

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03L:DER_DCATS_

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 TRMML TWO 20190301 DME.tgs |
| Output File: | C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\TRMML2\KDTW TRMML (RNAV)_2019-03-05_1023\KDTW-RW03L- DER_DCATS_\KDTW TRMML (RNAV) DEPARTURE_KDTW_RW03L_DER_DCATS__2019-03-05_1023.pdf |
| Procedure Name: | TRMML (RNAV) |
| Software: DmeDmePlugin: | 5.5.1 |
| Date/Time: | 03/05/2019 10:23 AM 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_OVER | TF |
| KDTW:RW03L-VA End | WP | N42° 14' 36.02", W083° 19' 30.16" | 1200 | VNAV | 145 | FLY_OVER | TF |
| DCATS_ | WP | N42° 27' 12.00", W083° 10' 09.17" | 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 TRMML (RNAV) path KDTW:RW03L:DER_DCATS_

| 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, LFD,LGA,LNR,LVZ,MIP,MKG,MNM,M SS,ODI,PLL,PLN,PMM,PNT,PWL,RBS ,REC,RKA,RST,SAM,SFK,SLK,SLT,T DT,THS,UCA,UIN,ULW,VLA,YRK |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03L:DER_DCATS_

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|--------|----------|
| DMEs Used | | | | | | | | | | |
| # | 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 | 89.2 % | 89.9 % |
| 2 | SVM | N42° 24' 31.11", W083° 35' 38.05" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 93.4 % | 94 % |
| 3 | PSI | N42° 42' 03.09", W083° 31' 57.98" | 0.0 E | 40 | L | AIRNAV2 | NO | Enabled | 75.8 % | 76.9 % |
| 4 | CRL | N42° 02' 52.90", W083° 27' 27.26" | 3.0 W | 130 | H | AIRNAV2 | NO | Enabled | 93.4 % | 94 % |
| 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 TRMML (RNAV) path KDTW:RW03L:DER_DCATS

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|-------------|--------------------------------------|---------------|--------------|-------------|---------------|-----------------|---------------|-------------|-----------------|
| DMEs Used | | | | | | | | | | |
| # | 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 | LFD | N42° 03' 44.96", W084° 45' 54.48" | 5.0 W | 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 TRMML (RNAV) path KDTW:RW03L:DER_DCATS_

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 | | | | | | |
| 0.9 | SVM | CRL | | | | |
| 1.6 | SVM | DXO | CRL | | | |
| 3.6 | SVM | CRL | DXO | PSI | | |

Inertial Drift Segments

| # | Start Location | End Location | Length [NM] |
|----|-----------------------------------|-----------------------------------|-------------|
| 1 | N42° 11' 42.35", W083° 21' 07.86" | N42° 05' 42.02", W083° 20' 02.39" | 6.0604 |
| 2 | N42° 11' 34.48", W083° 21' 43.96" | N42° 09' 51.09", W083° 21' 14.13" | 1.7622 |
| 3 | N42° 06' 19.62", W083° 20' 13.21" | N42° 14' 04.99", W083° 19' 22.74" | 7.7821 |
| 4 | N42° 12' 26.35", W083° 21' 05.75" | N42° 16' 44.40", W083° 01' 13.28" | 15.3305 |
| 5 | N42° 13' 54.22", W083° 20' 58.60" | N42° 14' 44.23", W083° 20' 21.73" | 0.9496 |
| 6 | N43° 35' 55.25", W083° 37' 23.54" | N42° 11' 13.97", W083° 23' 44.08" | 85.2867 |
| 7 | N42° 11' 14.77", W083° 22' 56.02" | N42° 11' 13.73", W083° 22' 58.94" | 0.04 |
| 8 | N42° 13' 12.72", W083° 20' 01.28" | N42° 14' 04.99", W083° 19' 22.74" | 0.9925 |
| 9 | N42° 13' 36.38", W083° 21' 57.22" | N42° 14' 25.65", W083° 21' 20.92" | 0.9354 |
| 10 | N42° 12' 06.52", W083° 22' 17.93" | N42° 06' 57.51", W083° 08' 37.76" | 11.368 |
| 11 | N42° 10' 50.18", W083° 21' 46.27" | N42° 09' 47.15", W083° 21' 25.00" | 1.083 |
| 12 | N42° 06' 28.71", W083° 20' 18.11" | N42° 07' 47.33", W083° 32' 40.34" | 9.2701 |
| 13 | N42° 13' 43.72", W083° 20' 08.74" | N42° 14' 30.42", W083° 19' 34.30" | 0.8869 |
| 14 | N42° 12' 05.94", W083° 23' 03.79" | N42° 13' 15.71", W083° 42' 24.97" | 14.383 |
| 15 | N42° 25' 27.92", W083° 36' 23.76" | N42° 35' 37.84", W083° 31' 20.96" | 10.8258 |

Available DMEs by Waypoints

| Waypoint Before | Waypoint After | DME List |
|-------------------|-------------------|--------------------|
| KDTW:RW03L:DER | KDTW:RW03L-VA End | SVM, CRL |
| KDTW:RW03L-VA End | DCATS_ | PSI, DXO, SVM, CRL |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03L:DER_DCATS_

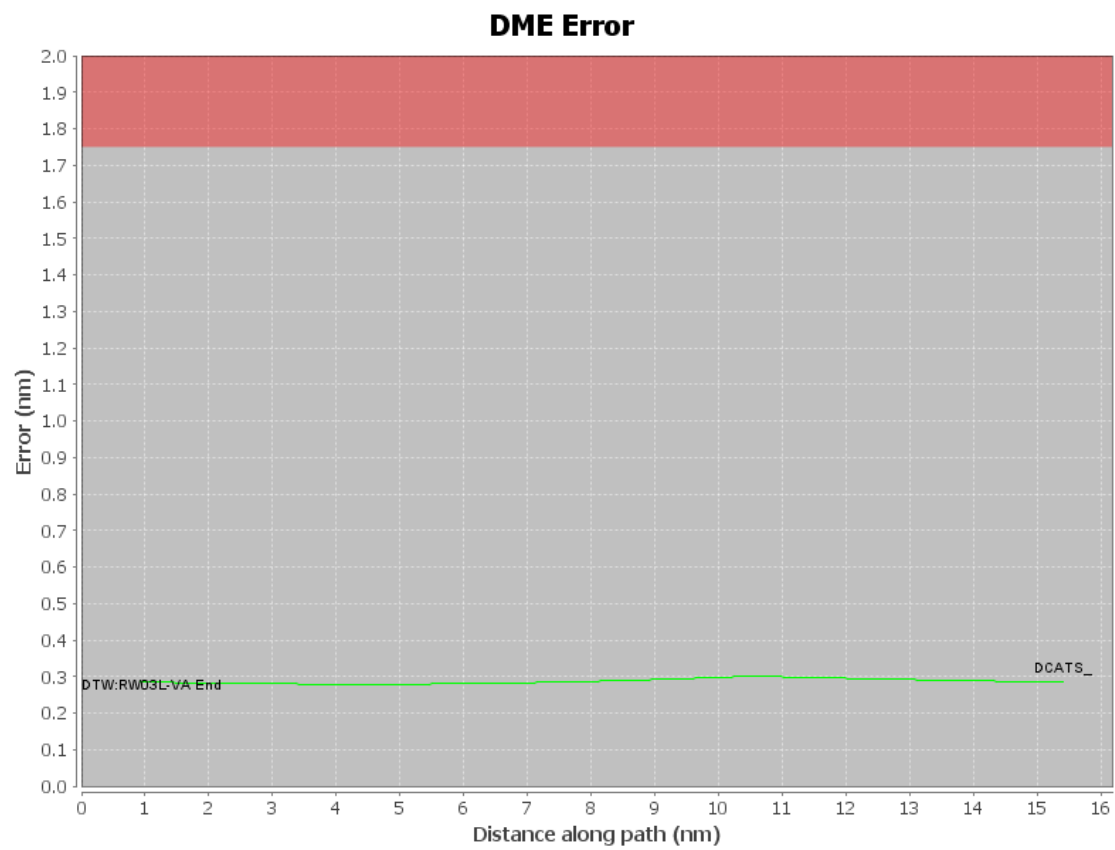
User Data Files

| # | File Name |
|---|---|
| 1 | UserDMEsKDTW TRMML (RNAV) DEPARTURE_2018-12-19_0159.udt |

User DMEs

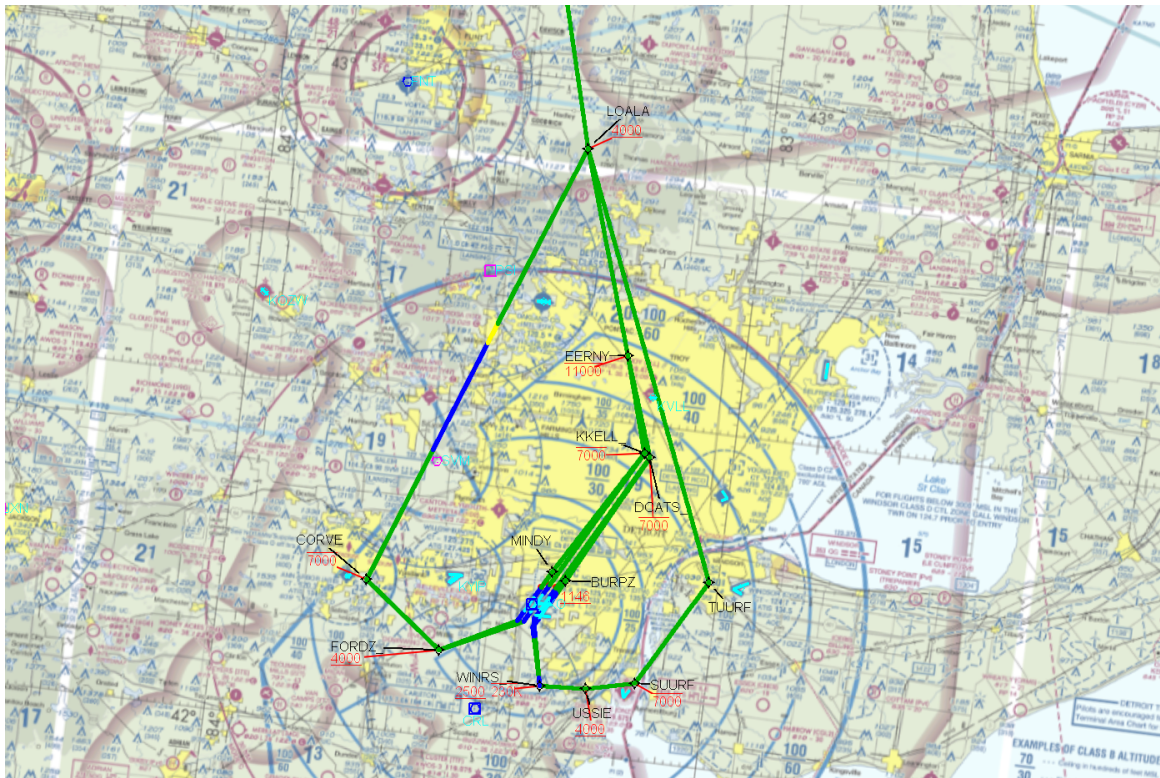
| # | Name | Lat/Lon | MAGVAR | Range | Elevation [ft] | Frequency | Replaces | Status |
|------|------------------------------|---|--------|-------|----------------|--|-------------|--------|
| 1 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 26.0° to 39.0° Bearing [Mag]: 31.0° to 44.0° | | | | Arc Distance: Out to 81.0 NM Altitude: 7400.0 to 20000.0 ft | | |
| 2 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 45.0° to 67.0° Bearing [Mag]: 50.0° to 72.0° | | | | Arc Distance: Out to 67.0 NM Altitude: 4000.0 to 20000.0 ft | | |
| 3 | UDT ESV MBS MBS [AIRNAV2] | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | 679.1 | 112.9 | UDT ESV MBS | |
| ESV: | | Bearing [True]: 129.0° to 179.0° Bearing [Mag]: 132.0° to 182.0° | | | | Arc Distance: Out to 57.0 NM Altitude: 3200.0 to 20000.0 ft | | |
| 4 | 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]: 348.0° to 14.0° Bearing [Mag]: 351.0° to 17.0° | | | | Arc Distance: Out to 58.0 NM Altitude: 3800.0 to 16000.0 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]: 0.0° to 49.0° Bearing [Mag]: 3.0° to 52.0° | | | | Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 16000.0 ft | | |
| 6 | UDT ESV DXO DXO [AIRNAV2] | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | 669.3 | 113.4 | UDT ESV DXO | |
| ESV: | | Bearing [True]: 348.0° to 2.0° Bearing [Mag]: 354.0° to 8.0° | | | | Arc Distance: Out to 76.0 NM Altitude: 7400.0 to 20000.0 ft | | |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03L:DER_DCATS_



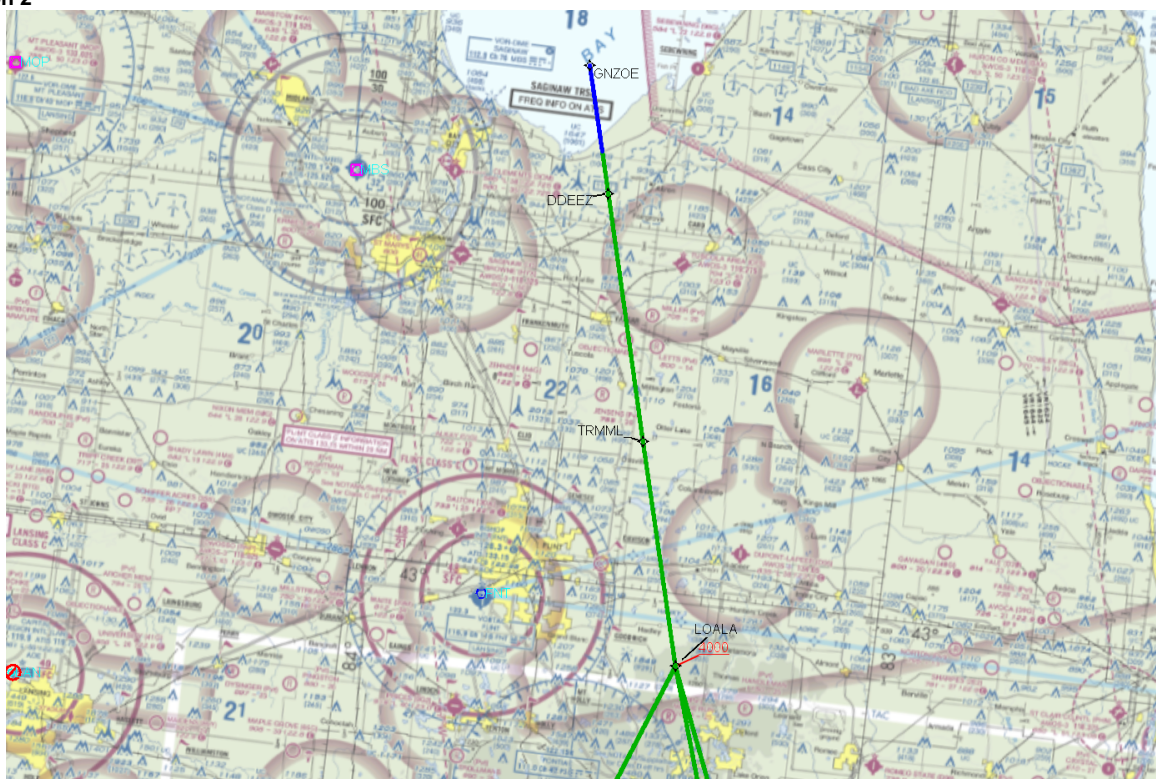
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03L:DER_DCATS_

Graphic Depiction 1



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03L:DER_DCATS_

Graphic Depiction 2



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03R:DER_LOALA

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 TRMML TWO 20190301 DME.tgs |
| Output File: | C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\TRMML2\KDTW TRMML (RNAV)_2019-03-05_1023\KDTW-RW03R-DER_LOALA\KDTW TRMML (RNAV) DEPARTURE_KDTW_RW03R_DER_LOALA_2019-03-05_1023.pdf |
| Procedure Name: | TRMML (RNAV) |
| Software: DmeDmePlugin: | 5.5.1 |
| Date/Time: | 03/05/2019 10:23 AM 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_OVER | TF |
| KDTW:RW03R-VA End | WP | N42° 14' 04.99", W083° 19' 22.74" | 1146 | VNAV | 145 | FLY_OVER | TF |
| BURPZ | WP | N42° 15' 17.69", W083° 18' 29.10" | 1422.3 | VNAV | 200 | FLY_BY | TF |
| DCATS_ | WP | N42° 27' 12.00", W083° 10' 09.17" | 4000 | VNAV | 200 | FLY_BY | TF |
| EERNY | WP | N42° 36' 00.37", W083° 14' 17.98" | 4000 | VNAV | 200 | FLY_BY | TF |
| LOALA | WP | N42° 54' 01.32", W083° 22' 08.62" | 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 TRMML (RNAV) path KDTW:RW03R:DER_LOALA

| 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, LFD,LGA,LNR,LVZ,MIP,MKG,MNM,M SS,ODI,PLL,PLN,PMM,PNT,PWL,RBS ,REC,RKA,RST,SAM,SFK,SLK,SLT,T DT,THS,UCA,UIN,ULW,VLA,YRK |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03R:DER_LOALA

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|--------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 1 | FNT | N42° 58' 00.38", W083° 44' 49.08" | 6.0 W | 130 | H | AIRNAV2 | NO | Enabled | 59.2 % | 60.2 % |
| 2 | DXO | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | H | AIRNAV2 | NO | Enabled | 88.1 % | 89.4 % |
| 3 | JXN | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | L | AIRNAV2 | NO | Enabled | 6.3 % | 6.4 % |
| 4 | SVM | N42° 24' 31.11", W083° 35' 38.05" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 96.6 % | 97.7 % |
| 5 | PSI | N42° 42' 03.09", W083° 31' 57.98" | 0.0 E | 40 | L | AIRNAV2 | NO | Enabled | 89.6 % | 91.1 % |
| 6 | MBS | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 6.3 % | 6.4 % |
| 7 | CRL | N42° 02' 52.90", W083° 27' 27.26" | 3.0 W | 130 | H | AIRNAV2 | NO | Enabled | 69.2 % | 69.8 % |
| 8 | AGC | N40° 16' 43.12", W080° 02' 27.08" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 9 | AUW | N44° 50' 48.40", W089° 35' 11.68" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 10 | BDF | N41° 09' 35.03", W089° 35' 16.34" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 11 | BFD | N41° 47' 10.99", W078° 37' 09.65" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 12 | BVT | N40° 33' 22.22", W087° 04' 09.75" | 1.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 13 | CIP | N41° 08' 46.66", W079° 27' 28.71" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 14 | CKB | N39° 15' 11.58", W080° 16' 04.30" | 4.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 15 | CMK | N41° 16' 48.32", W073° 34' 52.77" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 16 | CRI | N40° 36' 44.90", W073° 53' 40.00" | 11.0 W | 25 | T | AIRNAV2 | NO | Disabled | | |
| 17 | CTW | N40° 13' 45.15", W081° 28' 35.32" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 18 | DNV | N40° 17' 37.56", W087° 33' 26.14" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 19 | DNY | N42° 10' 41.81", W074° 57' 24.99" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 20 | DWN | N45° 05' 14.87", W094° 27' 13.86" | 7.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 21 | ECB | N38° 09' 30.11", W082° 54' 36.20" | 2.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 22 | ELX | N42° 08' 39.88", W086° 07' 21.74" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 23 | EON | N41° 16' 10.68", W087° 47' 27.79" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 24 | ESL | N39° 13' 31.77", W078° 59' 22.20" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 25 | ETG | N41° 12' 53.82", W078° 08' 33.92" | 10.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 26 | EWO | N37° 37' 54.52", W085° 40' 33.16" | 1.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 27 | FJC | N40° 43' 36.12", W075° 27' 17.12" | 10.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 28 | FLM | N38° 38' 57.99", W084° 18' 38.17" | 4.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 29 | FQM | N41° 20' 18.81", W076° 46' 29.52" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 30 | GFL | N43° 20' 30.09", W073° 36' 42.32" | 14.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 31 | GGT | N42° 47' 20.24", W075° 49' 36.29" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 32 | GIJ | N41° 46' 07.00", W086° 19' 06.42" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 33 | GRV | N39° 38' 06.11", W079° 03' 01.90" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03R:DER_LOALA

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|-------------|--------------------------------------|---------------|--------------|-------------|---------------|-----------------|---------------|-------------|-----------------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 34 | GSH | N41° 31' 30.56", W086° 01' 40.63" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 35 | HIC | N43° 34' 29.47", W085° 42' 58.18" | 1.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 36 | HML | N48° 52' 09.09", W097° 07' 01.51" | 9.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 37 | HNK | N42° 03' 47.01", W075° 18' 58.62" | 11.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 38 | HNN | N38° 45' 14.85", W082° 01' 34.20" | 3.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 39 | HTO | N40° 55' 08.38", W072° 19' 00.14" | 13.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 40 | HUO | N41° 24' 34.87", W074° 35' 29.74" | 11.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 41 | IHD | N39° 58' 27.27", W079° 21' 30.12" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 42 | JFN | N41° 45' 36.42", W080° 44' 53.20" | 5.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 43 | JVL | N42° 33' 28.83", W089° 06' 18.93" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 44 | LFD | N42° 03' 44.96", W084° 45' 54.48" | 5.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 45 | LGA | N40° 47' 01.38", W073° 52' 06.96" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 46 | LNR | N43° 17' 39.85", W090° 07' 59.33" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 47 | LVZ | N41° 16' 22.10", W075° 41' 22.07" | 10.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 48 | MIP | N41° 01' 24.21", W076° 39' 55.04" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 49 | MKG | N43° 10' 09.31", W086° 02' 21.76" | 1.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 50 | MNM | N45° 10' 48.58", W087° 38' 49.83" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 51 | MSS | N44° 54' 51.92", W074° 43' 21.78" | 14.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 52 | ODI | N43° 54' 44.38", W091° 28' 03.06" | 1.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 53 | PLL | N41° 57' 56.31", W089° 31' 27.19" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 54 | PLN | N45° 37' 50.33", W084° 39' 50.79" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 55 | PMM | N42° 27' 57.73", W086° 06' 17.32" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 56 | PNT | N40° 49' 16.32", W088° 44' 00.63" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 57 | PWL | N41° 46' 11.18", W073° 36' 01.99" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 58 | RBS | N40° 34' 54.13", W088° 09' 51.36" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 59 | REC | N40° 32' 47.25", W078° 44' 49.28" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 60 | RKA | N42° 27' 58.91", W075° 14' 21.51" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 61 | RST | N43° 46' 58.45", W092° 35' 49.06" | 5.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 62 | SAM | N38° 29' 06.68", W088° 05' 08.90" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 63 | SFK | N41° 41' 42.91", W077° 25' 11.66" | 8.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 64 | SLK | N44° 23' 04.42", W074° 12' 16.22" | 14.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 65 | SLT | N41° 30' 45.93", W077° 58' 12.39" | 8.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 66 | TDT | N41° 42' 46.91", W079° 25' 02.17" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03R:DER_LOALA

| DME/DME (Continued) | | | | | | | | | | |
|---------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 67 | THS | N39° 55' 59.62", W077° 57' 03.40" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 68 | UCA | N43° 01' 35.45", W075° 09' 52.28" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 69 | UIN | N39° 50' 52.35", W091° 16' 44.13" | 5.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 70 | ULW | N42° 05' 39.16", W077° 01' 28.53" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 71 | VLA | N39° 05' 37.82", W089° 09' 44.08" | 4.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 72 | 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 | | | | |
| 1.8 | SVM | CRL | DXO | | | |
| 3.9 | SVM | CRL | DXO | PSI | | |
| 17.5 | PSI | DXO | CRL | FNT | SVM | |
| 29.0 | PSI | DXO | SVM | FNT | | |
| 41.2 | SVM | FNT | JXN | MBS | PSI | CRL |

| Inertial Drift Segments | | | |
|-------------------------|-----------------------------------|-----------------------------------|-------------|
| # | Start Location | End Location | Length [NM] |
| 1 | N42° 11' 42.35", W083° 21' 07.86" | N42° 05' 42.02", W083° 20' 02.39" | 6.0604 |
| 2 | N42° 11' 34.48", W083° 21' 43.96" | N42° 09' 51.09", W083° 21' 14.13" | 1.7622 |
| 3 | N42° 06' 19.62", W083° 20' 13.21" | N42° 14' 04.99", W083° 19' 22.74" | 7.7821 |
| 4 | N42° 12' 26.35", W083° 21' 05.75" | N42° 16' 44.40", W083° 01' 13.28" | 15.3305 |
| 5 | N42° 13' 54.22", W083° 20' 58.60" | N42° 14' 44.23", W083° 20' 21.73" | 0.9496 |
| 6 | N43° 35' 55.25", W083° 37' 23.54" | N42° 11' 13.97", W083° 23' 44.08" | 85.2867 |
| 7 | N42° 11' 14.77", W083° 22' 56.02" | N42° 11' 13.73", W083° 22' 58.94" | 0.04 |
| 8 | N42° 13' 12.72", W083° 20' 01.28" | N42° 14' 04.99", W083° 19' 22.74" | 0.9925 |
| 9 | N42° 13' 36.38", W083° 21' 57.22" | N42° 14' 25.65", W083° 21' 20.92" | 0.9354 |
| 10 | N42° 12' 06.52", W083° 22' 17.93" | N42° 06' 57.51", W083° 08' 37.76" | 11.368 |
| 11 | N42° 10' 50.18", W083° 21' 46.27" | N42° 09' 47.15", W083° 21' 25.00" | 1.083 |
| 12 | N42° 06' 28.71", W083° 20' 18.11" | N42° 07' 47.33", W083° 32' 40.34" | 9.2701 |
| 13 | N42° 13' 43.72", W083° 20' 08.74" | N42° 14' 30.42", W083° 19' 34.30" | 0.8869 |
| 14 | N42° 12' 05.94", W083° 23' 03.79" | N42° 13' 15.71", W083° 42' 24.97" | 14.383 |
| 15 | N42° 25' 27.92", W083° 36' 23.76" | N42° 35' 37.84", W083° 31' 20.96" | 10.8258 |

| Available DMEs by Waypoints | | |
|-----------------------------|-------------------|-----------------------------------|
| Waypoint Before | Waypoint After | DME List |
| KDTW:RW03R:DER | KDTW:RW03R-VA End | SVM, CRL |
| KDTW:RW03R-VA End | BURPZ | DXO, SVM, CRL |
| BURPZ | DCATS_ | PSI, DXO, SVM, CRL |
| DCATS_ | EERNY | PSI, DXO, SVM, CRL, FNT |
| EERNY | LOALA | JXN, PSI, DXO, SVM, CRL, FNT, MBS |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03R:DER_LOALA

User Data Files

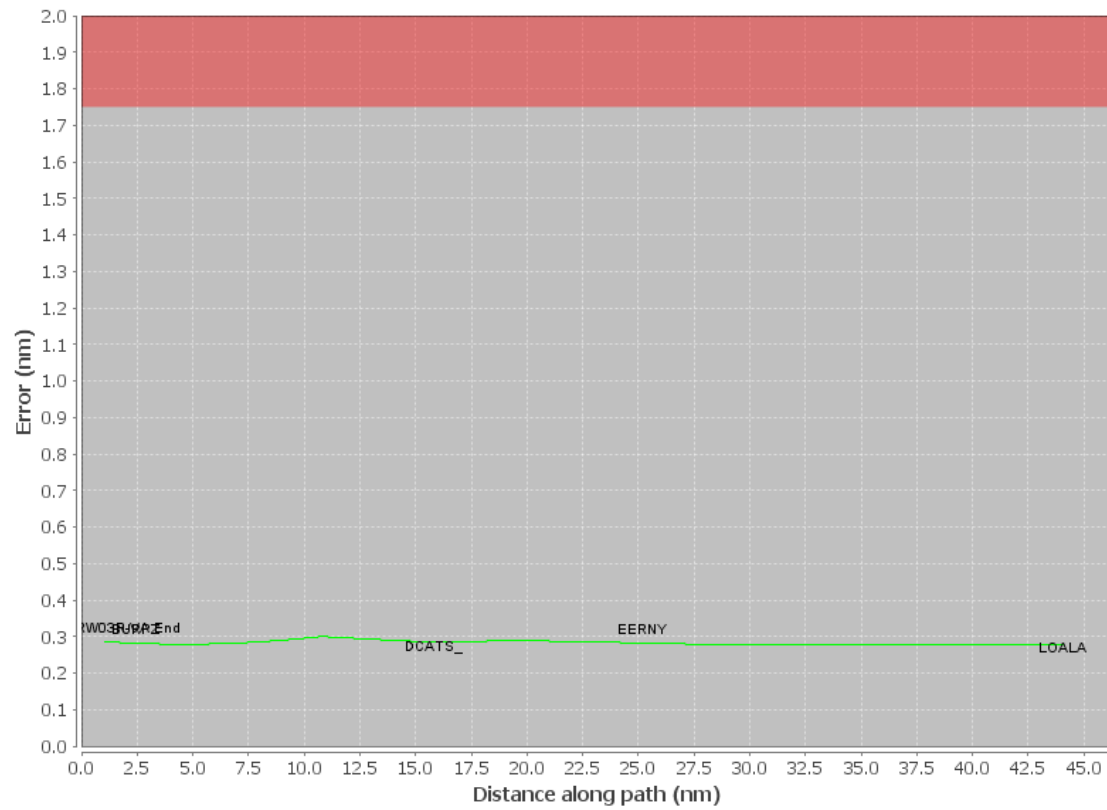
| # | File Name |
|---|---|
| 1 | UserDMEsKDTW TRMML (RNAV) DEPARTURE_2018-12-19_0159.udt |

User DMEs

| # | Name | Lat/Lon | MAGVAR | Range | Elevation [ft] | Frequency | Replaces | Status |
|------|------------------------------|---|--------|-------|----------------|--|-------------|--------|
| 1 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 26.0° to 39.0° Bearing [Mag]: 31.0° to 44.0° | | | | Arc Distance: Out to 81.0 NM Altitude: 7400.0 to 20000.0 ft | | |
| 2 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 45.0° to 67.0° Bearing [Mag]: 50.0° to 72.0° | | | | Arc Distance: Out to 67.0 NM Altitude: 4000.0 to 20000.0 ft | | |
| 3 | UDT ESV MBS MBS [AIRNAV2] | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | 679.1 | 112.9 | UDT ESV MBS | |
| ESV: | | Bearing [True]: 129.0° to 179.0° Bearing [Mag]: 132.0° to 182.0° | | | | Arc Distance: Out to 57.0 NM Altitude: 3200.0 to 20000.0 ft | | |
| 4 | 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]: 348.0° to 14.0° Bearing [Mag]: 351.0° to 17.0° | | | | Arc Distance: Out to 58.0 NM Altitude: 3800.0 to 16000.0 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]: 0.0° to 49.0° Bearing [Mag]: 3.0° to 52.0° | | | | Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 16000.0 ft | | |
| 6 | UDT ESV DXO DXO [AIRNAV2] | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | 669.3 | 113.4 | UDT ESV DXO | |
| ESV: | | Bearing [True]: 348.0° to 2.0° Bearing [Mag]: 354.0° to 8.0° | | | | Arc Distance: Out to 76.0 NM Altitude: 7400.0 to 20000.0 ft | | |

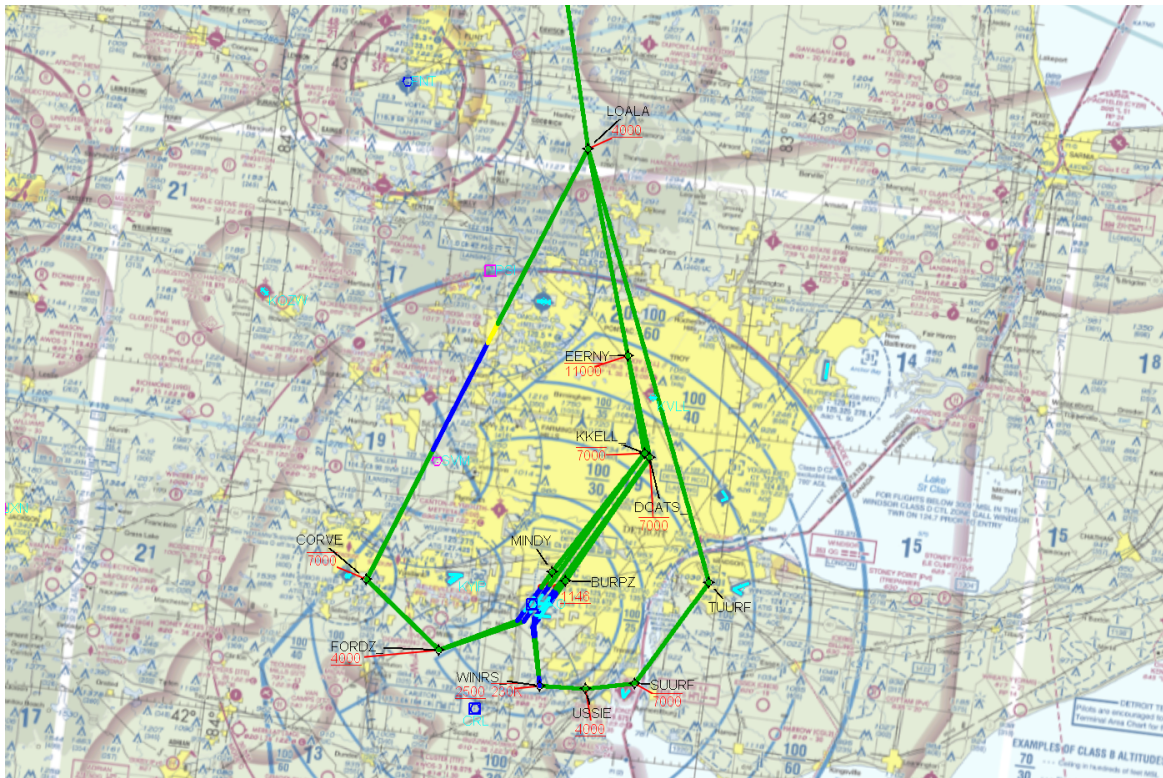
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03R:DER_LOALA

DME Error



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03R:DER_LOALA

Graphic Depiction 1



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW03R:DER_LOALA

Graphic Depiction 2



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04L:DER_EERNY

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 TRMML TWO 20190301 DME.tgs |
| Output File: | C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\TRMML2\KDTW TRMML (RNAV)_2019-03-05_1023\KDTW-RW04L-DER_EERNY\KDTW TRMML (RNAV) DEPARTURE_KDTW_RW04L_DER_EERNY_2019-03-05_1023.pdf |
| Procedure Name: | TRMML (RNAV) |
| Software: DmeDmePlugin: | 5.5.1 |
| Date/Time: | 03/05/2019 10:23 AM 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" | 642.1 | VNAV | 130 | FLY_OVER | TF |
| KDTW:RW04L-VA End | WP | N42° 14' 27.54", W083° 21' 19.53" | 1146 | VNAV | 145 | FLY_OVER | TF |
| MINDY | WP | N42° 15' 59.47", W083° 20' 11.78" | 1495.2 | VNAV | 200 | FLY_BY | TF |
| KKELL_ | WP | N42° 27' 30.48", W083° 10' 53.34" | 4000 | VNAV | 200 | FLY_BY | TF |
| EERNY | WP | N42° 36' 00.37", W083° 14' 17.98" | 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 TRMML (RNAV) path KDTW:RW04L:DER_EERNY

| 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, LFD,LGA,LNR,LVZ,MIP,MKG,MNM,M SS,ODI,PLL,PLN,PMM,PNT,PWL,RBS ,REC,RKA,RST,SAM,SFK,SLK,SLT,T DT,THS,UCA,UIN,ULW,VLA,YRK |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04L:DER_EERNY

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|--------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 1 | FNT | N42° 58' 00.38", W083° 44' 49.08" | 6.0 W | 130 | H | AIRNAV2 | NO | Enabled | 29.4 % | 30.3 % |
| 2 | DXO | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | H | AIRNAV2 | NO | Enabled | 85.9 % | 88.6 % |
| 3 | SVM | N42° 24' 31.11", W083° 35' 38.05" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 94.4 % | 96.1 % |
| 4 | PSI | N42° 42' 03.09", W083° 31' 57.98" | 0.0 E | 40 | L | AIRNAV2 | NO | Enabled | 82.6 % | 85.2 % |
| 5 | CRL | N42° 02' 52.90", W083° 27' 27.26" | 3.0 W | 130 | H | AIRNAV2 | NO | Enabled | 94.4 % | 96.1 % |
| 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 TRMML (RNAV) path KDTW:RW04L:DER_EERNY

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|-------------|--------------------------------------|---------------|--------------|-------------|---------------|-----------------|---------------|-------------|-----------------|
| DMEs Used | | | | | | | | | | |
| # | 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 | LFD | N42° 03' 44.96", W084° 45' 54.48" | 5.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 43 | LGA | N40° 47' 01.38", W073° 52' 06.96" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 44 | LNR | N43° 17' 39.85", W090° 07' 59.33" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 45 | LVZ | N41° 16' 22.10", W075° 41' 22.07" | 10.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 46 | MIP | N41° 01' 24.21", W076° 39' 55.04" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 47 | MKG | N43° 10' 09.31", W086° 02' 21.76" | 1.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 48 | MNM | N45° 10' 48.58", W087° 38' 49.83" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 49 | MSS | N44° 54' 51.92", W074° 43' 21.78" | 14.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 50 | ODI | N43° 54' 44.38", W091° 28' 03.06" | 1.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 51 | PLL | N41° 57' 56.31", W089° 31' 27.19" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 52 | PLN | N45° 37' 50.33", W084° 39' 50.79" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 53 | PMM | N42° 27' 57.73", W086° 06' 17.32" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 54 | PNT | N40° 49' 16.32", W088° 44' 00.63" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 55 | PWL | N41° 46' 11.18", W073° 36' 01.99" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 56 | RBS | N40° 34' 54.13", W088° 09' 51.36" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 57 | REC | N40° 32' 47.25", W078° 44' 49.28" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 58 | RKA | N42° 27' 58.91", W075° 14' 21.51" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 59 | RST | N43° 46' 58.45", W092° 35' 49.06" | 5.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 60 | SAM | N38° 29' 06.68", W088° 05' 08.90" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 61 | SFK | N41° 41' 42.91", W077° 25' 11.66" | 8.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 62 | SLK | N44° 23' 04.42", W074° 12' 16.22" | 14.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 63 | SLT | N41° 30' 45.93", W077° 58' 12.39" | 8.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 64 | TDT | N41° 42' 46.91", W079° 25' 02.17" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 65 | THS | N39° 55' 59.62", W077° 57' 03.40" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 66 | UCA | N43° 01' 35.45", W075° 09' 52.28" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04L:DER_EERNY

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 67 | UIN | N39° 50' 52.35", W091° 16' 44.13" | 5.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 68 | ULW | N42° 05' 39.16", W077° 01' 28.53" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 69 | VLA | N39° 05' 37.82", W089° 09' 44.08" | 4.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 70 | 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 | | | | |
| 2.9 | SVM | DXO | CRL | | | |
| 3.7 | SVM | DXO | CRL | PSI | | |
| 17.4 | PSI | DXO | CRL | FNT | SVM | |

| Inertial Drift Segments | | | |
|--------------------------------|-----------------------------------|-----------------------------------|-------------|
| # | Start Location | End Location | Length [NM] |
| 1 | N42° 11' 42.35", W083° 21' 07.86" | N42° 05' 42.02", W083° 20' 02.39" | 6.0604 |
| 2 | N42° 11' 34.48", W083° 21' 43.96" | N42° 09' 51.09", W083° 21' 14.13" | 1.7622 |
| 3 | N42° 06' 19.62", W083° 20' 13.21" | N42° 14' 04.99", W083° 19' 22.74" | 7.7821 |
| 4 | N42° 12' 26.35", W083° 21' 05.75" | N42° 16' 44.40", W083° 01' 13.28" | 15.3305 |
| 5 | N42° 13' 54.22", W083° 20' 58.60" | N42° 14' 44.23", W083° 20' 21.73" | 0.9496 |
| 6 | N43° 35' 55.25", W083° 37' 23.54" | N42° 11' 13.97", W083° 23' 44.08" | 85.2867 |
| 7 | N42° 11' 14.77", W083° 22' 56.02" | N42° 11' 13.73", W083° 22' 58.94" | 0.04 |
| 8 | N42° 13' 12.72", W083° 20' 01.28" | N42° 14' 04.99", W083° 19' 22.74" | 0.9925 |
| 9 | N42° 13' 36.38", W083° 21' 57.22" | N42° 14' 25.65", W083° 21' 20.92" | 0.9354 |
| 10 | N42° 12' 06.52", W083° 22' 17.93" | N42° 06' 57.51", W083° 08' 37.76" | 11.368 |
| 11 | N42° 10' 50.18", W083° 21' 46.27" | N42° 09' 47.15", W083° 21' 25.00" | 1.083 |
| 12 | N42° 06' 28.71", W083° 20' 18.11" | N42° 07' 47.33", W083° 32' 40.34" | 9.2701 |
| 13 | N42° 13' 43.72", W083° 20' 08.74" | N42° 14' 30.42", W083° 19' 34.30" | 0.8869 |
| 14 | N42° 12' 05.94", W083° 23' 03.79" | N42° 13' 15.71", W083° 42' 24.97" | 14.383 |
| 15 | N42° 25' 27.92", W083° 36' 23.76" | N42° 35' 37.84", W083° 31' 20.96" | 10.8258 |

| Available DMEs by Waypoints | | |
|------------------------------------|-------------------|-------------------------|
| Waypoint Before | Waypoint After | DME List |
| KDTW:RW04L:DER | KDTW:RW04L-VA End | SVM, CRL |
| KDTW:RW04L-VA End | MINDY | SVM, CRL |
| MINDY | KKELL_ | PSI, DXO, SVM, CRL |
| KKELL_ | EERNY | PSI, DXO, SVM, CRL, FNT |

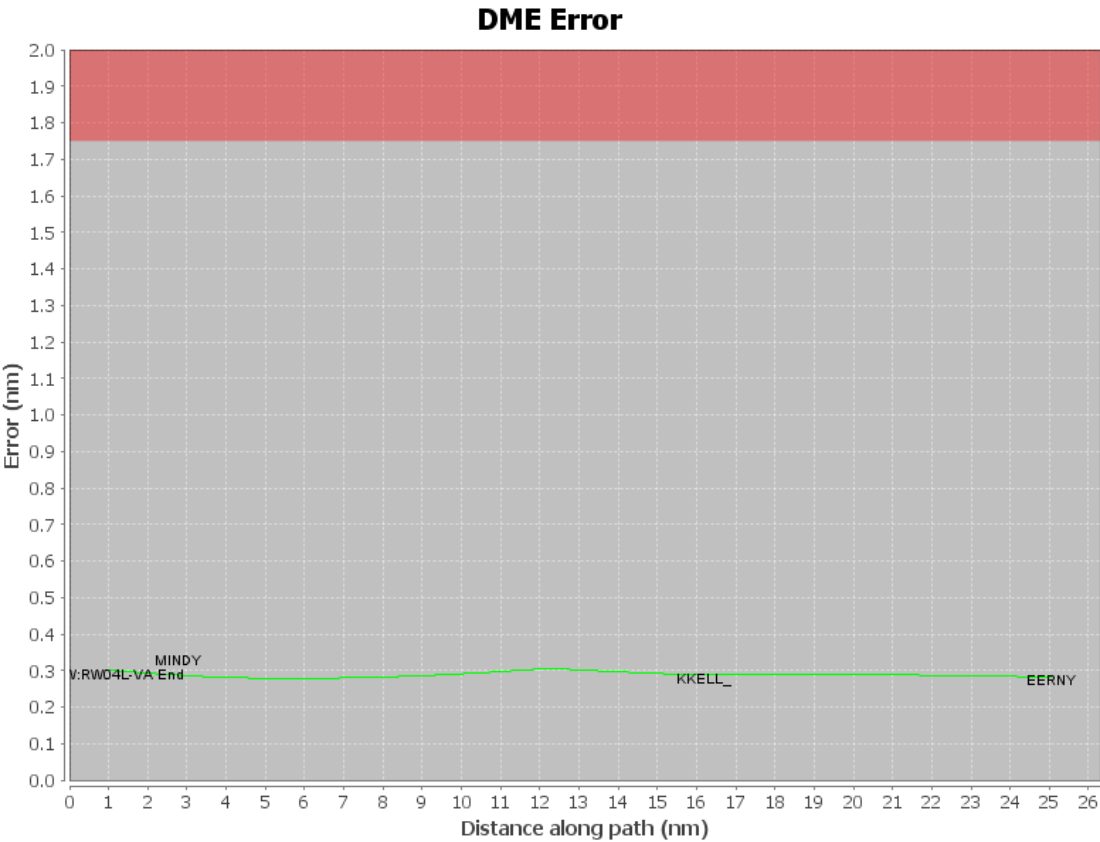
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04L:DER_EERNY

User Data Files

| # | File Name |
|---|---|
| 1 | UserDMEsKDTW TRMML (RNAV) DEPARTURE_2018-12-19_0159.udt |

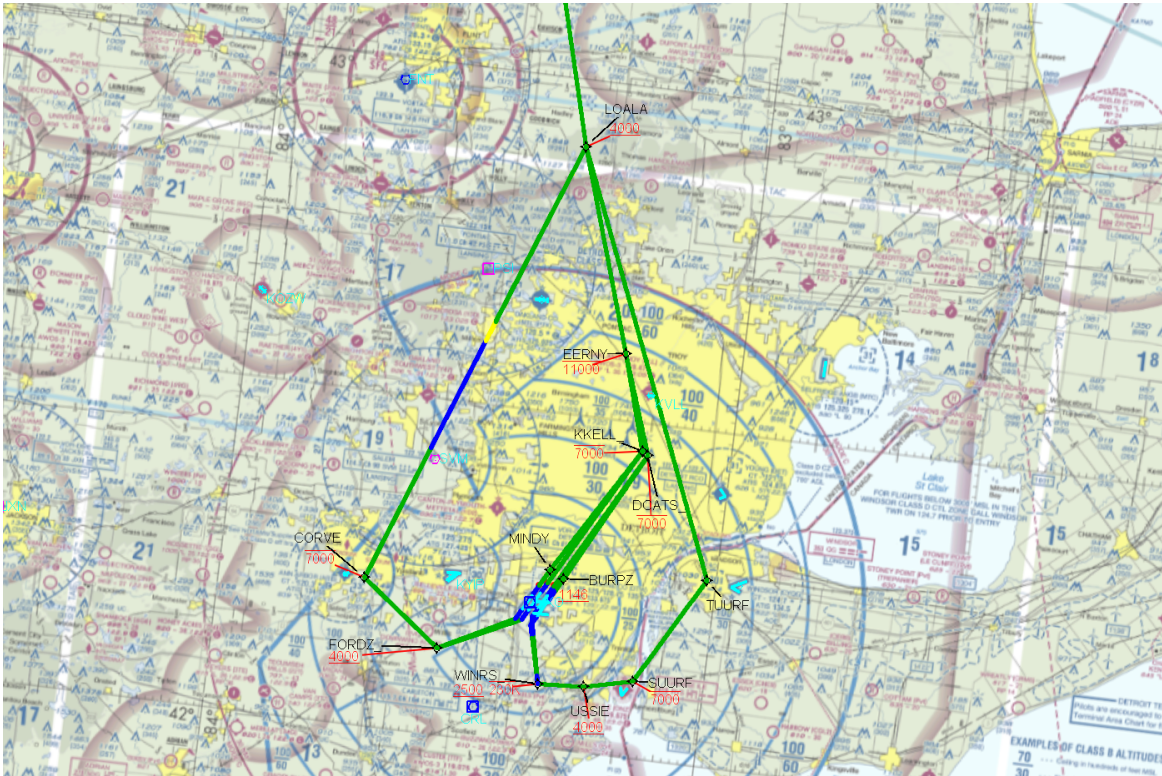
User DMEs

| # | Name | Lat/Lon | MAGVAR | Range | Elevation [ft] | Frequency | Replaces | Status |
|------|------------------------------|---|--------|-------|----------------|--|-------------|--------|
| 1 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 26.0° to 39.0° Bearing [Mag]: 31.0° to 44.0° | | | | Arc Distance: Out to 81.0 NM Altitude: 7400.0 to 20000.0 ft | | |
| 2 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 45.0° to 67.0° Bearing [Mag]: 50.0° to 72.0° | | | | Arc Distance: Out to 67.0 NM Altitude: 4000.0 to 20000.0 ft | | |
| 3 | UDT ESV MBS MBS [AIRNAV2] | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | 679.1 | 112.9 | UDT ESV MBS | |
| ESV: | | Bearing [True]: 129.0° to 179.0° Bearing [Mag]: 132.0° to 182.0° | | | | Arc Distance: Out to 57.0 NM Altitude: 3200.0 to 20000.0 ft | | |
| 4 | 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]: 348.0° to 14.0° Bearing [Mag]: 351.0° to 17.0° | | | | Arc Distance: Out to 58.0 NM Altitude: 3800.0 to 16000.0 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]: 0.0° to 49.0° Bearing [Mag]: 3.0° to 52.0° | | | | Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 16000.0 ft | | |
| 6 | UDT ESV DXO DXO [AIRNAV2] | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | 669.3 | 113.4 | UDT ESV DXO | |
| ESV: | | Bearing [True]: 348.0° to 2.0° Bearing [Mag]: 354.0° to 8.0° | | | | Arc Distance: Out to 76.0 NM Altitude: 7400.0 to 20000.0 ft | | |



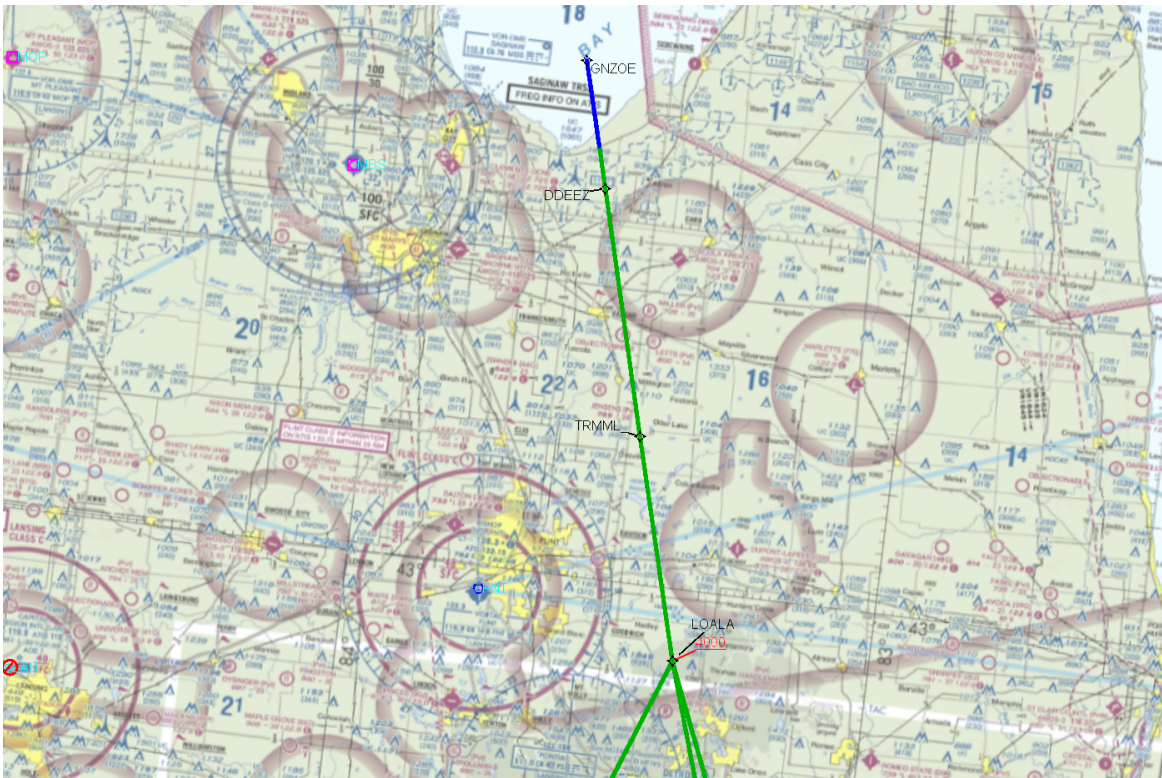
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04L:DER_EERNY

Graphic Depiction 1



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04L:DER_EERNY

Graphic Depiction 2



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

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 TRMML TWO 20190301 DME.tgs |
| Output File: | C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\TRMML2\KDTW TRMML (RNAV) 2019-03-05_1023\KDTW-RW04R-DER_KKELL_\KDTW TRMML (RNAV) DEPARTURE_KDTW_RW04R_DER_KKELL_2019-03-05_1023.pdf |
| Procedure Name: | TRMML (RNAV) |
| Software: DmeDmePlugin: | 5.5.1 |
| Date/Time: | 03/05/2019 10:23 AM 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_OVER | TF |
| KDTW:RW04R-VA End | WP | N42° 14' 46.08", W083° 20' 20.37" | 1146 | VNAV | 145 | FLY_OVER | TF |
| KKELL_ | WP | N42° 27' 30.48", W083° 10' 53.34" | 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 TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

| 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, LFD,LGA,LNR,LVZ,MIP,MKG,MNM,M SS,ODI,PLL,PLN,PMM,PNT,PWL,RBS ,REC,RKA,RST,SAM,SFK,SLK,SLT,T DT,THS,UCA,UIN,ULW,VLA,YRK |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|--------|----------|
| DMEs Used | | | | | | | | | | |
| # | 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 | 85.9 % | 86.7 % |
| 2 | SVM | N42° 24' 31.11", W083° 35' 38.05" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 93 % | 93.7 % |
| 3 | PSI | N42° 42' 03.09", W083° 31' 57.98" | 0.0 E | 40 | L | AIRNAV2 | NO | Enabled | 75.3 % | 76.4 % |
| 4 | CRL | N42° 02' 52.90", W083° 27' 27.26" | 3.0 W | 130 | H | AIRNAV2 | NO | Enabled | 93 % | 93.7 % |
| 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 TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| DMEs Used | | | | | | | | | | |
| # | 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 | LFD | N42° 03' 44.96", W084° 45' 54.48" | 5.0 W | 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 TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

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 | | | | |
| 2.1 | SVM | DXO | CRL | | | |
| 3.7 | SVM | DXO | CRL | PSI | | |

Inertial Drift Segments

| # | Start Location | End Location | Length [NM] |
|----|-----------------------------------|-----------------------------------|-------------|
| 1 | N42° 11' 42.35", W083° 21' 07.86" | N42° 05' 42.02", W083° 20' 02.39" | 6.0604 |
| 2 | N42° 11' 34.48", W083° 21' 43.96" | N42° 09' 51.09", W083° 21' 14.13" | 1.7622 |
| 3 | N42° 06' 19.62", W083° 20' 13.21" | N42° 14' 04.99", W083° 19' 22.74" | 7.7821 |
| 4 | N42° 12' 26.35", W083° 21' 05.75" | N42° 16' 44.40", W083° 01' 13.28" | 15.3305 |
| 5 | N42° 13' 54.22", W083° 20' 58.60" | N42° 14' 44.23", W083° 20' 21.73" | 0.9496 |
| 6 | N43° 35' 55.25", W083° 37' 23.54" | N42° 11' 13.97", W083° 23' 44.08" | 85.2867 |
| 7 | N42° 11' 14.77", W083° 22' 56.02" | N42° 11' 13.73", W083° 22' 58.94" | 0.04 |
| 8 | N42° 13' 12.72", W083° 20' 01.28" | N42° 14' 04.99", W083° 19' 22.74" | 0.9925 |
| 9 | N42° 13' 36.38", W083° 21' 57.22" | N42° 14' 25.65", W083° 21' 20.92" | 0.9354 |
| 10 | N42° 12' 06.52", W083° 22' 17.93" | N42° 06' 57.51", W083° 08' 37.76" | 11.368 |
| 11 | N42° 10' 50.18", W083° 21' 46.27" | N42° 09' 47.15", W083° 21' 25.00" | 1.083 |
| 12 | N42° 06' 28.71", W083° 20' 18.11" | N42° 07' 47.33", W083° 32' 40.34" | 9.2701 |
| 13 | N42° 13' 43.72", W083° 20' 08.74" | N42° 14' 30.42", W083° 19' 34.30" | 0.8869 |
| 14 | N42° 12' 05.94", W083° 23' 03.79" | N42° 13' 15.71", W083° 42' 24.97" | 14.383 |
| 15 | N42° 25' 27.92", W083° 36' 23.76" | N42° 35' 37.84", W083° 31' 20.96" | 10.8258 |

Available DMEs by Waypoints

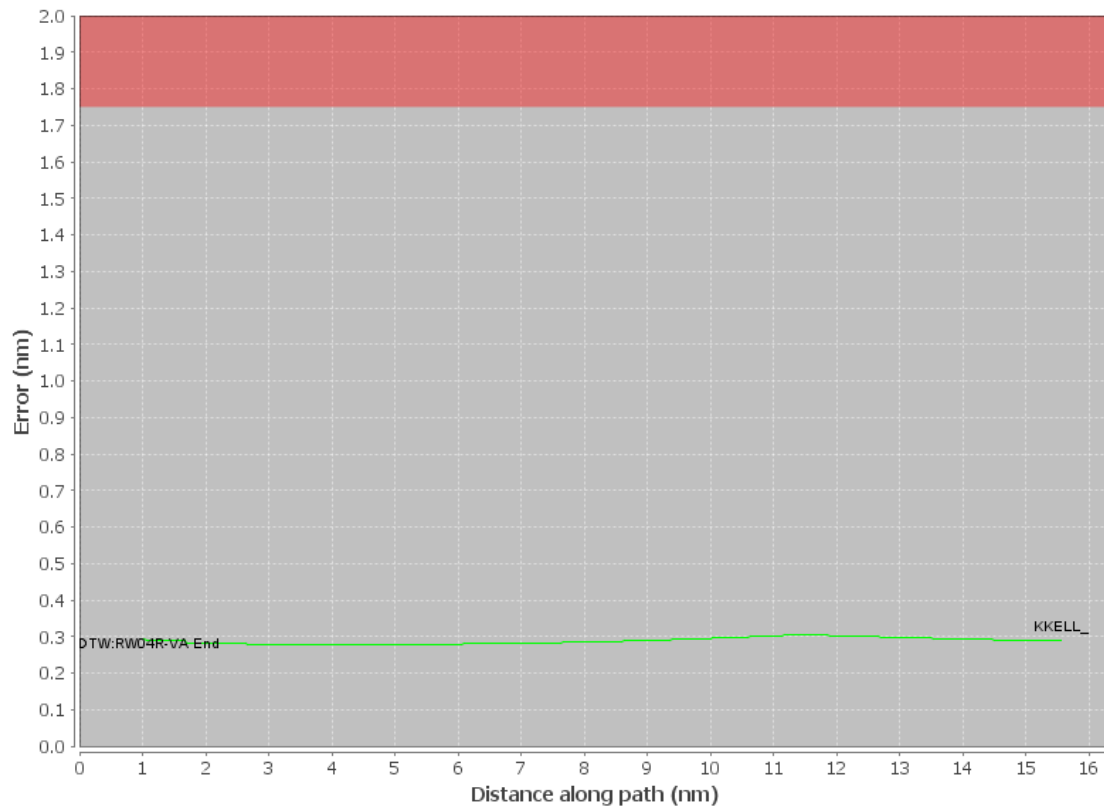
| Waypoint Before | Waypoint After | DME List |
|-------------------|-------------------|--------------------|
| KDTW:RW04R:DER | KDTW:RW04R-VA End | SVM, CRL |
| KDTW:RW04R-VA End | KKELL_ | PSI, DXO, SVM, CRL |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

| User Data Files | | | | | | | | |
|-----------------|---|---|--------|-------|----------------|--|-------------|--------|
| # | File Name | | | | | | | |
| 1 | UserDMEsKDTW TRMML (RNAV) DEPARTURE_2018-12-19_0159.udt | | | | | | | |
| User DMEs | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Elevation [ft] | Frequency | Replaces | Status |
| 1 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 26.0° to 39.0° Bearing [Mag]: 31.0° to 44.0° | | | | Arc Distance: Out to 81.0 NM Altitude: 7400.0 to 20000.0 ft | | |
| 2 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 45.0° to 67.0° Bearing [Mag]: 50.0° to 72.0° | | | | Arc Distance: Out to 67.0 NM Altitude: 4000.0 to 20000.0 ft | | |
| 3 | UDT ESV MBS MBS [AIRNAV2] | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | 679.1 | 112.9 | UDT ESV MBS | |
| ESV: | | Bearing [True]: 129.0° to 179.0° Bearing [Mag]: 132.0° to 182.0° | | | | Arc Distance: Out to 57.0 NM Altitude: 3200.0 to 20000.0 ft | | |
| 4 | 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]: 348.0° to 14.0° Bearing [Mag]: 351.0° to 17.0° | | | | Arc Distance: Out to 58.0 NM Altitude: 3800.0 to 16000.0 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]: 0.0° to 49.0° Bearing [Mag]: 3.0° to 52.0° | | | | Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 16000.0 ft | | |
| 6 | UDT ESV DXO DXO [AIRNAV2] | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | 669.3 | 113.4 | UDT ESV DXO | |
| ESV: | | Bearing [True]: 348.0° to 2.0° Bearing [Mag]: 354.0° to 8.0° | | | | Arc Distance: Out to 76.0 NM Altitude: 7400.0 to 20000.0 ft | | |

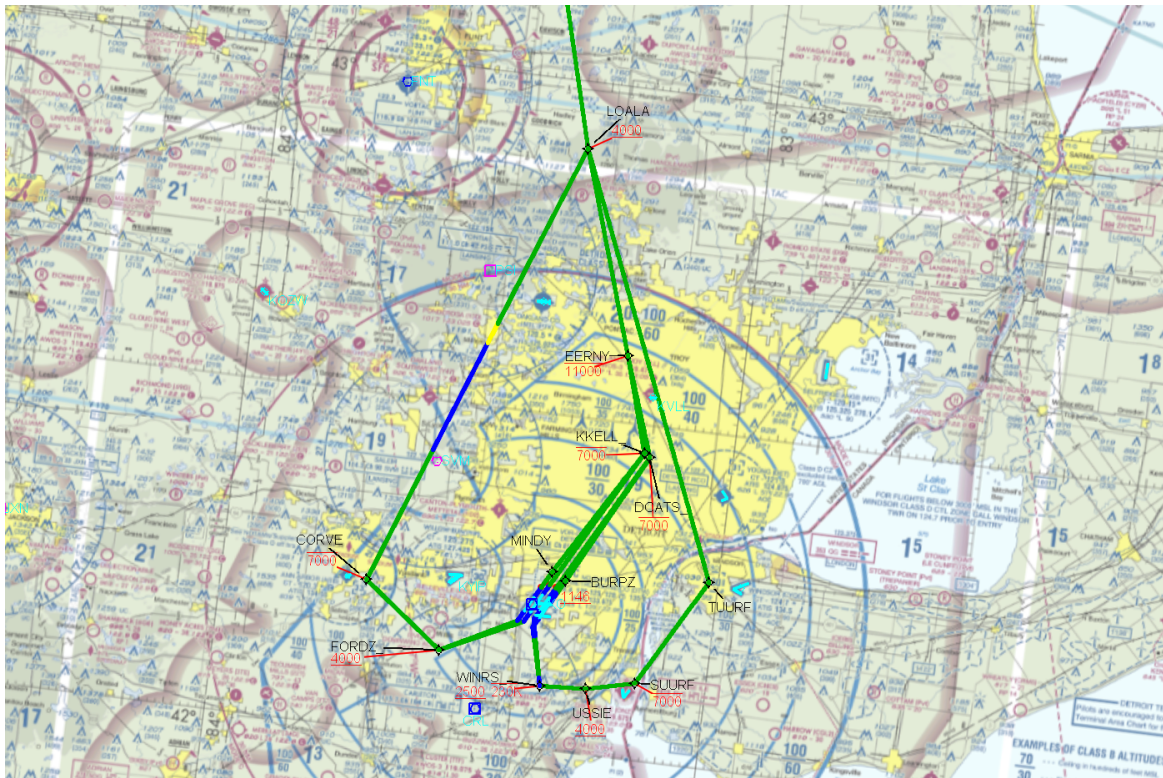
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

DME Error



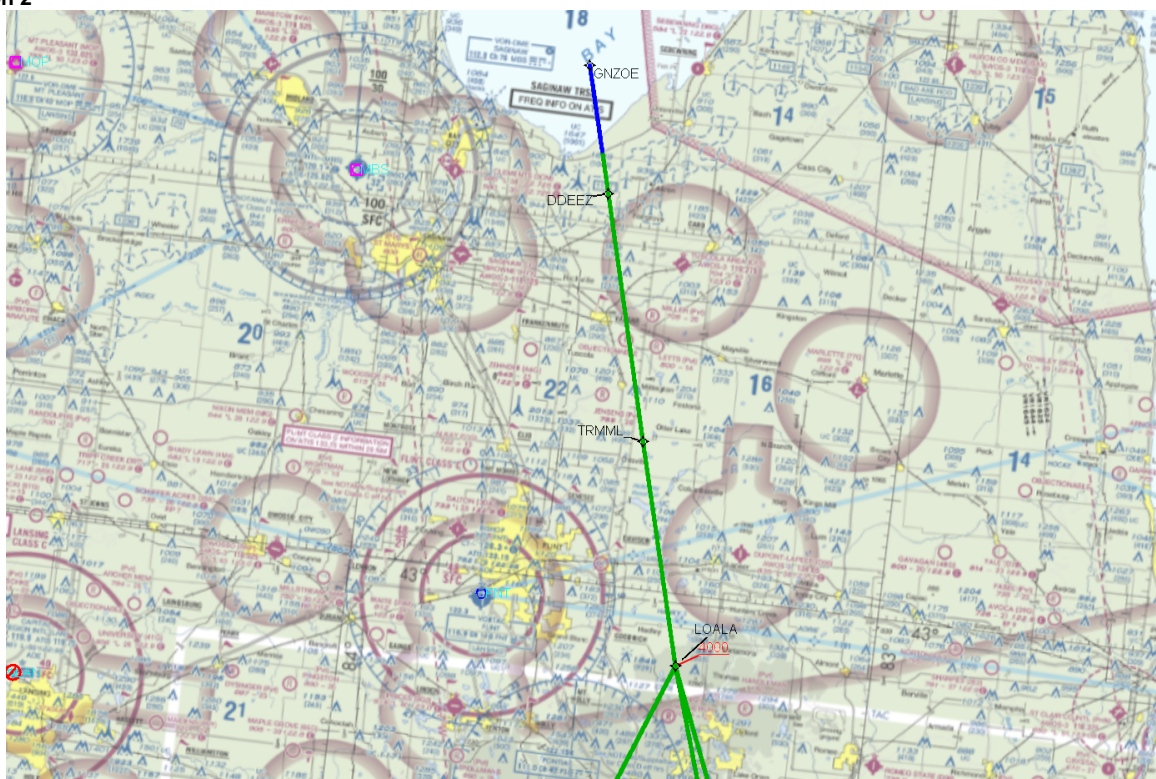
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

Graphic Depiction 1



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW04R:DER_KKELL_

Graphic Depiction 2



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21L:DER_GNZOE

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 TRMML TWO 20190301 DME.tgs |
| Output File: | C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\TRMML2\KDTW TRMML (RNAV)_2019-03-05_1023\KDTW-RW21L-DER_GNZOE\KDTW TRMML (RNAV) DEPARTURE_KDTW_RW21L_DER_GNZOE_2019-03-05_1023.pdf |
| Procedure Name: | TRMML (RNAV) |
| Software: DmeDmePlugin: | 5.5.1 |
| Date/Time: | 03/05/2019 10:23 AM 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 |
| WINRS_ | WP | N42° 05' 42.02", W083° 20' 02.39" | 2500 | VNAV | 230 | FLY_BY | TF |
| USSIE | WP | N42° 05' 56.34", W083° 14' 27.74" | 4000 | VNAV | 230 | FLY_BY | TF |
| SUURF | WP | N42° 06' 57.51", W083° 08' 37.76" | 4000 | VNAV | 230 | FLY_BY | TF |
| TUURF | WP | N42° 16' 44.40", W083° 01' 13.28" | 4000 | VNAV | 230 | FLY_BY | TF |
| LOALA | WP | N42° 54' 01.32", W083° 22' 08.62" | 4000 | VNAV | 200 | FLY_BY | TF |
| TRMML_ | WP | N43° 12' 18.76", W083° 28' 51.90" | 10000 | VNAV | 200 | FLY_BY | TF |
| DDEEZ | WP | N43° 32' 32.50", W083° 36' 09.08" | 10000 | VNAV | 200 | FLY_BY | TF |
| GNZOE | WP | N43° 43' 00.00", W083° 40' 00.00" | 10000 | 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 TRMML (RNAV) path KDTW:RW21L:DER_GNZOE

| 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, LFD,LGA,LNR,LVZ,MIP,MKG,MNM,M SS,ODI,PLL,PLN,PMM,PNT,PWL,RBS ,REC,RKA,RST,SAM,SFK,SLK,SLT,T DT,THS,UCA,UIN,ULW,VLA,YRK |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21L:DER_GNZOE

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|--------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 1 | FNT | N42° 58' 00.38", W083° 44' 49.08" | 6.0 W | 130 | H | AIRNAV2 | NO | Enabled | 59.4 % | 58.9 % |
| 2 | DXO | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | H | AIRNAV2 | NO | Enabled | 59.5 % | 62.3 % |
| 3 | JXN | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | L | AIRNAV2 | NO | Enabled | 14.2 % | 13.8 % |
| 4 | SVM | N42° 24' 31.11", W083° 35' 38.05" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 57.4 % | 60.6 % |
| 5 | PSI | N42° 42' 03.09", W083° 31' 57.98" | 0.0 E | 40 | L | AIRNAV2 | NO | Enabled | 61.9 % | 63.6 % |
| 6 | MBS | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 40.2 % | 38.4 % |
| 7 | CRL | N42° 02' 52.90", W083° 27' 27.26" | 3.0 W | 130 | H | AIRNAV2 | NO | Enabled | 45.5 % | 47.8 % |
| 8 | AGC | N40° 16' 43.12", W080° 02' 27.08" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 9 | AUW | N44° 50' 48.40", W089° 35' 11.68" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 10 | BDF | N41° 09' 35.03", W089° 35' 16.34" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 11 | BFD | N41° 47' 10.99", W078° 37' 09.65" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 12 | BVT | N40° 33' 22.22", W087° 04' 09.75" | 1.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 13 | CIP | N41° 08' 46.66", W079° 27' 28.71" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 14 | CKB | N39° 15' 11.58", W080° 16' 04.30" | 4.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 15 | CMK | N41° 16' 48.32", W073° 34' 52.77" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 16 | CRI | N40° 36' 44.90", W073° 53' 40.00" | 11.0 W | 25 | T | AIRNAV2 | NO | Disabled | | |
| 17 | CTW | N40° 13' 45.15", W081° 28' 35.32" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 18 | DNV | N40° 17' 37.56", W087° 33' 26.14" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 19 | DNY | N42° 10' 41.81", W074° 57' 24.99" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 20 | DWN | N45° 05' 14.87", W094° 27' 13.86" | 7.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 21 | ECB | N38° 09' 30.11", W082° 54' 36.20" | 2.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 22 | ELX | N42° 08' 39.88", W086° 07' 21.74" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 23 | EON | N41° 16' 10.68", W087° 47' 27.79" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 24 | ESL | N39° 13' 31.77", W078° 59' 22.20" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 25 | ETG | N41° 12' 53.82", W078° 08' 33.92" | 10.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 26 | EWO | N37° 37' 54.52", W085° 40' 33.16" | 1.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 27 | FJC | N40° 43' 36.12", W075° 27' 17.12" | 10.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 28 | FLM | N38° 38' 57.99", W084° 18' 38.17" | 4.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 29 | FQM | N41° 20' 18.81", W076° 46' 29.52" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 30 | GFL | N43° 20' 30.09", W073° 36' 42.32" | 14.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 31 | GGT | N42° 47' 20.24", W075° 49' 36.29" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 32 | GIJ | N41° 46' 07.00", W086° 19' 06.42" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 33 | GRV | N39° 38' 06.11", W079° 03' 01.90" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21L:DER_GNZOE

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 34 | GSH | N41° 31' 30.56", W086° 01' 40.63" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 35 | HIC | N43° 34' 29.47", W085° 42' 58.18" | 1.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 36 | HML | N48° 52' 09.09", W097° 07' 01.51" | 9.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 37 | HNK | N42° 03' 47.01", W075° 18' 58.62" | 11.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 38 | HNN | N38° 45' 14.85", W082° 01' 34.20" | 3.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 39 | HTO | N40° 55' 08.38", W072° 19' 00.14" | 13.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 40 | HUO | N41° 24' 34.87", W074° 35' 29.74" | 11.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 41 | IHD | N39° 58' 27.27", W079° 21' 30.12" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 42 | JFN | N41° 45' 36.42", W080° 44' 53.20" | 5.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 43 | JVL | N42° 33' 28.83", W089° 06' 18.93" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 44 | LFD | N42° 03' 44.96", W084° 45' 54.48" | 5.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 45 | LGA | N40° 47' 01.38", W073° 52' 06.96" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 46 | LNR | N43° 17' 39.85", W090° 07' 59.33" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 47 | LVZ | N41° 16' 22.10", W075° 41' 22.07" | 10.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 48 | MIP | N41° 01' 24.21", W076° 39' 55.04" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 49 | MKG | N43° 10' 09.31", W086° 02' 21.76" | 1.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 50 | MNM | N45° 10' 48.58", W087° 38' 49.83" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 51 | MSS | N44° 54' 51.92", W074° 43' 21.78" | 14.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 52 | ODI | N43° 54' 44.38", W091° 28' 03.06" | 1.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 53 | PLL | N41° 57' 56.31", W089° 31' 27.19" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 54 | PLN | N45° 37' 50.33", W084° 39' 50.79" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 55 | PMM | N42° 27' 57.73", W086° 06' 17.32" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 56 | PNT | N40° 49' 16.32", W088° 44' 00.63" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 57 | PWL | N41° 46' 11.18", W073° 36' 01.99" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 58 | RBS | N40° 34' 54.13", W088° 09' 51.36" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 59 | REC | N40° 32' 47.25", W078° 44' 49.28" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 60 | RKA | N42° 27' 58.91", W075° 14' 21.51" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 61 | RST | N43° 46' 58.45", W092° 35' 49.06" | 5.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 62 | SAM | N38° 29' 06.68", W088° 05' 08.90" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 63 | SFK | N41° 41' 42.91", W077° 25' 11.66" | 8.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 64 | SLK | N44° 23' 04.42", W074° 12' 16.22" | 14.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 65 | SLT | N41° 30' 45.93", W077° 58' 12.39" | 8.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 66 | TDT | N41° 42' 46.91", W079° 25' 02.17" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21L:DER_GNZOE

DME/DME (Continued)

DMEs Used

| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
|----|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| 67 | THS | N39° 55' 59.62", W077° 57' 03.40" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 68 | UCA | N43° 01' 35.45", W075° 09' 52.28" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 69 | UIN | N39° 50' 52.35", W091° 16' 44.13" | 5.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 70 | ULW | N42° 05' 39.16", W077° 01' 28.53" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 71 | VLA | N39° 05' 37.82", W089° 09' 44.08" | 4.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 72 | 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 | | | | | | | |
| 2.1 | DXO | CRL | | | | | |
| 2.6 | SVM | CRL | | | | | |
| 5.0 | SVM | CRL | PSI | | | | |
| 5.5 | | | | | | | |
| 6.4 | SVM | CRL | DXO | | | | |
| 20.1 | PSI | CRL | SVM | DXO | | | |
| 40.8 | PSI | DXO | CRL | FNT | SVM | | |
| 50.1 | PSI | DXO | SVM | FNT | | | |
| 63.2 | SVM | FNT | JXN | MBS | PSI | CRL | |
| 70.7 | CRL | FNT | SVM | PSI | MBS | | |
| 72.2 | SVM | FNT | PSI | MBS | | | |
| 74.5 | PSI | FNT | MBS | | | | |
| 77.3 | MBS | FNT | DXO | PSI | | | |
| 77.6 | DXO | FNT | PSI | | | | |
| 79.2 | MBS | FNT | PSI | | | | |
| 87.2 | MBS | FNT | JXN | PSI | DXO | | |
| 94.3 | MBS | FNT | JXN | DXO | | | |
| 95.9 | MBS | FNT | DXO | | | | |
| 101.3 | MBS | FNT | | | | | |
| 109.9 | | | | | | | |

Inertial Drift Segments

| # | Start Location | End Location | Length [NM] |
|----|-----------------------------------|-----------------------------------|-------------|
| 1 | N42° 11' 42.35", W083° 21' 07.86" | N42° 05' 42.02", W083° 20' 02.39" | 6.0604 |
| 2 | N42° 11' 34.48", W083° 21' 43.96" | N42° 09' 51.09", W083° 21' 14.13" | 1.7622 |
| 3 | N42° 06' 19.62", W083° 20' 13.21" | N42° 14' 04.99", W083° 19' 22.74" | 7.7821 |
| 4 | N42° 12' 26.35", W083° 21' 05.75" | N42° 16' 44.40", W083° 01' 13.28" | 15.3305 |
| 5 | N42° 13' 54.22", W083° 20' 58.60" | N42° 14' 44.23", W083° 20' 21.73" | 0.9496 |
| 6 | N43° 35' 55.25", W083° 37' 23.54" | N42° 11' 13.97", W083° 23' 44.08" | 85.2867 |
| 7 | N42° 11' 14.77", W083° 22' 56.02" | N42° 11' 13.73", W083° 22' 58.94" | 0.04 |
| 8 | N42° 13' 12.72", W083° 20' 01.28" | N42° 14' 04.99", W083° 19' 22.74" | 0.9925 |
| 9 | N42° 13' 36.38", W083° 21' 57.22" | N42° 14' 25.65", W083° 21' 20.92" | 0.9354 |
| 10 | N42° 12' 06.52", W083° 22' 17.93" | N42° 06' 57.51", W083° 08' 37.76" | 11.368 |
| 11 | N42° 10' 50.18", W083° 21' 46.27" | N42° 09' 47.15", W083° 21' 25.00" | 1.083 |
| 12 | N42° 06' 28.71", W083° 20' 18.11" | N42° 07' 47.33", W083° 32' 40.34" | 9.2701 |
| 13 | N42° 13' 43.72", W083° 20' 08.74" | N42° 14' 30.42", W083° 19' 34.30" | 0.8869 |
| 14 | N42° 12' 05.94", W083° 23' 03.79" | N42° 13' 15.71", W083° 42' 24.97" | 14.383 |
| 15 | N42° 25' 27.92", W083° 36' 23.76" | N42° 35' 37.84", W083° 31' 20.96" | 10.8258 |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21L:DER_GNZOE

Available DMEs by Waypoints

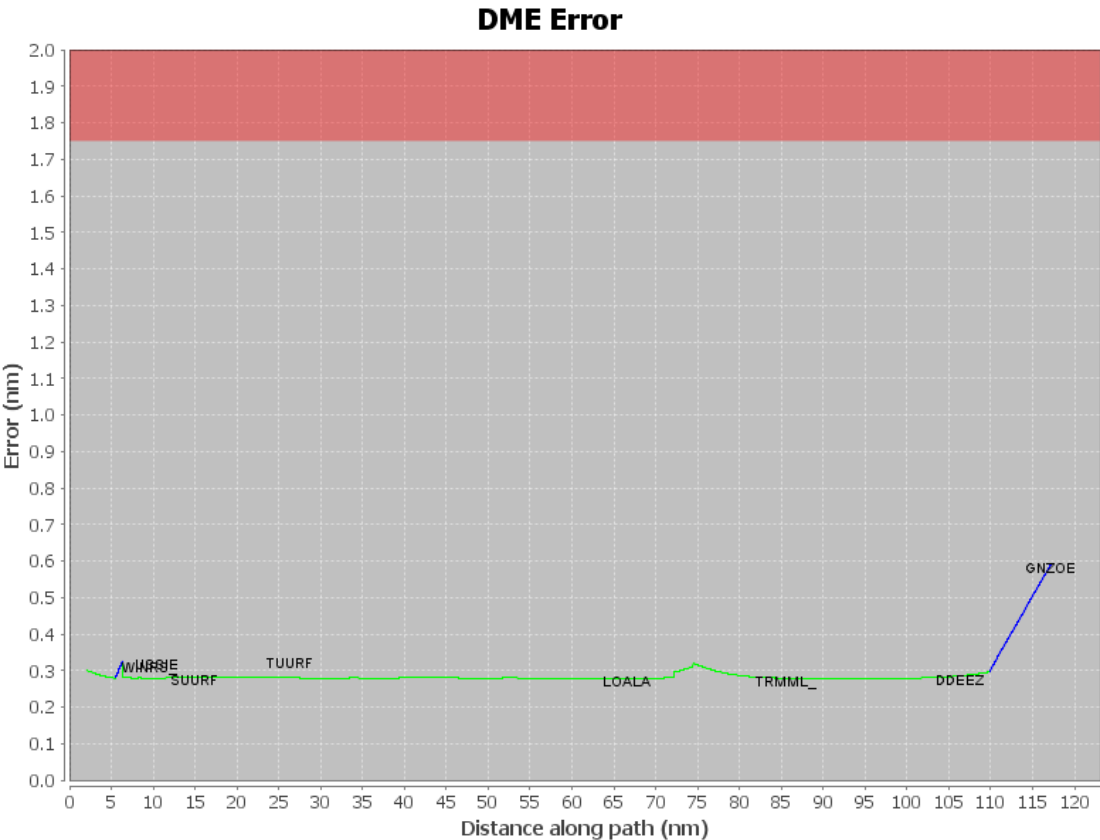
| Waypoint Before | Waypoint After | DME List |
|-------------------|-------------------|-----------------------------------|
| KDTW:RW21L:DER | KDTW:RW21L-VI End | |
| KDTW:RW21L-VI End | WINRS_ | PSI, DXO, SVM, CRL |
| WINRS_ | USSIE | DXO, SVM, CRL |
| USSIE | SUURF | DXO, SVM, CRL |
| SUURF | TUURF | PSI, DXO, SVM, CRL |
| TUURF | LOALA | JXN, PSI, DXO, SVM, CRL, FNT, MBS |
| LOALA | TRMML_ | JXN, PSI, DXO, SVM, CRL, FNT, MBS |
| TRMML_ | DDEEZ | JXN, PSI, DXO, FNT, MBS |
| DDEEZ | GNZOE | FNT, MBS |

User Data Files

| # | File Name |
|---|---|
| 1 | UserDMEsKDTW TRMML (RNAV) DEPARTURE_2018-12-19_0159.udt |

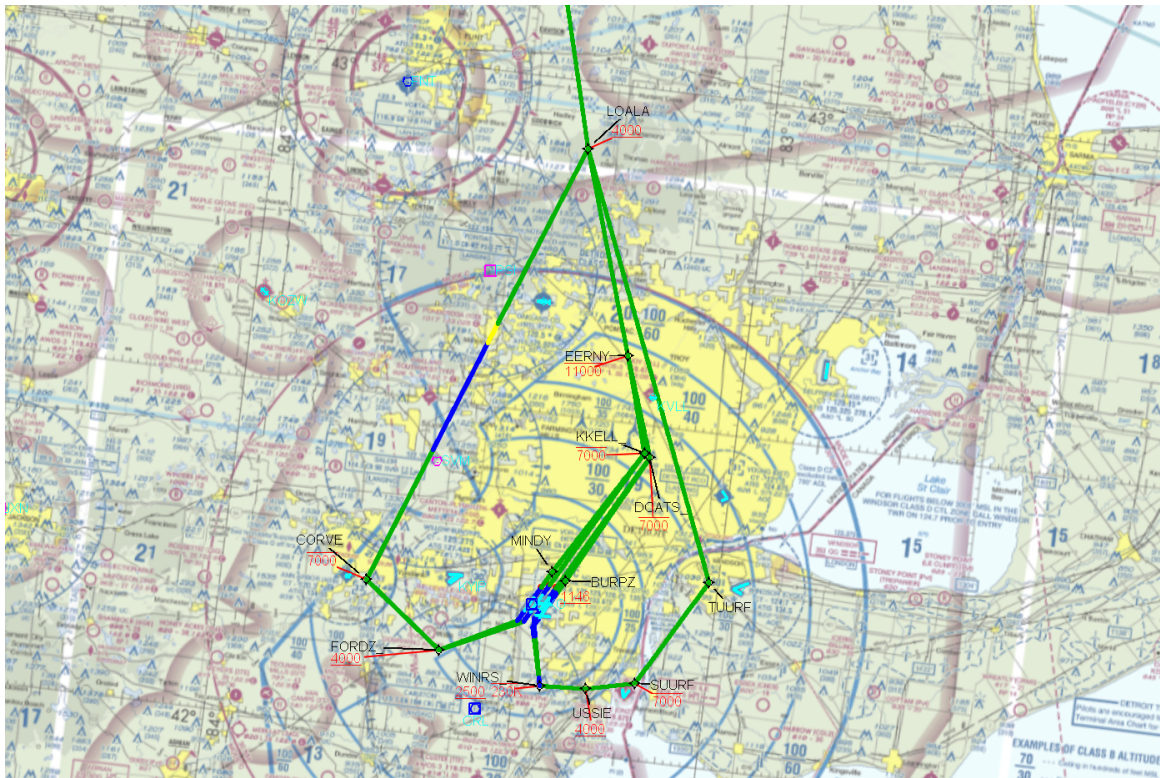
User DMEs

| # | Name | Lat/Lon | MAGVAR | Range | Elevation [ft] | Frequency | Replaces | Status |
|------|------------------------------|---|--------|-------|----------------|--|-------------|--------|
| 1 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 26.0° to 39.0° Bearing [Mag]: 31.0° to 44.0° | | | | Arc Distance: Out to 81.0 NM Altitude: 7400.0 to 20000.0 ft | | |
| 2 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 45.0° to 67.0° Bearing [Mag]: 50.0° to 72.0° | | | | Arc Distance: Out to 67.0 NM Altitude: 4000.0 to 20000.0 ft | | |
| 3 | UDT ESV MBS MBS [AIRNAV2] | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | 679.1 | 112.9 | UDT ESV MBS | |
| ESV: | | Bearing [True]: 129.0° to 179.0° Bearing [Mag]: 132.0° to 182.0° | | | | Arc Distance: Out to 57.0 NM Altitude: 3200.0 to 20000.0 ft | | |
| 4 | 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]: 348.0° to 14.0° Bearing [Mag]: 351.0° to 17.0° | | | | Arc Distance: Out to 58.0 NM Altitude: 3800.0 to 16000.0 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]: 0.0° to 49.0° Bearing [Mag]: 3.0° to 52.0° | | | | Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 16000.0 ft | | |
| 6 | UDT ESV DXO DXO [AIRNAV2] | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | 669.3 | 113.4 | UDT ESV DXO | |
| ESV: | | Bearing [True]: 348.0° to 2.0° Bearing [Mag]: 354.0° to 8.0° | | | | Arc Distance: Out to 76.0 NM Altitude: 7400.0 to 20000.0 ft | | |



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21L:DER_GNZOE

Graphic Depiction 1



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21L:DER_GNZOE

Graphic Depiction 2



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21R:DER_WINRS_

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 TRMML TWO 20190301 DME.tgs |
| Output File: | C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\TRMML2\KDTW TRMML (RNAV)_2019-03-05_1023\KDTW-RW21R- DER_WINRS_KDTW TRMML (RNAV) DEPARTURE_KDTW_RW21R_DER_WINRS__2019-03-05_1023.pdf |
| Procedure Name: | TRMML (RNAV) |
| Software: DmeDmePlugin: | 5.5.1 |
| Date/Time: | 03/05/2019 10:23 AM 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 |
| WINRS_ | WP | N42° 05' 42.02", W083° 20' 02.39" | 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 TRMML (RNAV) path KDTW:RW21R:DER_WINRS_

| 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, LFD,LGA,LNR,LVZ,MIP,MKG,MNM,M SS,ODI,PLL,PLN,PMM,PNT,PWL,RBS ,REC,RKA,RST,SAM,SFK,SLK,SLT,T DT,THS,UCA,UIN,ULW,VLA,YRK |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21R:DER_WINRS_

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|--------|----------|
| DMEs Used | | | | | | | | | | |
| # | 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 | 5.6 % | 5.1 % |
| 2 | SVM | N42° 24' 31.11", W083° 35' 38.05" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 46.8 % | 50.7 % |
| 3 | PSI | N42° 42' 03.09", W083° 31' 57.98" | 0.0 E | 40 | L | AIRNAV2 | NO | Enabled | 6.2 % | 8 % |
| 4 | CRL | N42° 02' 52.90", W083° 27' 27.26" | 3.0 W | 130 | H | AIRNAV2 | NO | Enabled | 46.8 % | 50.7 % |
| 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 TRMML (RNAV) path KDTW:RW21R:DER_WINRS

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| DMEs Used | | | | | | | | | | |
| # | 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 | LFD | N42° 03' 44.96", W084° 45' 54.48" | 5.0 W | 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 TRMML (RNAV) path KDTW:RW21R:DER_WINRS_

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 | | | | | | |
| 2.8 | SVM | CRL | | | | |
| 2.8 | SVM | CRL | DXO | | | |
| 3.2 | SVM | CRL | | | | |
| 5.8 | SVM | CRL | PSI | | | |
| 6.4 | | | | | | |

Inertial Drift Segments

| # | Start Location | End Location | Length [NM] |
|----|-----------------------------------|-----------------------------------|-------------|
| 1 | N42° 11' 42.35", W083° 21' 07.86" | N42° 05' 42.02", W083° 20' 02.39" | 6.0604 |
| 2 | N42° 11' 34.48", W083° 21' 43.96" | N42° 09' 51.09", W083° 21' 14.13" | 1.7622 |
| 3 | N42° 06' 19.62", W083° 20' 13.21" | N42° 14' 04.99", W083° 19' 22.74" | 7.7821 |
| 4 | N42° 12' 26.35", W083° 21' 05.75" | N42° 16' 44.40", W083° 01' 13.28" | 15.3305 |
| 5 | N42° 13' 54.22", W083° 20' 58.60" | N42° 14' 44.23", W083° 20' 21.73" | 0.9496 |
| 6 | N43° 35' 55.25", W083° 37' 23.54" | N42° 11' 13.97", W083° 23' 44.08" | 85.2867 |
| 7 | N42° 11' 14.77", W083° 22' 56.02" | N42° 11' 13.73", W083° 22' 58.94" | 0.04 |
| 8 | N42° 13' 12.72", W083° 20' 01.28" | N42° 14' 04.99", W083° 19' 22.74" | 0.9925 |
| 9 | N42° 13' 36.38", W083° 21' 57.22" | N42° 14' 25.65", W083° 21' 20.92" | 0.9354 |
| 10 | N42° 12' 06.52", W083° 22' 17.93" | N42° 06' 57.51", W083° 08' 37.76" | 11.368 |
| 11 | N42° 10' 50.18", W083° 21' 46.27" | N42° 09' 47.15", W083° 21' 25.00" | 1.083 |
| 12 | N42° 06' 28.71", W083° 20' 18.11" | N42° 07' 47.33", W083° 32' 40.34" | 9.2701 |
| 13 | N42° 13' 43.72", W083° 20' 08.74" | N42° 14' 30.42", W083° 19' 34.30" | 0.8869 |
| 14 | N42° 12' 05.94", W083° 23' 03.79" | N42° 13' 15.71", W083° 42' 24.97" | 14.383 |
| 15 | N42° 25' 27.92", W083° 36' 23.76" | N42° 35' 37.84", W083° 31' 20.96" | 10.8258 |

Available DMEs by Waypoints

| Waypoint Before | Waypoint After | DME List |
|-------------------|-------------------|--------------------|
| KDTW:RW21R:DER | KDTW:RW21R-VI End | |
| KDTW:RW21R-VI End | WINRS_ | PSI, DXO, SVM, CRL |

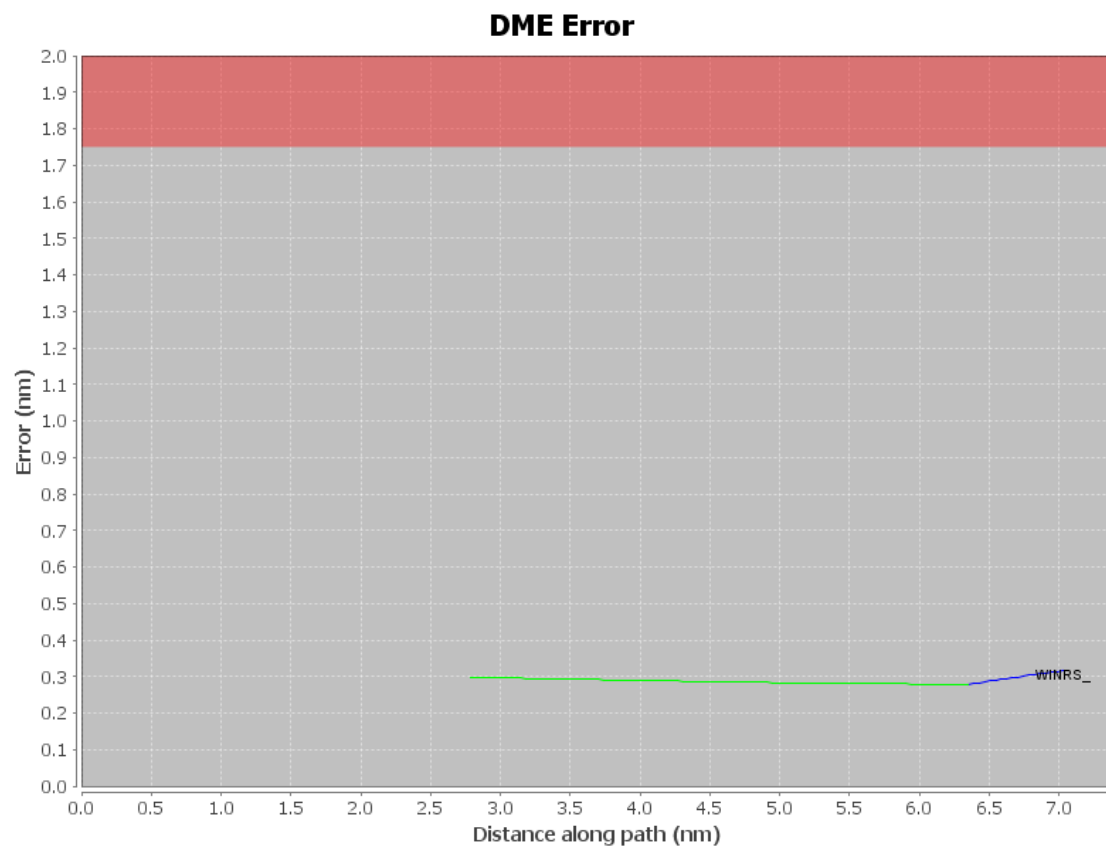
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21R:DER_WINRS_

User Data Files

| # | File Name |
|---|---|
| 1 | UserDMEsKDTW TRMML (RNAV) DEPARTURE_2018-12-19_0159.udt |

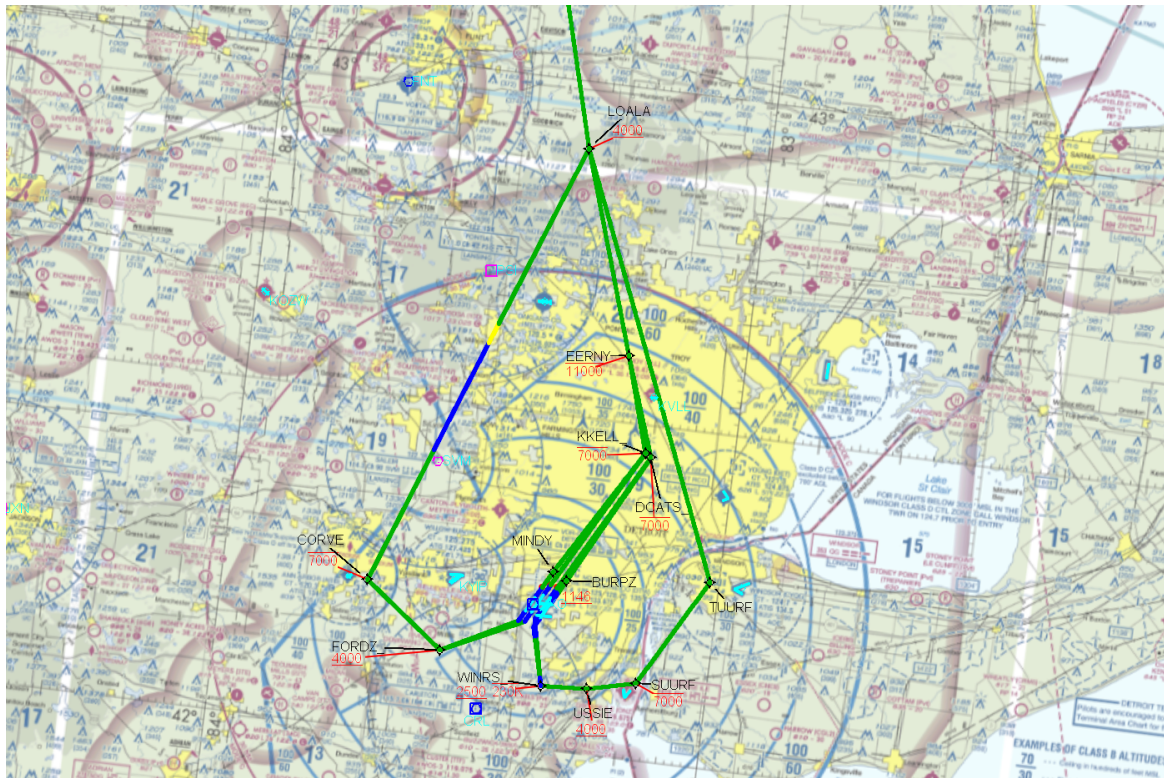
User DMEs

| # | Name | Lat/Lon | MAGVAR | Range | Elevation [ft] | Frequency | Replaces | Status |
|------|------------------------------|---|--------|-------|----------------|--|-------------|--------|
| 1 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 26.0° to 39.0° Bearing [Mag]: 31.0° to 44.0° | | | | Arc Distance: Out to 81.0 NM Altitude: 7400.0 to 20000.0 ft | | |
| 2 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 45.0° to 67.0° Bearing [Mag]: 50.0° to 72.0° | | | | Arc Distance: Out to 67.0 NM Altitude: 4000.0 to 20000.0 ft | | |
| 3 | UDT ESV MBS MBS [AIRNAV2] | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | 679.1 | 112.9 | UDT ESV MBS | |
| ESV: | | Bearing [True]: 129.0° to 179.0° Bearing [Mag]: 132.0° to 182.0° | | | | Arc Distance: Out to 57.0 NM Altitude: 3200.0 to 20000.0 ft | | |
| 4 | 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]: 348.0° to 14.0° Bearing [Mag]: 351.0° to 17.0° | | | | Arc Distance: Out to 58.0 NM Altitude: 3800.0 to 16000.0 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]: 0.0° to 49.0° Bearing [Mag]: 3.0° to 52.0° | | | | Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 16000.0 ft | | |
| 6 | UDT ESV DXO DXO [AIRNAV2] | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | 669.3 | 113.4 | UDT ESV DXO | |
| ESV: | | Bearing [True]: 348.0° to 2.0° Bearing [Mag]: 354.0° to 8.0° | | | | Arc Distance: Out to 76.0 NM Altitude: 7400.0 to 20000.0 ft | | |



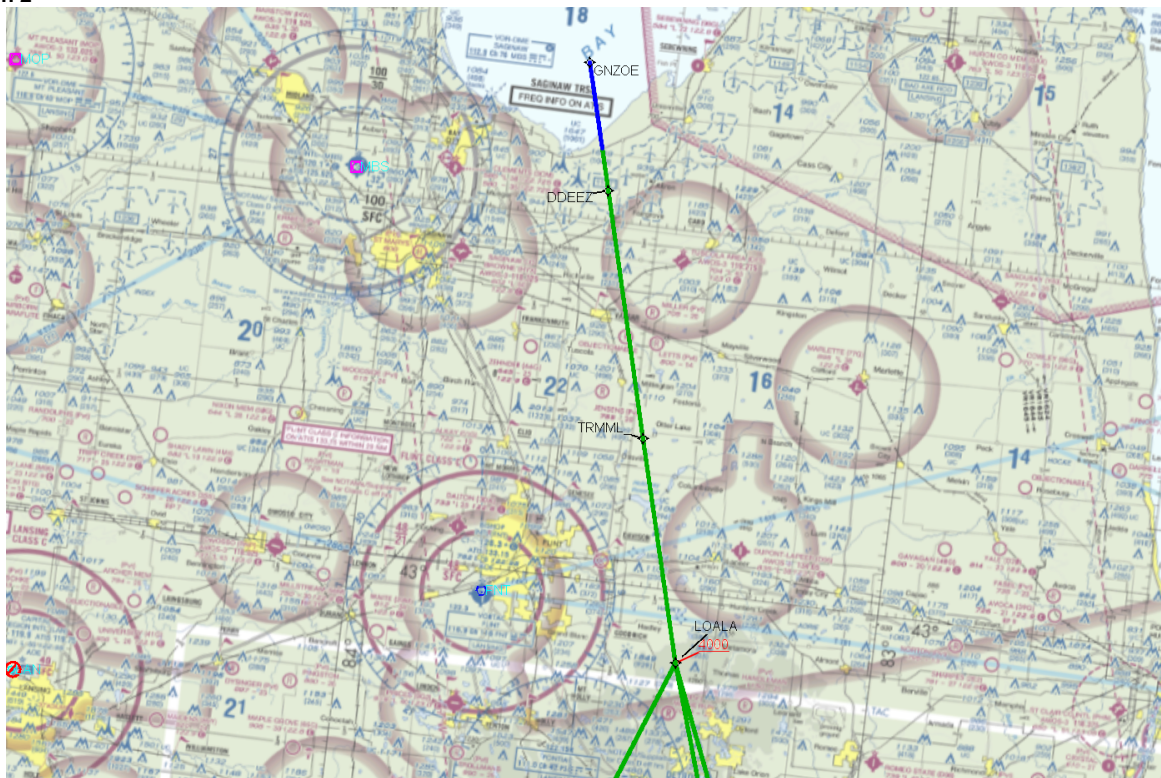
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21R:DER_WINRS_

Graphic Depiction 1



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW21R:DER_WINRS_

Graphic Depiction 2



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22L:DER_LOALA

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 TRMML TWO 20190301 DME.tgs |
| Output File: | C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\TRMML2\KDTW TRMML (RNAV)_2019-03-05_1023\KDTW-RW22L-DER_LOALA\KDTW TRMML (RNAV) DEPARTURE_KDTW_RW22L_DER_LOALA_2019-03-05_1023.pdf |
| Procedure Name: | TRMML (RNAV) |
| Software: DmeDmePlugin: | 5.5.1 |
| Date/Time: | 03/05/2019 10:23 AM 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 |
| FORDZ_ | WP | N42° 07' 47.33", W083° 32' 40.34" | 4000 | VNAV | 200 | FLY_BY | TF |
| CORVE | WP | N42° 13' 15.71", W083° 42' 24.97" | 4000 | VNAV | 200 | FLY_BY | TF |
| LOALA | WP | N42° 54' 01.32", W083° 22' 08.62" | 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 TRMML (RNAV) path KDTW:RW22L:DER_LOALA

| 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, LFD,LGA,LNR,LVZ,MIP,MKG,MNM,M SS,ODI,PLL,PLN,PMM,PNT,PWL,RBS ,REC,RKA,RST,SAM,SFK,SLK,SLT,T DT,THS,UCA,UIN,ULW,VLA,YRK |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22L:DER_LOALA

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|--------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 1 | FNT | N42° 58' 00.38", W083° 44' 49.08" | 6.0 W | 130 | H | AIRNAV2 | NO | Enabled | 34.1 % | 35.7 % |
| 2 | DXO | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | H | AIRNAV2 | NO | Enabled | 72.6 % | 73 % |
| 3 | JXN | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | L | AIRNAV2 | NO | Enabled | 50.6 % | 53 % |
| 4 | SVM | N42° 24' 31.11", W083° 35' 38.05" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 73.8 % | 73.4 % |
| 5 | PSI | N42° 42' 03.09", W083° 31' 57.98" | 0.0 E | 40 | L | AIRNAV2 | NO | Enabled | 62.4 % | 64.2 % |
| 6 | MBS | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 13.3 % | 13.9 % |
| 7 | CRL | N42° 02' 52.90", W083° 27' 27.26" | 3.0 W | 130 | H | AIRNAV2 | NO | Enabled | 61.3 % | 62.9 % |
| 8 | AGC | N40° 16' 43.12", W080° 02' 27.08" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 9 | AUW | N44° 50' 48.40", W089° 35' 11.68" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 10 | BDF | N41° 09' 35.03", W089° 35' 16.34" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 11 | BFD | N41° 47' 10.99", W078° 37' 09.65" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 12 | BVT | N40° 33' 22.22", W087° 04' 09.75" | 1.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 13 | CIP | N41° 08' 46.66", W079° 27' 28.71" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 14 | CKB | N39° 15' 11.58", W080° 16' 04.30" | 4.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 15 | CMK | N41° 16' 48.32", W073° 34' 52.77" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 16 | CRI | N40° 36' 44.90", W073° 53' 40.00" | 11.0 W | 25 | T | AIRNAV2 | NO | Disabled | | |
| 17 | CTW | N40° 13' 45.15", W081° 28' 35.32" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 18 | DNV | N40° 17' 37.56", W087° 33' 26.14" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 19 | DNY | N42° 10' 41.81", W074° 57' 24.99" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 20 | DWN | N45° 05' 14.87", W094° 27' 13.86" | 7.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 21 | ECB | N38° 09' 30.11", W082° 54' 36.20" | 2.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 22 | ELX | N42° 08' 39.88", W086° 07' 21.74" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 23 | EON | N41° 16' 10.68", W087° 47' 27.79" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 24 | ESL | N39° 13' 31.77", W078° 59' 22.20" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 25 | ETG | N41° 12' 53.82", W078° 08' 33.92" | 10.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 26 | EWO | N37° 37' 54.52", W085° 40' 33.16" | 1.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 27 | FJC | N40° 43' 36.12", W075° 27' 17.12" | 10.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 28 | FLM | N38° 38' 57.99", W084° 18' 38.17" | 4.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 29 | FQM | N41° 20' 18.81", W076° 46' 29.52" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 30 | GFL | N43° 20' 30.09", W073° 36' 42.32" | 14.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 31 | GGT | N42° 47' 20.24", W075° 49' 36.29" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 32 | GIJ | N41° 46' 07.00", W086° 19' 06.42" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 33 | GRV | N39° 38' 06.11", W079° 03' 01.90" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22L:DER_LOALA

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 34 | GSH | N41° 31' 30.56", W086° 01' 40.63" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 35 | HIC | N43° 34' 29.47", W085° 42' 58.18" | 1.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 36 | HML | N48° 52' 09.09", W097° 07' 01.51" | 9.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 37 | HNK | N42° 03' 47.01", W075° 18' 58.62" | 11.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 38 | HNN | N38° 45' 14.85", W082° 01' 34.20" | 3.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 39 | HTO | N40° 55' 08.38", W072° 19' 00.14" | 13.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 40 | HUO | N41° 24' 34.87", W074° 35' 29.74" | 11.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 41 | IHD | N39° 58' 27.27", W079° 21' 30.12" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 42 | JFN | N41° 45' 36.42", W080° 44' 53.20" | 5.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 43 | JVL | N42° 33' 28.83", W089° 06' 18.93" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 44 | LFD | N42° 03' 44.96", W084° 45' 54.48" | 5.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 45 | LGA | N40° 47' 01.38", W073° 52' 06.96" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 46 | LNR | N43° 17' 39.85", W090° 07' 59.33" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 47 | LVZ | N41° 16' 22.10", W075° 41' 22.07" | 10.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 48 | MIP | N41° 01' 24.21", W076° 39' 55.04" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 49 | MKG | N43° 10' 09.31", W086° 02' 21.76" | 1.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 50 | MNM | N45° 10' 48.58", W087° 38' 49.83" | 0.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 51 | MSS | N44° 54' 51.92", W074° 43' 21.78" | 14.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 52 | ODI | N43° 54' 44.38", W091° 28' 03.06" | 1.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 53 | PLL | N41° 57' 56.31", W089° 31' 27.19" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 54 | PLN | N45° 37' 50.33", W084° 39' 50.79" | 6.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 55 | PMM | N42° 27' 57.73", W086° 06' 17.32" | 0.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 56 | PNT | N40° 49' 16.32", W088° 44' 00.63" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 57 | PWL | N41° 46' 11.18", W073° 36' 01.99" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 58 | RBS | N40° 34' 54.13", W088° 09' 51.36" | 2.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 59 | REC | N40° 32' 47.25", W078° 44' 49.28" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 60 | RKA | N42° 27' 58.91", W075° 14' 21.51" | 11.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 61 | RST | N43° 46' 58.45", W092° 35' 49.06" | 5.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 62 | SAM | N38° 29' 06.68", W088° 05' 08.90" | 3.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 63 | SFK | N41° 41' 42.91", W077° 25' 11.66" | 8.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 64 | SLK | N44° 23' 04.42", W074° 12' 16.22" | 14.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 65 | SLT | N41° 30' 45.93", W077° 58' 12.39" | 8.0 W | 130 | H | AIRNAV2 | NO | Disabled | | |
| 66 | TDT | N41° 42' 46.91", W079° 25' 02.17" | 9.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22L:DER_LOALA

| DME/DME (Continued) | | | | | | | | | | |
|---------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| DMEs Used | | | | | | | | | | |
| # | Name | Lat/Lon | MAGVAR | Range | Type | Source | Critical | Status | Time | Distance |
| 67 | THS | N39° 55' 59.62", W077° 57' 03.40" | 7.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 68 | UCA | N43° 01' 35.45", W075° 09' 52.28" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 69 | UIN | N39° 50' 52.35", W091° 16' 44.13" | 5.0 E | 130 | H | AIRNAV2 | NO | Disabled | | |
| 70 | ULW | N42° 05' 39.16", W077° 01' 28.53" | 12.0 W | 40 | L | AIRNAV2 | NO | Disabled | | |
| 71 | VLA | N39° 05' 37.82", W089° 09' 44.08" | 4.0 E | 40 | L | AIRNAV2 | NO | Disabled | | |
| 72 | 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 | | | | | | |
| 1.1 | SVM | CRL | | | | |
| 2.5 | SVM | DXO | CRL | | | |
| 3.3 | SVM | DXO | | | | |
| 5.6 | SVM | DXO | PSI | | | |
| 9.1 | DXO | CRL | SVM | PSI | | |
| 13.0 | PSI | JXN | SVM | DXO | CRL | |
| 26.1 | SVM | DXO | PSI | FNT | | |
| 26.7 | PSI | DXO | FNT | | | |
| 28.0 | PSI | DXO | | | | |
| 31.1 | | | | | | |
| 41.9 | JXN | FNT | DXO | CRL | PSI | SVM |
| 45.2 | JXN | FNT | DXO | CRL | SVM | |
| 58.4 | JXN | MBS | SVM | FNT | PSI | CRL |

| Inertial Drift Segments | | | | |
|-------------------------|-----------------------------------|-----------------------------------|-------------|--|
| # | Start Location | End Location | Length [NM] | |
| 1 | N42° 11' 42.35", W083° 21' 07.86" | N42° 05' 42.02", W083° 20' 02.39" | 6.0604 | |
| 2 | N42° 11' 34.48", W083° 21' 43.96" | N42° 09' 51.09", W083° 21' 14.13" | 1.7622 | |
| 3 | N42° 06' 19.62", W083° 20' 13.21" | N42° 14' 04.99", W083° 19' 22.74" | 7.7821 | |
| 4 | N42° 12' 26.35", W083° 21' 05.75" | N42° 16' 44.40", W083° 01' 13.28" | 15.3305 | |
| 5 | N42° 13' 54.22", W083° 20' 58.60" | N42° 14' 44.23", W083° 20' 21.73" | 0.9496 | |
| 6 | N43° 35' 55.25", W083° 37' 23.54" | N42° 11' 13.97", W083° 23' 44.08" | 85.2867 | |
| 7 | N42° 11' 14.77", W083° 22' 56.02" | N42° 11' 13.73", W083° 22' 58.94" | 0.04 | |
| 8 | N42° 13' 12.72", W083° 20' 01.28" | N42° 14' 04.99", W083° 19' 22.74" | 0.9925 | |
| 9 | N42° 13' 36.38", W083° 21' 57.22" | N42° 14' 25.65", W083° 21' 20.92" | 0.9354 | |
| 10 | N42° 12' 06.52", W083° 22' 17.93" | N42° 06' 57.51", W083° 08' 37.76" | 11.368 | |
| 11 | N42° 10' 50.18", W083° 21' 46.27" | N42° 09' 47.15", W083° 21' 25.00" | 1.083 | |
| 12 | N42° 06' 28.71", W083° 20' 18.11" | N42° 07' 47.33", W083° 32' 40.34" | 9.2701 | |
| 13 | N42° 13' 43.72", W083° 20' 08.74" | N42° 14' 30.42", W083° 19' 34.30" | 0.8869 | |
| 14 | N42° 12' 05.94", W083° 23' 03.79" | N42° 13' 15.71", W083° 42' 24.97" | 14.383 | |
| 15 | N42° 25' 27.92", W083° 36' 23.76" | N42° 35' 37.84", W083° 31' 20.96" | 10.8258 | |

| Available DMEs by Waypoints | | |
|-----------------------------|-------------------|-----------------------------------|
| Waypoint Before | Waypoint After | DME List |
| KDTW:RW22L:DER | KDTW:RW22L-VI End | |
| KDTW:RW22L-VI End | FORDZ_ | PSI, DXO, SVM, CRL |
| FORDZ_ | CORVE | JXN, PSI, DXO, SVM, CRL |
| CORVE | LOALA | JXN, PSI, DXO, SVM, CRL, FNT, MBS |

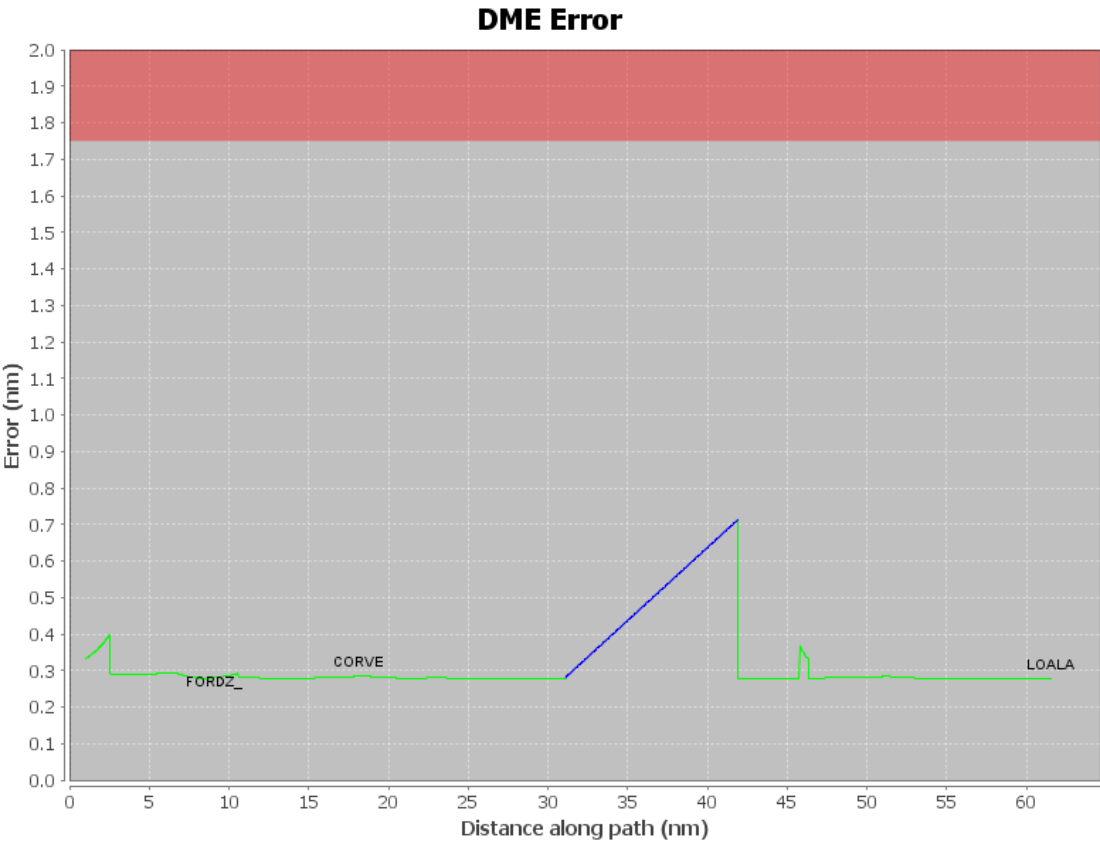
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22L:DER_LOALA

User Data Files

| # | File Name |
|---|---|
| 1 | UserDMEsKDTW TRMML (RNAV) DEPARTURE_2018-12-19_0159.udt |

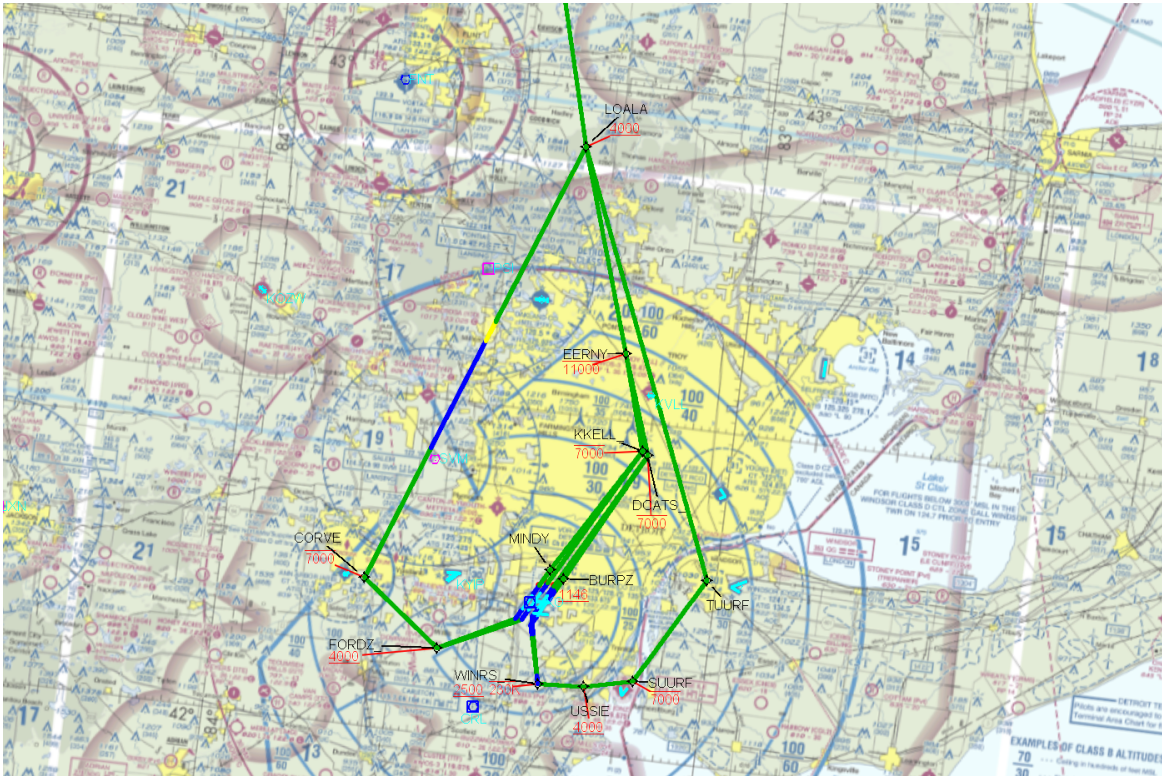
User DMEs

| # | Name | Lat/Lon | MAGVAR | Range | Elevation [ft] | Frequency | Replaces | Status |
|------|------------------------------|---|--------|-------|----------------|--|-------------|--------|
| 1 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 26.0° to 39.0° Bearing [Mag]: 31.0° to 44.0° | | | | Arc Distance: Out to 81.0 NM Altitude: 7400.0 to 20000.0 ft | | |
| 2 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 45.0° to 67.0° Bearing [Mag]: 50.0° to 72.0° | | | | Arc Distance: Out to 67.0 NM Altitude: 4000.0 to 20000.0 ft | | |
| 3 | UDT ESV MBS MBS [AIRNAV2] | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | 679.1 | 112.9 | UDT ESV MBS | |
| ESV: | | Bearing [True]: 129.0° to 179.0° Bearing [Mag]: 132.0° to 182.0° | | | | Arc Distance: Out to 57.0 NM Altitude: 3200.0 to 20000.0 ft | | |
| 4 | 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]: 348.0° to 14.0° Bearing [Mag]: 351.0° to 17.0° | | | | Arc Distance: Out to 58.0 NM Altitude: 3800.0 to 16000.0 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]: 0.0° to 49.0° Bearing [Mag]: 3.0° to 52.0° | | | | Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 16000.0 ft | | |
| 6 | UDT ESV DXO DXO [AIRNAV2] | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | 669.3 | 113.4 | UDT ESV DXO | |
| ESV: | | Bearing [True]: 348.0° to 2.0° Bearing [Mag]: 354.0° to 8.0° | | | | Arc Distance: Out to 76.0 NM Altitude: 7400.0 to 20000.0 ft | | |



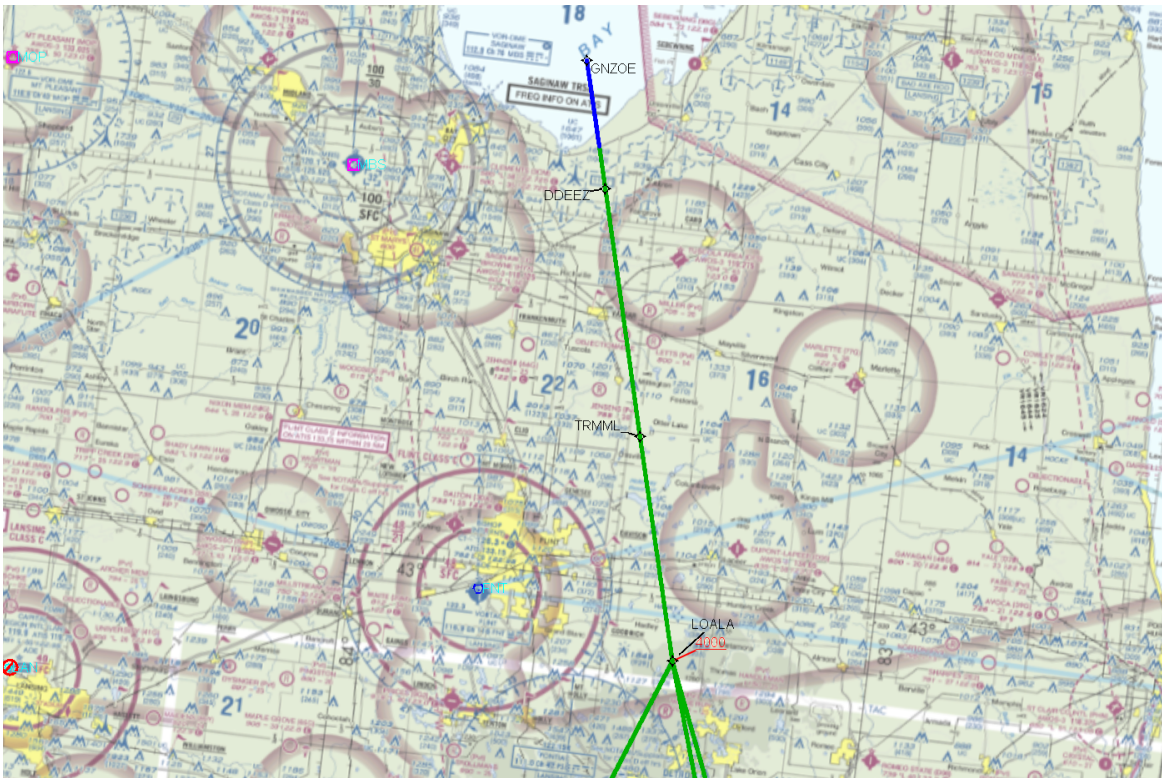
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22L:DER_LOALA

Graphic Depiction 1



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22L:DER_LOALA

Graphic Depiction 2



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22R:DER_FORDZ_

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 TRMML TWO 20190301 DME.tgs |
| Output File: | C:\Users\Paul CTR Jackson\Documents\Current Projects\DTW\SID Amendments Nov 2018\TRMML2\KDTW TRMML (RNAV)_2019-03-05_1023\KDTW-RW22R- DER_FORDZ_KDTW TRMML (RNAV) DEPARTURE_KDTW_RW22R_DER_FORDZ__2019-03-05_1023.pdf |
| Procedure Name: | TRMML (RNAV) |
| Software: DmeDmePlugin: | 5.5.1 |
| Date/Time: | 03/05/2019 10:23 AM 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 |
| FORDZ_ | WP | N42° 07' 47.33", W083° 32' 40.34" | 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 TRMML (RNAV) path KDTW:RW22R:DER_FORDZ_

| 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, LFD,LGA,LNR,LVZ,MIP,MKG,MNM,M SS,ODI,PLL,PLN,PMM,PNT,PWL,RBS ,REC,RKA,RST,SAM,SFK,SLK,SLT,T DT,THS,UCA,UIN,ULW,VLA,YRK |

DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22R:DER_FORDZ

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|--------|----------|
| DMEs Used | | | | | | | | | | |
| # | 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 | 73.6 % | 75.5 % |
| 2 | SVM | N42° 24' 31.11", W083° 35' 38.05" | 3.0 W | 40 | L | AIRNAV2 | NO | Enabled | 86.4 % | 87.8 % |
| 3 | PSI | N42° 42' 03.09", W083° 31' 57.98" | 0.0 E | 40 | L | AIRNAV2 | NO | Enabled | 38.2 % | 41.5 % |
| 4 | CRL | N42° 02' 52.90", W083° 27' 27.26" | 3.0 W | 130 | H | AIRNAV2 | NO | Enabled | 18.7 % | 17.9 % |
| 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 TRMML (RNAV) path KDTW:RW22R:DER_FORDZ

| DME/DME (Continued) | | | | | | | | | | |
|----------------------------|------|--------------------------------------|--------|-------|------|---------|----------|----------|------|----------|
| DMEs Used | | | | | | | | | | |
| # | 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 | LFD | N42° 03' 44.96", W084° 45' 54.48" | 5.0 W | 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 TRMML (RNAV) path KDTW:RW22R:DER_FORDZ_

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 | | | | |
| 2.1 | SVM | DXO | CRL | | | |
| 2.6 | SVM | DXO | | | | |
| 5.0 | SVM | DXO | PSI | | | |

Inertial Drift Segments

| # | Start Location | End Location | Length [NM] |
|----|-----------------------------------|-----------------------------------|-------------|
| 1 | N42° 11' 42.35", W083° 21' 07.86" | N42° 05' 42.02", W083° 20' 02.39" | 6.0604 |
| 2 | N42° 11' 34.48", W083° 21' 43.96" | N42° 09' 51.09", W083° 21' 14.13" | 1.7622 |
| 3 | N42° 06' 19.62", W083° 20' 13.21" | N42° 14' 04.99", W083° 19' 22.74" | 7.7821 |
| 4 | N42° 12' 26.35", W083° 21' 05.75" | N42° 16' 44.40", W083° 01' 13.28" | 15.3305 |
| 5 | N42° 13' 54.22", W083° 20' 58.60" | N42° 14' 44.23", W083° 20' 21.73" | 0.9496 |
| 6 | N43° 35' 55.25", W083° 37' 23.54" | N42° 11' 13.97", W083° 23' 44.08" | 85.2867 |
| 7 | N42° 11' 14.77", W083° 22' 56.02" | N42° 11' 13.73", W083° 22' 58.94" | 0.04 |
| 8 | N42° 13' 12.72", W083° 20' 01.28" | N42° 14' 04.99", W083° 19' 22.74" | 0.9925 |
| 9 | N42° 13' 36.38", W083° 21' 57.22" | N42° 14' 25.65", W083° 21' 20.92" | 0.9354 |
| 10 | N42° 12' 06.52", W083° 22' 17.93" | N42° 06' 57.51", W083° 08' 37.76" | 11.368 |
| 11 | N42° 10' 50.18", W083° 21' 46.27" | N42° 09' 47.15", W083° 21' 25.00" | 1.083 |
| 12 | N42° 06' 28.71", W083° 20' 18.11" | N42° 07' 47.33", W083° 32' 40.34" | 9.2701 |
| 13 | N42° 13' 43.72", W083° 20' 08.74" | N42° 14' 30.42", W083° 19' 34.30" | 0.8869 |
| 14 | N42° 12' 05.94", W083° 23' 03.79" | N42° 13' 15.71", W083° 42' 24.97" | 14.383 |
| 15 | N42° 25' 27.92", W083° 36' 23.76" | N42° 35' 37.84", W083° 31' 20.96" | 10.8258 |

Available DMEs by Waypoints

| Waypoint Before | Waypoint After | DME List |
|-------------------|-------------------|--------------------|
| KDTW:RW22R:DER | KDTW:RW22R-VI End | |
| KDTW:RW22R-VI End | FORDZ_ | PSI, DXO, SVM, CRL |

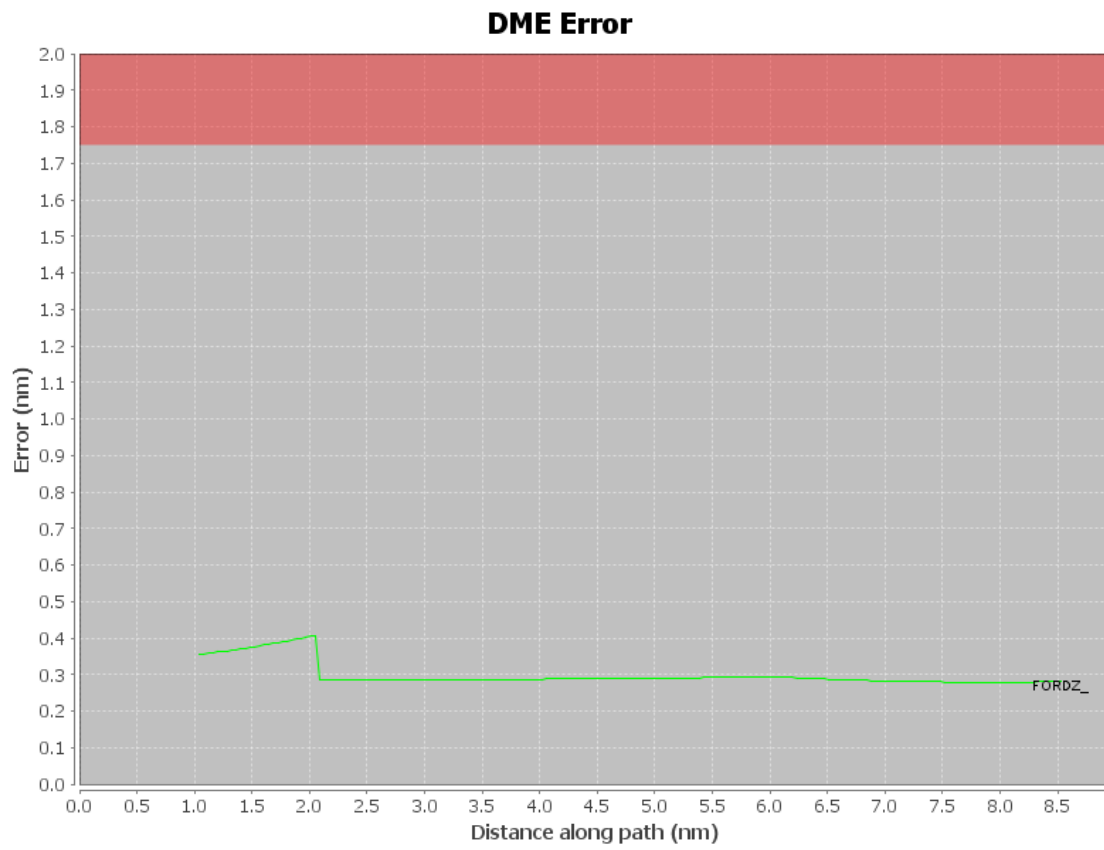
DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22R:DER_FORDZ_

User Data Files

| # | File Name |
|---|---|
| 1 | UserDMEsKDTW TRMML (RNAV) DEPARTURE_2018-12-19_0159.udt |

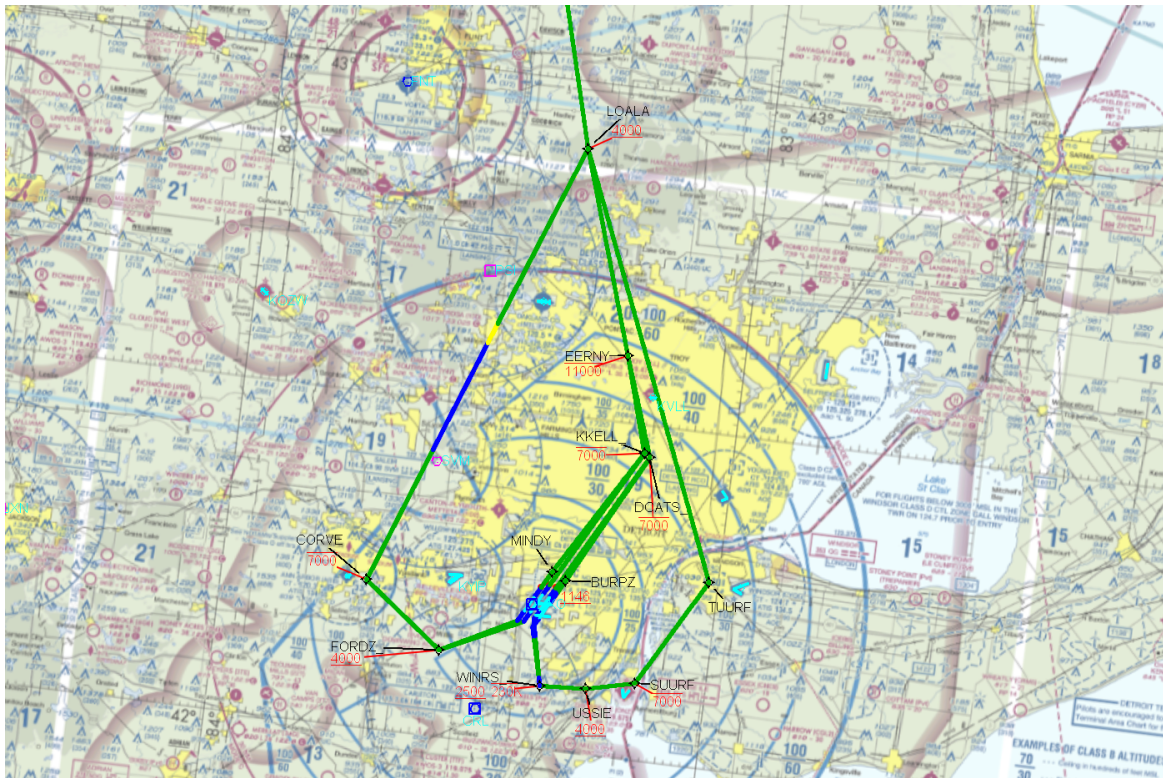
User DMEs

| # | Name | Lat/Lon | MAGVAR | Range | Elevation [ft] | Frequency | Replaces | Status |
|------|------------------------------|---|--------|-------|----------------|--|-------------|--------|
| 1 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 26.0° to 39.0° Bearing [Mag]: 31.0° to 44.0° | | | | Arc Distance: Out to 81.0 NM Altitude: 7400.0 to 20000.0 ft | | |
| 2 | UDT ESV JXN JXN [AIRNAV2] | N42° 15' 33.26", W084° 27' 30.78" | 5.0 W | 40 | 994 | 109.6 | UDT ESV JXN | |
| ESV: | | Bearing [True]: 45.0° to 67.0° Bearing [Mag]: 50.0° to 72.0° | | | | Arc Distance: Out to 67.0 NM Altitude: 4000.0 to 20000.0 ft | | |
| 3 | UDT ESV MBS MBS [AIRNAV2] | N43° 31' 53.93", W084° 04' 38.29" | 3.0 W | 40 | 679.1 | 112.9 | UDT ESV MBS | |
| ESV: | | Bearing [True]: 129.0° to 179.0° Bearing [Mag]: 132.0° to 182.0° | | | | Arc Distance: Out to 57.0 NM Altitude: 3200.0 to 20000.0 ft | | |
| 4 | 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]: 348.0° to 14.0° Bearing [Mag]: 351.0° to 17.0° | | | | Arc Distance: Out to 58.0 NM Altitude: 3800.0 to 16000.0 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]: 0.0° to 49.0° Bearing [Mag]: 3.0° to 52.0° | | | | Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 16000.0 ft | | |
| 6 | UDT ESV DXO DXO [AIRNAV2] | N42° 12' 47.29", W083° 21' 59.99" | 6.0 W | 130 | 669.3 | 113.4 | UDT ESV DXO | |
| ESV: | | Bearing [True]: 348.0° to 2.0° Bearing [Mag]: 354.0° to 8.0° | | | | Arc Distance: Out to 76.0 NM Altitude: 7400.0 to 20000.0 ft | | |



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22R:DER_FORDZ_

Graphic Depiction 1



DME DME Assessment Results for TRMML (RNAV) path KDTW:RW22R:DER_FORDZ_

Graphic Depiction 2

