

DME DME Assessment Results for KRATR3 path BUWZO_BATYL

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\PDX\4 SIDS 3 STARs 10-31-24\KRATR3_P8196\FINAL DOCS\20240924_KRATR3.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\PDX\4 SIDS 3 STARs 10-31-24\KRATR3_P8196\FINAL DOCS\KPDX_KRATR3_20240925_0546 MST\BUWZO_BATYL\KPDX_KRATR3 RNAV STAR BUWZO BATYL 20240925_0546 MST.pdf
Procedure Name:	KRATR3
Software: DmeDmePlugin:	7.3.3
Date/Time:	09/25/2024 05:46 MST
Databases:	MITRE 3DEP 3 arcsec

Failures

No Failures

Warnings

No Warnings

Informational

No Informational

Notes For Flight Check

NO NEW ESVs.
 CBU TACAN USED.
 MEA BUWZO TO HELNS LOWERED FROM 11000 TO 10000.
 ALL NEW ROUTES ARE WITHIN 2 NM OF EXISTING PROCEDURE.

Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
BUWZO	WP	N46° 57' 08.19", W122° 18' 34.62"	10000	VNAV	260	FLY_BY	TF
HELNS	WP	N46° 15' 25.10", W122° 18' 34.58"	10000	VNAV	260	FLY_BY	TF
KRATR	WP	N46° 05' 23.57", W122° 24' 09.90"	10000	VNAV	260	FLY_BY	TF
HYKER	WP	N45° 55' 51.24", W122° 29' 18.23"	7000	VNAV	260	FLY_BY	TF
BATYL	WP	N45° 44' 52.04", W122° 35' 29.61"	7000	VNAV	210	FLY_OVER	TF

Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KPDX
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 KRATR3 path BUWZO_BATYL

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:	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:	Enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	CVV	N48° 14' 40.90", W122° 43' 27.90"	19.0 E	130	DH	IFPA	NO	Enabled		
2	CVO	N44° 29' 58.44", W123° 17' 37.18"	18.0 E	130	DH	IFPA	NO	Enabled		
3	SEA	N47° 26' 07.34", W122° 18' 34.62"	19.0 E	130	H	IFPA	NO	Enabled		
4	BTG	N45° 44' 52.12", W122° 35' 29.53"	21.0 E	130	H	IFPA	NO	Enabled		
5	CBU	N45° 35' 19.07", W122° 36' 40.51"	15.0 E	130	H	IFPA	NO	Enabled		
6	UBG	N45° 21' 11.64", W122° 58' 41.33"	21.0 E	130	DH	IFPA	NO	Enabled		
7	LTJ	N45° 42' 48.90", W121° 06' 03.00"	21.0 E	130	DH	IFPA	NO	Enabled		
8	OLM	N46° 58' 17.90", W122° 54' 06.60"	19.0 E	130	H	IFPA	NO	Enabled		
9	HQM	N46° 56' 49.35", W124° 08' 57.37"	19.0 E	130	H	IFPA	NO	Enabled		

DME DME Assessment Results for KRATR3 path BUWZO_BATYL

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	SEA	OLM	HQM	CVV	UBG	
3.6	SEA	OLM	UBG	CVV		
4.5	SEA	OLM	UBG	CVV	LTJ	
5.5	SEA	OLM	HQM	UBG	CVV	
8.7	SEA	OLM	UBG	CVV	LTJ	
10.8	OLM	UBG	CVV	LTJ		
27.1	HQM	UBG	LTJ	CVV		
32.4	UBG	LTJ	HQM			
35.5	UBG	LTJ	BTG	HQM		
43.5	UBG	LTJ	BTG	HQM	CVO	
53.5	BTG	LTJ	CBU	UBG	CVO	
56.4	BTG	LTJ	CBU	UBG		
64.0	CBU	LTJ	BTG	UBG	CVO	
70.2	CBU	LTJ	UBG	CVO		
72.6						

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N45° 46' 36.57", W122° 34' 30.89"	N45° 44' 52.04", W122° 35' 29.61"	1.8724

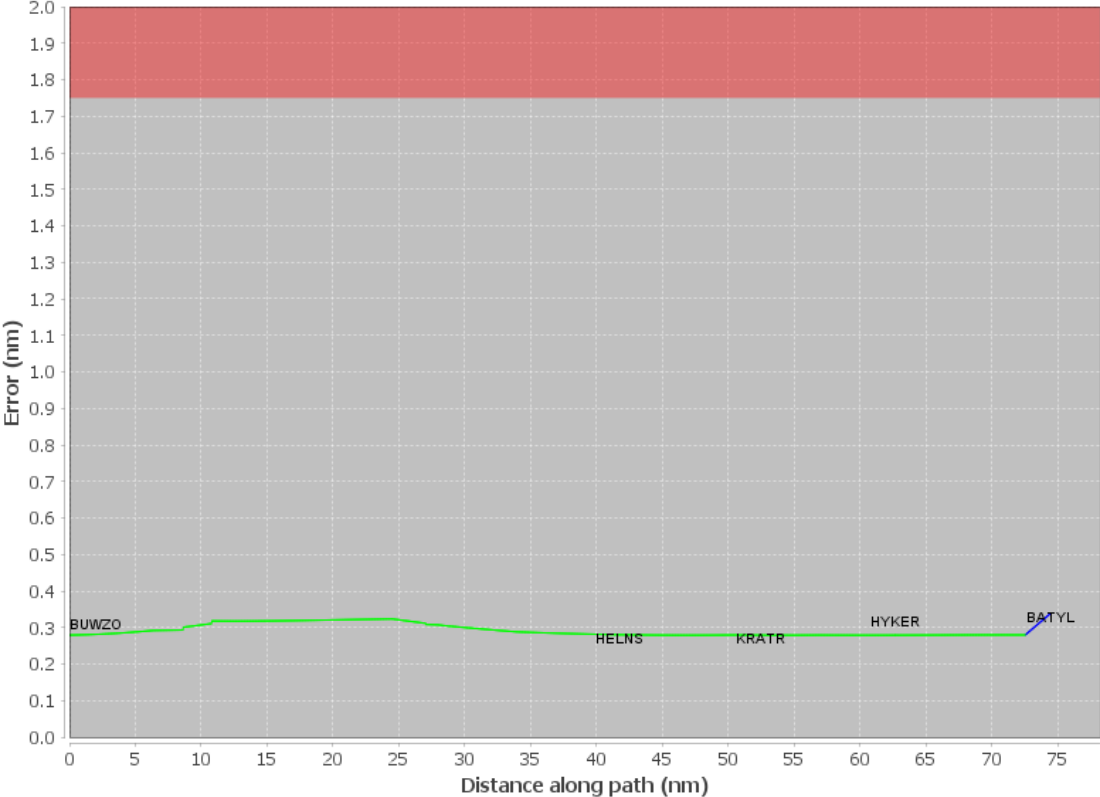
Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
BUWZO	HELNS	CVV, SEA, BTG, UBG, LTJ, OLM, HQM	
HELNS	KRATR	CVO, BTG, CBU, UBG, LTJ, HQM, OLM	
KRATR	HYKER	CVO, BTG, CBU, UBG, LTJ, HQM, OLM	
HYKER	BATYL	CVO, BTG, CBU, UBG, LTJ	

User Data Files	
#	File Name
1	KRATR_AUTO_ESV_3-24-22.udt
2	New Analysis.udt
3	UserDMEs_KPDX KRATR2 STAR BUWZO BATYL 20140508_0556.udt

User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	HQM FAA_740121-18 HQM	N46° 56' 49.35", W124° 08' 57.37"	19.0 E	130	10	117.7	HQM FAA_740121-18	
	ESV:	Bearing [True]: 88.0° to 128.0° Bearing [Mag]: 69.0° to 109.0°				Arc Distance: Out to 93.0 NM Altitude: 9500.0 to 16000.0 ft		
2	OLM FAA_753036-20 OLM	N46° 58' 17.90", W122° 54' 06.60"	19.0 E	130	200	113.4	OLM FAA_753036-20	
	ESV:	Bearing [True]: 153.0° to 176.0° Bearing [Mag]: 134.0° to 157.0°				Arc Distance: Out to 75.0 NM Altitude: 9900.0 to 14700.0 ft		

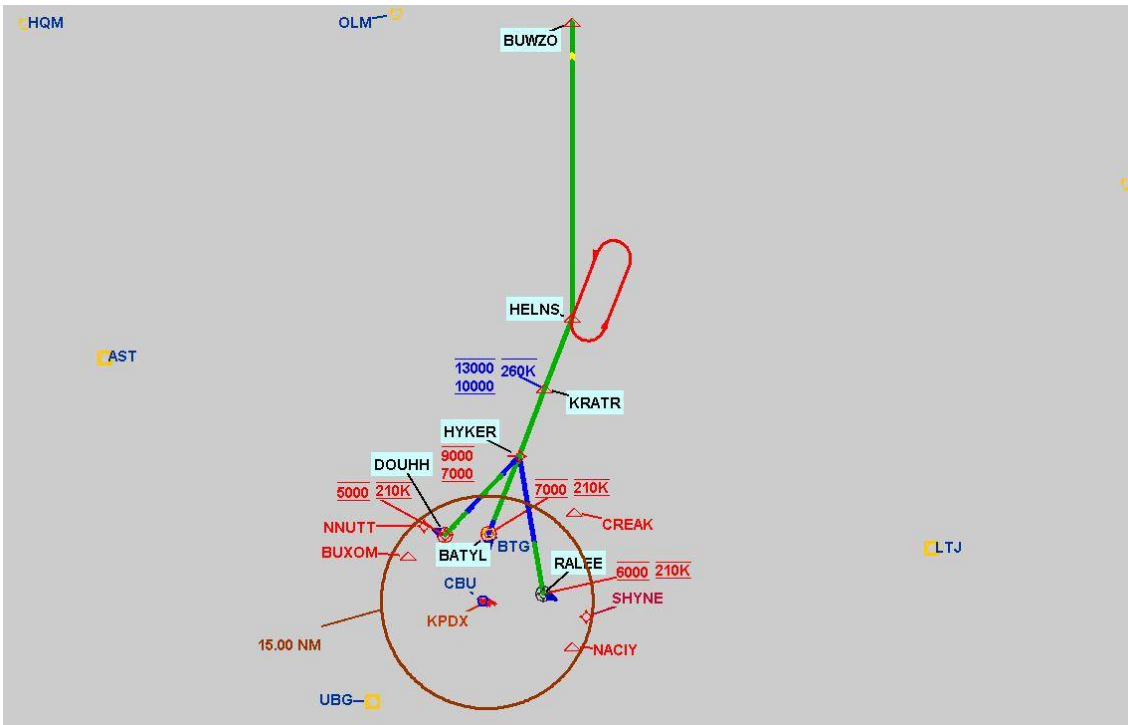
DME DME Assessment Results for KRATR3 path BUWZO_BATYL

DME Error



DME DME Assessment Results for KRATR3 path BUWZO_BATYL

Graphic Depiction 1



DME DME Assessment Results for KRATR3 path HYKER_DOUHH

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\PDX\4 SIDS 3 STARs 10-31-24\KRATR3_P8196\FINAL DOCS\20240924_KRATR3.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\PDX\4 SIDS 3 STARs 10-31-24\KRATR3_P8196\FINAL DOCS\KPDX_KRATR3_20240925_0546 MST\HYKER_DOUHH\KPDX_KRATR3 RNAV STAR HYKER DOUHH 20240925_0546 MST.pdf
Procedure Name:	KRATR3
Software: DmeDmePlugin:	7.3.3
Date/Time:	09/25/2024 05:46 MST
Databases:	MITRE 3DEP 3 arcsec

Failures
No Failures

Warnings
No Warnings

Informational
No Informational

Notes For Flight Check
NO NEW ESVs. CBU TACAN USED. MEA BUWZO TO HELNS LOWERED FROM 11000 TO 10000. ALL NEW ROUTES ARE WITHIN 2 NM OF EXISTING PROCEDURE.

Flight Plan							
Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
HYKER	WP	N45° 55' 51.24", W122° 29' 18.23"	7000	VNAV	260	FLY_BY	TF
DOUHH	WP	N45° 44' 43.96", W122° 44' 15.32"	5000	VNAV	210	FLY_OVER	TF

Flyability	
Flight Type:	RNAV_STAR
Selected Airport:	KPDX
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 KRATR3 path HYKER_DOUHH

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:	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:	Enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	BTG	N45° 44' 52.12", W122° 35' 29.53"	21.0 E	130	H	IFPA	NO	Enabled		
2	CBU	N45° 35' 19.07", W122° 36' 40.51"	15.0 E	130	H	IFPA	NO	Enabled		
3	UBG	N45° 21' 11.64", W122° 58' 41.33"	21.0 E	130	DH	IFPA	NO	Enabled		
4	IMB	N44° 38' 54.21", W119° 42' 41.87"	20.0 E	130	DH	IFPA	NO	Enabled		
5	LTJ	N45° 42' 48.90", W121° 06' 03.00"	21.0 E	130	DH	IFPA	NO	Enabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	CBU	LTJ	BTG	UBG		
0.5						
3.5	BTG	IMB	CBU			
6.6	IMB	UBG	CBU	BTG		
8.0	IMB	UBG	CBU			
8.3						
10.9	CBU	UBG				
14.0	CBU	BTG	UBG			

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N45° 55' 29.24", W122° 29' 47.95"	N45° 53' 17.19", W122° 32' 46.11"	3.0242
2	N45° 49' 49.52", W122° 37' 25.60"	N45° 47' 56.16", W122° 39' 57.81"	2.5921

DME DME Assessment Results for KRATR3 path HYKER_DOUHH

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
HYKER	DOUHH	BTG, CBU, UBG, IMB, LTJ	

User Data Files

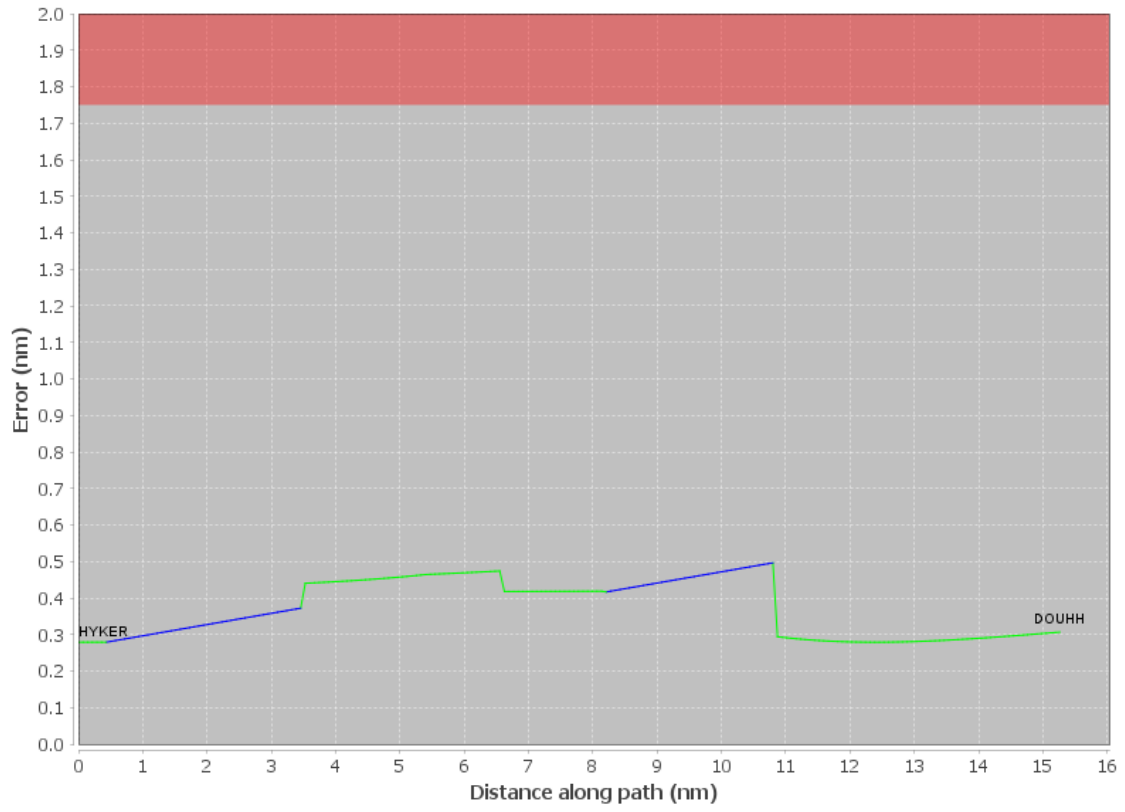
#	File Name
1	KRATR_AUTO_ESV_3-24-22.udt
2	New Analysis.udt
3	UserDMEs_KPDX KRATR2 STAR BUWZO BATYL 20140508_0556.udt

User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	HQM FAA_740121-18 HQM	N46° 56' 49.35", W124° 08' 57.37"	19.0 E	130	10	117.7	HQM FAA_740121-18	
	ESV:	Bearing [True]: 88.0° to 128.0° Bearing [Mag]: 69.0° to 109.0°				Arc Distance: Out to 93.0 NM Altitude: 9500.0 to 16000.0 ft		
2	OLM FAA_753036-20 OLM	N46° 58' 17.90", W122° 54' 06.60"	19.0 E	130	200	113.4	OLM FAA_753036-20	
	ESV:	Bearing [True]: 153.0° to 176.0° Bearing [Mag]: 134.0° to 157.0°				Arc Distance: Out to 75.0 NM Altitude: 9900.0 to 14700.0 ft		

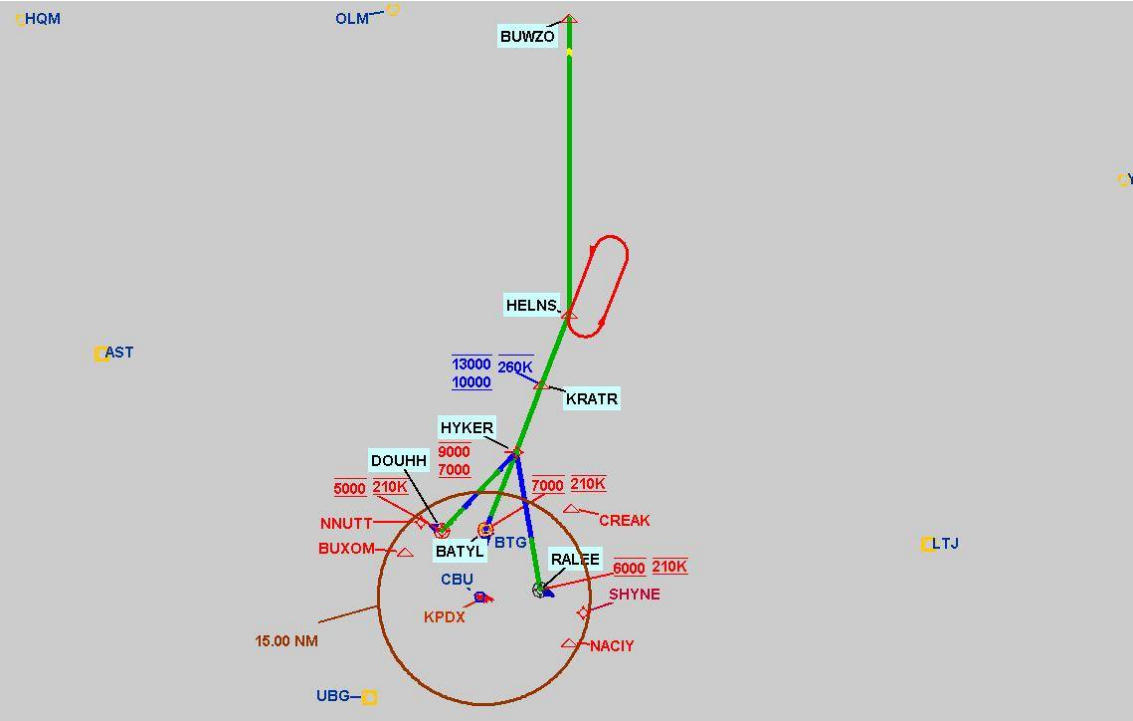
DME DME Assessment Results for KRATR3 path HYKER_DOUHH

DME Error



DME DME Assessment Results for KRATR3 path HYKER_DOUHH

Graphic Depiction 1



DME DME Assessment Results for KRATR3 path HYKER_RALEE

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\PDX\4 SIDS 3 STARs 10-31-24\KRATR3_P8196\FINAL DOCS\20240924_KRATR3.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\PDX\4 SIDS 3 STARs 10-31-24\KRATR3_P8196\FINAL DOCS\KPDX KRATR3 20240925_0546 MST \HYKER_RALEE\KPDX KRATR3 RNAV STAR HYKER RALEE 20240925_0546 MST.pdf
Procedure Name:	KRATR3
Software: DmeDmePlugin:	7.3.3
Date/Time:	09/25/2024 05:46 MST
Databases:	MITRE 3DEP 3 arcsec

Failures
No Failures

Warnings
No Warnings

Informational
No Informational

Notes For Flight Check
NO NEW ESVs. CBU TACAN USED. MEA BUWZO TO HELNS LOWERED FROM 11000 TO 10000. ALL NEW ROUTES ARE WITHIN 2 NM OF EXISTING PROCEDURE.

Flight Plan							
Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
HYKER	WP	N45° 55' 51.24", W122° 29' 18.23"	7000	VNAV	260	FLY_BY	TF
RALEE	WP	N45° 36' 27.61", W122° 24' 29.11"	6000	VNAV	210	FLY_OVER	TF

Flyability	
Flight Type:	RNAV_STAR
Selected Airport:	KPDX
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 KRATR3 path HYKER_RALEE

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:	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:	Enabled
Disabled DMEs:	None

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	CVO	N44° 29' 58.44", W123° 17' 37.18"	18.0 E	130	DH	IFPA	NO	Enabled		
2	BTG	N45° 44' 52.12", W122° 35' 29.53"	21.0 E	130	H	IFPA	NO	Enabled		
3	CBU	N45° 35' 19.07", W122° 36' 40.51"	15.0 E	130	H	IFPA	NO	Enabled		
4	UBG	N45° 21' 11.64", W122° 58' 41.33"	21.0 E	130	DH	IFPA	NO	Enabled		
5	LTJ	N45° 42' 48.90", W121° 06' 03.00"	21.0 E	130	DH	IFPA	NO	Enabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	CBU	LTJ	BTG	UBG		
0.6						
12.3	CBU	BTG	UBG			
13.1	CBU	BTG				
13.5	CBU	BTG	UBG			
13.8	CVO	BTG	CBU	UBG		

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N45° 55' 17.14", W122° 29' 09.71"	N45° 43' 46.67", W122° 26' 17.80"	11.6839

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
HYKER	RALEE	CVO, BTG, CBU, UBG, LTJ	

DME DME Assessment Results for KRATR3 path HYKER_RALEE

User Data Files

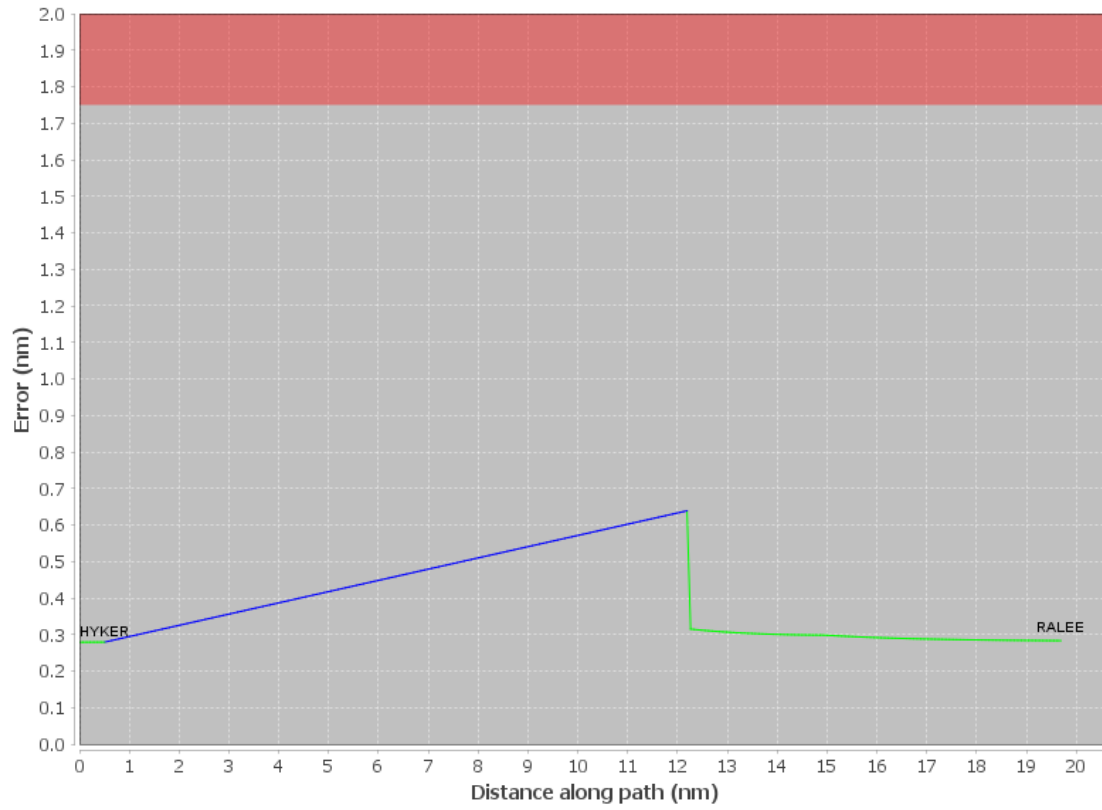
#	File Name
1	KRATR_AUTO_ESV_3-24-22.udt
2	New Analysis.udt
3	UserDMEs_KPDX KRATR2 STAR BUWZO BATYL 20140508_0556.udt

User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	HQM FAA_740121-18 HQM	N46° 56' 49.35", W124° 08' 57.37"	19.0 E	130	10	117.7	HQM FAA_740121-18	
	ESV:	Bearing [True]: 88.0° to 128.0° Bearing [Mag]: 69.0° to 109.0°				Arc Distance: Out to 93.0 NM Altitude: 9500.0 to 16000.0 ft		
2	OLM FAA_753036-20 OLM	N46° 58' 17.90", W122° 54' 06.60"	19.0 E	130	200	113.4	OLM FAA_753036-20	
	ESV:	Bearing [True]: 153.0° to 176.0° Bearing [Mag]: 134.0° to 157.0°				Arc Distance: Out to 75.0 NM Altitude: 9900.0 to 14700.0 ft		

DME DME Assessment Results for KRATR3 path HYKER_RALEE

DME Error



DME DME Assessment Results for KRATR3 path HYKER_RALEE

Graphic Depiction 1

