

## DME DME Assessment Results for RNDRZ3 path EED\_ZELMA

### 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\POST-IMPLEMENTATION WORK\SEP 2023 MTG\RNDRZ3\20240324c_RNDRZ.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\LAS METROPLEX\POST-IMPLEMENTATION WORK\SEP 2023 MTG\RNDRZ3\KLAS [IFPA] RNDRZ3 20240324_1820 MST\EED_ZELMA\KLAS RNDRZ3 RNAV STAR EED ZELMA 20240324_1820 MST.pdf
Procedure Name:	RNDRZ3
Software: DmeDmePlugin:	7.2.1
Date/Time:	03/24/2024 18:20 MST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
EED	WP	N34° 45' 57.6150", W114° 28' 26.7750"	17000	VNAV	250	FLY_BY	TF
ZELMA	WP	N34° 46' 59.9900", W115° 19' 47.5100"	17000	VNAV	250	FLY_BY	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KLAS [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 RNDRZ3 path EED\_ZELMA

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:	NJK,NJK,NTD

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	HEC	N34° 47' 49.2645", W116° 27' 46.5193"	15.0 E	130	H	IFPA	NO	Enabled	28.4 %	28.4 %
2	GOG	N35° 53' 39.3000", W115° 29' 45.9000"	0.0 E	130	DH	IFPA	NO	Enabled	100 %	100 %
3	LAS	N36° 04' 46.9253", W115° 09' 35.2725"	15.0 E	130	H	IFPA	NO	Enabled	96.2 %	96.2 %
4	EED	N34° 45' 57.6150", W114° 28' 26.7750"	15.0 E	130	H	IFPA	NO	Enabled	92.6 %	92.6 %
5	BLH	N33° 35' 45.8327", W114° 45' 40.5841"	14.0 E	130	H	IFPA	NO	Enabled	76.7 %	76.7 %
6	GFS	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	H	IFPA	NO	Enabled	91.6 %	91.6 %
7	PKE	N34° 06' 07.1020", W114° 40' 55.4390"	15.0 E	130	H	IFPA	NO	Enabled	100 %	100 %
8	NJK	N32° 49' 54.3500", W115° 40' 52.2170"	11.0 E	40	L	NFDC	NO	Disabled		
9	NJK	N32° 49' 54.3496", W115° 40' 52.2172"	11.0 E	40	L	IFPA	NO	Disabled		
10	NTD	N34° 07' 23.8299", W119° 07' 19.1248"	12.0 E	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	GFS	PKE	BLH	GOG		
0.5	GOG	PKE	BLH	LAS		
1.1	GFS	PKE	BLH	GOG	LAS	
1.2	GOG	PKE	BLH	LAS		
3.1	EED	BLH	GOG	PKE	LAS	
3.7	EED	PKE	BLH	GOG		
4.0	EED	PKE	BLH	GFS	GOG	LAS
4.5	EED	PKE	BLH	GFS	GOG	
32.5	GFS	HEC	EED	GOG	LAS	PKE

# DME DME Assessment Results for RNDZR3 path EED\_ZELMA

## Inertial Drift Segments

#	Start Location	End Location	Length [NM]
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## Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List	Suggested DMEs
EED	ZELMA	GFS, EED, HEC, PKE, GOG, BLH, LAS	

## User Data Files

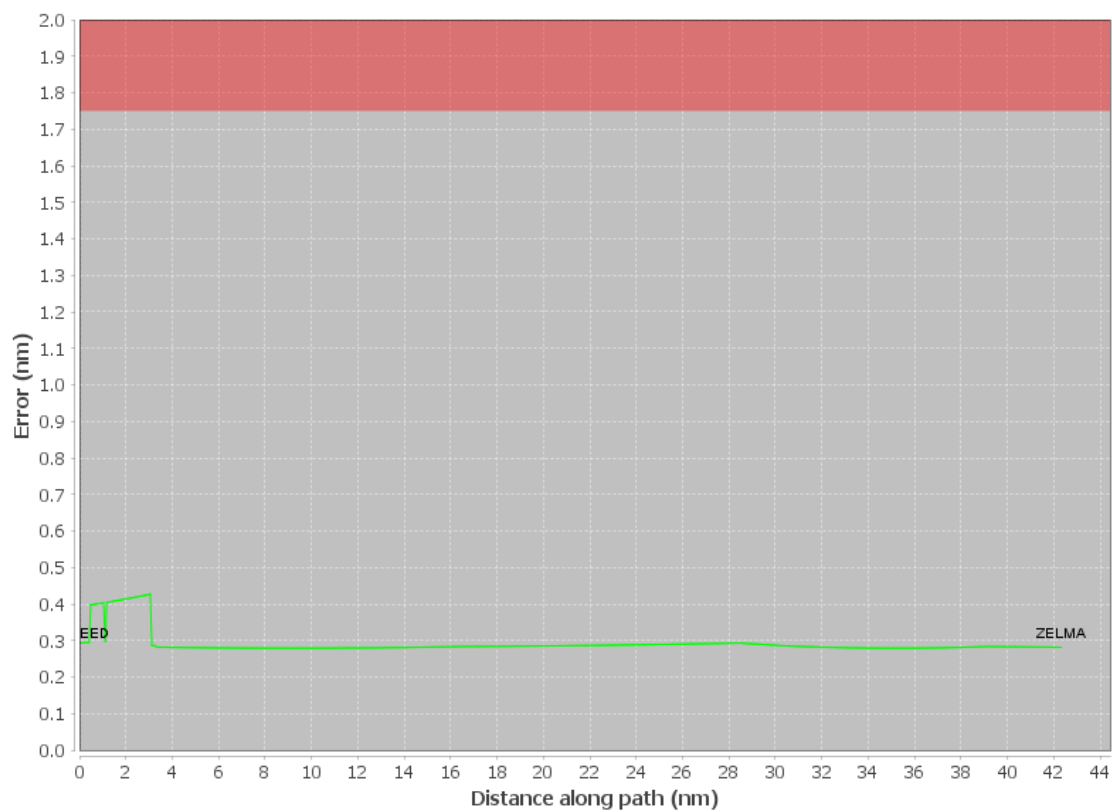
#	File Name
1	New Analysis.udt
2	UserDMEsKLAS [IFPA] RKSTR3 RNAV STAR_20210927_0806 PDT.udt
3	UserDMEsKLAS [IFPA] RNDZR2 RNAV STAR_20211004_0941 PDT.udt

## User DMEs

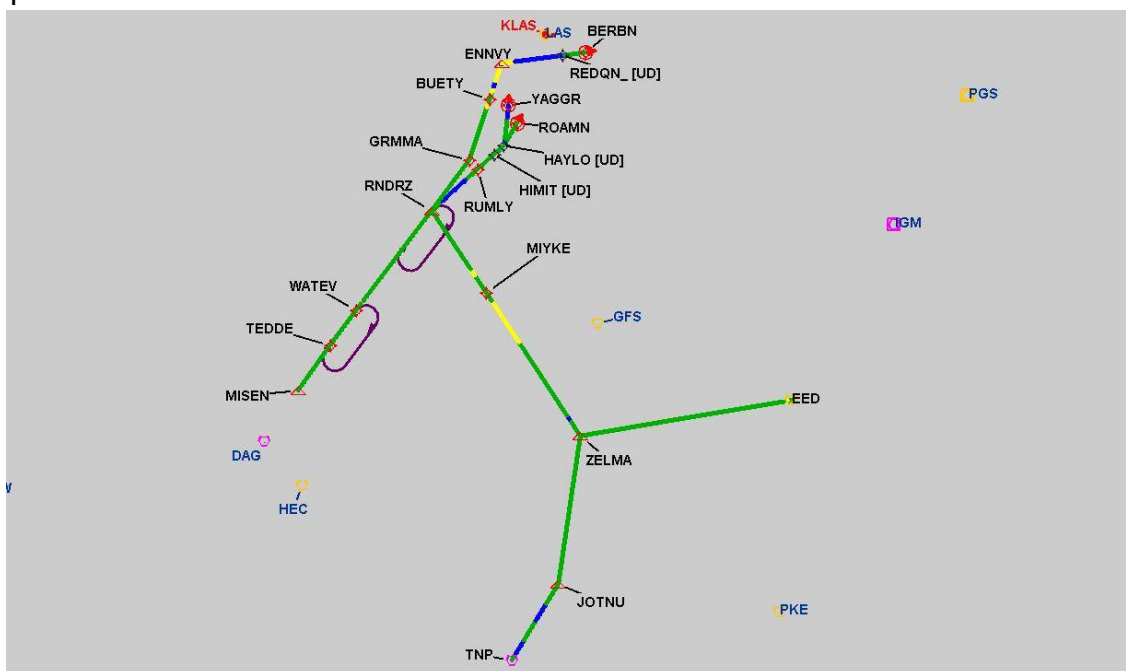
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LHS LHS [IFPA]	N34° 40' 58.7040", W118° 34' 36.9770"	15.0 E	130	5790	114.35	LHS	
ESV:		Bearing [True]: 71.0° to 78.0° Bearing [Mag]: 56.0° to 63.0°				Arc Distance: Out to 123.0 NM Altitude: 16000.0 to 23800.0 ft		
2	UDT ESV BLD BLD [IFPA]	N35° 59' 44.8448", W114° 51' 48.8840"	15.0 E	130	3641.9	116.7	UDT ESV BLD	
ESV:		Bearing [True]: 188.0° to 226.0° Bearing [Mag]: 173.0° to 211.0°				Arc Distance: Out to 110.0 NM Altitude: 12900.0 to 13100.0 ft		
3	GFS 1 GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	GFS 1	
ESV:		Bearing [True]: 117.0° to 127.0° Bearing [Mag]: 102.0° to 112.0°				Arc Distance: Out to 44.0 NM Altitude: 16900.0 to 18500.0 ft		
4	GFS 2 GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	GFS 2	
ESV:		Bearing [True]: 265.0° to 289.0° Bearing [Mag]: 250.0° to 274.0°				Arc Distance: Out to 64.0 NM Altitude: 12900.0 to 18500.0 ft		
5	UDT ESV BTY BTY [IFPA]	N36° 48' 02.1502", W116° 44' 51.5051"	16.0 E	130	2927.4	114.7	UDT ESV BTY	
ESV:		Bearing [True]: 123.0° to 160.0° Bearing [Mag]: 107.0° to 144.0°				Arc Distance: Out to 109.0 NM Altitude: 11700.0 to 14100.0 ft		
6	EED EED [IFPA]	N34° 45' 57.6150", W114° 28' 26.7750"	15.0 E	130	620	115.2	EED	
ESV:		Bearing [True]: 288.0° to 296.0° Bearing [Mag]: 273.0° to 281.0°				Arc Distance: Out to 94.0 NM Altitude: 12900.0 to 15200.0 ft		
7	UDT ESV GFS GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	UDT ESV GFS	
ESV:		Bearing [True]: 341.0° to 354.0° Bearing [Mag]: 326.0° to 339.0°				Arc Distance: Out to 58.0 NM Altitude: 8900.0 to 11100.0 ft		

# DME DME Assessment Results for RNDRZ3 path EED\_ZELMA

## DME Error



### Graphic Depiction 1



## DME DME Assessment Results for RNDRZ3 path HAYLO\_YAGGR

### 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\POST-IMPLEMENTATION WORK\SEP 2023 MTG\RNDRZ3\20240324c_RNDRZ.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\LAS METROPLEX\POST-IMPLEMENTATION WORK\SEP 2023 MTG\RNDRZ3\KLAS [IFPA] RNDRZ3 20240324_1820 MST\HAYLO_YAGGR\KLAS RNDRZ3 RNAV STAR HAYLO YAGGR 20240324_1820 MST.pdf
Procedure Name:	RNDRZ3
Software: DmeDmePlugin:	7.2.1
Date/Time:	03/24/2024 18:20 MST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
HAYLO	WP	N35° 45' 10.4500", W115° 24' 26.7900"	8000	VNAV	250	FLY_BY	TF
YAGGR	WP	N35° 52' 48.5400", W115° 21' 31.7000"	8000	VNAV	210	FLY_OVER	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KLAS [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 RNDRZ3 path HAYLO\_YAGGR

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:	NJK,NJK,NTD

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	GOG	N35° 53' 39.3000", W115° 29' 45.9000"	0.0 E	130	DH	IFPA	NO	Enabled	56.5 %	56.5 %
2	BLD	N35° 59' 44.8448", W114° 51' 48.8840"	15.0 E	130	H	IFPA	NO	Enabled	56.5 %	56.5 %
3	NJK	N32° 49' 54.3500", W115° 40' 52.2170"	11.0 E	40	L	NFDC	NO	Disabled		
4	NJK	N32° 49' 54.3496", W115° 40' 52.2172"	11.0 E	40	L	IFPA	NO	Disabled		
5	NTD	N34° 07' 23.8299", W119° 07' 19.1248"	12.0 E	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
0.8	GOG	BLD				
5.4						

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N35° 45' 10.4500", W115° 24' 26.7900"	N35° 45' 58.2545", W115° 24' 08.5458"	0.8332
2	N35° 50' 21.1633", W115° 22' 28.0943"	N35° 52' 48.5400", W115° 21' 31.7000"	2.5689

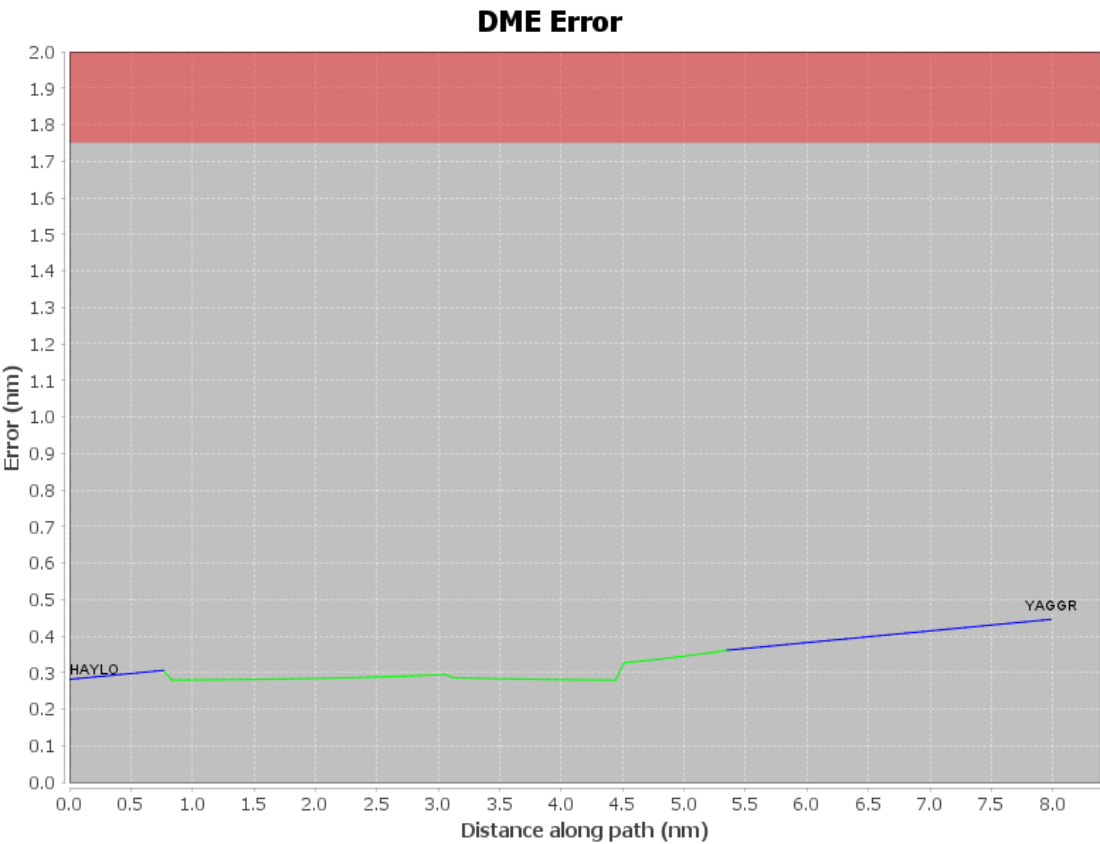
Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
HAYLO	YAGGR	BLD, GOG	

# DME DME Assessment Results for RNDRZ3 path HAYLO\_YAGGR

User Data Files								
#	File Name							
1	New Analysis.udt							
2	UserDMEsKLAS [IFPA] RKSTR3 RNAV STAR_20210927_0806 PDT.udt							
3	UserDMEsKLAS [IFPA] RNDRZ2 RNAV STAR_20211004_0941 PDT.udt							
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LHS LHS [IFPA]	N34° 40' 58.7040", W118° 34' 36.9770"	15.0 E	130	5790	114.35	LHS	
ESV:		Bearing [True]: 71.0° to 78.0° Bearing [Mag]: 56.0° to 63.0°				Arc Distance: Out to 123.0 NM Altitude: 16000.0 to 23800.0 ft		
2	UDT ESV BLD BLD [IFPA]	N35° 59' 44.8448", W114° 51' 48.8840"	15.0 E	130	3641.9	116.7	UDT ESV BLD	
ESV:		Bearing [True]: 188.0° to 226.0° Bearing [Mag]: 173.0° to 211.0°				Arc Distance: Out to 110.0 NM Altitude: 12900.0 to 13100.0 ft		
3	GFS 1 GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	GFS 1	
ESV:		Bearing [True]: 117.0° to 127.0° Bearing [Mag]: 102.0° to 112.0°				Arc Distance: Out to 44.0 NM Altitude: 16900.0 to 18500.0 ft		
4	GFS 2 GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	GFS 2	
ESV:		Bearing [True]: 265.0° to 289.0° Bearing [Mag]: 250.0° to 274.0°				Arc Distance: Out to 64.0 NM Altitude: 12900.0 to 18500.0 ft		
5	UDT ESV BTY BTY [IFPA]	N36° 48' 02.1502", W116° 44' 51.5051"	16.0 E	130	2927.4	114.7	UDT ESV BTY	
ESV:		Bearing [True]: 123.0° to 160.0° Bearing [Mag]: 107.0° to 144.0°				Arc Distance: Out to 109.0 NM Altitude: 11700.0 to 14100.0 ft		
6	EED EED [IFPA]	N34° 45' 57.6150", W114° 28' 26.7750"	15.0 E	130	620	115.2	EED	
ESV:		Bearing [True]: 288.0° to 296.0° Bearing [Mag]: 273.0° to 281.0°				Arc Distance: Out to 94.0 NM Altitude: 12900.0 to 15200.0 ft		
7	UDT ESV GFS GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	UDT ESV GFS	
ESV:		Bearing [True]: 341.0° to 354.0° Bearing [Mag]: 326.0° to 339.0°				Arc Distance: Out to 58.0 NM Altitude: 8900.0 to 11100.0 ft		

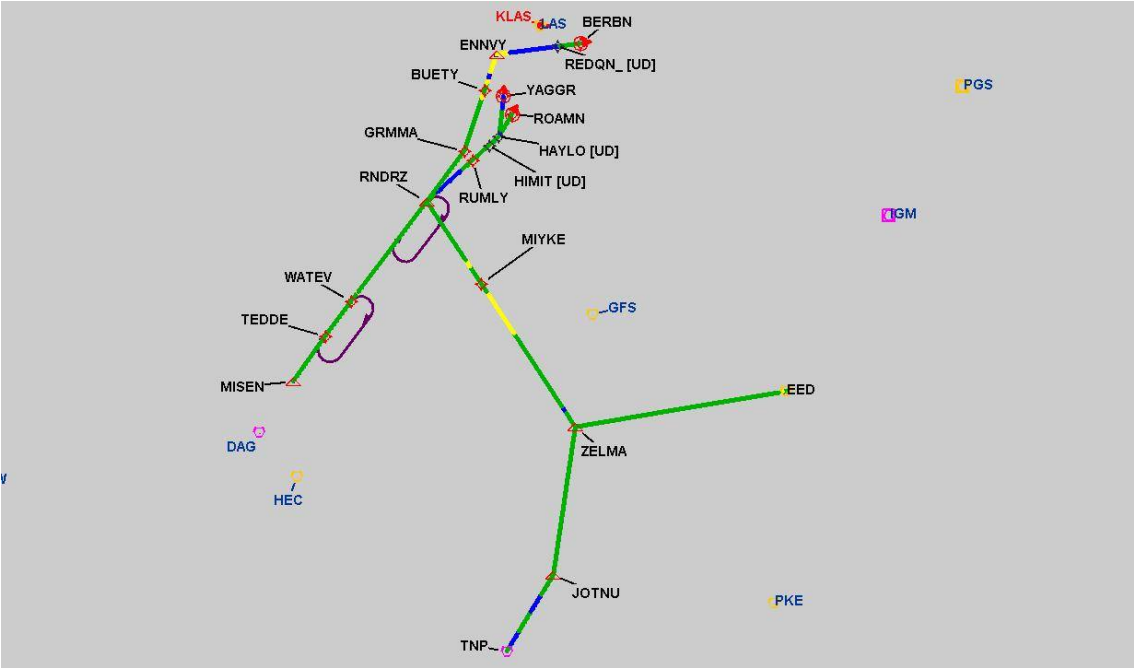


DME DME Assessment Results for RNDZ3 path HAYLO\_YAGGR



DME DME Assessment Results for RNDRZ3 path HAYLO\_YAGGR

Graphic Depiction 1



## DME DME Assessment Results for RNDRZ3 path MISEN\_ROAMN

### 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\POST-IMPLEMENTATION WORK\SEP 2023 MTG\RNDRZ3\20240324c_RNDRZ.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\LAS METROPLEX\POST-IMPLEMENTATION WORK\SEP 2023 MTG\RNDRZ3\KLAS [IFPA] RNDRZ3 20240324_1820 MST\MISEN_ROAMN\KLAS RNDRZ3 RNAV STAR MISEN ROAMN 20240324_1820 MST.pdf
Procedure Name:	RNDRZ3
Software: DmeDmePlugin:	7.2.1
Date/Time:	03/24/2024 18:20 MST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
MISEN	WP	N35° 06' 08.4600", W116° 24' 13.8600"	17000	VNAV	250	FLY_BY	TF
TEDDE	WP	N35° 13' 33.3900", W116° 14' 38.5400"	17000	VNAV	250	FLY_BY	TF
WATEV	WP	N35° 19' 14.2800", W116° 06' 51.7100"	13000	VNAV	250	FLY_BY	TF
RNDRZ	WP	N35° 35' 26.7200", W115° 44' 30.0600"	13000	VNAV	250	FLY_BY	TF
RUMLY	WP	N35° 41' 35.8800", W115° 31' 50.4500"	10000	VNAV	250	FLY_BY	TF
HIMIT	WP	N35° 43' 50.8060", W115° 27' 11.6549"	8800	VNAV	250	FLY_BY	TF
HAYLO	WP	N35° 45' 10.4500", W115° 24' 26.7900"	8000	VNAV	250	FLY_BY	TF
ROAMN	WP	N35° 48' 57.4700", W115° 20' 21.9000"	8000	VNAV	210	FLY_OVER	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KLAS [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 RNDRZ3 path MISEN\_ROAMN

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:	NJK,NJK,NTD

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	HEC	N34° 47' 49.2645", W116° 27' 46.5193"	15.0 E	130	H	IFPA	NO	Enabled	24.7 %	24.7 %
2	DAG	N34° 57' 44.8450", W116° 34' 41.3990"	15.0 E	40	L	IFPA	NO	Enabled	33 %	33 %
3	GOG	N35° 53' 39.3000", W115° 29' 45.9000"	0.0 E	130	DH	IFPA	NO	Enabled	89.8 %	89.8 %
4	EED	N34° 45' 57.6150", W114° 28' 26.7750"	15.0 E	130	H	IFPA	NO	Enabled	24 %	24 %
5	LAS	N36° 04' 46.9253", W115° 09' 35.2725"	15.0 E	130	H	IFPA	NO	Enabled	0.5 %	0.5 %
6	LHS	N34° 40' 58.7040", W118° 34' 36.9770"	15.0 E	130	H	IFPA	NO	Enabled	18.8 %	18.8 %
7	GFS	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	H	IFPA	NO	Enabled	25 %	25 %
8	BLD	N35° 59' 44.8448", W114° 51' 48.8840"	15.0 E	130	H	IFPA	NO	Enabled	21.4 %	21.4 %
9	BTY	N36° 48' 02.1502", W116° 44' 51.5051"	16.0 E	130	H	IFPA	NO	Enabled	35.7 %	35.7 %
10	NJK	N32° 49' 54.3500", W115° 40' 52.2170"	11.0 E	40	L	NFDC	NO	Disabled		
11	NJK	N32° 49' 54.3496", W115° 40' 52.2172"	11.0 E	40	L	IFPA	NO	Disabled		
12	NTD	N34° 07' 23.8299", W119° 07' 19.1248"	12.0 E	40	L	IFPA	NO	Disabled		

# DME DME Assessment Results for RNDRZ3 path MISEN\_ROAMN

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	GFS	HEC	LHS	GOG		
5.3	GFS	HEC	GOG	DAG	LHS	
12.8	GFS	HEC	EED	GOG	DAG	
16.8	GFS	GOG	EED	DAG		
16.9	EED	GOG	DAG			
21.3	GFS	GOG	EED	DAG		
21.5	EED	GOG	DAG	BTY		
21.6	EED	GOG	DAG			
22.2	EED	GOG	DAG	BTY		
22.9	BTY	DAG	GOG			
27.8	BTY	GOG				
46.0	BTY	LAS	GOG			
46.4						
53.2	GOG	BLD				

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N35° 36' 47.9217", W115° 41' 43.3756"	N35° 40' 19.1708", W115° 34' 28.6791"	6.8723

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
MISEN	TEDDE	GFS, EED, LHS, HEC, DAG, GOG	
TEDDE	WATEV	EED, GFS, LHS, HEC, DAG, GOG	
WATEV	RNDRZ	EED, GFS, BTY, DAG, GOG	
RNDRZ	RUMLY	BTY, BLD, GOG, LAS	
RUMLY	HIMIT	BLD, GOG	
HIMIT	HAYLO	BLD, GOG	
HAYLO	ROAMN	BLD, GOG	

# DME DME Assessment Results for RNDZR3 path MISEN\_ROAMN

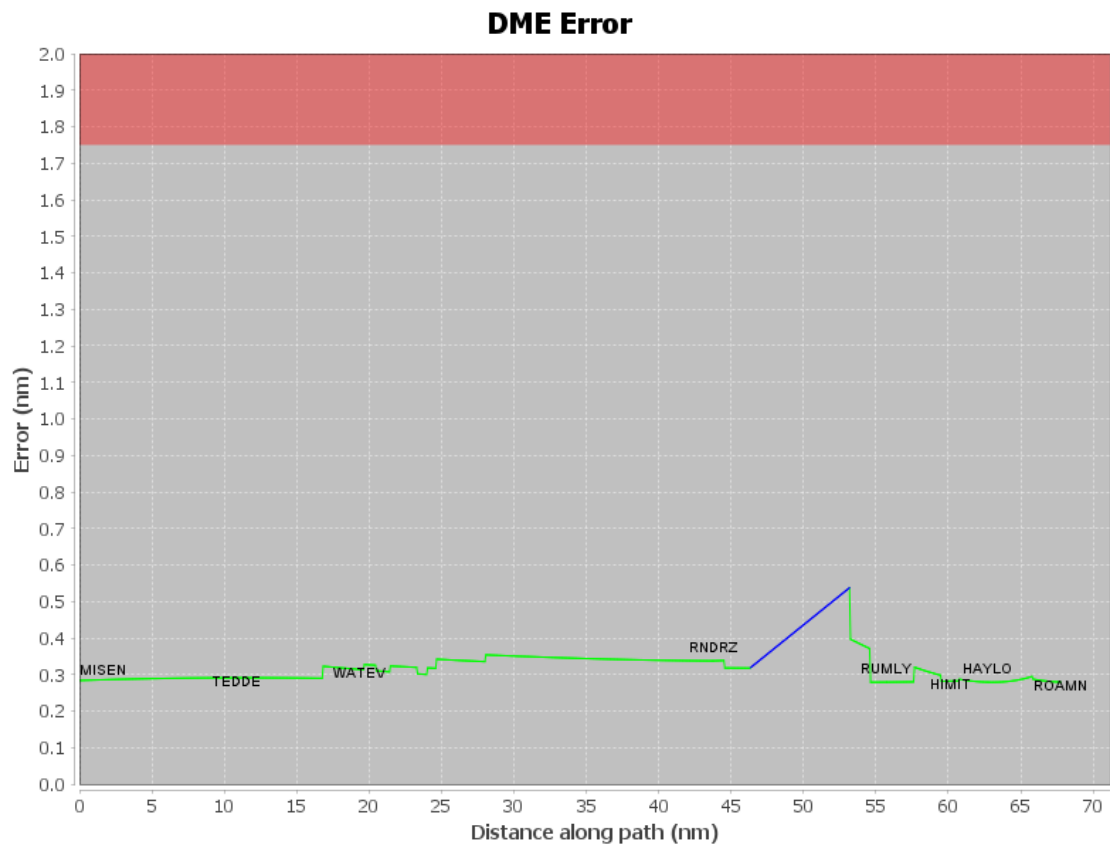
## User Data Files

#	File Name
1	New Analysis.udt
2	UserDMEsKLAS [IFPA] RKSTR3 RNAV STAR_20210927_0806 PDT.udt
3	UserDMEsKLAS [IFPA] RNDZR2 RNAV STAR_20211004_0941 PDT.udt

## User DMEs

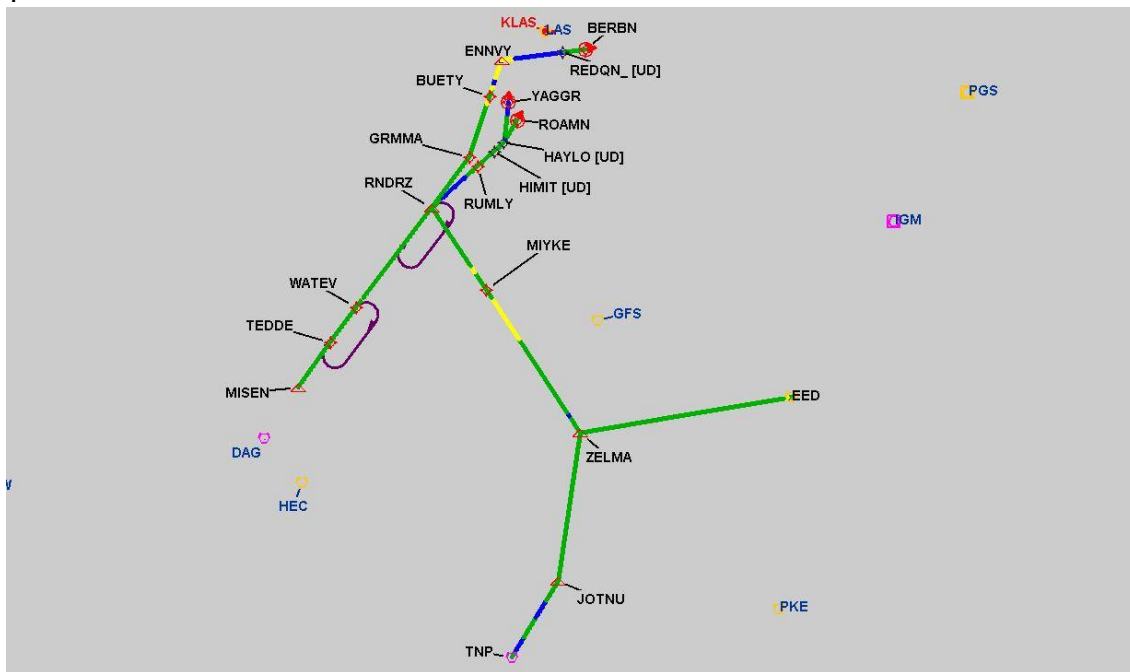
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LHS LHS [IFPA]	N34° 40' 58.7040", W118° 34' 36.9770"	15.0 E	130	5790	114.35	LHS	
ESV:		Bearing [True]: 71.0° to 78.0° Bearing [Mag]: 56.0° to 63.0°				Arc Distance: Out to 123.0 NM Altitude: 16000.0 to 23800.0 ft		
2	UDT ESV BLD BLD [IFPA]	N35° 59' 44.8448", W114° 51' 48.8840"	15.0 E	130	3641.9	116.7	UDT ESV BLD	
ESV:		Bearing [True]: 188.0° to 226.0° Bearing [Mag]: 173.0° to 211.0°				Arc Distance: Out to 110.0 NM Altitude: 12900.0 to 13100.0 ft		
3	GFS 1 GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	GFS 1	
ESV:		Bearing [True]: 117.0° to 127.0° Bearing [Mag]: 102.0° to 112.0°				Arc Distance: Out to 44.0 NM Altitude: 16900.0 to 18500.0 ft		
4	GFS 2 GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	GFS 2	
ESV:		Bearing [True]: 265.0° to 289.0° Bearing [Mag]: 250.0° to 274.0°				Arc Distance: Out to 64.0 NM Altitude: 12900.0 to 18500.0 ft		
5	UDT ESV BTY BTY [IFPA]	N36° 48' 02.1502", W116° 44' 51.5051"	16.0 E	130	2927.4	114.7	UDT ESV BTY	
ESV:		Bearing [True]: 123.0° to 160.0° Bearing [Mag]: 107.0° to 144.0°				Arc Distance: Out to 109.0 NM Altitude: 11700.0 to 14100.0 ft		
6	EED EED [IFPA]	N34° 45' 57.6150", W114° 28' 26.7750"	15.0 E	130	620	115.2	EED	
ESV:		Bearing [True]: 288.0° to 296.0° Bearing [Mag]: 273.0° to 281.0°				Arc Distance: Out to 94.0 NM Altitude: 12900.0 to 15200.0 ft		
7	UDT ESV GFS GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	UDT ESV GFS	
ESV:		Bearing [True]: 341.0° to 354.0° Bearing [Mag]: 326.0° to 339.0°				Arc Distance: Out to 58.0 NM Altitude: 8900.0 to 11100.0 ft		

## DME DME Assessment Results for RNDRZ3 path MISEN\_ROAMN



## DME DME Assessment Results for RNDRZ3 path MISEN\_ROAMN

Graphic Depiction 1





## DME DME Assessment Results for RNRZ3 path TNP\_BERBN

### 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\POST-IMPLEMENTATION WORK\SEP 2023 MTG\RNRZ3\20240324c_RNRZ.tgs
Output File:	C:\Users\Bob CTR Graham\Desktop\AREA NAV Projects and TARGETS Files\LAS METROPLEX\POST-IMPLEMENTATION WORK\SEP 2023 MTG\RNRZ3\KLAS [IFPA] RNRZ3 20240324_1820 MST\TNP_BERBN\KLAS RNRZ3 RNAV STAR TNP BERBN 20240324_1820 MST.pdf
Procedure Name:	RNRZ3
Software: DmeDmePlugin:	7.2.1
Date/Time:	03/24/2024 18:20 MST
Databases:	MITRE 3DEP 3 arcsec

### Failures

No Failures

### Warnings

No Warnings

### Informational

No Informational

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
TNP	WP	N34° 06' 44.0443", W115° 46' 11.6580"	15000	VNAV	250	FLY_BY	TF
JOTNU	WP	N34° 19' 33.1100", W115° 31' 46.2900"	15000	VNAV	250	FLY_BY	TF
ZELMA	WP	N34° 46' 59.9900", W115° 19' 47.5100"	17000	VNAV	250	FLY_BY	TF
MIYKE	WP	N35° 17' 46.8700", W115° 35' 22.6400"	13000	VNAV	250	FLY_BY	TF
RNRZ	WP	N35° 35' 26.7200", W115° 44' 30.0600"	13000	VNAV	250	FLY_BY	TF
GRMMA	WP	N35° 43' 42.1300", W115° 33' 20.3900"	13000	VNAV	250	FLY_BY	TF
BUETY	WP	N35° 54' 26.5900", W115° 25' 48.5800"	13000	VNAV	250	FLY_BY	TF
ENNVY	WP	N36° 00' 58.5100", W115° 21' 14.9500"	11000	VNAV	250	FLY_BY	TF
REDQN_	WP	N36° 00' 14.4670", W115° 06' 27.8135"	9000	VNAV	210	FLY_BY	TF
BERBN	WP	N35° 59' 57.2500", W115° 00' 50.7200"	8000	VNAV	210	FLY_OVER	TF

## DME DME Assessment Results for RNDRZ3 path TNP\_BERBN

Flyability	
Flight Type:	RNAV_STAR
Selected Airport:	KLAS [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	
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:	NJK,NJK,NTD

**DME DME Assessment Results for RNDZ3 path TNP\_BERBN**

<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	IPL	N32° 44' 55.9198", W115° 30' 30.8953"	14.0 E	130	H	IFPA	NO	Enabled	9.6 %	9.7 %
2	GFS	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	H	IFPA	NO	Enabled	41 %	41.2 %
3	PKE	N34° 06' 07.1020", W114° 40' 55.4390"	15.0 E	130	H	IFPA	NO	Enabled	16 %	16.1 %
4	BTY	N36° 48' 02.1502", W116° 44' 51.5051"	16.0 E	130	H	IFPA	NO	Enabled	33 %	33.2 %
5	HEC	N34° 47' 49.2645", W116° 27' 46.5193"	15.0 E	130	H	IFPA	NO	Enabled	7 %	7 %
6	GOG	N35° 53' 39.3000", W115° 29' 45.9000"	0.0 E	130	DH	IFPA	NO	Enabled	74.2 %	74.1 %
7	EED	N34° 45' 57.6150", W114° 28' 26.7750"	15.0 E	130	H	IFPA	NO	Enabled	25.5 %	25.7 %
8	LAS	N36° 04' 46.9253", W115° 09' 35.2725"	15.0 E	130	H	IFPA	NO	Enabled	28.6 %	28.2 %
9	TNP	N34° 06' 44.0443", W115° 46' 11.6580"	15.0 E	40	L	IFPA	NO	Enabled	17.3 %	17.4 %
10	BLH	N33° 35' 45.8327", W114° 45' 40.5841"	14.0 E	130	H	IFPA	NO	Enabled	3.7 %	3.7 %
11	BLD	N35° 59' 44.8448", W114° 51' 48.8840"	15.0 E	130	H	IFPA	NO	Enabled	31.8 %	32 %
12	PGS	N35° 37' 28.9630", W113° 32' 40.0800"	15.0 E	130	DH	IFPA	NO	Enabled	2.8 %	2.8 %
13	OCN	N33° 14' 26.2815", W117° 25' 03.7947"	15.0 E	130	H	IFPA	NO	Enabled	0.8 %	0.8 %
14	NJK	N32° 49' 54.3500", W115° 40' 52.2170"	11.0 E	40	L	NFDC	NO	Disabled		
15	NJK	N32° 49' 54.3496", W115° 40' 52.2172"	11.0 E	40	L	IFPA	NO	Disabled		
16	NTD	N34° 07' 23.8299", W119° 07' 19.1248"	12.0 E	40	L	IFPA	NO	Disabled		

# DME DME Assessment Results for RNDRZ3 path TNP\_BERBN

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	BLH	OCN	IPL			
1.2	IPL	OCN				
1.2						
4.5	TNP	BLH	IPL			
6.0	TNP	BLH	GOG	IPL		
8.9						
12.9	TNP	IPL				
19.5	EED	GOG	IPL	TNP		
21.4	EED	GOG	IPL			
21.7	EED	GOG				
25.1	TNP	PKE	EED	GOG		
29.1	TNP	PKE	GFS	EED	GOG	
38.0	GFS	HEC	EED	GOG	PKE	
48.0	EED	GOG	GFS	PKE		
48.9	EED	GOG	GFS			
50.4						
51.4	GOG	GFS				
60.1	GOG	GFS	BLD			
65.6	BLD	EED	GOG	GFS		
72.8	GOG	GFS	BLD			
77.2	GOG	GFS	BLD	BTY		
85.3	BTY	GOG				
100.4	BTY	LAS	GOG			
109.9	BTY	LAS	BLD	GOG		
115.0	BTY	LAS	BLD			
122.1	BTY	LAS	BLD	PGS		
124.0	BTY	LAS	GOG	BLD	PGS	
126.4						
127.5	GFS	BLD	LAS	GOG		
130.9						
131.3	GFS	BLD	LAS	GOG		
133.7						
143.5	GOG	LAS				

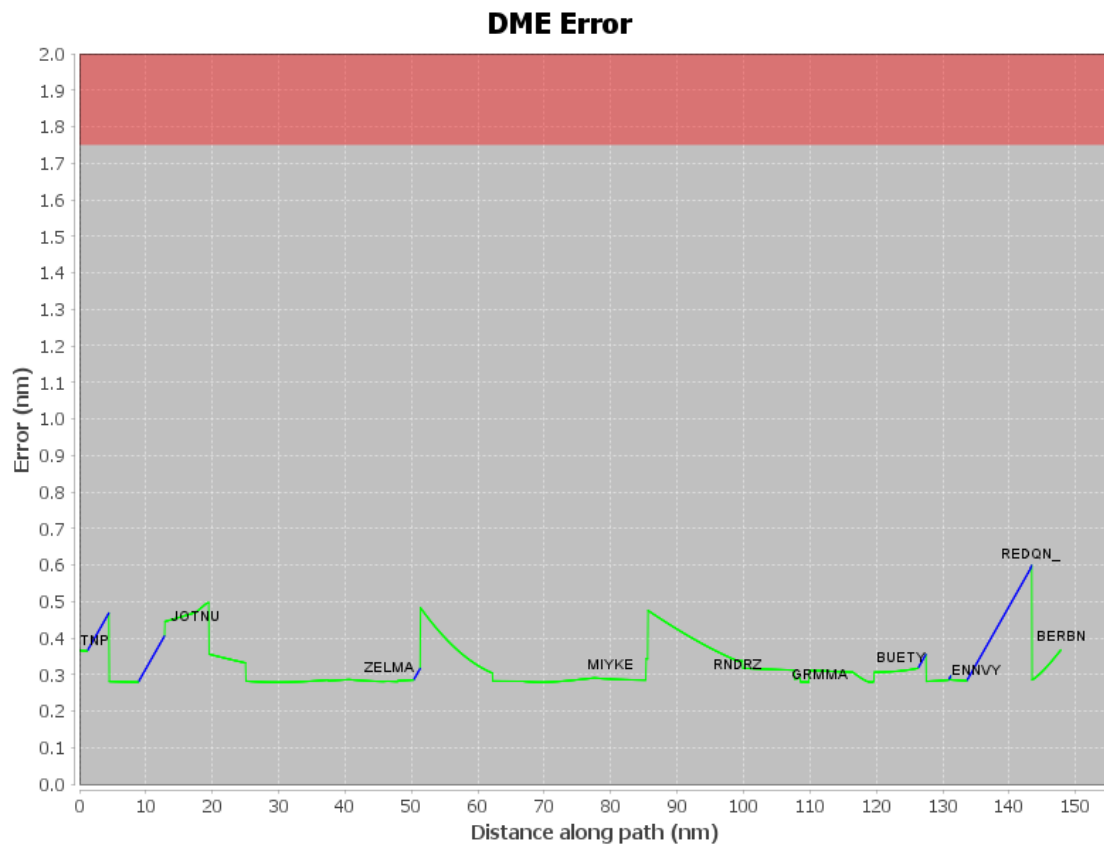
Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N34° 07' 38.8173", W115° 45' 10.2344"	N34° 10' 01.7946", W115° 42' 29.7469"	3.2537
2	N34° 13' 16.3919", W115° 38' 50.9688"	N34° 16' 09.6123", W115° 35' 35.8842"	3.946
3	N34° 50' 27.8713", W115° 21' 32.1308"	N34° 51' 21.7621", W115° 21' 59.2786"	0.971
4	N35° 56' 44.5083", W115° 24' 12.3884"	N35° 57' 46.2014", W115° 23' 29.3252"	1.1805
5	N36° 00' 43.9977", W115° 21' 25.0979"	N36° 00' 58.5100", W115° 21' 14.9500"	0.2779
6	N36° 00' 49.5472", W115° 18' 11.3821"	N36° 00' 13.6016", W115° 06' 10.7445"	9.7359

# DME DME Assessment Results for RNRZ3 path TNP\_BERBN

Available DMEs by Waypoints			
Waypoint Before	Waypoint After	DME List	Suggested DMEs
TNP	JOTNU	IPL, TNP, OCN, GOG, BLH	
JOTNU	ZELMA	IPL, EED, GFS, TNP, HEC, PKE, GOG, LAS	
ZELMA	MIYKE	EED, GFS, BTY, HEC, PKE, BLD, GOG, LAS	
MIYKE	RNRZ	GFS, BTY, BLD, GOG	
RNRZ	GRMMA	BTY, BLD, GOG, LAS	
GRMMA	BUETY	BTY, BLD, PGS, GOG, LAS	
BUETY	ENNVY	GFS, BTY, BLD, PGS, GOG, LAS	
ENNVY	REDQN_	GFS, BLD, GOG, LAS	
REDQN_	BERBN	GOG, LAS	

User Data Files								
#	File Name							
1	New Analysis.udt							
2	UserDMEsKLAS [IFPA] RKSTR3 RNAV STAR_20210927_0806 PDT.udt							
3	UserDMEsKLAS [IFPA] RNRDRZ2 RNAV STAR_20211004_0941 PDT.udt							
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	LHS LHS [IFPA]	N34° 40' 58.7040", W118° 34' 36.9770"	15.0 E	130	5790	114.35	LHS	
ESV:		Bearing [True]: 71.0° to 78.0° Bearing [Mag]: 56.0° to 63.0°				Arc Distance: Out to 123.0 NM Altitude: 16000.0 to 23800.0 ft		
2	UDT ESV BLD BLD [IFPA]	N35° 59' 44.8448", W114° 51' 48.8840"	15.0 E	130	3641.9	116.7	UDT ESV BLD	
ESV:		Bearing [True]: 188.0° to 226.0° Bearing [Mag]: 173.0° to 211.0°				Arc Distance: Out to 110.0 NM Altitude: 12900.0 to 13100.0 ft		
3	GFS 1 GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	GFS 1	
ESV:		Bearing [True]: 117.0° to 127.0° Bearing [Mag]: 102.0° to 112.0°				Arc Distance: Out to 44.0 NM Altitude: 16900.0 to 18500.0 ft		
4	GFS 2 GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	GFS 2	
ESV:		Bearing [True]: 265.0° to 289.0° Bearing [Mag]: 250.0° to 274.0°				Arc Distance: Out to 64.0 NM Altitude: 12900.0 to 18500.0 ft		
5	UDT ESV BTY BTY [IFPA]	N36° 48' 02.1502", W116° 44' 51.5051"	16.0 E	130	2927.4	114.7	UDT ESV BTY	
ESV:		Bearing [True]: 123.0° to 160.0° Bearing [Mag]: 107.0° to 144.0°				Arc Distance: Out to 109.0 NM Altitude: 11700.0 to 14100.0 ft		
6	EED EED [IFPA]	N34° 45' 57.6150", W114° 28' 26.7750"	15.0 E	130	620	115.2	EED	
ESV:		Bearing [True]: 288.0° to 296.0° Bearing [Mag]: 273.0° to 281.0°				Arc Distance: Out to 94.0 NM Altitude: 12900.0 to 15200.0 ft		
7	UDT ESV GFS GFS [IFPA]	N35° 07' 52.1230", W115° 10' 35.1850"	15.0 E	130	4000	114.4	UDT ESV GFS	
ESV:		Bearing [True]: 341.0° to 354.0° Bearing [Mag]: 326.0° to 339.0°				Arc Distance: Out to 58.0 NM Altitude: 8900.0 to 11100.0 ft		

## DME DME Assessment Results for RNDRZ3 path TNP\_BERBN



## DME DME Assessment Results for RNRZ3 path TNP\_BERBN

Graphic Depiction 1

