

DME DME Assessment Results for MARNR8 path BUHNR_MARNR

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\SEA 2023\MARNR8_33379_7-11-24\TARGETS\20240103_MARNR8.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\SEA 2023\MARNR8_33379_7-11-24\FINAL DOCS\DME ASSESSMENT\KSEA [IFPA] MARNR8 20240103_0828 MST\BUHNR_MARNR\KSEA MARNR8 RNAV STAR BUHNR MARNR 20240103_0828 MST.pdf
Procedure Name:	MARNR8
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/03/2024 08:28 MST
Databases:	MITRE 3DEP 3 arcsec

Failures

No Failures

Warnings

No Warnings

Informational

No Informational

Notes For Flight Check

MNA TOU TO LOOOO SET TO 15000 FOR D/D/I COVERAGE.

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
BUHNR	WP	N48° 10' 18.0000", W122° 53' 27.0000"	9000	VNAV	270	FLY_BY	TF
MARNR	WP	N48° 02' 19.9200", W122° 50' 59.6700"	9000	VNAV	270	FLY_BY	TF

Flyability

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

DME DME Assessment Results for MARNR8 path BUHNR_MARNR

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, TACAN
DME Include Angles:	30 to 150
Critical DMEs:	Allowed
DoD Facilities:	Included
Foreign Facilities:	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:	PAE,YYJ

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	CVV	N48° 14' 40.9000", W122° 43' 27.9000"	19.0 E	130	DH	IFPA	NO	Enabled	100 %	100 %
2	SEA	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
3	NUW	N48° 21' 17.7641", W122° 39' 42.4372"	18.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
4	TOU	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
5	OLM	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
6	PAE	N47° 55' 12.0312", W122° 16' 41.8197"	20.0 E	40	L	IFPA	NO	Disabled		
7	YYJ	N48° 43' 37.3450", W123° 29' 03.6950"	17.0 E	130	H	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	SEA	CVV	OLM	TOU	NUW	

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
BUHNR	MARNR	OLM, NUW, CVV, TOU, SEA	

DME DME Assessment Results for MARNR8 path BUHNR_MARNR

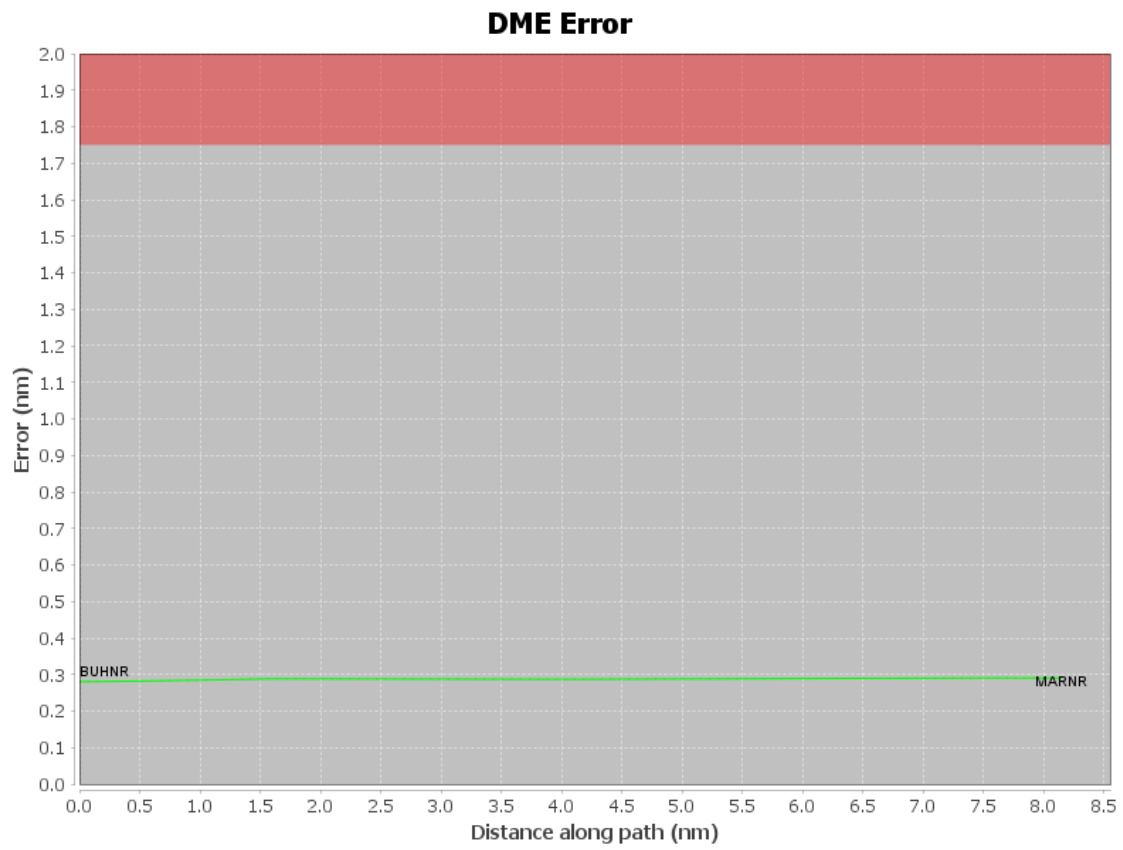
User Data Files

#	File Name
1	UserDMEs_MARNR THREE DISCO MARNR 20120829_0827.udt
2	UserDMEs_MARNR THREE RNAV STAR JIGEB GRIFY 20120831_0925.udt
3	UserDMEs_MARNR THREE STAR JEKPO MARNR 20120829_1025.udt
4	UserDMEs_MARNR THREE STAR ROESH MARNR 20120829_1031.udt
5	UserDMEs_MARNR THREE STAR YVR GRIFY 20120829_1118.udt
6	UserDMEs_MARNR THREE STAR YYJ SHIPZ_ 20120913_1118.udt

User DMEs

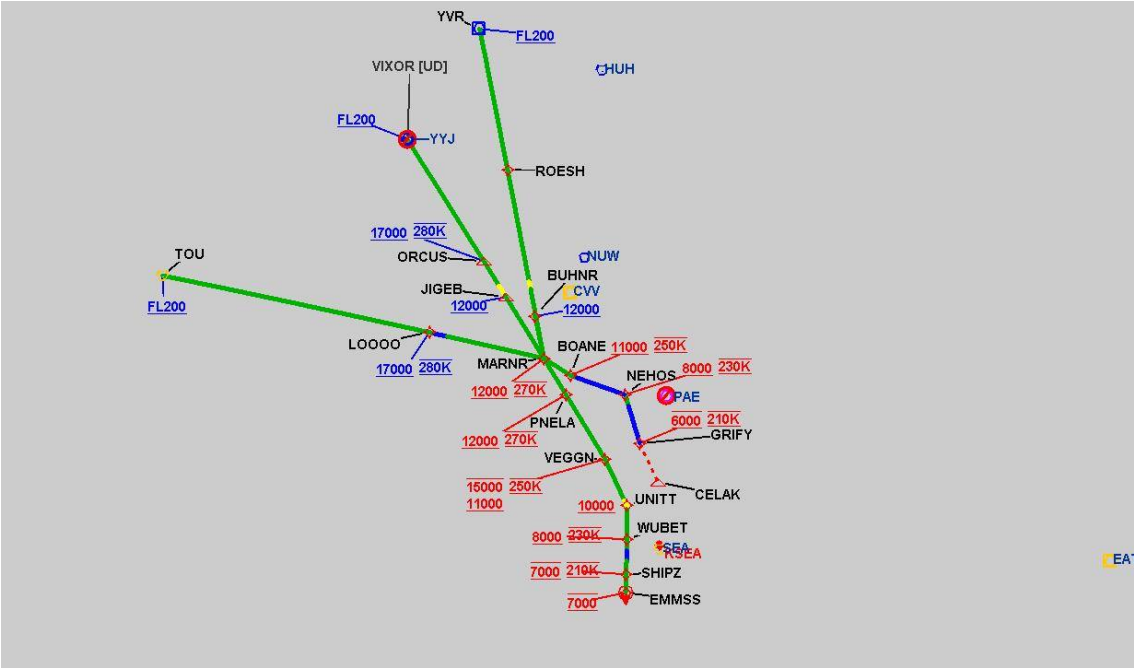
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 352.0° to 28.0° Bearing [Mag]: 333.0° to 9.0°				Arc Distance: Out to 78.0 NM Altitude: 9000.0 to 16000.0 ft		
2	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 358.0° to 38.0° Bearing [Mag]: 339.0° to 19.0°				Arc Distance: Out to 63.0 NM Altitude: 7000.0 to 16000.0 ft		
3	UDT ESV SEA SEA [IFPA]	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	348.4	116.8	UDT ESV SEA	
ESV:		Bearing [True]: 312.0° to 3.0° Bearing [Mag]: 293.0° to 344.0°				Arc Distance: Out to 100.0 NM Altitude: 7400.0 to 20000.0 ft		
4	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 48.0° to 92.0° Bearing [Mag]: 26.0° to 70.0°				Arc Distance: Out to 79.0 NM Altitude: 9000.0 to 18000.0 ft		
5	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 70.0° to 105.0° Bearing [Mag]: 48.0° to 83.0°				Arc Distance: Out to 77.0 NM Altitude: 8900.0 to 18000.0 ft		

DME DME Assessment Results for MARNR8 path BUHNR_MARNR



DME DME Assessment Results for MARNR8 path BUHNR_MARNR

Graphic Depiction 1



DME DME Assessment Results for MARNR8 path JIGEB_MARNR

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\SEA 2023\MARNR8_33379_7-11-24\TARGETS\20240103_MARNR8.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\SEA 2023\MARNR8_33379_7-11-24\FINAL DOCS\DME ASSESSMENT\KSEA [IFPA] MARNR8 20240103_0828 MST\JIGEB_MARNR\KSEA MARNR8 RNAV STAR JIGEB MARNR 20240103_0828 MST.pdf
Procedure Name:	MARNR8
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/03/2024 08:28 MST
Databases:	MITRE 3DEP 3 arcsec

Failures

No Failures

Warnings

No Warnings

Informational

No Informational

Notes For Flight Check

MNA TOU TO LOOOO SET TO 15000 FOR D/D/I COVERAGE.

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
JIGEB	WP	N48° 13' 54.1900", W123° 01' 31.6900"	9000	VNAV	270	FLY_BY	TF
MARNR	WP	N48° 02' 19.9200", W122° 50' 59.6700"	9000	VNAV	270	FLY_BY	TF

Flyability

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

DME DME Assessment Results for MARNR8 path JIGEB_MARNR

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, TACAN
DME Include Angles:	30 to 150
Critical DMEs:	Allowed
DoD Facilities:	Included
Foreign Facilities:	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:	PAE,YYJ

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	CVV	N48° 14' 40.9000", W122° 43' 27.9000"	19.0 E	130	DH	IFPA	NO	Enabled	100 %	100 %
2	NUW	N48° 21' 17.7641", W122° 39' 42.4372"	18.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
3	SEA	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
4	TOU	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
5	OLM	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
6	PAE	N47° 55' 12.0312", W122° 16' 41.8197"	20.0 E	40	L	IFPA	NO	Disabled		
7	YYJ	N48° 43' 37.3450", W123° 29' 03.6950"	17.0 E	130	H	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	SEA	NUW	OLM	CVV	TOU	

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
JIGEB	MARNR	OLM, NUW, CVV, TOU, SEA	

DME DME Assessment Results for MARNR8 path JIGEB_MARNR

User Data Files

#	File Name
1	UserDMES_MARNR THREE DISCO MARNR 20120829_0827.udt
2	UserDMES_MARNR THREE RNAV STAR JIGEB GRIFY 20120831_0925.udt
3	UserDMES_MARNR THREE STAR JEKPO MARNR 20120829_1025.udt
4	UserDMES_MARNR THREE STAR ROESH MARNR 20120829_1031.udt
5	UserDMES_MARNR THREE STAR YVR GRIFY 20120829_1118.udt
6	UserDMES_MARNR THREE STAR YYJ SHIPZ_ 20120913_1118.udt

User DMEs

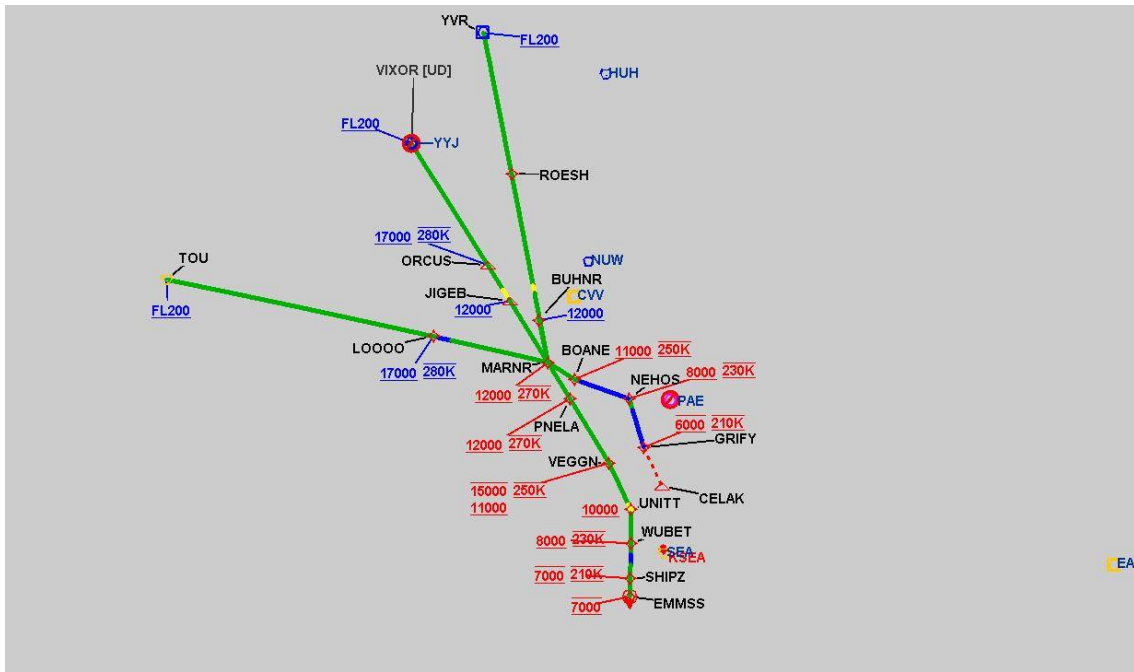
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 352.0° to 28.0° Bearing [Mag]: 333.0° to 9.0°				Arc Distance: Out to 78.0 NM Altitude: 9000.0 to 16000.0 ft		
2	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 358.0° to 38.0° Bearing [Mag]: 339.0° to 19.0°				Arc Distance: Out to 63.0 NM Altitude: 7000.0 to 16000.0 ft		
3	UDT ESV SEA SEA [IFPA]	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	348.4	116.8	UDT ESV SEA	
ESV:		Bearing [True]: 312.0° to 3.0° Bearing [Mag]: 293.0° to 344.0°				Arc Distance: Out to 100.0 NM Altitude: 7400.0 to 20000.0 ft		
4	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 48.0° to 92.0° Bearing [Mag]: 26.0° to 70.0°				Arc Distance: Out to 79.0 NM Altitude: 9000.0 to 18000.0 ft		
5	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 70.0° to 105.0° Bearing [Mag]: 48.0° to 83.0°				Arc Distance: Out to 77.0 NM Altitude: 8900.0 to 18000.0 ft		

DME DME Assessment Results for MARNR8 path JIGEB_MARNR



DME DME Assessment Results for MARNR8 path JIGEB_MARNR

Graphic Depiction 1



DME DME Assessment Results for MARNR8 path TOU_EMMSS

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\SEA 2023\MARNR8_33379_7-11-24\TARGETS\20240103_MARNR8.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\SEA 2023\MARNR8_33379_7-11-24\FINAL DOCS\DME ASSESSMENT\KSEA [IFPA] MARNR8 20240103_0828 MST\TOU_EMMSS\KSEA MARNR8 RNAV STAR TOU EMMSS 20240103_0828 MST.pdf
Procedure Name:	MARNR8
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/03/2024 08:28 MST
Databases:	MITRE 3DEP 3 arcsec

Failures

No Failures

Warnings

No Warnings

Informational

No Informational

Notes For Flight Check

MNA TOU TO LOOOO SET TO 15000 FOR D/D/I COVERAGE.

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
TOU	WP	N48° 17' 59.6370", W124° 37' 37.3560"	15000	VNAV	280	FLY_BY	TF
LOOOO	WP	N48° 07' 14.0000", W123° 22' 59.0000"	15000	VNAV	280	FLY_BY	TF
MARNR	WP	N48° 02' 19.9200", W122° 50' 59.6700"	9000	VNAV	270	FLY_BY	TF
PNELA	WP	N47° 55' 29.9900", W122° 44' 48.5800"	12000	VNAV	270	FLY_BY	TF
VEGGN	WP	N47° 43' 17.7800", W122° 33' 51.3300"	11000	VNAV	250	FLY_BY	TF
UNITT	WP	N47° 34' 30.2000", W122° 27' 49.3400"	10000	VNAV	250	FLY_BY	TF
WUBET	WP	N47° 28' 07.9000", W122° 27' 52.9200"	8000	VNAV	230	FLY_BY	TF
SHIPZ	WP	N47° 21' 29.0580", W122° 27' 56.5120"	7000	VNAV	210	FLY_BY	TF
EMMSS	WP	N47° 17' 59.1700", W122° 27' 58.3200"	7000	VNAV	210	FLY_OVER	TF

Flyability

Flight Type:	RNAV STAR
Selected Airport:	KSEA [IFPA]
Climb Gradient:	None assigned
Speeds:	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

DME DME Assessment Results for MARNR8 path TOU_EMMSS

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, TACAN
DME Include Angles:	30 to 150
Critical DMEs:	Allowed
DoD Facilities:	Included
Foreign Facilities:	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:	PAE,YYJ

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	CVV	N48° 14' 40.9000", W122° 43' 27.9000"	19.0 E	130	DH	IFPA	NO	Enabled	76.9 %	77.2 %
2	NUW	N48° 21' 17.7641", W122° 39' 42.4372"	18.0 E	130	H	IFPA	NO	Enabled	60.6 %	63 %
3	SEA	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	H	IFPA	NO	Enabled	74.4 %	74 %
4	HUH	N48° 56' 43.0327", W122° 34' 45.3170"	20.0 E	130	H	IFPA	NO	Enabled	40.8 %	42.6 %
5	YVR	N49° 04' 38.3500", W123° 08' 56.6600"	17.0 E	130	H	IFPA	NO	Enabled	41 %	42.7 %
6	ELN	N47° 01' 27.7471", W120° 27' 30.2888"	21.0 E	130	DH	IFPA	NO	Enabled	6.6 %	6.3 %
7	TOU	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	H	IFPA	NO	Enabled	31.2 %	32.5 %
8	HQM	N46° 56' 49.3455", W124° 08' 57.3680"	19.0 E	130	H	IFPA	NO	Enabled	41 %	42.7 %
9	OLM	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	H	IFPA	NO	Enabled	74.3 %	75 %
10	PAE	N47° 55' 12.0312", W122° 16' 41.8197"	20.0 E	40	L	IFPA	NO	Disabled		
11	YYJ	N48° 43' 37.3450", W123° 29' 03.6950"	17.0 E	130	H	IFPA	NO	Disabled		

DME DME Assessment Results for MARNR8 path TOU_EMMSS

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	HQM	NUW	CVV	HUH	YVR	
51.9	CVV	YVR	NUW	HQM		
52.1						
54.5	SEA	NUW	CVV			
62.9	SEA	NUW	CVV	OLM		
69.9	OLM	TOU	NUW	SEA	CVV	
74.9	SEA	NUW	OLM			
77.6	OLM	SEA				
93.7	OLM	ELN	NUW	SEA	CVV	
95.3	OLM	ELN	SEA	CVV		
95.4	OLM	ELN	SEA	NUW	CVV	
95.5	OLM	SEA				
97.6	OLM	ELN	SEA	CVV		
101.8	OLM	SEA				
103.9	OLM	ELN	SEA	CVV		
105.7	OLM	SEA	CVV			
111.5	CVV	OLM				
113.4						
115.3	CVV	SEA				

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N48° 07' 00.6864", W123° 21' 30.7002"	N48° 06' 28.8626", W123° 18' 00.1904"	2.4103
2	N47° 26' 06.3490", W122° 27' 54.0163"	N47° 24' 12.3942", W122° 27' 55.0428"	1.9003

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
TOU	LOOOO	NUW, OLM, CVV, YVR, HQM, HUH, TOU, SEA	
LOOOO	MARNR	OLM, NUW, CVV, YVR, HQM, HUH, TOU, SEA	
MARNR	PNELA	NUW, OLM, CVV, TOU, SEA	
PNELA	VEGGN	OLM, NUW, CVV, ELN, SEA	
VEGGN	UNITT	NUW, OLM, CVV, ELN, SEA	
UNITT	WUBET	OLM, CVV, ELN, SEA	
WUBET	SHIPZ	OLM, CVV, SEA	
SHIPZ	EMMSS	CVV, SEA	

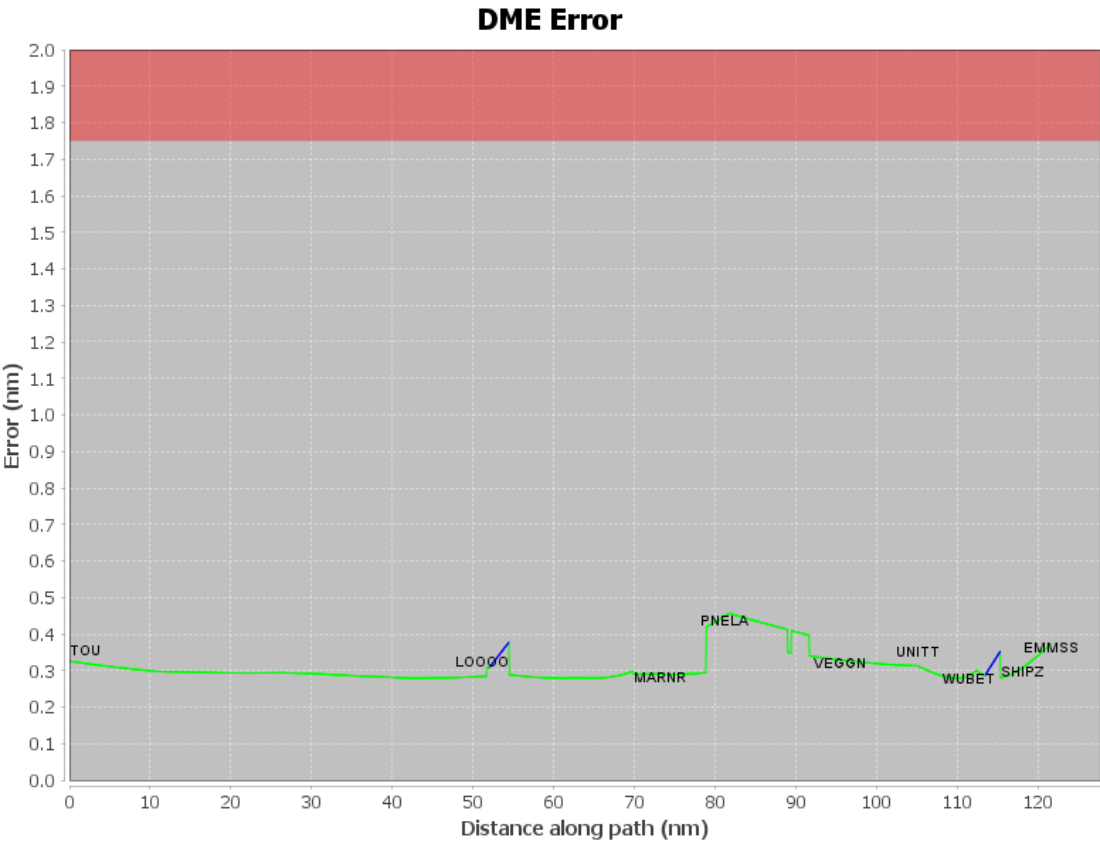
DME DME Assessment Results for MARNR8 path TOU_EMMSS

User Data Files

#	File Name
1	UserDMES_MARNR THREE DISCO MARNR 20120829_0827.udt
2	UserDMES_MARNR THREE RNAV STAR JIGEB GRIFY 20120831_0925.udt
3	UserDMES_MARNR THREE STAR JEKPO MARNR 20120829_1025.udt
4	UserDMES_MARNR THREE STAR ROESH MARNR 20120829_1031.udt
5	UserDMES_MARNR THREE STAR YVR GRIFY 20120829_1118.udt
6	UserDMES_MARNR THREE STAR YYJ SHIPZ_ 20120913_1118.udt

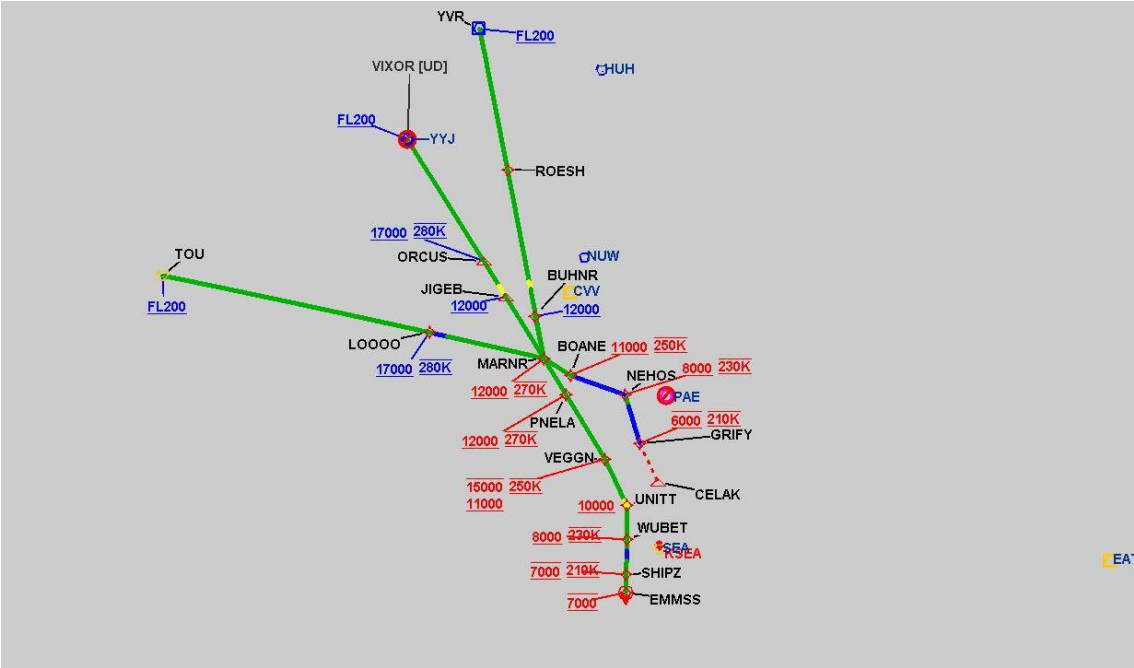
User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 352.0° to 28.0° Bearing [Mag]: 333.0° to 9.0°				Arc Distance: Out to 78.0 NM Altitude: 9000.0 to 16000.0 ft		
2	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 358.0° to 38.0° Bearing [Mag]: 339.0° to 19.0°				Arc Distance: Out to 63.0 NM Altitude: 7000.0 to 16000.0 ft		
3	UDT ESV SEA SEA [IFPA]	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	348.4	116.8	UDT ESV SEA	
ESV:		Bearing [True]: 312.0° to 3.0° Bearing [Mag]: 293.0° to 344.0°				Arc Distance: Out to 100.0 NM Altitude: 7400.0 to 20000.0 ft		
4	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 48.0° to 92.0° Bearing [Mag]: 26.0° to 70.0°				Arc Distance: Out to 79.0 NM Altitude: 9000.0 to 18000.0 ft		
5	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 70.0° to 105.0° Bearing [Mag]: 48.0° to 83.0°				Arc Distance: Out to 77.0 NM Altitude: 8900.0 to 18000.0 ft		



DME DME Assessment Results for MARNR8 path TOU_EMMSS

Graphic Depiction 1



DME DME Assessment Results for MARNR8 path VIXOR_MARNR

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\SEA 2023\MARNR8_33379_7-11-24\TARGETS\20240103_MARNR8.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\SEA 2023\MARNR8_33379_7-11-24\FINAL DOCS\DME ASSESSMENT\KSEA [IFPA] MARNR8 20240103_0828 MST\VIXOR_MARNR\KSEA MARNR8 RNAV STAR VIXOR MARNR 20240103_0828 MST.pdf
Procedure Name:	MARNR8
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/03/2024 08:28 MST
Databases:	MITRE 3DEP 3 arcsec

Failures

No Failures

Warnings

No Warnings

Informational

No Informational

Notes For Flight Check

MNA TOU TO LOOOO SET TO 15000 FOR D/D/I COVERAGE.

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
VIXOR	WP	N48° 43' 37.3450", W123° 29' 03.6950"	10000	VNAV	280	FLY_BY	TF
ORCUS	WP	N48° 20' 39.5400", W123° 07' 44.0100"	10000	VNAV	280	FLY_BY	TF
MARNR	WP	N48° 02' 19.9200", W122° 50' 59.6700"	9000	VNAV	270	FLY_BY	TF

Flyability

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

DME DME Assessment Results for MARNR8 path VIXOR_MARNR

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, TACAN
DME Include Angles:	30 to 150
Critical DMEs:	Allowed
DoD Facilities:	Included
Foreign Facilities:	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:	PAE,YYJ

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	CVV	N48° 14' 40.9000", W122° 43' 27.9000"	19.0 E	130	DH	IFPA	NO	Enabled	85.6 %	85.6 %
2	SEA	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
3	NUW	N48° 21' 17.7641", W122° 39' 42.4372"	18.0 E	130	H	IFPA	NO	Enabled	96.6 %	96.6 %
4	YVR	N49° 04' 38.3500", W123° 08' 56.6600"	17.0 E	130	H	IFPA	NO	Enabled	39.5 %	39.5 %
5	TOU	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
6	OLM	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	H	IFPA	NO	Enabled	33.1 %	33.1 %
7	PAE	N47° 55' 12.0312", W122° 16' 41.8197"	20.0 E	40	L	IFPA	NO	Disabled		
8	YYJ	N48° 43' 37.3450", W123° 29' 03.6950"	17.0 E	130	H	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	CVV	YVR	TOU	SEA		
1.6	YVR	NUW	CVV	TOU	SEA	
19.2	SEA	TOU	NUW	CVV		
20.1	SEA	TOU	NUW			
27.0	SEA	TOU	NUW	CVV		
32.4	SEA	NUW	OLM	TOU	CVV	

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
VIXOR	ORCUS	NUW, CVV, YVR, TOU, SEA	
ORCUS	MARNR	NUW, OLM, CVV, TOU, SEA	

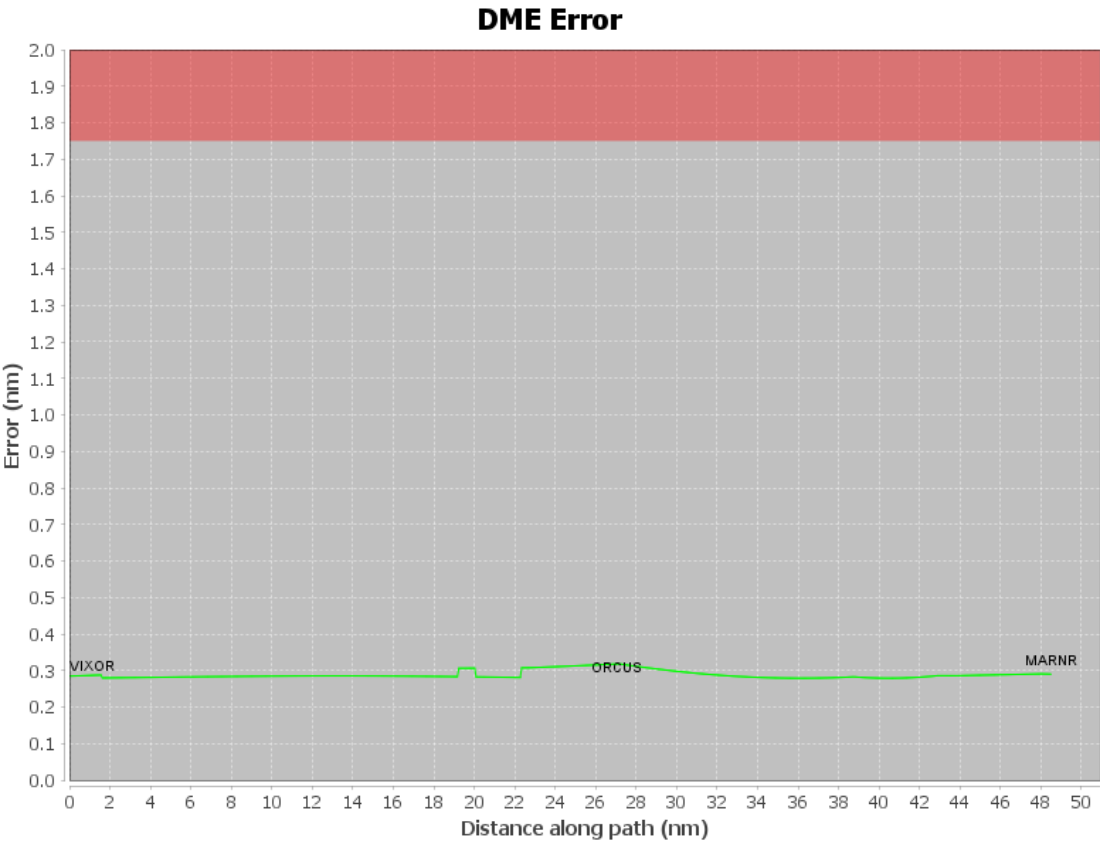
DME DME Assessment Results for MARNR8 path VIXOR_MARNR

User Data Files

#	File Name
1	UserDMES_MARNR THREE DISCO MARNR 20120829_0827.udt
2	UserDMES_MARNR THREE RNAV STAR JIGEB GRIFY 20120831_0925.udt
3	UserDMES_MARNR THREE STAR JEKPO MARNR 20120829_1025.udt
4	UserDMES_MARNR THREE STAR ROESH MARNR 20120829_1031.udt
5	UserDMES_MARNR THREE STAR YVR GRIFY 20120829_1118.udt
6	UserDMES_MARNR THREE STAR YYJ SHIPZ_20120913_1118.udt

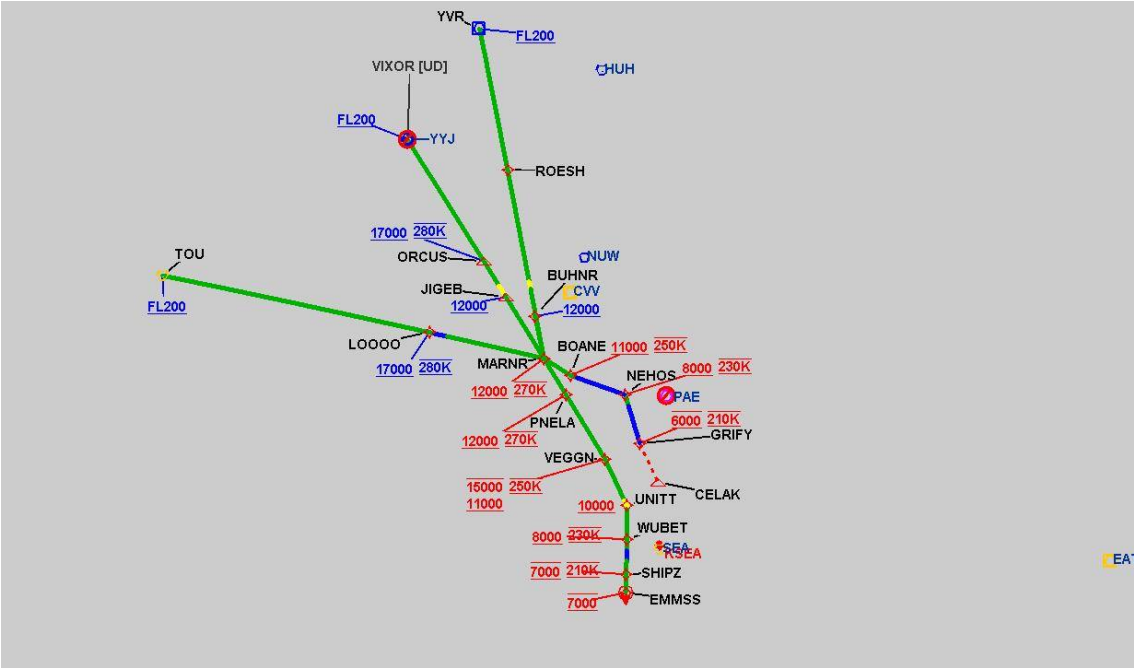
User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 352.0° to 28.0° Bearing [Mag]: 333.0° to 9.0°				Arc Distance: Out to 78.0 NM Altitude: 9000.0 to 16000.0 ft		
2	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 358.0° to 38.0° Bearing [Mag]: 339.0° to 19.0°				Arc Distance: Out to 63.0 NM Altitude: 7000.0 to 16000.0 ft		
3	UDT ESV SEA SEA [IFPA]	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	348.4	116.8	UDT ESV SEA	
ESV:		Bearing [True]: 312.0° to 3.0° Bearing [Mag]: 293.0° to 344.0°				Arc Distance: Out to 100.0 NM Altitude: 7400.0 to 20000.0 ft		
4	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 48.0° to 92.0° Bearing [Mag]: 26.0° to 70.0°				Arc Distance: Out to 79.0 NM Altitude: 9000.0 to 18000.0 ft		
5	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 70.0° to 105.0° Bearing [Mag]: 48.0° to 83.0°				Arc Distance: Out to 77.0 NM Altitude: 8900.0 to 18000.0 ft		



DME DME Assessment Results for MARNR8 path VIXOR_MARNR

Graphic Depiction 1



DME DME Assessment Results for MARNR8 path YVR_GRIFY

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\SEA 2023\MARNR8_33379_7-11-24\TARGETS\20240103_MARNR8.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\SEA 2023\MARNR8_33379_7-11-24\FINAL DOCS\DME ASSESSMENT\KSEA [IFPA] MARNR8 20240103_0828 MST\YVR_GRIFY\KSEA MARNR8 RNAV STAR YVR GRIFY 20240103_0828 MST.pdf
Procedure Name:	MARNR8
Software: DmeDmePlugin:	7.2.1
Date/Time:	01/03/2024 08:28 MST
Databases:	MITRE 3DEP 3 arcsec

Failures

No Failures

Warnings

No Warnings

Informational

No Informational

Notes For Flight Check

MNA TOU TO LOOOO SET TO 15000 FOR D/D/I COVERAGE.

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
YVR	WP	N49° 04' 38.3500", W123° 08' 56.6600"	9000	VNAV	270	FLY_BY	TF
ROESH	WP	N48° 37' 52.4700", W123° 01' 08.3800"	9000	VNAV	270	FLY_BY	TF
MARNR	WP	N48° 02' 19.9200", W122° 50' 59.6700"	9000	VNAV	270	FLY_BY	TF
BOANE	WP	N47° 59' 06.0000", W122° 43' 31.0000"	11000	VNAV	250	FLY_BY	TF
NEHOS	WP	N47° 55' 25.8200", W122° 28' 14.2100"	8000	VNAV	230	FLY_BY	TF
GRIFY	WP	N47° 46' 09.0200", W122° 24' 07.4260"	6000	VNAV	210	FLY_BY	TF

Flyability

Flight Type:	RNAV STAR
Selected Airport:	KSEA [IFPA]
Climb Gradient:	None assigned
Speeds:	200 Ground Speed to 11000 FT
	240 Ground Speed to 18000 FT
	260 Ground Speed to 24000 FT
	340 Ground Speed above 24000 FT
Descent During a Turn:	Allowed
VNAV Mode:	Flight Plan

DME DME Assessment Results for MARNR8 path YVR_GRIFY

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, TACAN
DME Include Angles:	30 to 150
Critical DMEs:	Allowed
DoD Facilities:	Included
Foreign Facilities:	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:	PAE,YYJ

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	CVV	N48° 14' 40.9000", W122° 43' 27.9000"	19.0 E	130	DH	IFPA	NO	Enabled	68 %	69.5 %
2	SEA	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	H	IFPA	NO	Enabled	67.9 %	69.7 %
3	NUW	N48° 21' 17.7641", W122° 39' 42.4372"	18.0 E	130	H	IFPA	NO	Enabled	63 %	64.8 %
4	HUH	N48° 56' 43.0327", W122° 34' 45.3170"	20.0 E	130	H	IFPA	NO	Enabled	47 %	48.4 %
5	YVR	N49° 04' 38.3500", W123° 08' 56.6600"	17.0 E	130	H	IFPA	NO	Enabled	37.3 %	38.4 %
6	TOU	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	H	IFPA	NO	Enabled	66.5 %	68.4 %
7	OLM	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	H	IFPA	NO	Enabled	25.7 %	25.9 %
8	PAE	N47° 55' 12.0312", W122° 16' 41.8197"	20.0 E	40	L	IFPA	NO	Disabled		
9	YYJ	N48° 43' 37.3450", W123° 29' 03.6950"	17.0 E	130	H	IFPA	NO	Disabled		

DME DME Assessment Results for MARNR8 path YVR_GRIFY

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	TOU	CVV	HUH			
4.9	TOU	CVV	HUH	SEA		
5.2	YVR	HUH	TOU	CVV	SEA	
36.9	NUW	HUH	CVV	YVR		
39.9	NUW	HUH	SEA	TOU	CVV	
43.6	SEA	TOU	NUW			
48.6	SEA	NUW	TOU	CVV		
49.3	SEA	NUW	OLM	TOU	CVV	
64.8	SEA	NUW	CVV	OLM		
65.8	SEA	NUW	OLM			
67.5	OLM	SEA				
70.8						
80.4	OLM	CVV				
82.4						

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N47° 58' 39.6304", W122° 41' 40.6387"	N47° 55' 25.8200", W122° 28' 14.2100"	9.5651
2	N47° 53' 28.6125", W122° 27' 22.1334"	N47° 46' 09.0200", W122° 24' 07.4260"	7.6501

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
YVR	ROESH	NUW, CVV, YVR, HUH, TOU, SEA	
ROESH	MARNR	NUW, OLM, CVV, YVR, HUH, TOU, SEA	
MARNR	BOANE	NUW, OLM, CVV, TOU, SEA	
BOANE	NEHOS	OLM, SEA	
NEHOS	GRIFY	OLM, CVV	

DME DME Assessment Results for MARNR8 path YVR_GRIFY

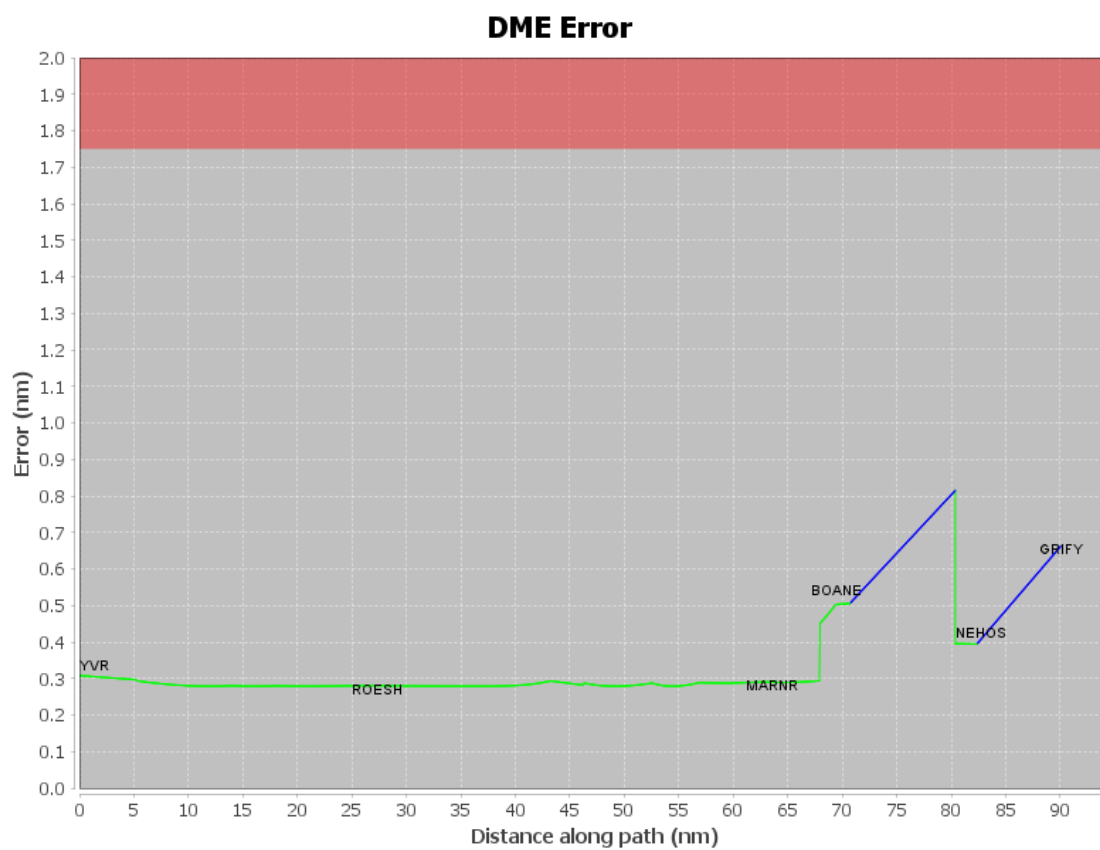
User Data Files

#	File Name
1	UserDMEs_MARNR THREE DISCO MARNR 20120829_0827.udt
2	UserDMEs_MARNR THREE RNAV STAR JIGEB GRIFY 20120831_0925.udt
3	UserDMEs_MARNR THREE STAR JEKPO MARNR 20120829_1025.udt
4	UserDMEs_MARNR THREE STAR ROESH MARNR 20120829_1031.udt
5	UserDMEs_MARNR THREE STAR YVR GRIFY 20120829_1118.udt
6	UserDMEs_MARNR THREE STAR YYJ SHIPZ_ 20120913_1118.udt

User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 352.0° to 28.0° Bearing [Mag]: 333.0° to 9.0°				Arc Distance: Out to 78.0 NM Altitude: 9000.0 to 16000.0 ft		
2	UDT ESV OLM OLM [IFPA]	N46° 58' 17.9000", W122° 54' 06.6000"	19.0 E	130	200	113.4	UDT ESV OLM	
ESV:		Bearing [True]: 358.0° to 38.0° Bearing [Mag]: 339.0° to 19.0°				Arc Distance: Out to 63.0 NM Altitude: 7000.0 to 16000.0 ft		
3	UDT ESV SEA SEA [IFPA]	N47° 26' 07.3434", W122° 18' 34.6180"	19.0 E	130	348.4	116.8	UDT ESV SEA	
ESV:		Bearing [True]: 312.0° to 3.0° Bearing [Mag]: 293.0° to 344.0°				Arc Distance: Out to 100.0 NM Altitude: 7400.0 to 20000.0 ft		
4	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 48.0° to 92.0° Bearing [Mag]: 26.0° to 70.0°				Arc Distance: Out to 79.0 NM Altitude: 9000.0 to 18000.0 ft		
5	UDT ESV TOU TOU [IFPA]	N48° 17' 59.6370", W124° 37' 37.3560"	22.0 E	130	1650	112.2	UDT ESV TOU	
ESV:		Bearing [True]: 70.0° to 105.0° Bearing [Mag]: 48.0° to 83.0°				Arc Distance: Out to 77.0 NM Altitude: 8900.0 to 18000.0 ft		

DME DME Assessment Results for MARNR8 path YVR_GRIFY



DME DME Assessment Results for MARNR8 path YVR_GRIFY

Graphic Depiction 1

