

## DME DME Assessment Results for Q13 path ELP\_PAWLI

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bob CTR Graham
Project File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\LAS METROPLEX\Q-ROUTES\Q13 DOCS\ADD SHUFL FILES\20210424_Q13-SHUFL.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\LAS METROPLEX\Q-ROUTES\Q13 DOCS\ADD SHUFL FILES\Q13 20210424_2114 MST\ELP_PAWLI\Q13 RNAV ROUTE ELP PAWLI 20210424_2114 MST.pdf
Procedure Name:	Q13
Software: DmeDmePlugin:	6.3.0
Date/Time:	04/24/2021 21:14 MST
Databases:	DTED MAX

### Failures

No Failures

### Warnings

No Warnings

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
ELP	WP	N31° 48' 57.28", W106° 16' 54.78"	24000	VNAV	260	FLY_BY	TF
VERNO	WP	N34° 15' 38.47", W109° 37' 37.98"	24000	VNAV	260	FLY_BY	TF
NABOB	WP	N34° 19' 40.60", W111° 18' 53.90"	24000	VNAV	260	FLY_BY	TF
DRK	WP	N34° 42' 09.19", W112° 28' 49.23"	24000	VNAV	260	FLY_BY	TF
WOTRO	WP	N35° 10' 07.89", W113° 19' 15.68"	24000	VNAV	260	FLY_BY	TF
PRFUM	WP	N35° 30' 24.46", W113° 56' 34.85"	24000	VNAV	260	FLY_BY	TF
HOZZ	WP	N36° 36' 43.75", W116° 36' 37.60"	24000	VNAV	260	FLY_BY	TF
FUULL	WP	N37° 16' 52.93", W117° 10' 13.96"	25000	VNAV	260	FLY_BY	TF
SKANN	WP	N37° 22' 52.68", W117° 15' 54.53"	25000	VNAV	260	FLY_BY	TF
SHUFL	WP	N37° 46' 54.63", W117° 39' 21.52"	25000	VNAV	260	FLY_BY	TF
LOMIA	WP	N39° 13' 11.57", W119° 06' 22.95"	25000	VNAV	260	FLY_BY	TF
RUFUS	WP	N41° 26' 00.00", W120° 00' 00.00"	25000	VNAV	260	FLY_BY	TF
PAWLI	WP	N43° 10' 48.00", W120° 55' 50.00"	25000	VNAV	260	FLY_BY	TF

## DME DME Assessment Results for Q13 path ELP\_PAWLI

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

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

**DME DME Assessment Results for Q13 path ELP\_PAWLI**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
<b>#</b>	<b>Name</b>	<b>Lat/Lon</b>	<b>MAGVAR</b>	<b>Range</b>	<b>Type</b>	<b>Source</b>	<b>Critical</b>	<b>Status</b>	<b>Time</b>	<b>Distance</b>
1	LIN	N38° 04' 28.49", W121° 00' 13.89"	17.0 E	130	H	IFPA	NO	Enabled	9 %	9.1 %
2	CZQ	N36° 53' 03.56", W119° 48' 54.52"	15.0 E	130	H	IFPA	NO	Enabled	0.2 %	0.2 %
3	FMG	N39° 31' 52.60", W119° 39' 21.87"	16.0 E	130	H	IFPA	NO	Enabled	20.6 %	20.6 %
4	DSD	N44° 15' 09.94", W121° 18' 12.79"	18.0 E	130	H	IFPA	NO	Enabled	6.1 %	6.1 %
5	TCS	N33° 16' 57.01", W107° 16' 49.97"	13.0 E	130	H	IFPA	NO	Enabled	18.5 %	18.6 %
6	MVA	N38° 33' 55.08", W118° 01' 58.27"	17.0 E	130	H	IFPA	NO	Enabled	16.2 %	16.2 %
7	SAC	N38° 26' 37.46", W121° 33' 05.95"	17.0 E	130	H	IFPA	NO	Enabled	5.1 %	5.1 %
8	CME	N33° 20' 14.92", W104° 37' 16.48"	12.0 E	130	H	IFPA	NO	Enabled	2.8 %	2.9 %
9	DRK	N34° 42' 09.19", W112° 28' 49.23"	14.0 E	130	H	IFPA	NO	Enabled	21.4 %	21.4 %
10	EUG	N44° 07' 15.23", W123° 13' 22.19"	15.0 E	130	H	IFPA	NO	Enabled	1.6 %	1.6 %
11	ONM	N34° 20' 20.04", W106° 49' 13.69"	13.0 E	130	H	IFPA	NO	Enabled	12.7 %	12.7 %
12	EED	N34° 45' 57.62", W114° 28' 26.77"	15.0 E	130	H	IFPA	NO	Enabled	22.7 %	22.7 %
13	LAS	N36° 04' 46.93", W115° 09' 35.27"	15.0 E	130	H	IFPA	NO	Enabled	17.3 %	17.3 %
14	GOG	N35° 53' 39.30", W115° 29' 45.90"	0.0 E	130	H	IFPA	NO	Enabled	13.7 %	13.6 %
15	ILC	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	H	IFPA	NO	Enabled	3.3 %	3.3 %
16	REO	N42° 35' 25.98", W117° 52' 05.35"	19.0 E	130	H	IFPA	NO	Enabled	9.7 %	9.7 %
17	SJN	N34° 25' 26.55", W109° 08' 36.71"	12.0 E	130	H	IFPA	NO	Enabled	17.5 %	17.5 %
18	GBN	N32° 57' 22.53", W112° 40' 27.38"	14.0 E	130	H	IFPA	NO	Enabled	12.3 %	12.2 %
19	SSO	N32° 16' 09.28", W109° 15' 47.12"	13.0 E	130	H	IFPA	NO	Enabled	20.6 %	20.6 %
20	FLG	N35° 08' 49.97", W111° 40' 26.95"	14.0 E	130	H	IFPA	NO	Enabled	16.4 %	16.3 %
21	TBC	N36° 07' 16.72", W111° 16' 10.52"	15.0 E	130	H	IFPA	NO	Enabled	19 %	19 %
22	PGS	N35° 37' 28.96", W113° 32' 40.08"	15.0 E	130	H	IFPA	NO	Enabled	24.6 %	24.5 %
23	RBL	N40° 05' 56.08", W122° 14' 10.86"	18.0 E	130	H	IFPA	NO	Enabled	3.5 %	3.6 %
24	PMD	N34° 37' 53.03", W118° 03' 49.76"	15.0 E	130	H	IFPA	NO	Enabled	8.7 %	8.7 %
25	OAL	N38° 00' 11.74", W117° 46' 13.61"	17.0 E	130	H	IFPA	NO	Enabled	15.9 %	15.9 %
26	INW	N35° 03' 41.76", W110° 47' 42.07"	14.0 E	130	H	IFPA	NO	Enabled	24.3 %	24.3 %
27	OED	N42° 28' 46.47", W122° 54' 46.56"	19.0 E	130	H	IFPA	NO	Enabled	7.7 %	7.7 %
28	LKV	N42° 29' 34.24", W120° 30' 25.58"	19.0 E	130	H	IFPA	NO	Enabled	15.5 %	15.5 %
29	MOD	N37° 37' 38.55", W120° 57' 28.32"	17.0 E	130	H	IFPA	NO	Enabled	5.3 %	5.3 %
30	PKE	N34° 06' 07.10", W114° 40' 55.44"	15.0 E	130	H	IFPA	NO	Enabled	16.3 %	16.3 %
31	BTY	N36° 48' 02.15", W116° 44' 51.51"	16.0 E	130	H	IFPA	NO	Enabled	15.5 %	15.5 %
32	HEC	N34° 47' 49.26", W116° 27' 46.52"	15.0 E	130	H	IFPA	NO	Enabled	7.8 %	7.8 %
33	TFD	N32° 53' 09.08", W111° 54' 31.44"	12.0 E	130	H	IFPA	NO	Enabled	14 %	14 %

# DME DME Assessment Results for Q13 path ELP\_PAWLI

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	GUP	N35° 28' 33.60", W108° 52' 21.40"	14.0 E	130	H	IFPA	NO	Enabled	6.2 %	6.1 %
35	BAM	N40° 34' 08.69", W116° 55' 20.12"	13.0 E	130	H	IFPA	NO	Enabled	3.4 %	3.4 %
36	PXR	N33° 25' 58.86", W111° 58' 12.73"	12.0 E	130	H	IFPA	NO	Enabled	17.9 %	17.9 %
37	ELP	N31° 48' 57.28", W106° 16' 54.78"	12.0 E	130	H	IFPA	NO	Enabled	8.9 %	8.9 %
38	BLD	N35° 59' 44.84", W114° 51' 48.88"	15.0 E	130	H	IFPA	NO	Enabled	26 %	26 %
39	BLH	N33° 35' 45.83", W114° 45' 40.58"	14.0 E	130	H	IFPA	NO	Enabled	9 %	9 %
40	ZUN	N34° 57' 56.71", W109° 09' 16.23"	14.0 E	130	H	IFPA	NO	Enabled	13.7 %	13.7 %

# DME DME Assessment Results for Q13 path ELP\_PAWLI

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	TCS	CME	SSO			
3.0	CME	ELP	TCS	SSO		
3.2	CME	ELP	TCS			
9.1	CME	ELP	TCS	SSO		
22.2	SSO	TCS				
30.7	CME	ELP	TCS	SSO		
38.6	TCS	SSO	ELP			
48.5	TCS	SSO	ONM	ELP		
94.8	TCS	ELP	ONM			
105.1						
115.1	TCS	SJN	SSO			
127.5	SSO	SJN	TCS	ONM		
127.9	SSO	SJN	TCS			
130.5	SSO	SJN	ONM	TCS		
147.1	TCS	SSO	ONM	SJN	ZUN	
204.8	SJN	INW	ZUN	GUP	ONM	SSO
207.4	SJN	INW	ZUN	GUP	SSO	
242.5	INW	ZUN	SJN	GUP	FLG	PXR
252.1	INW	ZUN	SJN	FLG	PXR	TFD
290.7	FLG	PXR	DRK	INW	SJN	TFD
299.1	DRK	INW	PXR	FLG	TFD	GBN
365.7	FLG	PGS	PXR	INW	TBC	EED
404.1	EED	PGS	PKE	TBC	DRK	PXR
413.4	EED	PGS	PKE	DRK	TBC	BLH
442.1	PGS	BLD	EED	DRK	LAS	PKE
469.5	EED	GOG	LAS	PGS	BLD	PKE
506.7	EED	GOG	PGS	PKE	LAS	BTY
521.7	EED	GOG	BLD	PKE	BTY	PGS
524.3	EED	GOG	BTY	BLD	PGS	
542.2	EED	LAS	BLD	PGS		
543.0	GOG	LAS	BLD	BTY	PGS	EED
547.0	PMD	BTY	EED	BLD	LAS	PGS
571.0	PMD	BTY	LAS	BLD	EED	OAL
576.2	BLD	HEC	LAS	BTY	PMD	OAL
586.3	BLD	HEC	PMD	BTY	GOG	OAL
607.1	PMD	GOG	BLD	HEC	OAL	
610.0	PMD	BLD	HEC	OAL		
620.8	PMD	BTY	BLD	OAL	HEC	
623.2	PMD	BLD	OAL	HEC		
627.1	PMD	BLD	BTY	OAL	HEC	
638.8	ILC	OAL	BTY	MVA	HEC	BLD
654.7	ILC	OAL	BTY	MVA	BLD	
658.6	ILC	OAL	MVA	BTY		
664.2						
690.2	MOD	OAL	MVA			
691.2	MOD	OAL	MVA	LIN		
698.7	MOD	MVA	LIN			
698.9	MOD	MVA	LIN	FMG		
700.2	MOD	MVA	FMG			
713.8	MOD	MVA	FMG	OAL		
721.7	MVA	OAL	CZQ	FMG		
723.9	MVA	OAL	FMG	MOD		
728.1	MVA	OAL	FMG	CZQ		
728.2	MVA	OAL	FMG	MOD		
743.0	MVA	OAL	FMG	LIN		
755.0	LIN	OAL	FMG			

# DME DME Assessment Results for Q13 path ELP\_PAWLI

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
758.8	LIN	OAL	FMG	MVA		
777.8	LIN	FMG	MVA			
784.2	LIN	FMG	MOD	BAM	MVA	SAC
789.3	LIN	FMG	MVA	SAC		
805.9	LIN	MVA	FMG	BAM	SAC	
815.7	LIN	MVA	BAM	FMG		
829.1	FMG	MVA	BAM			
831.3	FMG	MVA				
837.2						
838.5	FMG	BAM				
843.8						
858.4	FMG	RBL	LKV	SAC		
880.1	FMG	RBL	LKV			
894.7						
912.9	RBL	LKV	FMG			
914.0						
915.4	REO	LKV	FMG			
918.9	REO	LKV	FMG	OED		
920.0	RBL	LKV	REO	FMG		
920.1	REO	LKV	FMG	OED		
924.2	REO	LKV	FMG			
951.0	REO	LKV				
961.7	REO	LKV	OED			
985.9	REO	LKV	OED	DSD		
987.9	REO	LKV	DSD			
999.4	OED	LKV	REO	DSD		
1001.9	DSD	OED	REO			
1006.5	DSD	OED	REO	LKV		
1007.2	DSD	OED	REO			
1011.1	DSD	OED	LKV	REO		
1016.8	OED	LKV	DSD			
1033.0	OED	LKV	DSD	EUG		

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N32° 58' 38.10", W107° 49' 57.29"	N33° 05' 13.82", W107° 58' 58.17"	10.0382
2	N37° 28' 11.62", W117° 21' 04.04"	N37° 48' 44.07", W117° 41' 09.12"	25.9819
3	N39° 50' 51.55", W119° 21' 13.10"	N39° 52' 06.15", W119° 21' 42.78"	1.2995
4	N39° 57' 12.83", W119° 23' 44.96"	N40° 11' 09.79", W119° 29' 20.04"	14.5832
5	N40° 45' 48.42", W119° 43' 22.78"	N41° 03' 11.15", W119° 50' 31.34"	18.1929
6	N41° 04' 17.34", W119° 50' 58.68"	N41° 05' 35.93", W119° 51' 31.16"	1.3717

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
ELP	VERNO	ZUN, INW, GUP, TCS, SJN, ELP, CME, SSO, ONM
VERNO	NABOB	FLG, ZUN, GBN, GUP, INW, TFD, TBC, SJN, PXR, DRK, SSO
NABOB	DRK	FLG, GBN, INW, TFD, TBC, EED, PXR, PKE, DRK, PGS
DRK	WOTRO	FLG, EED, PXR, PKE, GBN, TFD, INW, TBC, BLD, DRK, PGS, BLH, LAS
WOTRO	PRFUM	FLG, INW, TBC, EED, BLD, PKE, DRK, PGS, GOG, LAS, BLH
PRFUM	HOZZ	EED, BTY, PMD, HEC, BLD, PKE, OAL, DRK, PGS, GOG, LAS, BLH
HOZZ	FUULL	ILC, PMD, BTY, HEC, MVA, BLD, OAL, GOG
FUULL	SKANN	ILC, BTY, HEC, MVA, OAL, BLD
SKANN	SHUFL	ILC, BTY, MVA, OAL, BLD
SHUFL	LOMIA	LIN, FMG, MOD, SAC, MVA, OAL, CZQ, BAM
LOMIA	RUFUS	LIN, FMG, SAC, LKV, MVA, RBL, REO, BAM, OED
RUFUS	PAWLI	FMG, DSD, LKV, EUG, REO, OED

# DME DME Assessment Results for Q13 path ELP\_PAWLI

## User Data Files

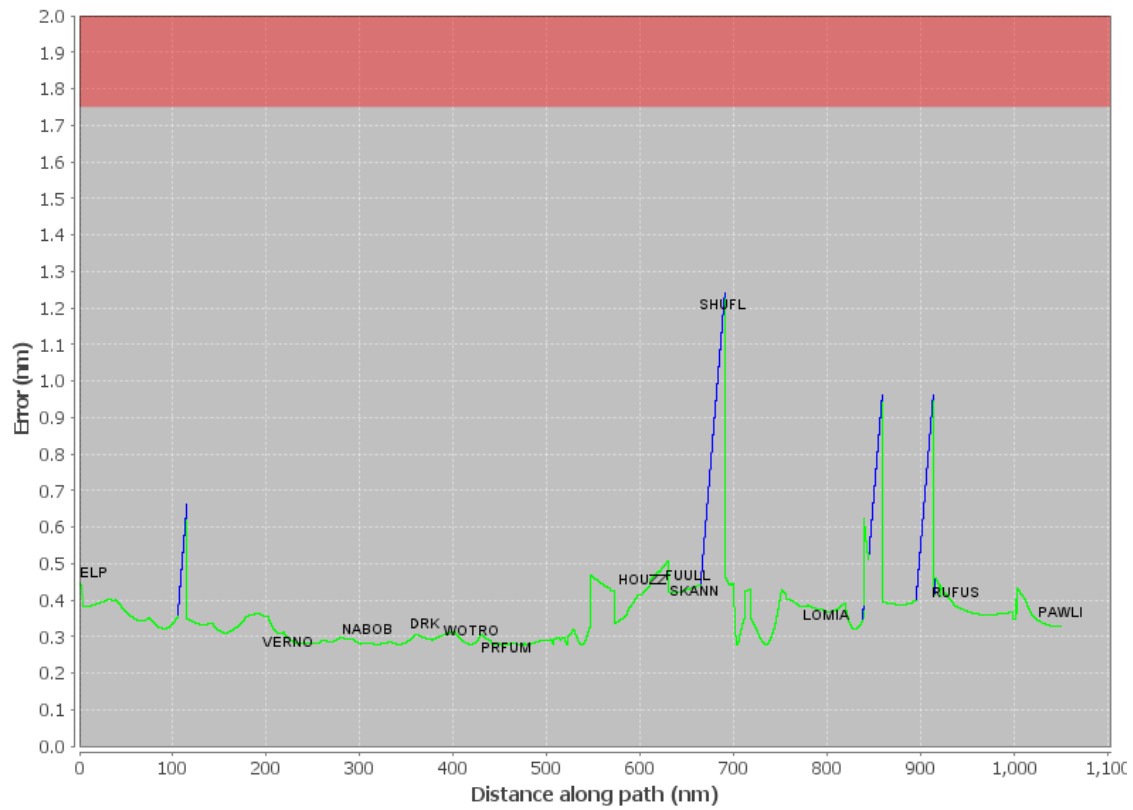
#	File Name
1	New Analysis.udt
2	UserDMEsQ13 RNAV ROUTE_20190816_1451 MST.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV HEC HEC [IFPA]	N34° 47' 49.26", W116° 27' 46.52"	15.0 E	130	1857	112.7	UDT ESV HEC	
ESV:		Bearing [True]: 345.0° to 354.0° Bearing [Mag]: 330.0° to 339.0°				Arc Distance: Out to 160.0 NM Altitude: 23900.0 to 25100.0 ft		
2	UDT ESV LKV LKV [IFPA]	N42° 29' 34.24", W120° 30' 25.58"	19.0 E	130	7465	112.0	UDT ESV LKV	
ESV:		Bearing [True]: 158.0° to 164.0° Bearing [Mag]: 139.0° to 145.0°				Arc Distance: Out to 146.0 NM Altitude: 24900.0 to 25100.0 ft		
3	UDT ESV SAC SAC [IFPA]	N38° 26' 37.46", W121° 33' 05.95"	17.0 E	130	26.2	115.2	UDT ESV SAC	
ESV:		Bearing [True]: 34.0° to 43.0° Bearing [Mag]: 17.0° to 26.0°				Arc Distance: Out to 157.0 NM Altitude: 24900.0 to 25100.0 ft		
4	UDT ESV LIN LIN [IFPA]	N38° 04' 28.49", W121° 00' 13.89"	17.0 E	130	285.4	114.8	UDT ESV LIN	
ESV:		Bearing [True]: 91.0° to 96.0° Bearing [Mag]: 74.0° to 79.0°				Arc Distance: Out to 160.0 NM Altitude: 24900.0 to 25100.0 ft		
5	UDT ESV ILC ILC [IFPA]	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	9347.1	116.3	UDT ESV ILC	
ESV:		Bearing [True]: 229.0° to 253.0° Bearing [Mag]: 213.0° to 237.0°				Arc Distance: Out to 154.0 NM Altitude: 25000.0 to 45000.0 ft		
6	UDT ESV PMD PMD [IFPA]	N34° 37' 53.03", W118° 03' 49.76"	15.0 E	130	2509.8	114.5	UDT ESV PMD	
ESV:		Bearing [True]: 350.0° to 52.0° Bearing [Mag]: 335.0° to 37.0°				Arc Distance: Out to 159.0 NM Altitude: 21900.0 to 45000.0 ft		
7	UDT ESV BLD BLD [IFPA]	N35° 59' 44.84", W114° 51' 48.88"	15.0 E	130	3641	116.7	UDT ESV BLD	
ESV:		Bearing [True]: 300.0° to 308.0° Bearing [Mag]: 285.0° to 293.0°				Arc Distance: Out to 160.0 NM Altitude: 23900.0 to 25100.0 ft		
8	UDT ESV ILC ILC [IFPA]	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	9347.1	116.3	UDT ESV ILC	
ESV:		Bearing [True]: 239.0° to 252.0° Bearing [Mag]: 223.0° to 236.0°				Arc Distance: Out to 150.0 NM Altitude: 23900.0 to 25100.0 ft		
9	UDT ESV MOD MOD [IFPA]	N37° 37' 38.55", W120° 57' 28.32"	17.0 E	130	111.5	114.6	UDT ESV MOD	
ESV:		Bearing [True]: 63.0° to 86.0° Bearing [Mag]: 46.0° to 69.0°				Arc Distance: Out to 159.0 NM Altitude: 24900.0 to 25100.0 ft		
10	UDT ESV OED OED [IFPA]	N42° 28' 46.47", W122° 54' 46.56"	19.0 E	130	2083	113.6	UDT ESV OED	
ESV:		Bearing [True]: 117.0° to 121.0° Bearing [Mag]: 98.0° to 102.0°				Arc Distance: Out to 160.0 NM Altitude: 24900.0 to 25100.0 ft		
11	UDT ESV PMD PMD [IFPA]	N34° 37' 53.03", W118° 03' 49.76"	15.0 E	130	2509.8	114.5	UDT ESV PMD	
ESV:		Bearing [True]: 17.0° to 41.0° Bearing [Mag]: 2.0° to 26.0°				Arc Distance: Out to 161.0 NM Altitude: 22000.0 to 44000.0 ft		
12	SSO SSO [IFPA]	N32° 16' 09.28", W109° 15' 47.12"	13.0 E	130	3600	115.4	SSO	
ESV:		Bearing [True]: 89.0° to 102.0° Bearing [Mag]: 76.0° to 89.0°				Arc Distance: Out to 157.0 NM Altitude: 23900.0 to 24100.0 ft		

## DME DME Assessment Results for Q13 path ELP\_PAWLI

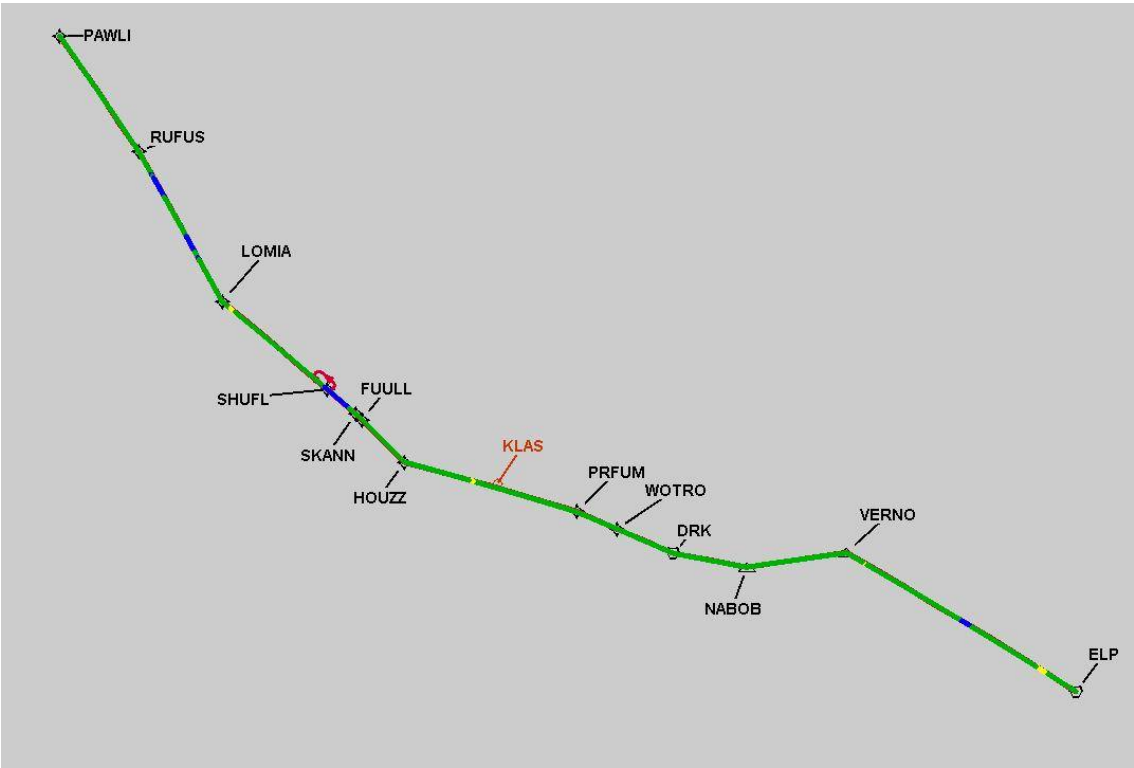
### DME Error





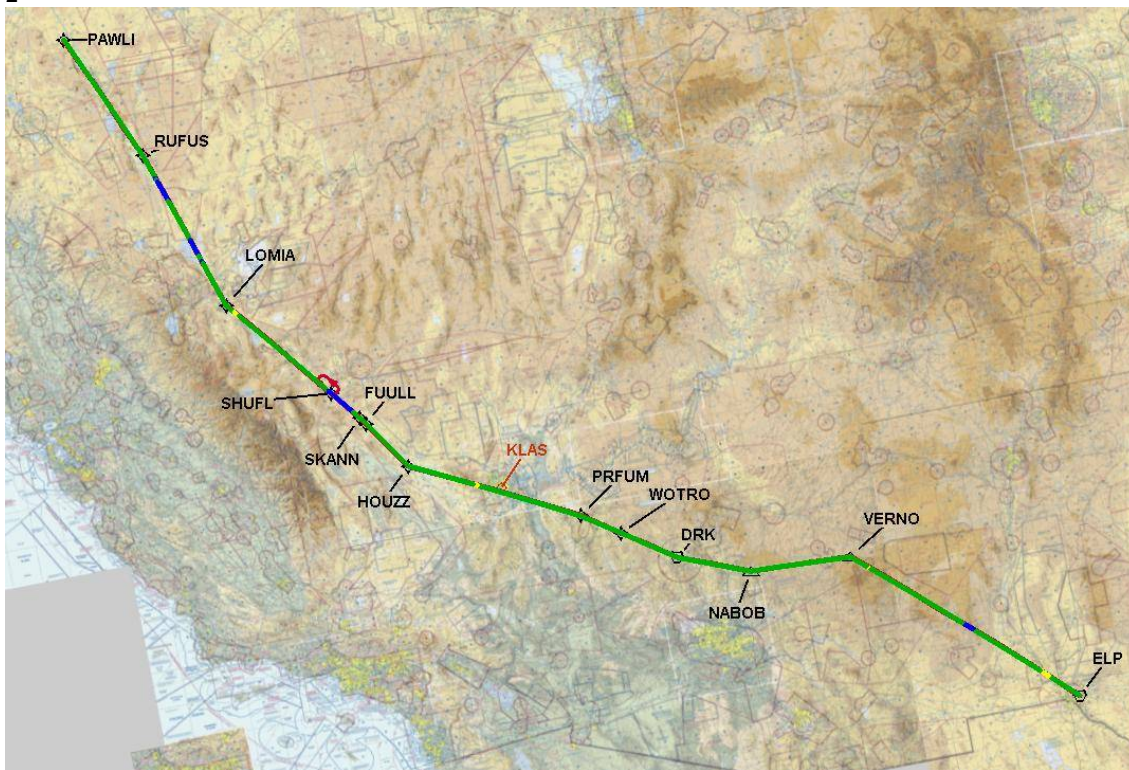
DME DME Assessment Results for Q13 path ELP\_PAWLI

Graphic Depiction 1



## DME DME Assessment Results for Q13 path ELP\_PAWLI

Graphic Depiction 2



## DME DME Assessment Results for Q13 path PAWLI\_ELP

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Bob CTR Graham
Project File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\LAS METROPLEX\Q-ROUTES\Q13 DOCS\ADD SHUFL FILES\20210424_Q13-SHUFL.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\LAS METROPLEX\Q-ROUTES\Q13 DOCS\ADD SHUFL FILES\Q13 20210424_2114 MST\PAWLI_ELP\Q13 RNAV ROUTE PAWLI ELP 20210424_2114 MST.pdf
Procedure Name:	Q13
Software: DmeDmePlugin:	6.3.0
Date/Time:	04/24/2021 21:14 MST
Databases:	DTED MAX

### Failures

No Failures

### Warnings

No Warnings

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
PAWLI	WP	N43° 10' 48.00", W120° 55' 50.00"	25000	VNAV	260	FLY_BY	TF
RUFUS	WP	N41° 26' 00.00", W120° 00' 00.00"	25000	VNAV	260	FLY_BY	TF
LOMIA	WP	N39° 13' 11.57", W119° 06' 22.95"	25000	VNAV	260	FLY_BY	TF
SHUFL	WP	N37° 46' 54.63", W117° 39' 21.52"	25000	VNAV	260	FLY_BY	TF
SKANN	WP	N37° 22' 52.68", W117° 15' 54.53"	25000	VNAV	260	FLY_BY	TF
FUULL	WP	N37° 16' 52.93", W117° 10' 13.96"	25000	VNAV	260	FLY_BY	TF
HOZZ	WP	N36° 36' 43.75", W116° 36' 37.60"	24000	VNAV	260	FLY_BY	TF
PRFUM	WP	N35° 30' 24.46", W113° 56' 34.85"	24000	VNAV	260	FLY_BY	TF
WOTRO	WP	N35° 10' 07.89", W113° 19' 15.68"	24000	VNAV	260	FLY_BY	TF
DRK	WP	N34° 42' 09.19", W112° 28' 49.23"	24000	VNAV	260	FLY_BY	TF
NABOB	WP	N34° 19' 40.60", W111° 18' 53.90"	24000	VNAV	260	FLY_BY	TF
VERNO	WP	N34° 15' 38.47", W109° 37' 37.98"	24000	VNAV	260	FLY_BY	TF
ELP	WP	N31° 48' 57.28", W106° 16' 54.78"	24000	VNAV	260	FLY_BY	TF

## DME DME Assessment Results for Q13 path PAWLI\_ELP

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

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

**DME DME Assessment Results for Q13 path PAWLI\_ELP**

<b>DME/DME (Continued)</b>										
<b>DMEs Used</b>										
<b>#</b>	<b>Name</b>	<b>Lat/Lon</b>	<b>MAGVAR</b>	<b>Range</b>	<b>Type</b>	<b>Source</b>	<b>Critical</b>	<b>Status</b>	<b>Time</b>	<b>Distance</b>
1	LIN	N38° 04' 28.49", W121° 00' 13.89"	17.0 E	130	H	IFPA	NO	Enabled	9 %	9.1 %
2	CZQ	N36° 53' 03.56", W119° 48' 54.52"	15.0 E	130	H	IFPA	NO	Enabled	0.2 %	0.2 %
3	DSD	N44° 15' 09.94", W121° 18' 12.79"	18.0 E	130	H	IFPA	NO	Enabled	6.1 %	6.1 %
4	FMG	N39° 31' 52.60", W119° 39' 21.87"	16.0 E	130	H	IFPA	NO	Enabled	20.6 %	20.6 %
5	TCS	N33° 16' 57.01", W107° 16' 49.97"	13.0 E	130	H	IFPA	NO	Enabled	18.5 %	18.6 %
6	MVA	N38° 33' 55.08", W118° 01' 58.27"	17.0 E	130	H	IFPA	NO	Enabled	16.2 %	16.2 %
7	SAC	N38° 26' 37.46", W121° 33' 05.95"	17.0 E	130	H	IFPA	NO	Enabled	5.1 %	5.1 %
8	DRK	N34° 42' 09.19", W112° 28' 49.23"	14.0 E	130	H	IFPA	NO	Enabled	21.4 %	21.4 %
9	CME	N33° 20' 14.92", W104° 37' 16.48"	12.0 E	130	H	IFPA	NO	Enabled	2.8 %	2.9 %
10	EUG	N44° 07' 15.23", W123° 13' 22.19"	15.0 E	130	H	IFPA	NO	Enabled	1.6 %	1.6 %
11	ONM	N34° 20' 20.04", W106° 49' 13.69"	13.0 E	130	H	IFPA	NO	Enabled	12.7 %	12.7 %
12	REO	N42° 35' 25.98", W117° 52' 05.35"	19.0 E	130	H	IFPA	NO	Enabled	9.7 %	9.7 %
13	ILC	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	H	IFPA	NO	Enabled	3.3 %	3.3 %
14	GOG	N35° 53' 39.30", W115° 29' 45.90"	0.0 E	130	H	IFPA	NO	Enabled	13.7 %	13.6 %
15	LAS	N36° 04' 46.93", W115° 09' 35.27"	15.0 E	130	H	IFPA	NO	Enabled	17.3 %	17.3 %
16	EED	N34° 45' 57.62", W114° 28' 26.77"	15.0 E	130	H	IFPA	NO	Enabled	22.7 %	22.7 %
17	SJN	N34° 25' 26.55", W109° 08' 36.71"	12.0 E	130	H	IFPA	NO	Enabled	17.5 %	17.5 %
18	GBN	N32° 57' 22.53", W112° 40' 27.38"	14.0 E	130	H	IFPA	NO	Enabled	12.3 %	12.2 %
19	SSO	N32° 16' 09.28", W109° 15' 47.12"	13.0 E	130	H	IFPA	NO	Enabled	20.6 %	20.6 %
20	FLG	N35° 08' 49.97", W111° 40' 26.95"	14.0 E	130	H	IFPA	NO	Enabled	16.4 %	16.3 %
21	PGS	N35° 37' 28.96", W113° 32' 40.08"	15.0 E	130	H	IFPA	NO	Enabled	24.6 %	24.5 %
22	TBC	N36° 07' 16.72", W111° 16' 10.52"	15.0 E	130	H	IFPA	NO	Enabled	19 %	19 %
23	RBL	N40° 05' 56.08", W122° 14' 10.86"	18.0 E	130	H	IFPA	NO	Enabled	3.5 %	3.6 %
24	OAL	N38° 00' 11.74", W117° 46' 13.61"	17.0 E	130	H	IFPA	NO	Enabled	15.9 %	15.9 %
25	PMD	N34° 37' 53.03", W118° 03' 49.76"	15.0 E	130	H	IFPA	NO	Enabled	8.7 %	8.7 %
26	INW	N35° 03' 41.76", W110° 47' 42.07"	14.0 E	130	H	IFPA	NO	Enabled	24.3 %	24.3 %
27	OED	N42° 28' 46.47", W122° 54' 46.56"	19.0 E	130	H	IFPA	NO	Enabled	7.7 %	7.7 %
28	LKV	N42° 29' 34.24", W120° 30' 25.58"	19.0 E	130	H	IFPA	NO	Enabled	15.5 %	15.5 %
29	MOD	N37° 37' 38.55", W120° 57' 28.32"	17.0 E	130	H	IFPA	NO	Enabled	5.3 %	5.3 %
30	PKE	N34° 06' 07.10", W114° 40' 55.44"	15.0 E	130	H	IFPA	NO	Enabled	16.3 %	16.3 %
31	BTY	N36° 48' 02.15", W116° 44' 51.51"	16.0 E	130	H	IFPA	NO	Enabled	15.5 %	15.5 %
32	HEC	N34° 47' 49.26", W116° 27' 46.52"	15.0 E	130	H	IFPA	NO	Enabled	7.7 %	7.7 %
33	TFD	N32° 53' 09.08", W111° 54' 31.44"	12.0 E	130	H	IFPA	NO	Enabled	14 %	14 %

# DME DME Assessment Results for Q13 path PAWLI\_ELP

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
34	BAM	N40° 34' 08.69", W116° 55' 20.12"	13.0 E	130	H	IFPA	NO	Enabled	3.4 %	3.4 %
35	GUP	N35° 28' 33.60", W108° 52' 21.40"	14.0 E	130	H	IFPA	NO	Enabled	6.2 %	6.1 %
36	PXR	N33° 25' 58.86", W111° 58' 12.73"	12.0 E	130	H	IFPA	NO	Enabled	17.9 %	17.9 %
37	ELP	N31° 48' 57.28", W106° 16' 54.78"	12.0 E	130	H	IFPA	NO	Enabled	8.9 %	8.9 %
38	BLD	N35° 59' 44.84", W114° 51' 48.88"	15.0 E	130	H	IFPA	NO	Enabled	26 %	26 %
39	BLH	N33° 35' 45.83", W114° 45' 40.58"	14.0 E	130	H	IFPA	NO	Enabled	9 %	9 %
40	ZUN	N34° 57' 56.71", W109° 09' 16.23"	14.0 E	130	H	IFPA	NO	Enabled	13.7 %	13.7 %

**DME DME Assessment Results for Q13 path PAWLI\_ELP**

<b>Flight Check DME Selection</b>						
<b>Distance [NM]</b>	<b>Selected DMEs</b>					<b>Alternate</b>
0.0	OED	LKV	DSD	EUG		
16.5	OED	LKV	DSD			
32.7	OED	LKV	DSD	REO		
38.3	DSD	OED	REO			
42.2	DSD	OED	REO	LKV		
43.0	DSD	OED	REO			
47.6	REO	LKV	DSD	OED		
50.1	REO	LKV	DSD			
61.6	REO	LKV	OED	DSD		
63.6	REO	LKV	OED			
87.7	REO	LKV				
98.4	REO	LKV	FMG			
125.3	REO	LKV	FMG	OED		
129.4	RBL	LKV	REO	FMG		
129.5	REO	LKV	FMG	OED		
130.6	REO	LKV	FMG			
134.1						
135.5	RBL	LKV	FMG			
136.6						
154.8	FMG	RBL	LKV			
169.3	FMG	RBL	LKV	SAC		
191.1						
205.6	FMG	BAM				
211.0						
212.3	FMG	MVA				
218.2	FMG	MVA	BAM			
220.4	FMG	MVA	BAM	LIN		
233.8	LIN	MVA	BAM	SAC	FMG	
243.6	LIN	MVA	FMG	SAC		
260.2	LIN	FMG	MVA	MOD	BAM	SAC
265.3	LIN	FMG	MVA			
271.7	LIN	OAL	FMG	MVA		
290.7	LIN	OAL	FMG			
294.5	LIN	OAL	FMG	MVA		
306.4	MVA	OAL	FMG	MOD		
321.2	MVA	OAL	FMG	CZQ		
321.4	MVA	OAL	FMG	MOD		
325.6	MVA	OAL	CZQ	FMG		
327.8	MVA	OAL	FMG	MOD		
335.7	MOD	MVA	FMG			
349.3	MOD	MVA	LIN	FMG		
350.6	MOD	MVA	LIN			
350.8	MOD	MVA	LIN	OAL		
358.3	MOD	OAL	MVA			
359.3						
385.3	ILC	MVA	OAL	BTY		
390.8	ILC	OAL	MVA	BTY	BLD	
411.9	ILC	OAL	BTY	PMD	BLD	HEC
419.8	PMD	BLD	BTY	OAL	HEC	
422.4	PMD	BLD	OAL	HEC		
426.3	PMD	BLD	BTY	OAL	HEC	
428.7	PMD	BLD	OAL	HEC		
439.4	PMD	GOG	BLD	HEC	OAL	
472.3	BLD	HEC	LAS	BTY	PMD	OAL
476.4	PMD	BTY	LAS	BLD	OAL	EED
479.4	PMD	BTY	LAS	BLD	EED	PGS

# DME DME Assessment Results for Q13 path PAWLI\_ELP

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
502.5	GOG	LAS	BLD	BTY	PGS	EED
506.4	EED	LAS	BLD	PGS		
507.3	GOG	LAS	BLD	BTY	PGS	EED
518.1	GOG	BTY	BLD	PGS	EED	
537.3	EED	GOG	PKE	PGS	LAS	BTY
566.6	EED	PGS	GOG	LAS	PKE	BLD
614.0	EED	DRK	BLD	PGS	PKE	FLG
619.6	EED	DRK	PGS	PKE	BLD	LAS
654.9	FLG	PGS	PKE	EED	TBC	PXR
696.1	FLG	DRK	PXR	INW	PGS	TBC
736.3	PXR	DRK	INW	TFD	FLG	GBN
772.2	SJN	INW	FLG	PXR	ZUN	DRK
807.9	INW	ZUN	SJN	GUP	PXR	SSO
824.3	INW	ZUN	GUP	SJN	SSO	
862.0	TCS	ZUN	ONM	SJN	SSO	INW
881.0	TCS	SSO	ONM	SJN	ZUN	
902.4	TCS	SSO	ONM	SJN		
919.0	SSO	SJN	TCS			
921.6	SSO	SJN	TCS	ONM		
922.0	SSO	SJN	TCS			
934.4						
944.4	TCS	ELP	ONM			
954.7	TCS	ELP	ONM	SSO		
1000.9	TCS	SSO	ELP			
1010.9	TCS	CME	SSO	ELP		
1018.8	SSO	TCS				
1027.3	CME	ELP	TCS	SSO		
1040.4	CME	ELP	TCS			
1046.2	CME	ELP	TCS	SSO		
1046.4	TCS	CME	SSO			

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N41° 05' 31.79", W119° 51' 29.45"	N41° 04' 13.20", W119° 50' 56.97"	1.3717
2	N41° 03' 07.01", W119° 50' 29.64"	N40° 45' 44.28", W119° 43' 21.09"	18.1929
3	N40° 11' 05.65", W119° 29' 18.38"	N39° 57' 08.69", W119° 23' 43.31"	14.5832
4	N39° 52' 02.01", W119° 21' 41.13"	N39° 50' 47.40", W119° 21' 11.45"	1.2995
5	N37° 48' 40.65", W117° 41' 05.76"	N37° 28' 08.19", W117° 21' 00.71"	25.9881
6	N33° 05' 10.98", W107° 58' 54.27"	N32° 58' 35.25", W107° 49' 53.41"	10.0382

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
PAWLI	RUFUS	FMG, DSD, EUG, LKV, REO, OED
RUFUS	LOMIA	LIN, FMG, SAC, LKV, MVA, REO, RBL, BAM, OED
LOMIA	SHUFL	LIN, FMG, MOD, SAC, MVA, OAL, CZQ, BAM
SHUFL	SKANN	ILC, BTY, MVA, OAL, BLD
SKANN	FUULL	ILC, BTY, HEC, MVA, OAL, BLD
FUULL	HOUZZ	ILC, BTY, PMD, HEC, MVA, OAL, BLD, GOG
HOUZZ	PRFUM	EED, PMD, BTY, HEC, BLD, OAL, PKE, DRK, PGS, GOG, LAS, BLH
PRFUM	WOTRO	FLG, INW, TBC, EED, BLD, PKE, DRK, PGS, GOG, LAS, BLH
WOTRO	DRK	FLG, EED, PKE, PXR, GBN, INW, TFD, TBC, BLD, DRK, PGS, LAS, BLH
DRK	NABOB	FLG, GBN, TFD, INW, TBC, EED, PXR, PKE, DRK, PGS
NABOB	VERNO	FLG, GBN, ZUN, INW, TFD, GUP, TBC, SJN, PXR, DRK, SSO
VERNO	ELP	ZUN, GUP, INW, TCS, SJN, ELP, CME, SSO, ONM



# DME DME Assessment Results for Q13 path PAWLI\_ELP

## User Data Files

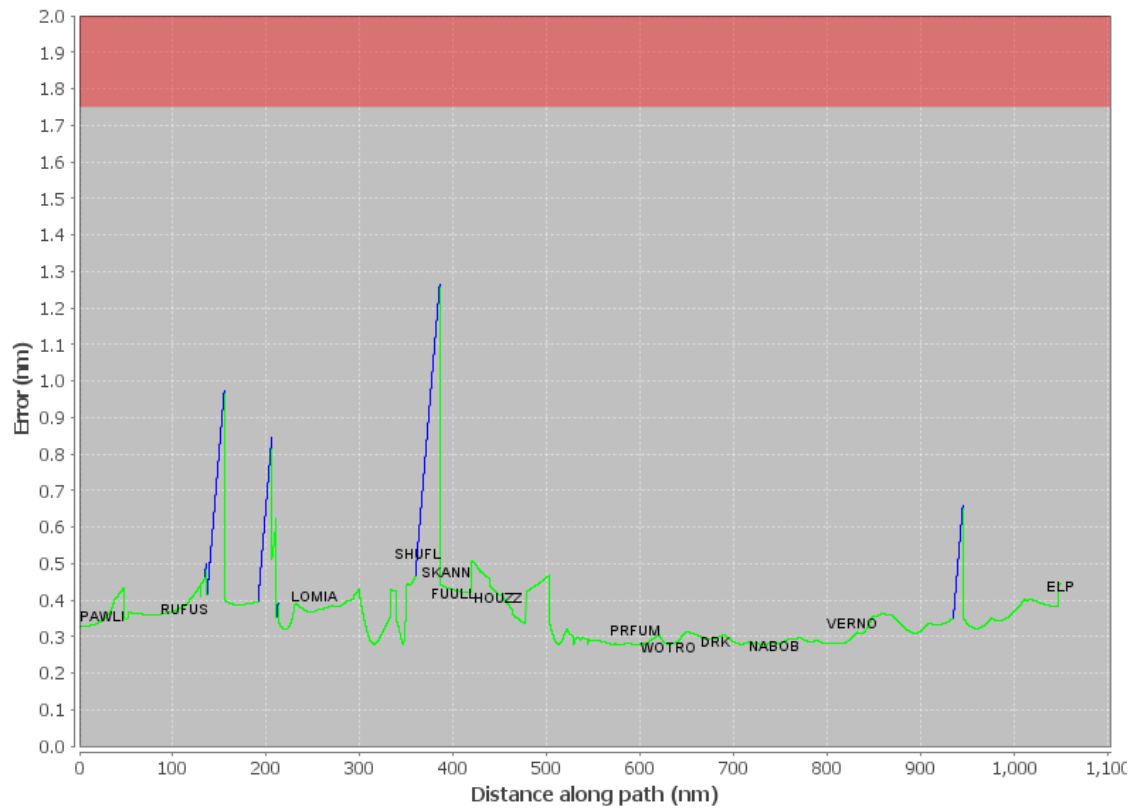
#	File Name
1	New Analysis.udt
2	UserDMEsQ13 RNAV ROUTE_20190816_1451 MST.udt

## User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV HEC HEC [IFPA]	N34° 47' 49.26", W116° 27' 46.52"	15.0 E	130	1857	112.7	UDT ESV HEC	
ESV:		Bearing [True]: 345.0° to 354.0° Bearing [Mag]: 330.0° to 339.0°				Arc Distance: Out to 160.0 NM Altitude: 23900.0 to 25100.0 ft		
2	UDT ESV LKV LKV [IFPA]	N42° 29' 34.24", W120° 30' 25.58"	19.0 E	130	7465	112.0	UDT ESV LKV	
ESV:		Bearing [True]: 158.0° to 164.0° Bearing [Mag]: 139.0° to 145.0°				Arc Distance: Out to 146.0 NM Altitude: 24900.0 to 25100.0 ft		
3	UDT ESV SAC SAC [IFPA]	N38° 26' 37.46", W121° 33' 05.95"	17.0 E	130	26.2	115.2	UDT ESV SAC	
ESV:		Bearing [True]: 34.0° to 43.0° Bearing [Mag]: 17.0° to 26.0°				Arc Distance: Out to 157.0 NM Altitude: 24900.0 to 25100.0 ft		
4	UDT ESV LIN LIN [IFPA]	N38° 04' 28.49", W121° 00' 13.89"	17.0 E	130	285.4	114.8	UDT ESV LIN	
ESV:		Bearing [True]: 91.0° to 96.0° Bearing [Mag]: 74.0° to 79.0°				Arc Distance: Out to 160.0 NM Altitude: 24900.0 to 25100.0 ft		
5	UDT ESV ILC ILC [IFPA]	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	9347.1	116.3	UDT ESV ILC	
ESV:		Bearing [True]: 229.0° to 253.0° Bearing [Mag]: 213.0° to 237.0°				Arc Distance: Out to 154.0 NM Altitude: 25000.0 to 45000.0 ft		
6	UDT ESV PMD PMD [IFPA]	N34° 37' 53.03", W118° 03' 49.76"	15.0 E	130	2509.8	114.5	UDT ESV PMD	
ESV:		Bearing [True]: 350.0° to 52.0° Bearing [Mag]: 335.0° to 37.0°				Arc Distance: Out to 159.0 NM Altitude: 21900.0 to 45000.0 ft		
7	UDT ESV BLD BLD [IFPA]	N35° 59' 44.84", W114° 51' 48.88"	15.0 E	130	3641	116.7	UDT ESV BLD	
ESV:		Bearing [True]: 300.0° to 308.0° Bearing [Mag]: 285.0° to 293.0°				Arc Distance: Out to 160.0 NM Altitude: 23900.0 to 25100.0 ft		
8	UDT ESV ILC ILC [IFPA]	N38° 15' 00.69", W114° 23' 39.22"	16.0 E	130	9347.1	116.3	UDT ESV ILC	
ESV:		Bearing [True]: 239.0° to 252.0° Bearing [Mag]: 223.0° to 236.0°				Arc Distance: Out to 150.0 NM Altitude: 23900.0 to 25100.0 ft		
9	UDT ESV MOD MOD [IFPA]	N37° 37' 38.55", W120° 57' 28.32"	17.0 E	130	111.5	114.6	UDT ESV MOD	
ESV:		Bearing [True]: 63.0° to 86.0° Bearing [Mag]: 46.0° to 69.0°				Arc Distance: Out to 159.0 NM Altitude: 24900.0 to 25100.0 ft		
10	UDT ESV OED OED [IFPA]	N42° 28' 46.47", W122° 54' 46.56"	19.0 E	130	2083	113.6	UDT ESV OED	
ESV:		Bearing [True]: 117.0° to 121.0° Bearing [Mag]: 98.0° to 102.0°				Arc Distance: Out to 160.0 NM Altitude: 24900.0 to 25100.0 ft		
11	UDT ESV PMD PMD [IFPA]	N34° 37' 53.03", W118° 03' 49.76"	15.0 E	130	2509.8	114.5	UDT ESV PMD	
ESV:		Bearing [True]: 17.0° to 41.0° Bearing [Mag]: 2.0° to 26.0°				Arc Distance: Out to 161.0 NM Altitude: 22000.0 to 44000.0 ft		
12	SSO SSO [IFPA]	N32° 16' 09.28", W109° 15' 47.12"	13.0 E	130	3600	115.4	SSO	
ESV:		Bearing [True]: 89.0° to 102.0° Bearing [Mag]: 76.0° to 89.0°				Arc Distance: Out to 157.0 NM Altitude: 23900.0 to 24100.0 ft		

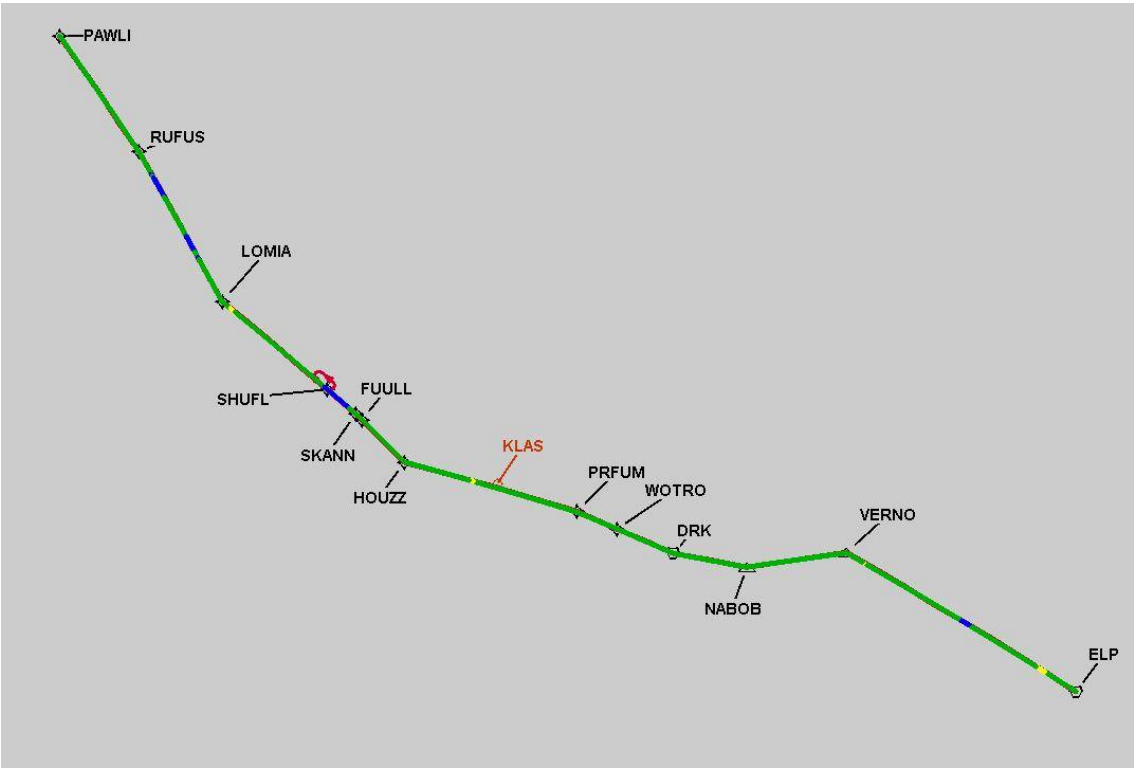
## DME DME Assessment Results for Q13 path PAWLI\_ELP

### DME Error



DME DME Assessment Results for Q13 path PAWLI\_ELP

Graphic Depiction 1



## DME DME Assessment Results for Q13 path PAWLI\_ELP

Graphic Depiction 2

