 W	40	L	AIRNAV2	NO	Disabled		
40	JVL	N42° 33' 28.83", W089° 06' 18.93"	3.0 E	40	L	AIRNAV2	NO	Disabled		
41	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	AIRNAV2	NO	Disabled		
42	LNR	N43° 17' 39.85", W090° 07' 59.33"	0.0 E	40	L	AIRNAV2	NO	Disabled		
43	LVZ	N41° 16' 22.10", W075° 41' 22.07"	10.0 W	40	L	AIRNAV2	NO	Disabled		
44	MIP	N41° 01' 24.21", W076° 39' 55.04"	9.0 W	40	L	AIRNAV2	NO	Disabled		
45	MKG	N43° 10' 09.31", W086° 02' 21.76"	1.0 W	40	L	AIRNAV2	NO	Disabled		
46	MNM	N45° 10' 48.58", W087° 38' 49.83"	0.0 E	40	L	AIRNAV2	NO	Disabled		
47	MSS	N44° 54' 51.92", W074° 43' 21.78"	14.0 W	130	H	AIRNAV2	NO	Disabled		
48	ODI	N43° 54' 44.38", W091° 28' 03.06"	1.0 E	130	H	AIRNAV2	NO	Disabled		
49	PLL	N41° 57' 56.31", W089° 31' 27.19"	3.0 E	40	L	AIRNAV2	NO	Disabled		
50	PLN	N45° 37' 50.33", W084° 39' 50.79"	6.0 W	40	L	AIRNAV2	NO	Disabled		
51	PMM	N42° 27' 57.73", W086° 06' 17.32"	0.0 E	130	H	AIRNAV2	NO	Disabled		
52	PNT	N40° 49' 16.32", W088° 44' 00.63"	3.0 E	40	L	AIRNAV2	NO	Disabled		
53	PWL	N41° 46' 11.18", W073° 36' 01.99"	12.0 W	40	L	AIRNAV2	NO	Disabled		
54	RBS	N40° 34' 54.13", W088° 09' 51.36"	2.0 E	40	L	AIRNAV2	NO	Disabled		
55	REC	N40° 32' 47.25", W078° 44' 49.28"	9.0 W	40	L	AIRNAV2	NO	Disabled		
56	RKA	N42° 27' 58.91", W075° 14' 21.51"	11.0 W	40	L	AIRNAV2	NO	Disabled		
57	RST	N43° 46' 58.45", W092° 35' 49.06"	5.0 E	40	L	AIRNAV2	NO	Disabled		
58	SAM	N38° 29' 06.68", W088° 05' 08.90"	3.0 E	40	L	AIRNAV2	NO	Disabled		
59	SFK	N41° 41' 42.91", W077° 25' 11.66"	8.0 W	40	L	AIRNAV2	NO	Disabled		
60	SLK	N44° 23' 04.42", W074° 12' 16.22"	14.0 W	40	L	AIRNAV2	NO	Disabled		
61	SLT	N41° 30' 45.93", W077° 58' 12.39"	8.0 W	130	H	AIRNAV2	NO	Disabled		
62	TDT	N41° 42' 46.91", W079° 25' 02.17"	9.0 W	40	L	AIRNAV2	NO	Disabled		
63	THS	N39° 55' 59.62", W077° 57' 03.40"	7.0 W	40	L	AIRNAV2	NO	Disabled		
64	UCA	N43° 01' 35.45", W075° 09' 52.28"	12.0 W	40	L	AIRNAV2	NO	Disabled		
65	UIN	N39° 50' 52.35", W091° 16' 44.13"	5.0 E	130	H	AIRNAV2	NO	Disabled		
66	ULW	N42° 05' 39.16", W077° 01' 28.53"	12.0 W	40	L	AIRNAV2	NO	Disabled		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04L:DER\_BESST\_

## DME/DME (Continued)

### DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
67	VLA	N39° 05' 37.82", W089° 09' 44.08"	4.0 E	40	L	AIRNAV2	NO	Disabled		
68	YRK	N38° 38' 38.88", W082° 58' 42.02"	5.0 W	40	L	AIRNAV2	NO	Disabled		

## Flight Check DME Selection

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

## Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 36.38", W083° 21' 57.22"	N42° 14' 25.64", W083° 21' 20.94"	0.9353
2	N42° 10' 50.17", W083° 21' 46.27"	N42° 09' 47.22", W083° 21' 42.65"	1.0502
3	N42° 11' 42.35", W083° 21' 07.86"	N42° 13' 10.86", W083° 20' 02.65"	1.6807
4	N42° 13' 12.72", W083° 20' 01.28"	N42° 14' 04.99", W083° 19' 22.74"	0.9925
5	N42° 12' 26.35", W083° 21' 05.75"	N42° 13' 52.36", W083° 20' 59.97"	1.4354
6	N42° 13' 54.22", W083° 20' 58.60"	N42° 14' 44.23", W083° 20' 21.73"	0.9496
7	N42° 11' 34.48", W083° 21' 43.96"	N41° 42' 12.20", W081° 49' 25.71"	74.6774
8	N42° 12' 06.52", W083° 22' 17.93"	N42° 09' 44.90", W083° 21' 38.61"	2.4099
9	N42° 11' 14.76", W083° 22' 56.02"	N42° 08' 29.70", W083° 22' 25.66"	2.7769
10	N42° 06' 14.34", W083° 22' 00.80"	N42° 05' 41.32", W083° 21' 54.74"	0.5554
11	N42° 11' 15.08", W083° 23' 41.20"	N42° 16' 56.69", W083° 13' 21.04"	9.5394
12	N42° 12' 05.94", W083° 23' 03.79"	N42° 01' 54.21", W082° 30' 38.74"	40.2011
13	N42° 11' 15.08", W083° 23' 41.19"	N42° 07' 39.69", W083° 22' 43.62"	3.66
14	N42° 06' 37.68", W083° 22' 27.07"	N42° 03' 25.13", W083° 21' 35.72"	3.2718
15	N42° 13' 43.72", W083° 20' 08.74"	N42° 14' 36.02", W083° 19' 30.16"	0.9933

## Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
KDTW:RW04L:DER	KDTW:RW04L-VI End	SVM, CRL
KDTW:RW04L-VI End	BESST_	PSI, DXO, SVM, CRL

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04L:DER\_BESST

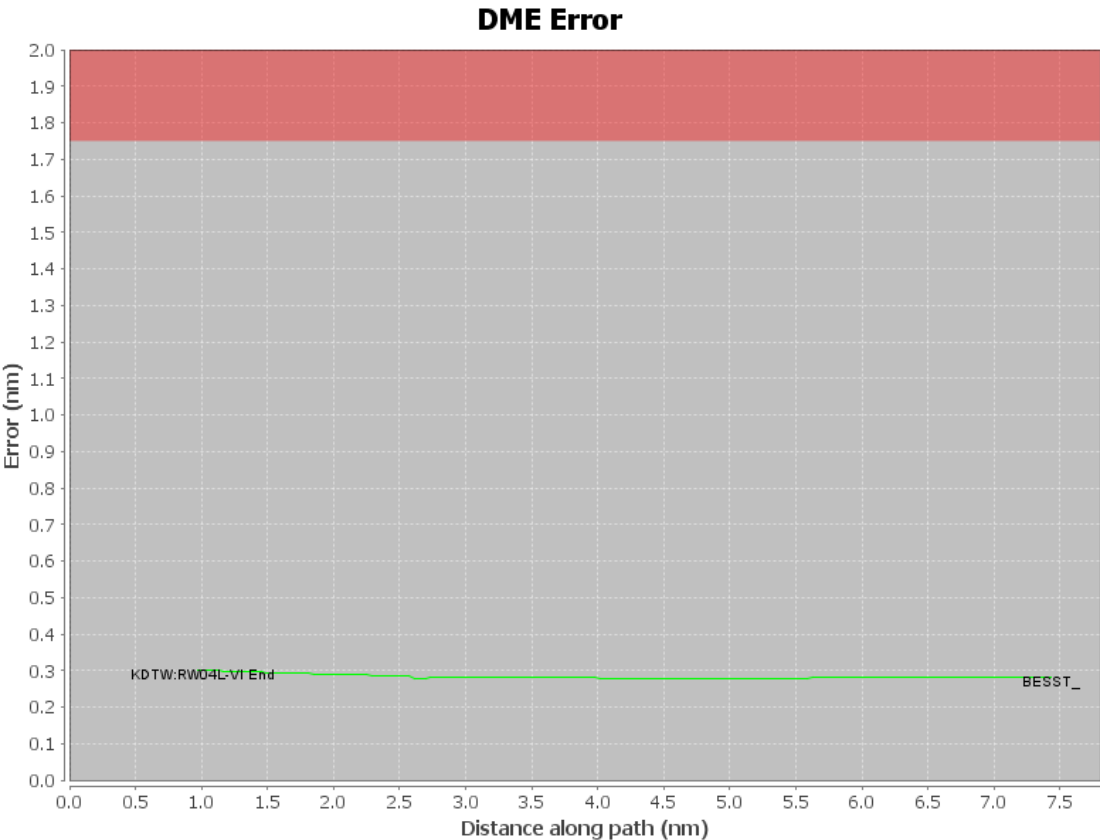
## User Data Files

#	File Name
1	UserDMEsKDTW LIDDS (RNAV) DEPARTURE_2018-12-19_0139.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV PSI PSI [AIRNAV2]	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	1149	null	UDT ESV PSI	
ESV:		Bearing [True]: 80.0° to 145.0° Bearing [Mag]: 80.0° to 145.0°				Arc Distance: Out to 65.0 NM Altitude: 3900.0 to 11000.0 ft		
2	UDT ESV MFD MFD [AIRNAV2]	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	1222	108.8	UDT ESV MFD	
ESV:		Bearing [True]: 325.0° to 43.0° Bearing [Mag]: 328.0° to 46.0°				Arc Distance: Out to 80.0 NM Altitude: 6400.0 to 20000.0 ft		
3	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 88.0° to 113.0° Bearing [Mag]: 91.0° to 116.0°				Arc Distance: Out to 84.0 NM Altitude: 9000.0 to 16000.0 ft		
4	UDT ESV SVM SVM [AIRNAV2]	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	955	114.3	UDT ESV SVM	
ESV:		Bearing [True]: 89.0° to 117.0° Bearing [Mag]: 92.0° to 120.0°				Arc Distance: Out to 73.0 NM Altitude: 6200.0 to 20000.0 ft		
5	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 65.0° to 98.0° Bearing [Mag]: 68.0° to 101.0°				Arc Distance: Out to 64.0 NM Altitude: 4000.0 to 16000.0 ft		
6	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 342.0° to 28.0° Bearing [Mag]: 347.0° to 33.0°				Arc Distance: Out to 81.0 NM Altitude: 5000.0 to 16000.0 ft		
7	UDT ESV VWV VWV [AIRNAV2]	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	669.3	113.1	UDT ESV VWV	
ESV:		Bearing [True]: 7.0° to 32.0° Bearing [Mag]: 9.0° to 34.0°				Arc Distance: Out to 47.0 NM Altitude: 2000.0 to 20000.0 ft		
8	UDT ESV BSV BSV [AIRNAV2]	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	1221	112.4	UDT ESV BSV	
ESV:		Bearing [True]: 344.0° to 357.0° Bearing [Mag]: 348.0° to 1.0°				Arc Distance: Out to 49.0 NM Altitude: 3400.0 to 20000.0 ft		
9	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 313.0° to 359.0° Bearing [Mag]: 318.0° to 4.0°				Arc Distance: Out to 60.0 NM Altitude: 4000.0 to 16000.0 ft		





# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04L:DER\_BESST\_

Graphic Depiction 1



### Graphic Depiction 2



## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04R:DER\_BESST\_

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Paul CTR Jackson
Project File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\DTW SID LIDDS TWO 20190301 DME.tgs
Output File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\LIDDS2\KDTW LIDDS (RNAV)_2019-03-04_0337\KDTW-RW04R-DER_BESST_\KDTW LIDDS (RNAV) DEPARTURE_KDTW_RW04R_DER_BESST__2019-03-04_0337.pdf
Procedure Name:	LIDDS (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	03/04/2019 03:38 PM CST
Databases:	DTED 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
KDTW:RW04R:DER	WP	N42° 13' 52.36", W083° 20' 59.97"	635.8	VNAV	130	FLY_BY	TF
KDTW:RW04R-VI End	WP	N42° 14' 46.08", W083° 20' 20.37"	1146	VNAV	145	FLY_BY	TF
BESST_	WP	N42° 16' 56.69", W083° 13' 21.04"	2500	VNAV	230	FLY_BY	TF

### Flyability

Flight Type:	DEPARTURE
Selected Airport:	KDTW
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04R: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:	AGC,AUW,BDF,BFD,BVT,CIP,CKB,C MK,CRI,CTW,DNV,DNY,DWN,ECB,EL X,EON,ESL,ETG,EWO,FJC,FLM,FQM ,GFL,GGT,GIJ,GRV,GSH,HIC,HML,H NK,HNN,HTO,HUO,IHD,JFN,JVL,LAN, LGA,LNR,LVZ,MIP,MKG,MNM,MSS,O DI,PLL,PLN,PMM,PNT,PWL,RBS,REC ,RKA,RST,SAM,SFK,SLK,SLT,TDT,T HS,UCA,UIN,ULW,VLA,YRK

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04R:DER\_BESST**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.29", W083° 21' 59.99"	6.0 W	130	H	AIRNAV2	NO	Enabled	44.6 %	52 %
2	SVM	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	L	AIRNAV2	NO	Enabled	81.8 %	85.2 %
3	PSI	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	L	AIRNAV2	NO	Enabled	44.6 %	52 %
4	CRL	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	H	AIRNAV2	NO	Enabled	81.8 %	85.2 %
5	AGC	N40° 16' 43.12", W080° 02' 27.08"	9.0 W	40	L	AIRNAV2	NO	Disabled		
6	AUW	N44° 50' 48.40", W089° 35' 11.68"	2.0 E	40	L	AIRNAV2	NO	Disabled		
7	BDF	N41° 09' 35.03", W089° 35' 16.34"	0.0 E	130	H	AIRNAV2	NO	Disabled		
8	BFD	N41° 47' 10.99", W078° 37' 09.65"	7.0 W	40	L	AIRNAV2	NO	Disabled		
9	BVT	N40° 33' 22.22", W087° 04' 09.75"	1.0 E	130	H	AIRNAV2	NO	Disabled		
10	CIP	N41° 08' 46.66", W079° 27' 28.71"	6.0 W	40	L	AIRNAV2	NO	Disabled		
11	CKB	N39° 15' 11.58", W080° 16' 04.30"	4.0 W	40	L	AIRNAV2	NO	Disabled		
12	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	AIRNAV2	NO	Disabled		
13	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	AIRNAV2	NO	Disabled		
14	CTW	N40° 13' 45.15", W081° 28' 35.32"	7.0 W	40	L	AIRNAV2	NO	Disabled		
15	DNV	N40° 17' 37.56", W087° 33' 26.14"	2.0 E	40	L	AIRNAV2	NO	Disabled		
16	DNY	N42° 10' 41.81", W074° 57' 24.99"	11.0 W	40	L	AIRNAV2	NO	Disabled		
17	DWN	N45° 05' 14.87", W094° 27' 13.86"	7.0 E	40	L	AIRNAV2	NO	Disabled		
18	ECB	N38° 09' 30.11", W082° 54' 36.20"	2.0 W	40	L	AIRNAV2	NO	Disabled		
19	ELX	N42° 08' 39.88", W086° 07' 21.74"	0.0 E	40	L	AIRNAV2	NO	Disabled		
20	EON	N41° 16' 10.68", W087° 47' 27.79"	2.0 E	40	L	AIRNAV2	NO	Disabled		
21	ESL	N39° 13' 31.77", W078° 59' 22.20"	6.0 W	40	L	AIRNAV2	NO	Disabled		
22	ETG	N41° 12' 53.82", W078° 08' 33.92"	10.0 W	130	H	AIRNAV2	NO	Disabled		
23	EWO	N37° 37' 54.52", W085° 40' 33.16"	1.0 E	40	L	AIRNAV2	NO	Disabled		
24	FJC	N40° 43' 36.12", W075° 27' 17.12"	10.0 W	40	L	AIRNAV2	NO	Disabled		
25	FLM	N38° 38' 57.99", W084° 18' 38.17"	4.0 W	130	H	AIRNAV2	NO	Disabled		
26	FQM	N41° 20' 18.81", W076° 46' 29.52"	9.0 W	40	L	AIRNAV2	NO	Disabled		
27	GFL	N43° 20' 30.09", W073° 36' 42.32"	14.0 W	40	L	AIRNAV2	NO	Disabled		
28	GGT	N42° 47' 20.24", W075° 49' 36.29"	11.0 W	40	L	AIRNAV2	NO	Disabled		
29	GIJ	N41° 46' 07.00", W086° 19' 06.42"	0.0 E	130	H	AIRNAV2	NO	Disabled		
30	GRV	N39° 38' 06.11", W079° 03' 01.90"	6.0 W	40	L	AIRNAV2	NO	Disabled		
31	GSH	N41° 31' 30.56", W086° 01' 40.63"	0.0 E	130	H	AIRNAV2	NO	Disabled		
32	HIC	N43° 34' 29.47", W085° 42' 58.18"	1.0 W	40	L	AIRNAV2	NO	Disabled		
33	HML	N48° 52' 09.09", W097° 07' 01.51"	9.0 E	130	H	AIRNAV2	NO	Disabled		

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04R:DER\_BESST**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	HNK	N42° 03' 47.01", W075° 18' 58.62"	11.0 W	130	H	AIRNAV2	NO	Disabled		
35	HNN	N38° 45' 14.85", W082° 01' 34.20"	3.0 W	130	H	AIRNAV2	NO	Disabled		
36	HTO	N40° 55' 08.38", W072° 19' 00.14"	13.0 W	130	H	AIRNAV2	NO	Disabled		
37	HUO	N41° 24' 34.87", W074° 35' 29.74"	11.0 W	130	H	AIRNAV2	NO	Disabled		
38	IHD	N39° 58' 27.27", W079° 21' 30.12"	6.0 W	40	L	AIRNAV2	NO	Disabled		
39	JFN	N41° 45' 36.42", W080° 44' 53.20"	5.0 W	40	L	AIRNAV2	NO	Disabled		
40	JVL	N42° 33' 28.83", W089° 06' 18.93"	3.0 E	40	L	AIRNAV2	NO	Disabled		
41	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	AIRNAV2	NO	Disabled		
42	LNR	N43° 17' 39.85", W090° 07' 59.33"	0.0 E	40	L	AIRNAV2	NO	Disabled		
43	LVZ	N41° 16' 22.10", W075° 41' 22.07"	10.0 W	40	L	AIRNAV2	NO	Disabled		
44	MIP	N41° 01' 24.21", W076° 39' 55.04"	9.0 W	40	L	AIRNAV2	NO	Disabled		
45	MKG	N43° 10' 09.31", W086° 02' 21.76"	1.0 W	40	L	AIRNAV2	NO	Disabled		
46	MNM	N45° 10' 48.58", W087° 38' 49.83"	0.0 E	40	L	AIRNAV2	NO	Disabled		
47	MSS	N44° 54' 51.92", W074° 43' 21.78"	14.0 W	130	H	AIRNAV2	NO	Disabled		
48	ODI	N43° 54' 44.38", W091° 28' 03.06"	1.0 E	130	H	AIRNAV2	NO	Disabled		
49	PLL	N41° 57' 56.31", W089° 31' 27.19"	3.0 E	40	L	AIRNAV2	NO	Disabled		
50	PLN	N45° 37' 50.33", W084° 39' 50.79"	6.0 W	40	L	AIRNAV2	NO	Disabled		
51	PMM	N42° 27' 57.73", W086° 06' 17.32"	0.0 E	130	H	AIRNAV2	NO	Disabled		
52	PNT	N40° 49' 16.32", W088° 44' 00.63"	3.0 E	40	L	AIRNAV2	NO	Disabled		
53	PWL	N41° 46' 11.18", W073° 36' 01.99"	12.0 W	40	L	AIRNAV2	NO	Disabled		
54	RBS	N40° 34' 54.13", W088° 09' 51.36"	2.0 E	40	L	AIRNAV2	NO	Disabled		
55	REC	N40° 32' 47.25", W078° 44' 49.28"	9.0 W	40	L	AIRNAV2	NO	Disabled		
56	RKA	N42° 27' 58.91", W075° 14' 21.51"	11.0 W	40	L	AIRNAV2	NO	Disabled		
57	RST	N43° 46' 58.45", W092° 35' 49.06"	5.0 E	40	L	AIRNAV2	NO	Disabled		
58	SAM	N38° 29' 06.68", W088° 05' 08.90"	3.0 E	40	L	AIRNAV2	NO	Disabled		
59	SFK	N41° 41' 42.91", W077° 25' 11.66"	8.0 W	40	L	AIRNAV2	NO	Disabled		
60	SLK	N44° 23' 04.42", W074° 12' 16.22"	14.0 W	40	L	AIRNAV2	NO	Disabled		
61	SLT	N41° 30' 45.93", W077° 58' 12.39"	8.0 W	130	H	AIRNAV2	NO	Disabled		
62	TDT	N41° 42' 46.91", W079° 25' 02.17"	9.0 W	40	L	AIRNAV2	NO	Disabled		
63	THS	N39° 55' 59.62", W077° 57' 03.40"	7.0 W	40	L	AIRNAV2	NO	Disabled		
64	UCA	N43° 01' 35.45", W075° 09' 52.28"	12.0 W	40	L	AIRNAV2	NO	Disabled		
65	UIN	N39° 50' 52.35", W091° 16' 44.13"	5.0 E	130	H	AIRNAV2	NO	Disabled		
66	ULW	N42° 05' 39.16", W077° 01' 28.53"	12.0 W	40	L	AIRNAV2	NO	Disabled		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04R:DER\_BESST\_

## DME/DME (Continued)

### DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
67	VLA	N39° 05' 37.82", W089° 09' 44.08"	4.0 E	40	L	AIRNAV2	NO	Disabled		
68	YRK	N38° 38' 38.88", W082° 58' 42.02"	5.0 W	40	L	AIRNAV2	NO	Disabled		

## Flight Check DME Selection

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

## Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 36.38", W083° 21' 57.22"	N42° 14' 25.64", W083° 21' 20.94"	0.9353
2	N42° 10' 50.17", W083° 21' 46.27"	N42° 09' 47.22", W083° 21' 42.65"	1.0502
3	N42° 11' 42.35", W083° 21' 07.86"	N42° 13' 10.86", W083° 20' 02.65"	1.6807
4	N42° 13' 12.72", W083° 20' 01.28"	N42° 14' 04.99", W083° 19' 22.74"	0.9925
5	N42° 12' 26.35", W083° 21' 05.75"	N42° 13' 52.36", W083° 20' 59.97"	1.4354
6	N42° 13' 54.22", W083° 20' 58.60"	N42° 14' 44.23", W083° 20' 21.73"	0.9496
7	N42° 11' 34.48", W083° 21' 43.96"	N41° 42' 12.20", W081° 49' 25.71"	74.6774
8	N42° 12' 06.52", W083° 22' 17.93"	N42° 09' 44.90", W083° 21' 38.61"	2.4099
9	N42° 11' 14.76", W083° 22' 56.02"	N42° 08' 29.70", W083° 22' 25.66"	2.7769
10	N42° 06' 14.34", W083° 22' 00.80"	N42° 05' 41.32", W083° 21' 54.74"	0.5554
11	N42° 11' 15.08", W083° 23' 41.20"	N42° 16' 56.69", W083° 13' 21.04"	9.5394
12	N42° 12' 05.94", W083° 23' 03.79"	N42° 01' 54.21", W082° 30' 38.74"	40.2011
13	N42° 11' 15.08", W083° 23' 41.19"	N42° 07' 39.69", W083° 22' 43.62"	3.66
14	N42° 06' 37.68", W083° 22' 27.07"	N42° 03' 25.13", W083° 21' 35.72"	3.2718
15	N42° 13' 43.72", W083° 20' 08.74"	N42° 14' 36.02", W083° 19' 30.16"	0.9933

## Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
KDTW:RW04R:DER	KDTW:RW04R-VI End	SVM, CRL
KDTW:RW04R-VI End	BESST_	PSI, DXO, SVM, CRL



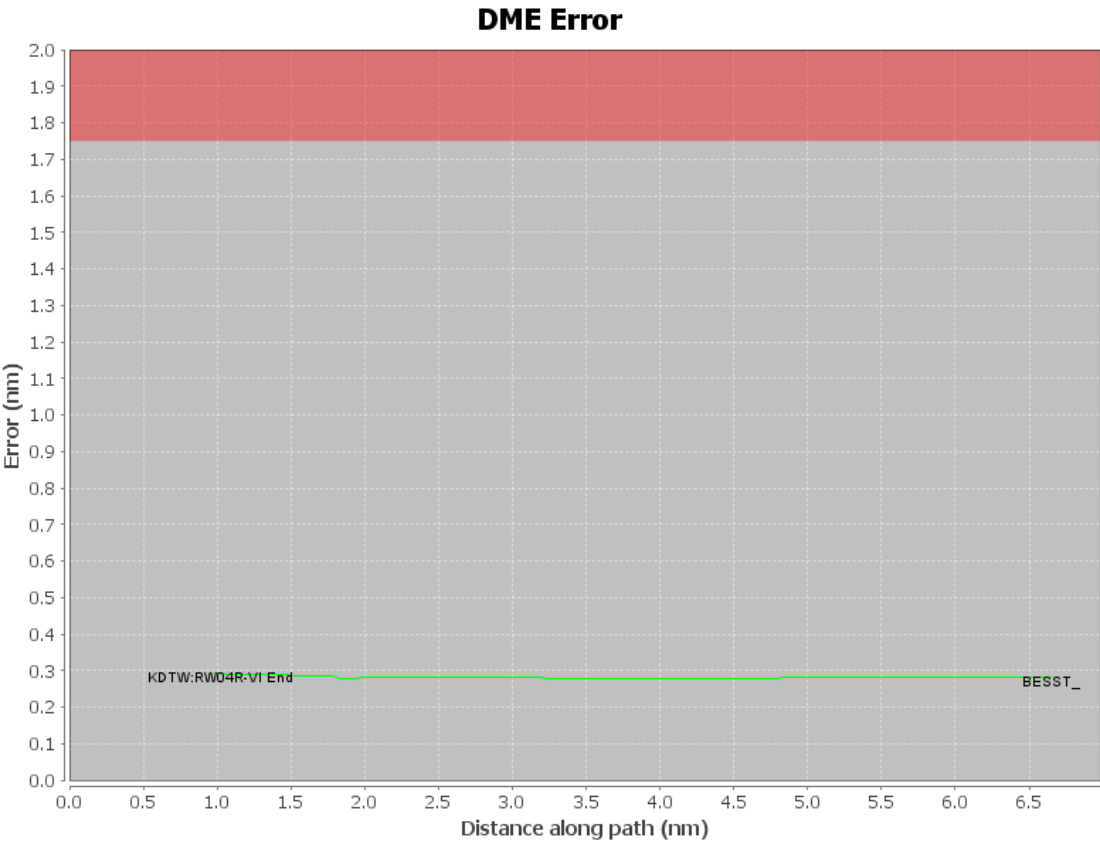
# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04R:DER\_BESST

## User Data Files

#	File Name
1	UserDMEsKDTW LIDDS (RNAV) DEPARTURE_2018-12-19_0139.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV PSI PSI [AIRNAV2]	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	1149	null	UDT ESV PSI	
ESV:		Bearing [True]: 80.0° to 145.0° Bearing [Mag]: 80.0° to 145.0°				Arc Distance: Out to 65.0 NM Altitude: 3900.0 to 11000.0 ft		
2	UDT ESV MFD MFD [AIRNAV2]	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	1222	108.8	UDT ESV MFD	
ESV:		Bearing [True]: 325.0° to 43.0° Bearing [Mag]: 328.0° to 46.0°				Arc Distance: Out to 80.0 NM Altitude: 6400.0 to 20000.0 ft		
3	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 88.0° to 113.0° Bearing [Mag]: 91.0° to 116.0°				Arc Distance: Out to 84.0 NM Altitude: 9000.0 to 16000.0 ft		
4	UDT ESV SVM SVM [AIRNAV2]	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	955	114.3	UDT ESV SVM	
ESV:		Bearing [True]: 89.0° to 117.0° Bearing [Mag]: 92.0° to 120.0°				Arc Distance: Out to 73.0 NM Altitude: 6200.0 to 20000.0 ft		
5	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 65.0° to 98.0° Bearing [Mag]: 68.0° to 101.0°				Arc Distance: Out to 64.0 NM Altitude: 4000.0 to 16000.0 ft		
6	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 342.0° to 28.0° Bearing [Mag]: 347.0° to 33.0°				Arc Distance: Out to 81.0 NM Altitude: 5000.0 to 16000.0 ft		
7	UDT ESV VWV VWV [AIRNAV2]	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	669.3	113.1	UDT ESV VWV	
ESV:		Bearing [True]: 7.0° to 32.0° Bearing [Mag]: 9.0° to 34.0°				Arc Distance: Out to 47.0 NM Altitude: 2000.0 to 20000.0 ft		
8	UDT ESV BSV BSV [AIRNAV2]	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	1221	112.4	UDT ESV BSV	
ESV:		Bearing [True]: 344.0° to 357.0° Bearing [Mag]: 348.0° to 1.0°				Arc Distance: Out to 49.0 NM Altitude: 3400.0 to 20000.0 ft		
9	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 313.0° to 359.0° Bearing [Mag]: 318.0° to 4.0°				Arc Distance: Out to 60.0 NM Altitude: 4000.0 to 16000.0 ft		



DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04R:DER\_BESST\_

Graphic Depiction 1



DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW04R:DER\_BESST\_

Graphic Depiction 2



## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Paul CTR Jackson
Project File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\DTW SID LIDDS TWO 20190301 DME.tgs
Output File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\LIDDS2\KDTW LIDDS (RNAV)_2019-03-04_0337\KDTW-RW21L-DER_GRIVY\KDTW LIDDS (RNAV) DEPARTURE_KDTW_RW21L_DER_GRIVY_2019-03-04_0337.pdf
Procedure Name:	LIDDS (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	03/04/2019 03:37 PM CST
Databases:	DTED 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
KDTW:RW21L:DER	WP	N42° 11' 44.21", W083° 21' 06.49"	632.8	VNAV	130	FLY_BY	TF
KDTW:RW21L-VI End	WP	N42° 10' 50.18", W083° 21' 46.27"	1146	VNAV	145	FLY_BY	TF
JOELU_	WP	N42° 02' 13.33", W083° 21' 16.60"	4000	VNAV	200	FLY_BY	TF
YIMMY	WP	N42° 00' 46.57", W083° 11' 14.47"	4000	VNAV	200	FLY_BY	TF
HWARD	WP	N42° 01' 30.79", W083° 05' 53.79"	4000	VNAV	200	FLY_BY	TF
KZLOV	WP	N42° 04' 24.81", W082° 44' 07.44"	4000	VNAV	230	FLY_BY	TF
LIDDS	WP	N42° 01' 54.21", W082° 30' 38.74"	10000	VNAV	230	FLY_BY	TF
NOONR_	WP	N41° 57' 12.96", W082° 05' 11.04"	10000	VNAV	230	FLY_BY	TF
ZEYOU	WP	N41° 42' 12.20", W081° 49' 25.71"	10000	VNAV	230	FLY_BY	TF
GRIVY	WP	N41° 04' 46.28", W081° 13' 06.60"	10000	VNAV	230	FLY_BY	TF

### Flyability

Flight Type:	DEPARTURE
Selected Airport:	KDTW
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY

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,BVT,CIP,CKB,C MK,CRI,CTW,DNV,DNY,DWN,ECB,EL X,EON,ESL,ETG,EWO,FJC,FLM,FQM ,GFL,GGT,GIJ,GRV,GSH,HIC,HML,H NK,HNN,HTO,HUO,IHD,JFN,JVL,LAN, LGA,LNR,LVZ,MIP,MKG,MNM,MSS,O DI,PLL,PLN,PMM,PNT,PWL,RBS,REC ,RKA,RST,SAM,SFK,SLK,SLT,TDT,T HS,UCA,UIN,ULW,VLA,YRK

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DJB	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	H	AIRNAV2	NO	Enabled	76.3 %	78.4 %
2	DXO	N42° 12' 47.29", W083° 21' 59.99"	6.0 W	130	H	AIRNAV2	NO	Enabled	22.5 %	21.5 %
3	BSV	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	L	AIRNAV2	NO	Enabled	22.9 %	24 %
4	CXR	N41° 31' 00.94", W081° 09' 47.47"	5.0 W	130	H	AIRNAV2	NO	Enabled	38.5 %	40.3 %
5	YNG	N41° 19' 51.69", W080° 40' 28.79"	5.0 W	40	L	AIRNAV2	NO	Enabled	18.1 %	19 %
6	VWV	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	L	AIRNAV2	NO	Enabled	12.1 %	11 %
7	SVM	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	L	AIRNAV2	NO	Enabled	30.1 %	28.6 %
8	PSI	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	L	AIRNAV2	NO	Enabled	14.9 %	14.9 %
9	MFD	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	L	AIRNAV2	NO	Enabled	49.3 %	51.6 %
10	ACO	N41° 06' 28.45", W081° 12' 05.49"	4.0 W	40	L	AIRNAV2	NO	Enabled	24.7 %	25.8 %
11	CRL	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	H	AIRNAV2	NO	Enabled	64.3 %	63.8 %
12	AGC	N40° 16' 43.12", W080° 02' 27.08"	9.0 W	40	L	AIRNAV2	NO	Disabled		
13	AUW	N44° 50' 48.40", W089° 35' 11.68"	2.0 E	40	L	AIRNAV2	NO	Disabled		
14	BDF	N41° 09' 35.03", W089° 35' 16.34"	0.0 E	130	H	AIRNAV2	NO	Disabled		
15	BFD	N41° 47' 10.99", W078° 37' 09.65"	7.0 W	40	L	AIRNAV2	NO	Disabled		
16	BVT	N40° 33' 22.22", W087° 04' 09.75"	1.0 E	130	H	AIRNAV2	NO	Disabled		
17	CIP	N41° 08' 46.66", W079° 27' 28.71"	6.0 W	40	L	AIRNAV2	NO	Disabled		
18	CKB	N39° 15' 11.58", W080° 16' 04.30"	4.0 W	40	L	AIRNAV2	NO	Disabled		
19	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	AIRNAV2	NO	Disabled		
20	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	AIRNAV2	NO	Disabled		
21	CTW	N40° 13' 45.15", W081° 28' 35.32"	7.0 W	40	L	AIRNAV2	NO	Disabled		
22	DNV	N40° 17' 37.56", W087° 33' 26.14"	2.0 E	40	L	AIRNAV2	NO	Disabled		
23	DNY	N42° 10' 41.81", W074° 57' 24.99"	11.0 W	40	L	AIRNAV2	NO	Disabled		
24	DWN	N45° 05' 14.87", W094° 27' 13.86"	7.0 E	40	L	AIRNAV2	NO	Disabled		
25	ECB	N38° 09' 30.11", W082° 54' 36.20"	2.0 W	40	L	AIRNAV2	NO	Disabled		
26	ELX	N42° 08' 39.88", W086° 07' 21.74"	0.0 E	40	L	AIRNAV2	NO	Disabled		
27	EON	N41° 16' 10.68", W087° 47' 27.79"	2.0 E	40	L	AIRNAV2	NO	Disabled		
28	ESL	N39° 13' 31.77", W078° 59' 22.20"	6.0 W	40	L	AIRNAV2	NO	Disabled		
29	ETG	N41° 12' 53.82", W078° 08' 33.92"	10.0 W	130	H	AIRNAV2	NO	Disabled		
30	EWO	N37° 37' 54.52", W085° 40' 33.16"	1.0 E	40	L	AIRNAV2	NO	Disabled		
31	FJC	N40° 43' 36.12", W075° 27' 17.12"	10.0 W	40	L	AIRNAV2	NO	Disabled		
32	FLM	N38° 38' 57.99", W084° 18' 38.17"	4.0 W	130	H	AIRNAV2	NO	Disabled		
33	FQM	N41° 20' 18.81", W076° 46' 29.52"	9.0 W	40	L	AIRNAV2	NO	Disabled		

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	GFL	N43° 20' 30.09", W073° 36' 42.32"	14.0 W	40	L	AIRNAV2	NO	Disabled		
35	GGT	N42° 47' 20.24", W075° 49' 36.29"	11.0 W	40	L	AIRNAV2	NO	Disabled		
36	GIJ	N41° 46' 07.00", W086° 19' 06.42"	0.0 E	130	H	AIRNAV2	NO	Disabled		
37	GRV	N39° 38' 06.11", W079° 03' 01.90"	6.0 W	40	L	AIRNAV2	NO	Disabled		
38	GSH	N41° 31' 30.56", W086° 01' 40.63"	0.0 E	130	H	AIRNAV2	NO	Disabled		
39	HIC	N43° 34' 29.47", W085° 42' 58.18"	1.0 W	40	L	AIRNAV2	NO	Disabled		
40	HML	N48° 52' 09.09", W097° 07' 01.51"	9.0 E	130	H	AIRNAV2	NO	Disabled		
41	HNK	N42° 03' 47.01", W075° 18' 58.62"	11.0 W	130	H	AIRNAV2	NO	Disabled		
42	HNN	N38° 45' 14.85", W082° 01' 34.20"	3.0 W	130	H	AIRNAV2	NO	Disabled		
43	HTO	N40° 55' 08.38", W072° 19' 00.14"	13.0 W	130	H	AIRNAV2	NO	Disabled		
44	HUO	N41° 24' 34.87", W074° 35' 29.74"	11.0 W	130	H	AIRNAV2	NO	Disabled		
45	IHD	N39° 58' 27.27", W079° 21' 30.12"	6.0 W	40	L	AIRNAV2	NO	Disabled		
46	JFN	N41° 45' 36.42", W080° 44' 53.20"	5.0 W	40	L	AIRNAV2	NO	Disabled		
47	JVL	N42° 33' 28.83", W089° 06' 18.93"	3.0 E	40	L	AIRNAV2	NO	Disabled		
48	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	AIRNAV2	NO	Disabled		
49	LNR	N43° 17' 39.85", W090° 07' 59.33"	0.0 E	40	L	AIRNAV2	NO	Disabled		
50	LVZ	N41° 16' 22.10", W075° 41' 22.07"	10.0 W	40	L	AIRNAV2	NO	Disabled		
51	MIP	N41° 01' 24.21", W076° 39' 55.04"	9.0 W	40	L	AIRNAV2	NO	Disabled		
52	MKG	N43° 10' 09.31", W086° 02' 21.76"	1.0 W	40	L	AIRNAV2	NO	Disabled		
53	MNM	N45° 10' 48.58", W087° 38' 49.83"	0.0 E	40	L	AIRNAV2	NO	Disabled		
54	MSS	N44° 54' 51.92", W074° 43' 21.78"	14.0 W	130	H	AIRNAV2	NO	Disabled		
55	ODI	N43° 54' 44.38", W091° 28' 03.06"	1.0 E	130	H	AIRNAV2	NO	Disabled		
56	PLL	N41° 57' 56.31", W089° 31' 27.19"	3.0 E	40	L	AIRNAV2	NO	Disabled		
57	PLN	N45° 37' 50.33", W084° 39' 50.79"	6.0 W	40	L	AIRNAV2	NO	Disabled		
58	PMM	N42° 27' 57.73", W086° 06' 17.32"	0.0 E	130	H	AIRNAV2	NO	Disabled		
59	PNT	N40° 49' 16.32", W088° 44' 00.63"	3.0 E	40	L	AIRNAV2	NO	Disabled		
60	PWL	N41° 46' 11.18", W073° 36' 01.99"	12.0 W	40	L	AIRNAV2	NO	Disabled		
61	RBS	N40° 34' 54.13", W088° 09' 51.36"	2.0 E	40	L	AIRNAV2	NO	Disabled		
62	REC	N40° 32' 47.25", W078° 44' 49.28"	9.0 W	40	L	AIRNAV2	NO	Disabled		
63	RKA	N42° 27' 58.91", W075° 14' 21.51"	11.0 W	40	L	AIRNAV2	NO	Disabled		
64	RST	N43° 46' 58.45", W092° 35' 49.06"	5.0 E	40	L	AIRNAV2	NO	Disabled		
65	SAM	N38° 29' 06.68", W088° 05' 08.90"	3.0 E	40	L	AIRNAV2	NO	Disabled		
66	SFK	N41° 41' 42.91", W077° 25' 11.66"	8.0 W	40	L	AIRNAV2	NO	Disabled		



**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
67	SLK	N44° 23' 04.42", W074° 12' 16.22"	14.0 W	40	L	AIRNAV2	NO	Disabled		
68	SLT	N41° 30' 45.93", W077° 58' 12.39"	8.0 W	130	H	AIRNAV2	NO	Disabled		
69	TDT	N41° 42' 46.91", W079° 25' 02.17"	9.0 W	40	L	AIRNAV2	NO	Disabled		
70	THS	N39° 55' 59.62", W077° 57' 03.40"	7.0 W	40	L	AIRNAV2	NO	Disabled		
71	UCA	N43° 01' 35.45", W075° 09' 52.28"	12.0 W	40	L	AIRNAV2	NO	Disabled		
72	UIN	N39° 50' 52.35", W091° 16' 44.13"	5.0 E	130	H	AIRNAV2	NO	Disabled		
73	ULW	N42° 05' 39.16", W077° 01' 28.53"	12.0 W	40	L	AIRNAV2	NO	Disabled		
74	VLA	N39° 05' 37.82", W089° 09' 44.08"	4.0 E	40	L	AIRNAV2	NO	Disabled		
75	YRK	N38° 38' 38.88", W082° 58' 42.02"	5.0 W	40	L	AIRNAV2	NO	Disabled		

<b>Flight Check DME Selection</b>						
Distance [NM]	Selected DMEs					Alternate
0.0						
2.1	DXO	CRL				
3.6	VWV	SVM	DXO	CRL		
4.3	VWV	SVM				
9.7	DXO	CRL	VWV	SVM		
18.4	DXO	CRL	SVM			
24.0	SVM	CRL				
24.3	DJB	CRL	SVM			
29.6	DJB	CRL				
31.2	PSI	CRL	DJB			
35.9	DJB	CRL	PSI	DXO		
41.9	MFD	CRL	DXO	DJB	PSI	
48.2	MFD	CRL	DJB	PSI		
51.1	MFD	CRL	DJB			
55.5	MFD	CRL	DJB	SVM		
67.6	CRL	DJB	MFD			
79.5	MFD	CXR	DJB	CRL		
92.6	ACO	DJB	CXR			
97.1	MFD	ACO	DJB	CXR		
101.1	MFD	ACO	BSV	DJB	CXR	
107.3	MFD	ACO	CXR	DJB		
107.4	BSV	DJB	MFD	ACO	CXR	YNG
109.1	BSV	DJB	YNG	CXR	ACO	
111.7	BSV	DJB	ACO	CXR		
112.2	BSV	DJB	YNG	ACO	CXR	
122.6	ACO	CXR	BSV	YNG		
127.0	DJB	CXR	BSV	MFD	YNG	

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N42° 13' 36.38", W083° 21' 57.22"	N42° 14' 25.64", W083° 21' 20.94"	0.9353
2	N42° 10' 50.17", W083° 21' 46.27"	N42° 09' 47.22", W083° 21' 42.65"	1.0502
3	N42° 11' 42.35", W083° 21' 07.86"	N42° 13' 10.86", W083° 20' 02.65"	1.6807
4	N42° 13' 12.72", W083° 20' 01.28"	N42° 14' 04.99", W083° 19' 22.74"	0.9925
5	N42° 12' 26.35", W083° 21' 05.75"	N42° 13' 52.36", W083° 20' 59.97"	1.4354
6	N42° 13' 54.22", W083° 20' 58.60"	N42° 14' 44.23", W083° 20' 21.73"	0.9496
7	N42° 11' 34.48", W083° 21' 43.96"	N41° 42' 12.20", W081° 49' 25.71"	74.6774
8	N42° 12' 06.52", W083° 22' 17.93"	N42° 09' 44.90", W083° 21' 38.61"	2.4099
9	N42° 11' 14.76", W083° 22' 56.02"	N42° 08' 29.70", W083° 22' 25.66"	2.7769
10	N42° 06' 14.34", W083° 22' 00.80"	N42° 05' 41.32", W083° 21' 54.74"	0.5554
11	N42° 11' 15.08", W083° 23' 41.20"	N42° 16' 56.69", W083° 13' 21.04"	9.5394
12	N42° 12' 05.94", W083° 23' 03.79"	N42° 01' 54.21", W082° 30' 38.74"	40.2011
13	N42° 11' 15.08", W083° 23' 41.19"	N42° 07' 39.69", W083° 22' 43.62"	3.66
14	N42° 06' 37.68", W083° 22' 27.07"	N42° 03' 25.13", W083° 21' 35.72"	3.2718
15	N42° 13' 43.72", W083° 20' 08.74"	N42° 14' 36.02", W083° 19' 30.16"	0.9933

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
KDTW:RW21L:DER	KDTW:RW21L-VI End	
KDTW:RW21L-VI End	JOELU_	VWV, DXO, SVM, CRL
JOELU_	YIMMY	VWV, DXO, SVM, CRL
YIMMY	HWARD	VWV, DXO, SVM, CRL
HWARD	KZLOV	PSI, DXO, SVM, CRL, DJB
KZLOV	LIDDS	PSI, DXO, MFD, CRL, DJB
LIDDS	NOONR_	PSI, MFD, DXO, SVM, CRL, DJB
NOONR_	ZEYOU	MFD, CRL, CXR, DJB
ZEYOU	GRIVY	YNG, BSV, MFD, CXR, CRL, DJB, ACO

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY

## User Data Files

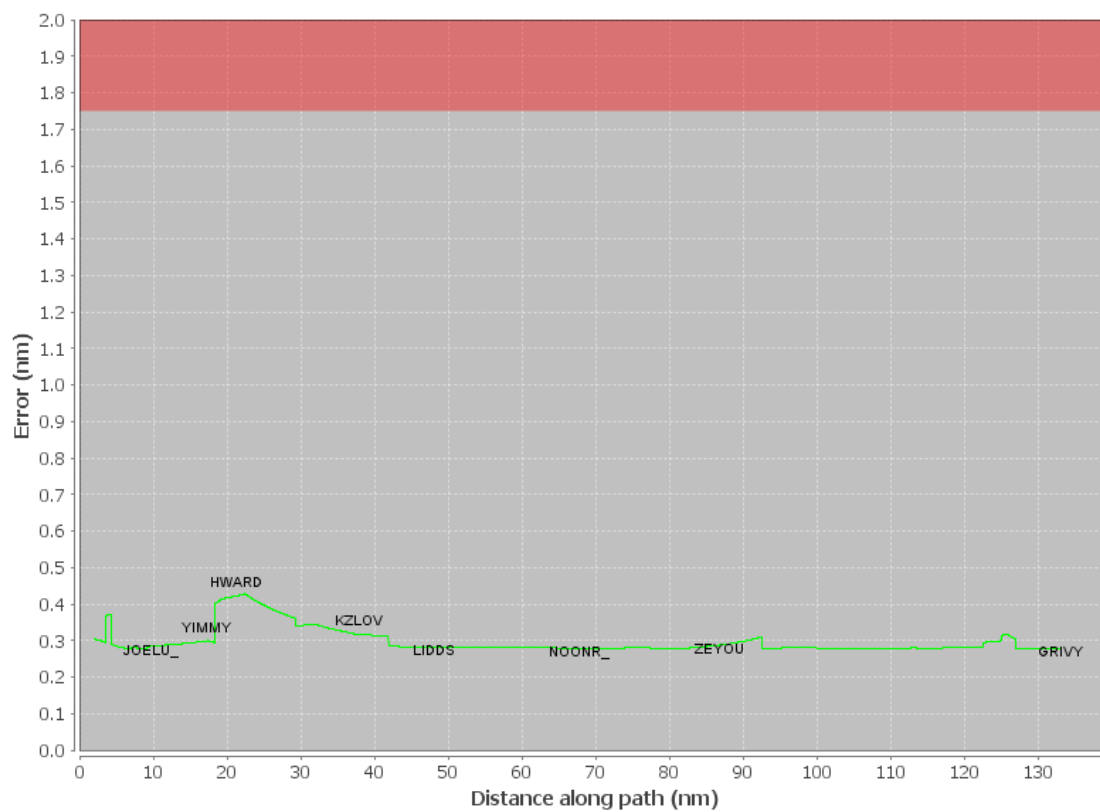
#	File Name
1	UserDMEsKDTW LIDDS (RNAV) DEPARTURE_2018-12-19_0139.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV PSI PSI [AIRNAV2]	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	1149	null	UDT ESV PSI	
ESV:		Bearing [True]: 80.0° to 145.0° Bearing [Mag]: 80.0° to 145.0°				Arc Distance: Out to 65.0 NM Altitude: 3900.0 to 11000.0 ft		
2	UDT ESV MFD MFD [AIRNAV2]	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	1222	108.8	UDT ESV MFD	
ESV:		Bearing [True]: 325.0° to 43.0° Bearing [Mag]: 328.0° to 46.0°				Arc Distance: Out to 80.0 NM Altitude: 6400.0 to 20000.0 ft		
3	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 88.0° to 113.0° Bearing [Mag]: 91.0° to 116.0°				Arc Distance: Out to 84.0 NM Altitude: 9000.0 to 16000.0 ft		
4	UDT ESV SVM SVM [AIRNAV2]	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	955	114.3	UDT ESV SVM	
ESV:		Bearing [True]: 89.0° to 117.0° Bearing [Mag]: 92.0° to 120.0°				Arc Distance: Out to 73.0 NM Altitude: 6200.0 to 20000.0 ft		
5	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 65.0° to 98.0° Bearing [Mag]: 68.0° to 101.0°				Arc Distance: Out to 64.0 NM Altitude: 4000.0 to 16000.0 ft		
6	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 342.0° to 28.0° Bearing [Mag]: 347.0° to 33.0°				Arc Distance: Out to 81.0 NM Altitude: 5000.0 to 16000.0 ft		
7	UDT ESV VWV VWV [AIRNAV2]	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	669.3	113.1	UDT ESV VWV	
ESV:		Bearing [True]: 7.0° to 32.0° Bearing [Mag]: 9.0° to 34.0°				Arc Distance: Out to 47.0 NM Altitude: 2000.0 to 20000.0 ft		
8	UDT ESV BSV BSV [AIRNAV2]	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	1221	112.4	UDT ESV BSV	
ESV:		Bearing [True]: 344.0° to 357.0° Bearing [Mag]: 348.0° to 1.0°				Arc Distance: Out to 49.0 NM Altitude: 3400.0 to 20000.0 ft		
9	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 313.0° to 359.0° Bearing [Mag]: 318.0° to 4.0°				Arc Distance: Out to 60.0 NM Altitude: 4000.0 to 16000.0 ft		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY

## DME Error



# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21L:DER\_GRIVY

Graphic Depiction 1



### Graphic Depiction 2



## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21R:DER\_JOELU\_

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Paul CTR Jackson
Project File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\DTW SID LIDDS TWO 20190301 DME.tgs
Output File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\LIDDS2\KDTW LIDDS (RNAV)_2019-03-04_0337\KDTW-RW21R-DER_JOELU_\KDTW LIDDS (RNAV) DEPARTURE_KDTW_RW21R_DER_JOELU__2019-03-04_0337.pdf
Procedure Name:	LIDDS (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	03/04/2019 03:37 PM CST
Databases:	DTED 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
KDTW:RW21R:DER	WP	N42° 12' 28.21", W083° 21' 04.39"	635.7	VNAV	130	FLY_BY	TF
KDTW:RW21R-VI End	WP	N42° 11' 34.48", W083° 21' 43.96"	1146	VNAV	145	FLY_BY	TF
JOELU_	WP	N42° 02' 13.33", W083° 21' 16.60"	4000	VNAV	200	FLY_BY	TF

### Flyability

Flight Type:	DEPARTURE
Selected Airport:	KDTW
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21R:DER\_JOELU\_

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,BVT,CIP,CKB,C MK,CRI,CTW,DNV,DNY,DWN,ECB,EL X,EON,ESL,ETG,EWO,FJC,FLM,FQM ,GFL,GGT,GIJ,GRV,GSH,HIC,HML,H NK,HNN,HTO,HUO,IHD,JFN,JVL,LAN, LGA,LNR,LVZ,MIP,MKG,MNM,MSS,O DI,PLL,PLN,PMM,PNT,PWL,RBS,REC ,RKA,RST,SAM,SFK,SLK,SLT,TDT,T HS,UCA,UIN,ULW,VLA,YRK



**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21R:DER\_JOELU**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.29", W083° 21' 59.99"	6.0 W	130	H	AIRNAV2	NO	Enabled	18.8 %	19.7 %
2	VWV	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	L	AIRNAV2	NO	Enabled	60.1 %	63 %
3	SVM	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	L	AIRNAV2	NO	Enabled	60.1 %	63 %
4	CRL	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	H	AIRNAV2	NO	Enabled	18.8 %	19.7 %
5	AGC	N40° 16' 43.12", W080° 02' 27.08"	9.0 W	40	L	AIRNAV2	NO	Disabled		
6	AUW	N44° 50' 48.40", W089° 35' 11.68"	2.0 E	40	L	AIRNAV2	NO	Disabled		
7	BDF	N41° 09' 35.03", W089° 35' 16.34"	0.0 E	130	H	AIRNAV2	NO	Disabled		
8	BFD	N41° 47' 10.99", W078° 37' 09.65"	7.0 W	40	L	AIRNAV2	NO	Disabled		
9	BVT	N40° 33' 22.22", W087° 04' 09.75"	1.0 E	130	H	AIRNAV2	NO	Disabled		
10	CIP	N41° 08' 46.66", W079° 27' 28.71"	6.0 W	40	L	AIRNAV2	NO	Disabled		
11	CKB	N39° 15' 11.58", W080° 16' 04.30"	4.0 W	40	L	AIRNAV2	NO	Disabled		
12	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	AIRNAV2	NO	Disabled		
13	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	AIRNAV2	NO	Disabled		
14	CTW	N40° 13' 45.15", W081° 28' 35.32"	7.0 W	40	L	AIRNAV2	NO	Disabled		
15	DNV	N40° 17' 37.56", W087° 33' 26.14"	2.0 E	40	L	AIRNAV2	NO	Disabled		
16	DNY	N42° 10' 41.81", W074° 57' 24.99"	11.0 W	40	L	AIRNAV2	NO	Disabled		
17	DWN	N45° 05' 14.87", W094° 27' 13.86"	7.0 E	40	L	AIRNAV2	NO	Disabled		
18	ECB	N38° 09' 30.11", W082° 54' 36.20"	2.0 W	40	L	AIRNAV2	NO	Disabled		
19	ELX	N42° 08' 39.88", W086° 07' 21.74"	0.0 E	40	L	AIRNAV2	NO	Disabled		
20	EON	N41° 16' 10.68", W087° 47' 27.79"	2.0 E	40	L	AIRNAV2	NO	Disabled		
21	ESL	N39° 13' 31.77", W078° 59' 22.20"	6.0 W	40	L	AIRNAV2	NO	Disabled		
22	ETG	N41° 12' 53.82", W078° 08' 33.92"	10.0 W	130	H	AIRNAV2	NO	Disabled		
23	EWO	N37° 37' 54.52", W085° 40' 33.16"	1.0 E	40	L	AIRNAV2	NO	Disabled		
24	FJC	N40° 43' 36.12", W075° 27' 17.12"	10.0 W	40	L	AIRNAV2	NO	Disabled		
25	FLM	N38° 38' 57.99", W084° 18' 38.17"	4.0 W	130	H	AIRNAV2	NO	Disabled		
26	FQM	N41° 20' 18.81", W076° 46' 29.52"	9.0 W	40	L	AIRNAV2	NO	Disabled		
27	GFL	N43° 20' 30.09", W073° 36' 42.32"	14.0 W	40	L	AIRNAV2	NO	Disabled		
28	GGT	N42° 47' 20.24", W075° 49' 36.29"	11.0 W	40	L	AIRNAV2	NO	Disabled		
29	GIJ	N41° 46' 07.00", W086° 19' 06.42"	0.0 E	130	H	AIRNAV2	NO	Disabled		
30	GRV	N39° 38' 06.11", W079° 03' 01.90"	6.0 W	40	L	AIRNAV2	NO	Disabled		
31	GSH	N41° 31' 30.56", W086° 01' 40.63"	0.0 E	130	H	AIRNAV2	NO	Disabled		
32	HIC	N43° 34' 29.47", W085° 42' 58.18"	1.0 W	40	L	AIRNAV2	NO	Disabled		
33	HML	N48° 52' 09.09", W097° 07' 01.51"	9.0 E	130	H	AIRNAV2	NO	Disabled		

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21R:DER\_JOELU**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	HNK	N42° 03' 47.01", W075° 18' 58.62"	11.0 W	130	H	AIRNAV2	NO	Disabled		
35	HNN	N38° 45' 14.85", W082° 01' 34.20"	3.0 W	130	H	AIRNAV2	NO	Disabled		
36	HTO	N40° 55' 08.38", W072° 19' 00.14"	13.0 W	130	H	AIRNAV2	NO	Disabled		
37	HUO	N41° 24' 34.87", W074° 35' 29.74"	11.0 W	130	H	AIRNAV2	NO	Disabled		
38	IHD	N39° 58' 27.27", W079° 21' 30.12"	6.0 W	40	L	AIRNAV2	NO	Disabled		
39	JFN	N41° 45' 36.42", W080° 44' 53.20"	5.0 W	40	L	AIRNAV2	NO	Disabled		
40	JVL	N42° 33' 28.83", W089° 06' 18.93"	3.0 E	40	L	AIRNAV2	NO	Disabled		
41	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	AIRNAV2	NO	Disabled		
42	LNR	N43° 17' 39.85", W090° 07' 59.33"	0.0 E	40	L	AIRNAV2	NO	Disabled		
43	LVZ	N41° 16' 22.10", W075° 41' 22.07"	10.0 W	40	L	AIRNAV2	NO	Disabled		
44	MIP	N41° 01' 24.21", W076° 39' 55.04"	9.0 W	40	L	AIRNAV2	NO	Disabled		
45	MKG	N43° 10' 09.31", W086° 02' 21.76"	1.0 W	40	L	AIRNAV2	NO	Disabled		
46	MNM	N45° 10' 48.58", W087° 38' 49.83"	0.0 E	40	L	AIRNAV2	NO	Disabled		
47	MSS	N44° 54' 51.92", W074° 43' 21.78"	14.0 W	130	H	AIRNAV2	NO	Disabled		
48	ODI	N43° 54' 44.38", W091° 28' 03.06"	1.0 E	130	H	AIRNAV2	NO	Disabled		
49	PLL	N41° 57' 56.31", W089° 31' 27.19"	3.0 E	40	L	AIRNAV2	NO	Disabled		
50	PLN	N45° 37' 50.33", W084° 39' 50.79"	6.0 W	40	L	AIRNAV2	NO	Disabled		
51	PMM	N42° 27' 57.73", W086° 06' 17.32"	0.0 E	130	H	AIRNAV2	NO	Disabled		
52	PNT	N40° 49' 16.32", W088° 44' 00.63"	3.0 E	40	L	AIRNAV2	NO	Disabled		
53	PWL	N41° 46' 11.18", W073° 36' 01.99"	12.0 W	40	L	AIRNAV2	NO	Disabled		
54	RBS	N40° 34' 54.13", W088° 09' 51.36"	2.0 E	40	L	AIRNAV2	NO	Disabled		
55	REC	N40° 32' 47.25", W078° 44' 49.28"	9.0 W	40	L	AIRNAV2	NO	Disabled		
56	RKA	N42° 27' 58.91", W075° 14' 21.51"	11.0 W	40	L	AIRNAV2	NO	Disabled		
57	RST	N43° 46' 58.45", W092° 35' 49.06"	5.0 E	40	L	AIRNAV2	NO	Disabled		
58	SAM	N38° 29' 06.68", W088° 05' 08.90"	3.0 E	40	L	AIRNAV2	NO	Disabled		
59	SFK	N41° 41' 42.91", W077° 25' 11.66"	8.0 W	40	L	AIRNAV2	NO	Disabled		
60	SLK	N44° 23' 04.42", W074° 12' 16.22"	14.0 W	40	L	AIRNAV2	NO	Disabled		
61	SLT	N41° 30' 45.93", W077° 58' 12.39"	8.0 W	130	H	AIRNAV2	NO	Disabled		
62	TDT	N41° 42' 46.91", W079° 25' 02.17"	9.0 W	40	L	AIRNAV2	NO	Disabled		
63	THS	N39° 55' 59.62", W077° 57' 03.40"	7.0 W	40	L	AIRNAV2	NO	Disabled		
64	UCA	N43° 01' 35.45", W075° 09' 52.28"	12.0 W	40	L	AIRNAV2	NO	Disabled		
65	UIN	N39° 50' 52.35", W091° 16' 44.13"	5.0 E	130	H	AIRNAV2	NO	Disabled		
66	ULW	N42° 05' 39.16", W077° 01' 28.53"	12.0 W	40	L	AIRNAV2	NO	Disabled		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21R:DER\_JOELU\_

## DME/DME (Continued)

### DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
67	VLA	N39° 05' 37.82", W089° 09' 44.08"	4.0 E	40	L	AIRNAV2	NO	Disabled		
68	YRK	N38° 38' 38.88", W082° 58' 42.02"	5.0 W	40	L	AIRNAV2	NO	Disabled		

## Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
2.8	DXO	CRL				
3.8	VWV	SVM	DXO	CRL		
5.0	VWV	SVM				

## Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 36.38", W083° 21' 57.22"	N42° 14' 25.64", W083° 21' 20.94"	0.9353
2	N42° 10' 50.17", W083° 21' 46.27"	N42° 09' 47.22", W083° 21' 42.65"	1.0502
3	N42° 11' 42.35", W083° 21' 07.86"	N42° 13' 10.86", W083° 20' 02.65"	1.6807
4	N42° 13' 12.72", W083° 20' 01.28"	N42° 14' 04.99", W083° 19' 22.74"	0.9925
5	N42° 12' 26.35", W083° 21' 05.75"	N42° 13' 52.36", W083° 20' 59.97"	1.4354
6	N42° 13' 54.22", W083° 20' 58.60"	N42° 14' 44.23", W083° 20' 21.73"	0.9496
7	N42° 11' 34.48", W083° 21' 43.96"	N41° 42' 12.20", W081° 49' 25.71"	74.6774
8	N42° 12' 06.52", W083° 22' 17.93"	N42° 09' 44.90", W083° 21' 38.61"	2.4099
9	N42° 11' 14.76", W083° 22' 56.02"	N42° 08' 29.70", W083° 22' 25.66"	2.7769
10	N42° 06' 14.34", W083° 22' 00.80"	N42° 05' 41.32", W083° 21' 54.74"	0.5554
11	N42° 11' 15.08", W083° 23' 41.20"	N42° 16' 56.69", W083° 13' 21.04"	9.5394
12	N42° 12' 05.94", W083° 23' 03.79"	N42° 01' 54.21", W082° 30' 38.74"	40.2011
13	N42° 11' 15.08", W083° 23' 41.19"	N42° 07' 39.69", W083° 22' 43.62"	3.66
14	N42° 06' 37.68", W083° 22' 27.07"	N42° 03' 25.13", W083° 21' 35.72"	3.2718
15	N42° 13' 43.72", W083° 20' 08.74"	N42° 14' 36.02", W083° 19' 30.16"	0.9933

## Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
KDTW:RW21R:DER	KDTW:RW21R-VI End	
KDTW:RW21R-VI End	JOELU_	VWV, DXO, SVM, CRL

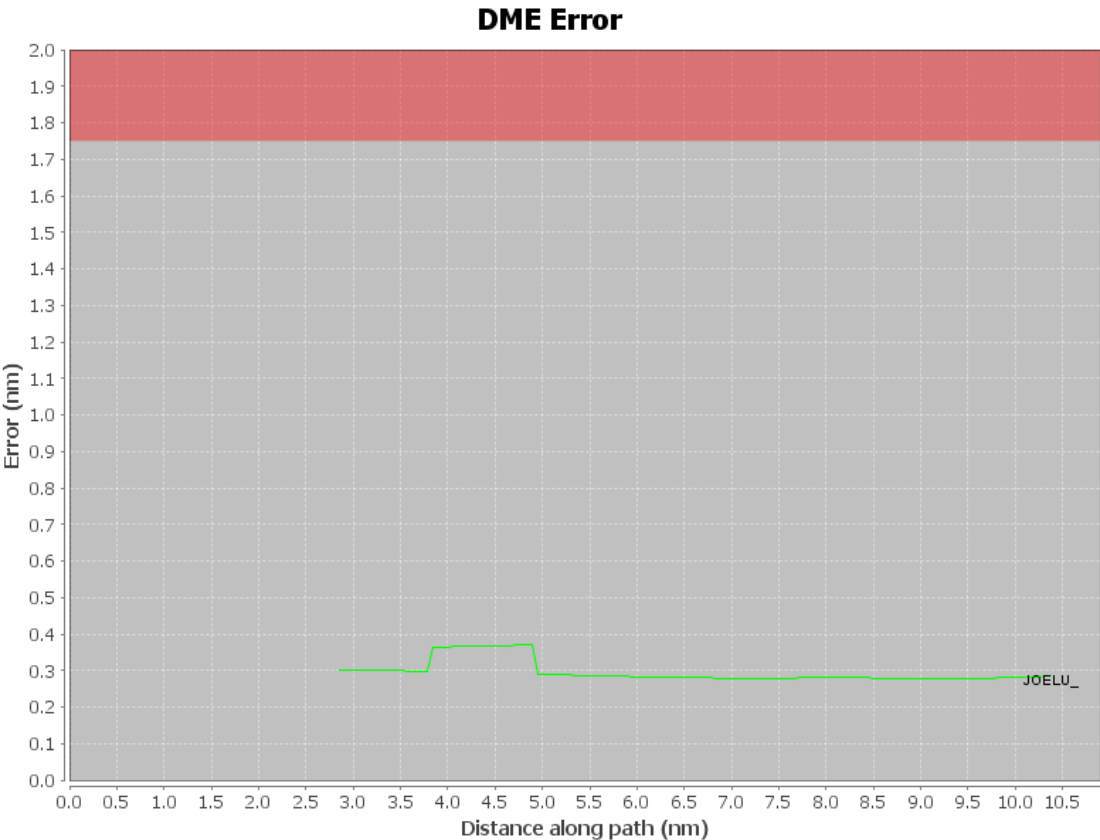
# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21R:DER\_JOELU

## User Data Files

#	File Name
1	UserDMEsKDTW LIDDS (RNAV) DEPARTURE_2018-12-19_0139.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV PSI PSI [AIRNAV2]	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	1149	null	UDT ESV PSI	
ESV:		Bearing [True]: 80.0° to 145.0° Bearing [Mag]: 80.0° to 145.0°				Arc Distance: Out to 65.0 NM Altitude: 3900.0 to 11000.0 ft		
2	UDT ESV MFD MFD [AIRNAV2]	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	1222	108.8	UDT ESV MFD	
ESV:		Bearing [True]: 325.0° to 43.0° Bearing [Mag]: 328.0° to 46.0°				Arc Distance: Out to 80.0 NM Altitude: 6400.0 to 20000.0 ft		
3	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 88.0° to 113.0° Bearing [Mag]: 91.0° to 116.0°				Arc Distance: Out to 84.0 NM Altitude: 9000.0 to 16000.0 ft		
4	UDT ESV SVM SVM [AIRNAV2]	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	955	114.3	UDT ESV SVM	
ESV:		Bearing [True]: 89.0° to 117.0° Bearing [Mag]: 92.0° to 120.0°				Arc Distance: Out to 73.0 NM Altitude: 6200.0 to 20000.0 ft		
5	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 65.0° to 98.0° Bearing [Mag]: 68.0° to 101.0°				Arc Distance: Out to 64.0 NM Altitude: 4000.0 to 16000.0 ft		
6	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 342.0° to 28.0° Bearing [Mag]: 347.0° to 33.0°				Arc Distance: Out to 81.0 NM Altitude: 5000.0 to 16000.0 ft		
7	UDT ESV VWV VWV [AIRNAV2]	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	669.3	113.1	UDT ESV VWV	
ESV:		Bearing [True]: 7.0° to 32.0° Bearing [Mag]: 9.0° to 34.0°				Arc Distance: Out to 47.0 NM Altitude: 2000.0 to 20000.0 ft		
8	UDT ESV BSV BSV [AIRNAV2]	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	1221	112.4	UDT ESV BSV	
ESV:		Bearing [True]: 344.0° to 357.0° Bearing [Mag]: 348.0° to 1.0°				Arc Distance: Out to 49.0 NM Altitude: 3400.0 to 20000.0 ft		
9	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 313.0° to 359.0° Bearing [Mag]: 318.0° to 4.0°				Arc Distance: Out to 60.0 NM Altitude: 4000.0 to 16000.0 ft		



# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21R:DER\_JOELU\_

Graphic Depiction 1



DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW21R:DER\_JOELU\_

Graphic Depiction 2



## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22L:DER\_JOELU\_

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Paul CTR Jackson
Project File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\DTW SID LIDDS TWO 20190301 DME.tgs
Output File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\LIDDS2\KDTW LIDDS (RNAV)_2019-03-04_0337\KDTW-RW22L-DER_JOELU_KDTW LIDDS (RNAV) DEPARTURE_KDTW_RW22L_DER_JOELU_2019-03-04_0337.pdf
Procedure Name:	LIDDS (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	03/04/2019 03:38 PM CST
Databases:	DTED 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
KDTW:RW22L:DER	WP	N42° 12' 08.37", W083° 22' 16.57"	637	VNAV	130	FLY_BY	TF
KDTW:RW22L-VI End	WP	N42° 11' 14.77", W083° 22' 56.02"	1146	VNAV	145	FLY_BY	TF
JOELU_	WP	N42° 02' 13.33", W083° 21' 16.60"	4000	VNAV	200	FLY_BY	TF

### Flyability

Flight Type:	DEPARTURE
Selected Airport:	KDTW
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan



# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22L:DER\_JOELU\_

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,BVT,CIP,CKB,C MK,CRI,CTW,DNV,DNY,DWN,ECB,EL X,EON,ESL,ETG,EWO,FJC,FLM,FQM ,GFL,GGT,GIJ,GRV,GSH,HIC,HML,H NK,HNN,HTO,HUO,IHD,JFN,JVL,LAN, LGA,LNR,LVZ,MIP,MKG,MNM,MSS,O DI,PLL,PLN,PMM,PNT,PWL,RBS,REC ,RKA,RST,SAM,SFK,SLK,SLT,TDT,T HS,UCA,UIN,ULW,VLA,YRK

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22L:DER\_JOELU**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.29", W083° 21' 59.99"	6.0 W	130	H	AIRNAV2	NO	Enabled	18.3 %	19.2 %
2	SVM	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	L	AIRNAV2	NO	Enabled	53.9 %	56.5 %
3	VWV	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	L	AIRNAV2	NO	Enabled	52.8 %	55.4 %
4	PSI	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	L	AIRNAV2	NO	Enabled	0.5 %	0.5 %
5	CRL	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	H	AIRNAV2	NO	Enabled	18.3 %	19.2 %
6	AGC	N40° 16' 43.12", W080° 02' 27.08"	9.0 W	40	L	AIRNAV2	NO	Disabled		
7	AUW	N44° 50' 48.40", W089° 35' 11.68"	2.0 E	40	L	AIRNAV2	NO	Disabled		
8	BDF	N41° 09' 35.03", W089° 35' 16.34"	0.0 E	130	H	AIRNAV2	NO	Disabled		
9	BFD	N41° 47' 10.99", W078° 37' 09.65"	7.0 W	40	L	AIRNAV2	NO	Disabled		
10	BVT	N40° 33' 22.22", W087° 04' 09.75"	1.0 E	130	H	AIRNAV2	NO	Disabled		
11	CIP	N41° 08' 46.66", W079° 27' 28.71"	6.0 W	40	L	AIRNAV2	NO	Disabled		
12	CKB	N39° 15' 11.58", W080° 16' 04.30"	4.0 W	40	L	AIRNAV2	NO	Disabled		
13	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	AIRNAV2	NO	Disabled		
14	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	AIRNAV2	NO	Disabled		
15	CTW	N40° 13' 45.15", W081° 28' 35.32"	7.0 W	40	L	AIRNAV2	NO	Disabled		
16	DNV	N40° 17' 37.56", W087° 33' 26.14"	2.0 E	40	L	AIRNAV2	NO	Disabled		
17	DNY	N42° 10' 41.81", W074° 57' 24.99"	11.0 W	40	L	AIRNAV2	NO	Disabled		
18	DWN	N45° 05' 14.87", W094° 27' 13.86"	7.0 E	40	L	AIRNAV2	NO	Disabled		
19	ECB	N38° 09' 30.11", W082° 54' 36.20"	2.0 W	40	L	AIRNAV2	NO	Disabled		
20	ELX	N42° 08' 39.88", W086° 07' 21.74"	0.0 E	40	L	AIRNAV2	NO	Disabled		
21	EON	N41° 16' 10.68", W087° 47' 27.79"	2.0 E	40	L	AIRNAV2	NO	Disabled		
22	ESL	N39° 13' 31.77", W078° 59' 22.20"	6.0 W	40	L	AIRNAV2	NO	Disabled		
23	ETG	N41° 12' 53.82", W078° 08' 33.92"	10.0 W	130	H	AIRNAV2	NO	Disabled		
24	EWO	N37° 37' 54.52", W085° 40' 33.16"	1.0 E	40	L	AIRNAV2	NO	Disabled		
25	FJC	N40° 43' 36.12", W075° 27' 17.12"	10.0 W	40	L	AIRNAV2	NO	Disabled		
26	FLM	N38° 38' 57.99", W084° 18' 38.17"	4.0 W	130	H	AIRNAV2	NO	Disabled		
27	FQM	N41° 20' 18.81", W076° 46' 29.52"	9.0 W	40	L	AIRNAV2	NO	Disabled		
28	GFL	N43° 20' 30.09", W073° 36' 42.32"	14.0 W	40	L	AIRNAV2	NO	Disabled		
29	GGT	N42° 47' 20.24", W075° 49' 36.29"	11.0 W	40	L	AIRNAV2	NO	Disabled		
30	GIJ	N41° 46' 07.00", W086° 19' 06.42"	0.0 E	130	H	AIRNAV2	NO	Disabled		
31	GRV	N39° 38' 06.11", W079° 03' 01.90"	6.0 W	40	L	AIRNAV2	NO	Disabled		
32	GSH	N41° 31' 30.56", W086° 01' 40.63"	0.0 E	130	H	AIRNAV2	NO	Disabled		
33	HIC	N43° 34' 29.47", W085° 42' 58.18"	1.0 W	40	L	AIRNAV2	NO	Disabled		

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22L:DER\_JOELU**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	HML	N48° 52' 09.09", W097° 07' 01.51"	9.0 E	130	H	AIRNAV2	NO	Disabled		
35	HNK	N42° 03' 47.01", W075° 18' 58.62"	11.0 W	130	H	AIRNAV2	NO	Disabled		
36	HNN	N38° 45' 14.85", W082° 01' 34.20"	3.0 W	130	H	AIRNAV2	NO	Disabled		
37	HTO	N40° 55' 08.38", W072° 19' 00.14"	13.0 W	130	H	AIRNAV2	NO	Disabled		
38	HUO	N41° 24' 34.87", W074° 35' 29.74"	11.0 W	130	H	AIRNAV2	NO	Disabled		
39	IHD	N39° 58' 27.27", W079° 21' 30.12"	6.0 W	40	L	AIRNAV2	NO	Disabled		
40	JFN	N41° 45' 36.42", W080° 44' 53.20"	5.0 W	40	L	AIRNAV2	NO	Disabled		
41	JVL	N42° 33' 28.83", W089° 06' 18.93"	3.0 E	40	L	AIRNAV2	NO	Disabled		
42	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	AIRNAV2	NO	Disabled		
43	LNR	N43° 17' 39.85", W090° 07' 59.33"	0.0 E	40	L	AIRNAV2	NO	Disabled		
44	LVZ	N41° 16' 22.10", W075° 41' 22.07"	10.0 W	40	L	AIRNAV2	NO	Disabled		
45	MIP	N41° 01' 24.21", W076° 39' 55.04"	9.0 W	40	L	AIRNAV2	NO	Disabled		
46	MKG	N43° 10' 09.31", W086° 02' 21.76"	1.0 W	40	L	AIRNAV2	NO	Disabled		
47	MNM	N45° 10' 48.58", W087° 38' 49.83"	0.0 E	40	L	AIRNAV2	NO	Disabled		
48	MSS	N44° 54' 51.92", W074° 43' 21.78"	14.0 W	130	H	AIRNAV2	NO	Disabled		
49	ODI	N43° 54' 44.38", W091° 28' 03.06"	1.0 E	130	H	AIRNAV2	NO	Disabled		
50	PLL	N41° 57' 56.31", W089° 31' 27.19"	3.0 E	40	L	AIRNAV2	NO	Disabled		
51	PLN	N45° 37' 50.33", W084° 39' 50.79"	6.0 W	40	L	AIRNAV2	NO	Disabled		
52	PMM	N42° 27' 57.73", W086° 06' 17.32"	0.0 E	130	H	AIRNAV2	NO	Disabled		
53	PNT	N40° 49' 16.32", W088° 44' 00.63"	3.0 E	40	L	AIRNAV2	NO	Disabled		
54	PWL	N41° 46' 11.18", W073° 36' 01.99"	12.0 W	40	L	AIRNAV2	NO	Disabled		
55	RBS	N40° 34' 54.13", W088° 09' 51.36"	2.0 E	40	L	AIRNAV2	NO	Disabled		
56	REC	N40° 32' 47.25", W078° 44' 49.28"	9.0 W	40	L	AIRNAV2	NO	Disabled		
57	RKA	N42° 27' 58.91", W075° 14' 21.51"	11.0 W	40	L	AIRNAV2	NO	Disabled		
58	RST	N43° 46' 58.45", W092° 35' 49.06"	5.0 E	40	L	AIRNAV2	NO	Disabled		
59	SAM	N38° 29' 06.68", W088° 05' 08.90"	3.0 E	40	L	AIRNAV2	NO	Disabled		
60	SFK	N41° 41' 42.91", W077° 25' 11.66"	8.0 W	40	L	AIRNAV2	NO	Disabled		
61	SLK	N44° 23' 04.42", W074° 12' 16.22"	14.0 W	40	L	AIRNAV2	NO	Disabled		
62	SLT	N41° 30' 45.93", W077° 58' 12.39"	8.0 W	130	H	AIRNAV2	NO	Disabled		
63	TDT	N41° 42' 46.91", W079° 25' 02.17"	9.0 W	40	L	AIRNAV2	NO	Disabled		
64	THS	N39° 55' 59.62", W077° 57' 03.40"	7.0 W	40	L	AIRNAV2	NO	Disabled		
65	UCA	N43° 01' 35.45", W075° 09' 52.28"	12.0 W	40	L	AIRNAV2	NO	Disabled		
66	UIN	N39° 50' 52.35", W091° 16' 44.13"	5.0 E	130	H	AIRNAV2	NO	Disabled		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22L:DER\_JOELU\_

## DME/DME (Continued)

### DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
67	ULW	N42° 05' 39.16", W077° 01' 28.53"	12.0 W	40	L	AIRNAV2	NO	Disabled		
68	VLA	N39° 05' 37.82", W089° 09' 44.08"	4.0 E	40	L	AIRNAV2	NO	Disabled		
69	YRK	N38° 38' 38.88", W082° 58' 42.02"	5.0 W	40	L	AIRNAV2	NO	Disabled		

## Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
3.8	SVM	CRL	PSI	DXO		
3.9	VWV	SVM	DXO	CRL		
5.8	VWV	SVM				
6.1						
6.6	VWV	SVM				

## Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 36.38", W083° 21' 57.22"	N42° 14' 25.64", W083° 21' 20.94"	0.9353
2	N42° 10' 50.17", W083° 21' 46.27"	N42° 09' 47.22", W083° 21' 42.65"	1.0502
3	N42° 11' 42.35", W083° 21' 07.86"	N42° 13' 10.86", W083° 20' 02.65"	1.6807
4	N42° 13' 12.72", W083° 20' 01.28"	N42° 14' 04.99", W083° 19' 22.74"	0.9925
5	N42° 12' 26.35", W083° 21' 05.75"	N42° 13' 52.36", W083° 20' 59.97"	1.4354
6	N42° 13' 54.22", W083° 20' 58.60"	N42° 14' 44.23", W083° 20' 21.73"	0.9496
7	N42° 11' 34.48", W083° 21' 43.96"	N41° 42' 12.20", W081° 49' 25.71"	74.6774
8	N42° 12' 06.52", W083° 22' 17.93"	N42° 09' 44.90", W083° 21' 38.61"	2.4099
9	N42° 11' 14.76", W083° 22' 56.02"	N42° 08' 29.70", W083° 22' 25.66"	2.7769
10	N42° 06' 14.34", W083° 22' 00.80"	N42° 05' 41.32", W083° 21' 54.74"	0.5554
11	N42° 11' 15.08", W083° 23' 41.20"	N42° 16' 56.69", W083° 13' 21.04"	9.5394
12	N42° 12' 05.94", W083° 23' 03.79"	N42° 01' 54.21", W082° 30' 38.74"	40.2011
13	N42° 11' 15.08", W083° 23' 41.19"	N42° 07' 39.69", W083° 22' 43.62"	3.66
14	N42° 06' 37.68", W083° 22' 27.07"	N42° 03' 25.13", W083° 21' 35.72"	3.2718
15	N42° 13' 43.72", W083° 20' 08.74"	N42° 14' 36.02", W083° 19' 30.16"	0.9933

## Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
KDTW:RW22L:DER	KDTW:RW22L-VI End	
KDTW:RW22L-VI End	JOELU_	VWV, PSI, DXO, SVM, CRL

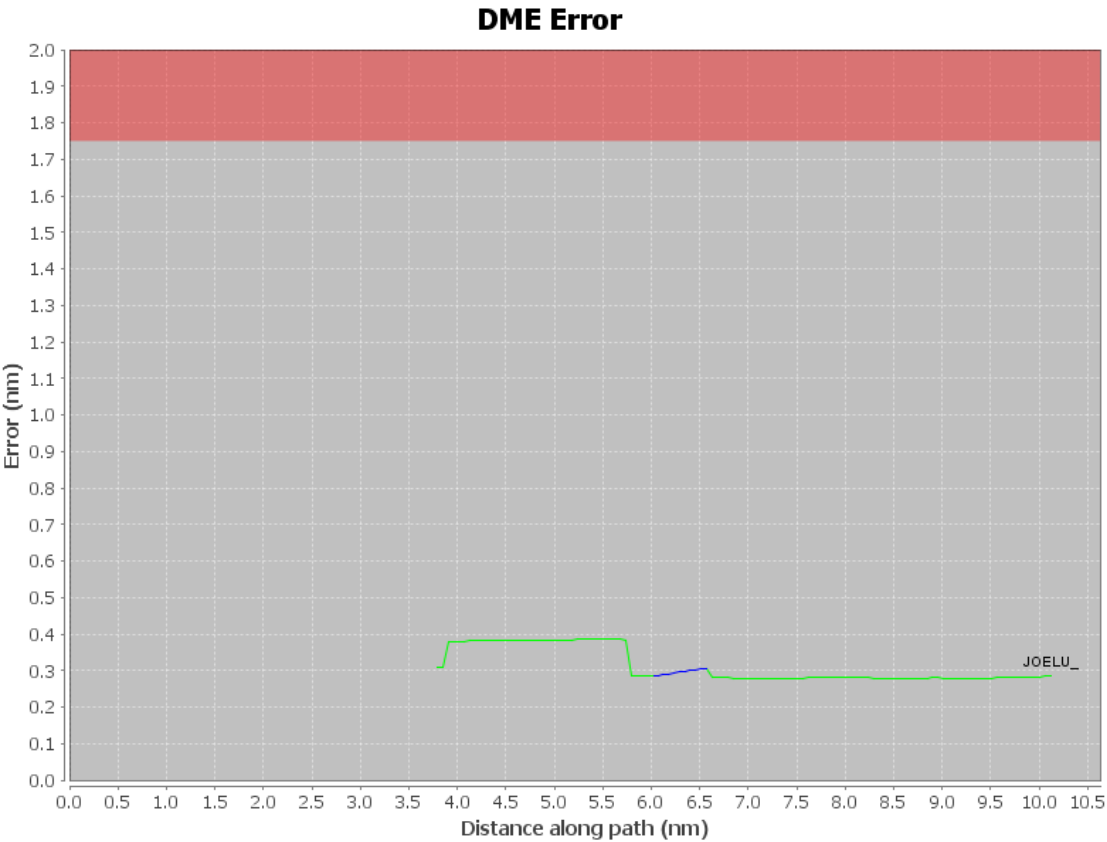
# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22L:DER\_JOELU

## User Data Files

#	File Name
1	UserDMEsKDTW LIDDS (RNAV) DEPARTURE_2018-12-19_0139.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV PSI PSI [AIRNAV2]	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	1149	null	UDT ESV PSI	
ESV:		Bearing [True]: 80.0° to 145.0° Bearing [Mag]: 80.0° to 145.0°				Arc Distance: Out to 65.0 NM Altitude: 3900.0 to 11000.0 ft		
2	UDT ESV MFD MFD [AIRNAV2]	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	1222	108.8	UDT ESV MFD	
ESV:		Bearing [True]: 325.0° to 43.0° Bearing [Mag]: 328.0° to 46.0°				Arc Distance: Out to 80.0 NM Altitude: 6400.0 to 20000.0 ft		
3	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 88.0° to 113.0° Bearing [Mag]: 91.0° to 116.0°				Arc Distance: Out to 84.0 NM Altitude: 9000.0 to 16000.0 ft		
4	UDT ESV SVM SVM [AIRNAV2]	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	955	114.3	UDT ESV SVM	
ESV:		Bearing [True]: 89.0° to 117.0° Bearing [Mag]: 92.0° to 120.0°				Arc Distance: Out to 73.0 NM Altitude: 6200.0 to 20000.0 ft		
5	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 65.0° to 98.0° Bearing [Mag]: 68.0° to 101.0°				Arc Distance: Out to 64.0 NM Altitude: 4000.0 to 16000.0 ft		
6	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 342.0° to 28.0° Bearing [Mag]: 347.0° to 33.0°				Arc Distance: Out to 81.0 NM Altitude: 5000.0 to 16000.0 ft		
7	UDT ESV VWV VWV [AIRNAV2]	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	669.3	113.1	UDT ESV VWV	
ESV:		Bearing [True]: 7.0° to 32.0° Bearing [Mag]: 9.0° to 34.0°				Arc Distance: Out to 47.0 NM Altitude: 2000.0 to 20000.0 ft		
8	UDT ESV BSV BSV [AIRNAV2]	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	1221	112.4	UDT ESV BSV	
ESV:		Bearing [True]: 344.0° to 357.0° Bearing [Mag]: 348.0° to 1.0°				Arc Distance: Out to 49.0 NM Altitude: 3400.0 to 20000.0 ft		
9	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 313.0° to 359.0° Bearing [Mag]: 318.0° to 4.0°				Arc Distance: Out to 60.0 NM Altitude: 4000.0 to 16000.0 ft		



# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22L:DER\_JOELU\_

Graphic Depiction 1



### Graphic Depiction 2





## DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22R:DER\_JOELU\_

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Paul CTR Jackson
Project File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\DTW SID LIDDS TWO 20190301 DME.tgs
Output File:	C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\LIDDS2\KDTW LIDDS (RNAV)_2019-03-04_0337\KDTW-RW22R-DER_JOELU_\KDTW LIDDS (RNAV) DEPARTURE_KDTW_RW22R_DER_JOELU__2019-03-04_0337.pdf
Procedure Name:	LIDDS (RNAV)
Software: DmeDmePlugin:	5.5.1
Date/Time:	03/04/2019 03:38 PM CST
Databases:	DTED 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
KDTW:RW22R:DER	WP	N42° 12' 07.82", W083° 23' 02.40"	645.2	VNAV	130	FLY_BY	TF
KDTW:RW22R-VI End	WP	N42° 11' 15.08", W083° 23' 41.20"	1146	VNAV	145	FLY_BY	TF
JOELU_	WP	N42° 02' 13.33", W083° 21' 16.60"	4000	VNAV	200	FLY_BY	TF

### Flyability

Flight Type:	DEPARTURE
Selected Airport:	KDTW
Climb Gradient:	None assigned
Speeds:	130 at the Runway DER
	145 at the end of the VA or VI leg
	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22R:DER\_JOELU\_

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,BVT,CIP,CKB,C MK,CRI,CTW,DNV,DNY,DWN,ECB,EL X,EON,ESL,ETG,EWO,FJC,FLM,FQM ,GFL,GGT,GIJ,GRV,GSH,HIC,HML,H NK,HNN,HTO,HUO,IHD,JFN,JVL,LAN, LGA,LNR,LVZ,MIP,MKG,MNM,MSS,O DI,PLL,PLN,PMM,PNT,PWL,RBS,REC ,RKA,RST,SAM,SFK,SLK,SLT,TDT,T HS,UCA,UIN,ULW,VLA,YRK

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22R:DER\_JOELU**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	DXO	N42° 12' 47.29", W083° 21' 59.99"	6.0 W	130	H	AIRNAV2	NO	Enabled	9.3 %	9.8 %
2	VWV	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	L	AIRNAV2	NO	Enabled	11.4 %	12 %
3	SVM	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	L	AIRNAV2	NO	Enabled	11.4 %	12 %
4	CRL	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	H	AIRNAV2	NO	Enabled	9.3 %	9.8 %
5	AGC	N40° 16' 43.12", W080° 02' 27.08"	9.0 W	40	L	AIRNAV2	NO	Disabled		
6	AUW	N44° 50' 48.40", W089° 35' 11.68"	2.0 E	40	L	AIRNAV2	NO	Disabled		
7	BDF	N41° 09' 35.03", W089° 35' 16.34"	0.0 E	130	H	AIRNAV2	NO	Disabled		
8	BFD	N41° 47' 10.99", W078° 37' 09.65"	7.0 W	40	L	AIRNAV2	NO	Disabled		
9	BVT	N40° 33' 22.22", W087° 04' 09.75"	1.0 E	130	H	AIRNAV2	NO	Disabled		
10	CIP	N41° 08' 46.66", W079° 27' 28.71"	6.0 W	40	L	AIRNAV2	NO	Disabled		
11	CKB	N39° 15' 11.58", W080° 16' 04.30"	4.0 W	40	L	AIRNAV2	NO	Disabled		
12	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	AIRNAV2	NO	Disabled		
13	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	AIRNAV2	NO	Disabled		
14	CTW	N40° 13' 45.15", W081° 28' 35.32"	7.0 W	40	L	AIRNAV2	NO	Disabled		
15	DNV	N40° 17' 37.56", W087° 33' 26.14"	2.0 E	40	L	AIRNAV2	NO	Disabled		
16	DNY	N42° 10' 41.81", W074° 57' 24.99"	11.0 W	40	L	AIRNAV2	NO	Disabled		
17	DWN	N45° 05' 14.87", W094° 27' 13.86"	7.0 E	40	L	AIRNAV2	NO	Disabled		
18	ECB	N38° 09' 30.11", W082° 54' 36.20"	2.0 W	40	L	AIRNAV2	NO	Disabled		
19	ELX	N42° 08' 39.88", W086° 07' 21.74"	0.0 E	40	L	AIRNAV2	NO	Disabled		
20	EON	N41° 16' 10.68", W087° 47' 27.79"	2.0 E	40	L	AIRNAV2	NO	Disabled		
21	ESL	N39° 13' 31.77", W078° 59' 22.20"	6.0 W	40	L	AIRNAV2	NO	Disabled		
22	ETG	N41° 12' 53.82", W078° 08' 33.92"	10.0 W	130	H	AIRNAV2	NO	Disabled		
23	EWO	N37° 37' 54.52", W085° 40' 33.16"	1.0 E	40	L	AIRNAV2	NO	Disabled		
24	FJC	N40° 43' 36.12", W075° 27' 17.12"	10.0 W	40	L	AIRNAV2	NO	Disabled		
25	FLM	N38° 38' 57.99", W084° 18' 38.17"	4.0 W	130	H	AIRNAV2	NO	Disabled		
26	FQM	N41° 20' 18.81", W076° 46' 29.52"	9.0 W	40	L	AIRNAV2	NO	Disabled		
27	GFL	N43° 20' 30.09", W073° 36' 42.32"	14.0 W	40	L	AIRNAV2	NO	Disabled		
28	GGT	N42° 47' 20.24", W075° 49' 36.29"	11.0 W	40	L	AIRNAV2	NO	Disabled		
29	GIJ	N41° 46' 07.00", W086° 19' 06.42"	0.0 E	130	H	AIRNAV2	NO	Disabled		
30	GRV	N39° 38' 06.11", W079° 03' 01.90"	6.0 W	40	L	AIRNAV2	NO	Disabled		
31	GSH	N41° 31' 30.56", W086° 01' 40.63"	0.0 E	130	H	AIRNAV2	NO	Disabled		
32	HIC	N43° 34' 29.47", W085° 42' 58.18"	1.0 W	40	L	AIRNAV2	NO	Disabled		
33	HML	N48° 52' 09.09", W097° 07' 01.51"	9.0 E	130	H	AIRNAV2	NO	Disabled		

**DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22R:DER\_JOELU**

<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>
34	HNK	N42° 03' 47.01", W075° 18' 58.62"	11.0 W	130	H	AIRNAV2	NO	Disabled		
35	HNN	N38° 45' 14.85", W082° 01' 34.20"	3.0 W	130	H	AIRNAV2	NO	Disabled		
36	HTO	N40° 55' 08.38", W072° 19' 00.14"	13.0 W	130	H	AIRNAV2	NO	Disabled		
37	HUO	N41° 24' 34.87", W074° 35' 29.74"	11.0 W	130	H	AIRNAV2	NO	Disabled		
38	IHD	N39° 58' 27.27", W079° 21' 30.12"	6.0 W	40	L	AIRNAV2	NO	Disabled		
39	JFN	N41° 45' 36.42", W080° 44' 53.20"	5.0 W	40	L	AIRNAV2	NO	Disabled		
40	JVL	N42° 33' 28.83", W089° 06' 18.93"	3.0 E	40	L	AIRNAV2	NO	Disabled		
41	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	AIRNAV2	NO	Disabled		
42	LNR	N43° 17' 39.85", W090° 07' 59.33"	0.0 E	40	L	AIRNAV2	NO	Disabled		
43	LVZ	N41° 16' 22.10", W075° 41' 22.07"	10.0 W	40	L	AIRNAV2	NO	Disabled		
44	MIP	N41° 01' 24.21", W076° 39' 55.04"	9.0 W	40	L	AIRNAV2	NO	Disabled		
45	MKG	N43° 10' 09.31", W086° 02' 21.76"	1.0 W	40	L	AIRNAV2	NO	Disabled		
46	MNM	N45° 10' 48.58", W087° 38' 49.83"	0.0 E	40	L	AIRNAV2	NO	Disabled		
47	MSS	N44° 54' 51.92", W074° 43' 21.78"	14.0 W	130	H	AIRNAV2	NO	Disabled		
48	ODI	N43° 54' 44.38", W091° 28' 03.06"	1.0 E	130	H	AIRNAV2	NO	Disabled		
49	PLL	N41° 57' 56.31", W089° 31' 27.19"	3.0 E	40	L	AIRNAV2	NO	Disabled		
50	PLN	N45° 37' 50.33", W084° 39' 50.79"	6.0 W	40	L	AIRNAV2	NO	Disabled		
51	PMM	N42° 27' 57.73", W086° 06' 17.32"	0.0 E	130	H	AIRNAV2	NO	Disabled		
52	PNT	N40° 49' 16.32", W088° 44' 00.63"	3.0 E	40	L	AIRNAV2	NO	Disabled		
53	PWL	N41° 46' 11.18", W073° 36' 01.99"	12.0 W	40	L	AIRNAV2	NO	Disabled		
54	RBS	N40° 34' 54.13", W088° 09' 51.36"	2.0 E	40	L	AIRNAV2	NO	Disabled		
55	REC	N40° 32' 47.25", W078° 44' 49.28"	9.0 W	40	L	AIRNAV2	NO	Disabled		
56	RKA	N42° 27' 58.91", W075° 14' 21.51"	11.0 W	40	L	AIRNAV2	NO	Disabled		
57	RST	N43° 46' 58.45", W092° 35' 49.06"	5.0 E	40	L	AIRNAV2	NO	Disabled		
58	SAM	N38° 29' 06.68", W088° 05' 08.90"	3.0 E	40	L	AIRNAV2	NO	Disabled		
59	SFK	N41° 41' 42.91", W077° 25' 11.66"	8.0 W	40	L	AIRNAV2	NO	Disabled		
60	SLK	N44° 23' 04.42", W074° 12' 16.22"	14.0 W	40	L	AIRNAV2	NO	Disabled		
61	SLT	N41° 30' 45.93", W077° 58' 12.39"	8.0 W	130	H	AIRNAV2	NO	Disabled		
62	TDT	N41° 42' 46.91", W079° 25' 02.17"	9.0 W	40	L	AIRNAV2	NO	Disabled		
63	THS	N39° 55' 59.62", W077° 57' 03.40"	7.0 W	40	L	AIRNAV2	NO	Disabled		
64	UCA	N43° 01' 35.45", W075° 09' 52.28"	12.0 W	40	L	AIRNAV2	NO	Disabled		
65	UIN	N39° 50' 52.35", W091° 16' 44.13"	5.0 E	130	H	AIRNAV2	NO	Disabled		
66	ULW	N42° 05' 39.16", W077° 01' 28.53"	12.0 W	40	L	AIRNAV2	NO	Disabled		

# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22R:DER\_JOELU\_

## DME/DME (Continued)

### DMEs Used

#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
67	VLA	N39° 05' 37.82", W089° 09' 44.08"	4.0 E	40	L	AIRNAV2	NO	Disabled		
68	YRK	N38° 38' 38.88", W082° 58' 42.02"	5.0 W	40	L	AIRNAV2	NO	Disabled		

## Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
4.7	DXO	CRL				
5.7						
9.0	VWV	SVM				

## Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N42° 13' 36.38", W083° 21' 57.22"	N42° 14' 25.64", W083° 21' 20.94"	0.9353
2	N42° 10' 50.17", W083° 21' 46.27"	N42° 09' 47.22", W083° 21' 42.65"	1.0502
3	N42° 11' 42.35", W083° 21' 07.86"	N42° 13' 10.86", W083° 20' 02.65"	1.6807
4	N42° 13' 12.72", W083° 20' 01.28"	N42° 14' 04.99", W083° 19' 22.74"	0.9925
5	N42° 12' 26.35", W083° 21' 05.75"	N42° 13' 52.36", W083° 20' 59.97"	1.4354
6	N42° 13' 54.22", W083° 20' 58.60"	N42° 14' 44.23", W083° 20' 21.73"	0.9496
7	N42° 11' 34.48", W083° 21' 43.96"	N41° 42' 12.20", W081° 49' 25.71"	74.6774
8	N42° 12' 06.52", W083° 22' 17.93"	N42° 09' 44.90", W083° 21' 38.61"	2.4099
9	N42° 11' 14.76", W083° 22' 56.02"	N42° 08' 29.70", W083° 22' 25.66"	2.7769
10	N42° 06' 14.34", W083° 22' 00.80"	N42° 05' 41.32", W083° 21' 54.74"	0.5554
11	N42° 11' 15.08", W083° 23' 41.20"	N42° 16' 56.69", W083° 13' 21.04"	9.5394
12	N42° 12' 05.94", W083° 23' 03.79"	N42° 01' 54.21", W082° 30' 38.74"	40.2011
13	N42° 11' 15.08", W083° 23' 41.19"	N42° 07' 39.69", W083° 22' 43.62"	3.66
14	N42° 06' 37.68", W083° 22' 27.07"	N42° 03' 25.13", W083° 21' 35.72"	3.2718
15	N42° 13' 43.72", W083° 20' 08.74"	N42° 14' 36.02", W083° 19' 30.16"	0.9933

## Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
KDTW:RW22R:DER	KDTW:RW22R-VI End	
KDTW:RW22R-VI End	JOELU_	VWV, DXO, SVM, CRL

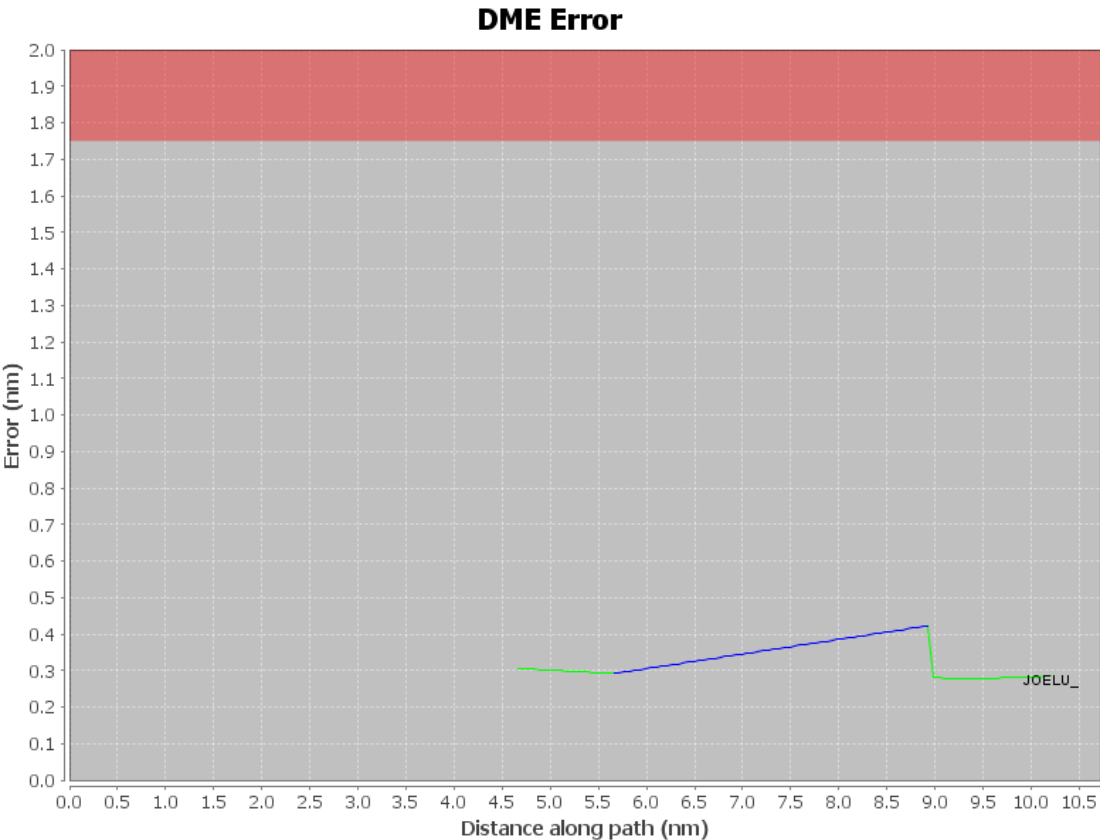
# DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22R:DER\_JOELU

## User Data Files

#	File Name
1	UserDMEsKDTW LIDDS (RNAV) DEPARTURE_2018-12-19_0139.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV PSI PSI [AIRNAV2]	N42° 42' 03.09", W083° 31' 57.98"	0.0 E	40	1149	null	UDT ESV PSI	
ESV:		Bearing [True]: 80.0° to 145.0° Bearing [Mag]: 80.0° to 145.0°				Arc Distance: Out to 65.0 NM Altitude: 3900.0 to 11000.0 ft		
2	UDT ESV MFD MFD [AIRNAV2]	N40° 52' 07.00", W082° 35' 27.46"	3.0 W	40	1222	108.8	UDT ESV MFD	
ESV:		Bearing [True]: 325.0° to 43.0° Bearing [Mag]: 328.0° to 46.0°				Arc Distance: Out to 80.0 NM Altitude: 6400.0 to 20000.0 ft		
3	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 88.0° to 113.0° Bearing [Mag]: 91.0° to 116.0°				Arc Distance: Out to 84.0 NM Altitude: 9000.0 to 16000.0 ft		
4	UDT ESV SVM SVM [AIRNAV2]	N42° 24' 31.11", W083° 35' 38.05"	3.0 W	40	955	114.3	UDT ESV SVM	
ESV:		Bearing [True]: 89.0° to 117.0° Bearing [Mag]: 92.0° to 120.0°				Arc Distance: Out to 73.0 NM Altitude: 6200.0 to 20000.0 ft		
5	UDT ESV CRL CRL [AIRNAV2]	N42° 02' 52.90", W083° 27' 27.26"	3.0 W	130	652.9	115.7	UDT ESV CRL	
ESV:		Bearing [True]: 65.0° to 98.0° Bearing [Mag]: 68.0° to 101.0°				Arc Distance: Out to 64.0 NM Altitude: 4000.0 to 16000.0 ft		
6	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 342.0° to 28.0° Bearing [Mag]: 347.0° to 33.0°				Arc Distance: Out to 81.0 NM Altitude: 5000.0 to 16000.0 ft		
7	UDT ESV VWV VWV [AIRNAV2]	N41° 27' 05.34", W083° 38' 19.30"	2.0 W	40	669.3	113.1	UDT ESV VWV	
ESV:		Bearing [True]: 7.0° to 32.0° Bearing [Mag]: 9.0° to 34.0°				Arc Distance: Out to 47.0 NM Altitude: 2000.0 to 20000.0 ft		
8	UDT ESV BSV BSV [AIRNAV2]	N40° 44' 26.54", W081° 25' 55.62"	4.0 W	40	1221	112.4	UDT ESV BSV	
ESV:		Bearing [True]: 344.0° to 357.0° Bearing [Mag]: 348.0° to 1.0°				Arc Distance: Out to 49.0 NM Altitude: 3400.0 to 20000.0 ft		
9	UDT ESV DJB DJB [AIRNAV2]	N41° 21' 29.03", W082° 09' 43.09"	5.0 W	130	807.1	113.6	UDT ESV DJB	
ESV:		Bearing [True]: 313.0° to 359.0° Bearing [Mag]: 318.0° to 4.0°				Arc Distance: Out to 60.0 NM Altitude: 4000.0 to 16000.0 ft		



DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22R:DER\_JOELU

Graphic Depiction 1





DME DME Assessment Results for LIDDS (RNAV) path KDTW:RW22R:DER\_JOELU\_

Graphic Depiction 2

