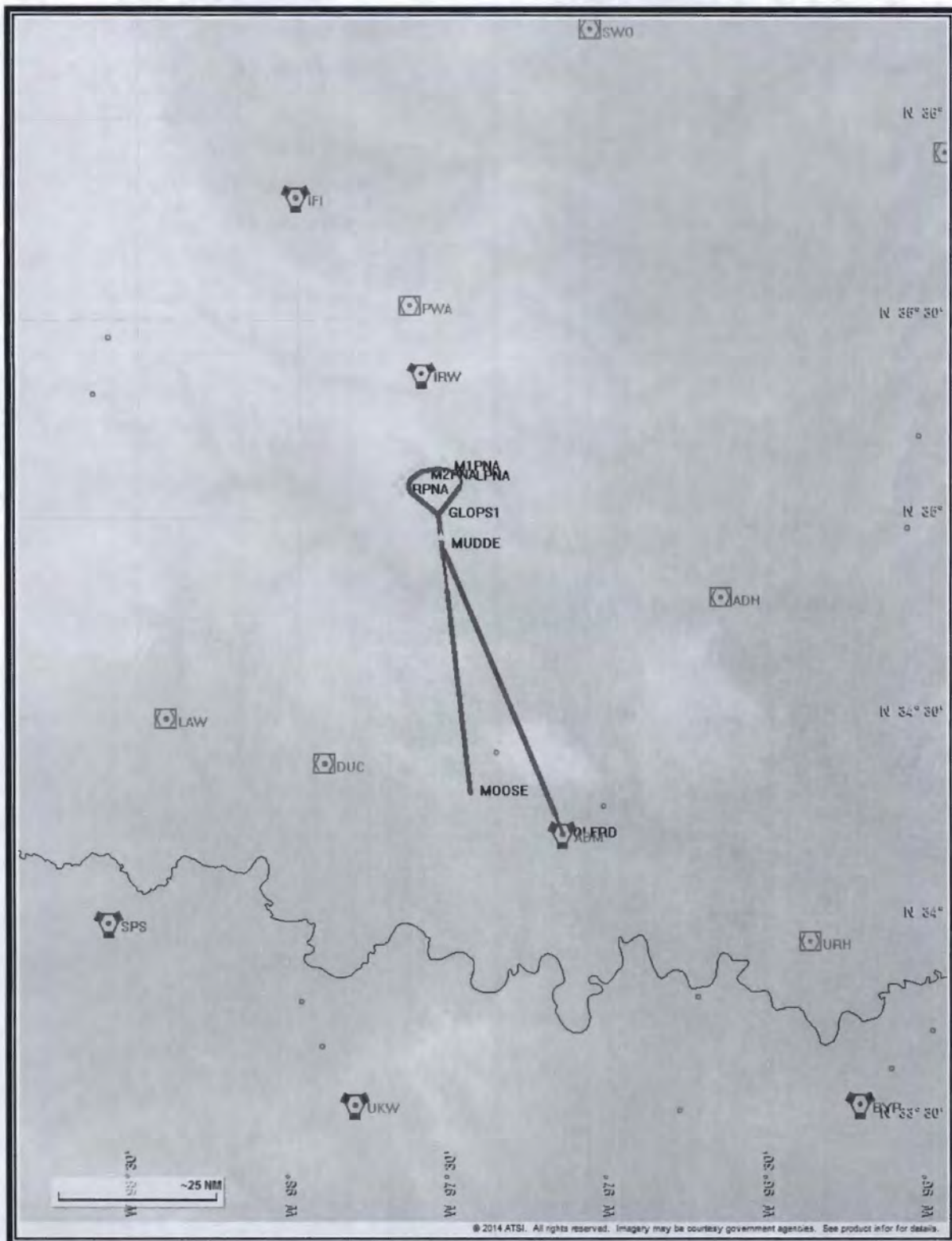


Name: Martha Dunn
Project Name: KOKC MUDDE1
Output File: KOKC MUDDE1 SID
GLOPS OLFRD
20140327_1201
Procedure Name: MUDDE1
Software: RNAV-Pro™
Version: 2.37o
Date/Time: 3/27/2014 12:02:30 PM
Input File: KOKC MUDDE1 SID
GLOPS OLFRD.txt
Databases: AVNIS Date: 3/11/2014
CIFP Date: 3/6/2014
DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓	
DME/DME	✓	No Critical DMEs Exist
Radars	✓	
Comms	?	
TERPS	?	



Flight Plan					Return To Summary		
Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
GLOPS	WP	N 35° 0' 34.08" W 97° 33' 32.96"	4200.0	VNAV	200.0	Fly Over	TF
LPNA	WP	N 35° 6' 4.08" W 97° 28' 15.68"	4200.0	VNAV	200.0	Fly By	TF
M1PNA	WP	N 35° 7' 30.34" W 97° 32' 19.01"	4200.0	VNAV	200.0	Fly By	TF
M2PNA	WP	N 35° 7' 4.91" W 97° 36' 42.22"	4200.0	VNAV	200.0	Fly By	TF
RPNA	WP	N 35° 4' 54.65" W 97° 40' 14.55"	4200.0	VNAV	200.0	Fly By	TF
GLOPS1	WP	N 35° 0' 34.08" W 97° 33' 32.96"	4200.0	VNAV	200.0	Fly By	TF
MUDDE	WP	N 34° 56' 5.44" W 97° 32' 54.63"	4200.0	VNAV	200.0	Fly Over	TF
OLFRD	WP	N 34° 12' 41.71" W 97° 10' 6.00"	8000.0	VNAV	250.0	Fly Over	TF

Flyability

[Return To Summary](#)

Settings:

Flight Type: Departure with PNA

Selected Airport: KOKC

Aircraft Category: Cat D

Climb Gradient: *None assigned*

Ground Speeds:

Table:

200.0 Kts up to 11000.0 Ft.

240.0 Kts up to 18000.0 Ft.

260.0 Kts up to 24000.0 Ft.

340.0 Kts up to 99900.0 Ft.

Wind Settings: *None assigned*

Descent During a Turn: Allowed

VNAV Mode: Flight Plan

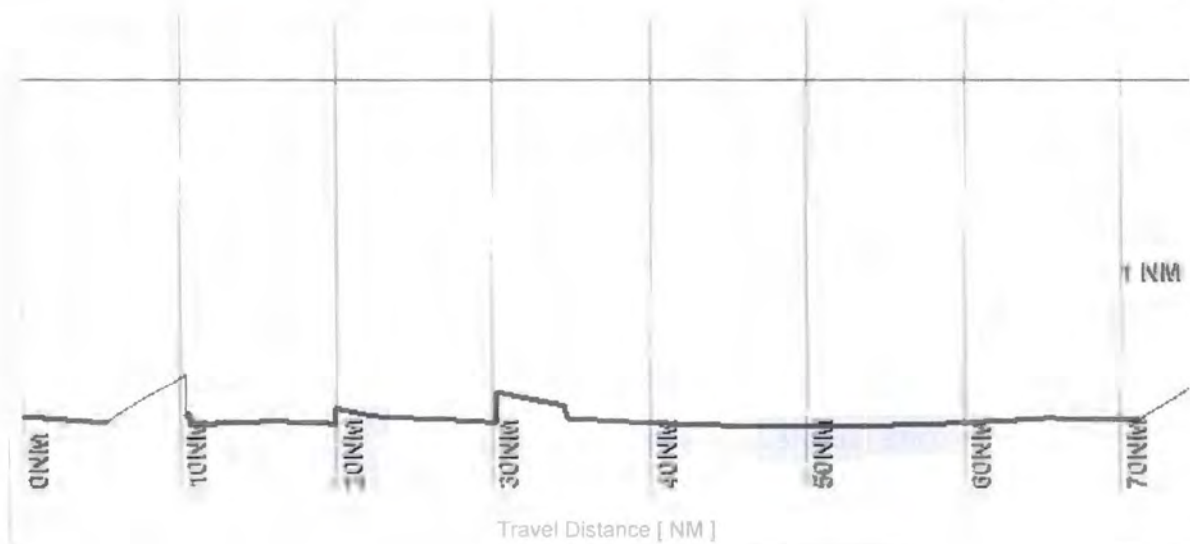
Entire track is fly-able

DME/DME	Return To Summary
Settings:	<p>RNP: 2.0</p> <p>Flight Mode: Manual</p> <p>Line of Sight (DTED Level 0 Max): Evaluated</p> <p>DME Restrictions: Evaluated</p> <p>Inertial Drift: Enabled</p> <p> Initial Drift: 0.558 NM</p> <p> INS Drift Rate: 8.000 NM/Hour</p> <p>Range Mode: OSV</p> <p>Co-Frequencies: Evaluated</p> <p>RNP Edges: Evaluated</p> <p>Min DME Range: 3.0 NM</p> <p>Allowed Gap Length: 4.0 NM</p> <p>DME Types: VOR/DME , VORTAC , and User</p> <p>DME Include Angles: 30 to 150</p> <p>Critical DMEs: Allowed</p> <p>DoD Facilities: Not included</p> <p>Foreign Facilities: Not included</p> <p>Low & Terminal DMEs: Included</p> <p>Flight Check DMEs: Selected</p> <p>Higher Altitudes: Evaluated</p> <p>Near Maximum Altitude: Evaluated</p>
	<p>Total Number of DMEs Used: 6</p> <p>Maximum DME Error: 0.499 NM.</p> <p>No Critical DMEs were found.</p> <p>Available DMEs: DUC, LAW, IRW, IFI, ADM, UKW</p> <p>Duplicate DMEs: OJC</p>

DME/DME (Continued.)

[Return To Summary](#)

DME/INS Error [NM]



DME/DME (Continued.)						Return To Summary			
DMEs Used									
#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	LAW	N 34° 29' 46.23" W 98° 24' 47.10" E 9	L + ESV	User	NO	0.996	Enabled	33.8 %	33.7 %
2	IRW	N 35° 21' 30.95" W 97° 36' 33.22" E 7	H	Database	NO	0.982	Enabled	27.3 %	27.2 %
3	IFI	N 35° 48' 18.96" W 98° 0' 14.10" E 9	H + ESV	User	NO	0.499	Enabled	12.4 %	12.4 %
4	DUC	N 34° 23' 3.68" W 97° 55' 0.99" E 9	L + ESV	User	NO	1.367	Enabled	55.0 %	55.1 %
5	ADM	N 34° 12' 41.71" W 97° 10' 5.62" E 6	H + ESV	User	NO	0.955	Enabled	41.4 %	41.4 %
6	UKW	N 33° 32' 9.19" W 97° 49' 16.60" E 6	H + ESV	User	NO	0.628	Enabled	7.8 %	7.8 %
Flight Check DME Selection									
Distance [NM]		Selected DMEs						Alternate	
0.0		LAW	IRW	DUC					
5.1		LAW	IRW	DUC					
8.9		LAW	IRW	DUC	IFI				
12.6		LAW	IRW	DUC	IFI				
14.8		LAW	IRW	DUC	IFI				
21.9		LAW	IRW	DUC					
27.1		LAW	IRW	DUC	ADM	UKW			
Inertial Drift Segments									
#	Start Location			End Location			Length [NM]		
1	N 35° 4' 43.24" W 97° 29' 34.16"			N 35° 7' 24.79" W 97° 33' 18.49"			5.1		
VOR: IRW				Available from N 35° 4' 43.24" W 97° 29' 34.16" to N 35° 7' 24.79" W 97° 33' 18.49"					
VOR: PWA				Available from N 35° 4' 43.24" W 97° 29' 34.16" to N 35° 7' 24.79" W 97° 33' 18.49"					

DME/DME (Continued.)

[Return To Summary](#)

Inertial Drift Segments (Continued.)

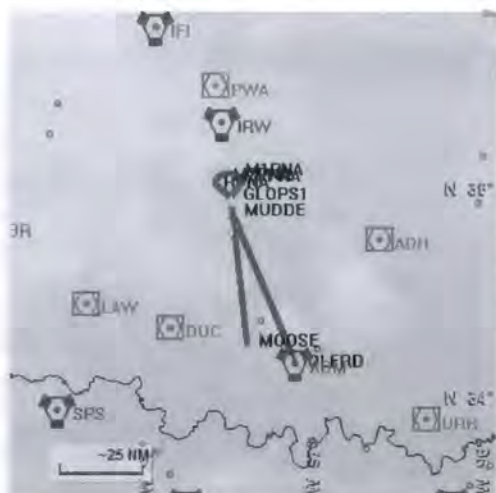
#	Start Location	End Location	Length [NM]
2	N 34° 15' 37.68" W 97° 11' 37.66"	N 34° 12' 43.00" W 97° 10' 6.67"	3.2
VOR: ADM		Available from N 34° 15' 37.68" W 97° 11' 37.66" to N 34° 12' 43.00" W 97° 10' 6.67"	
VOR: DUC		Available from N 34° 15' 37.68" W 97° 11' 37.66" to N 34° 12' 43.00" W 97° 10' 6.67"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	ADM	N 34° 12' 41.71" W 97° 10' 5.62" E 6	H	936.8	116.70	ADM	Used
Restriction:		Bearing [True]: 322.0° to 332.0° Bearing [Mag]: 316.0° to 326.0°		Distance: Beyond 0.0 NM Altitude: Below 4000.0 Ft.			
ESV:		Bearing [True]: 256.0° to 331.0° Bearing [Mag]: 250.0° to 325.0°		Arc Distance: Out to 76.0 NM Altitude: 8000.0 to 16000.0 Ft.			
2	IFI	N 35° 48' 18.96" W 98° 0' 14.10" E 9	H	1112.0	114.70	IFI	Used
ESV:		Bearing [True]: 150.0° to 170.0° Bearing [Mag]: 141.0° to 161.0°		Arc Distance: Out to 53.0 NM Altitude: 4200.0 to 16000.0 Ft.			
3	DUC	N 34° 23' 3.68" W 97° 55' 0.99" E 9	L	1089.4	111.00	DUC	Used
ESV:		Bearing [True]: 33.0° to 50.0° Bearing [Mag]: 24.0° to 41.0°		Arc Distance: Out to 59.0 NM Altitude: 4200.0 to 20000.0 Ft.			
ESV:		Bearing [True]: 8.0° to 31.0° Bearing [Mag]: 359.0° to 22.0°		Arc Distance: Out to 51.0 NM Altitude: 4200.0 to 20000.0 Ft.			
4	OSW	N 37° 9' 27.04" W 95° 12' 13.08" E 8	L	930.0	117.60	OSW	Not Used
ESV:		Bearing [True]: 203.0° to 220.0° Bearing [Mag]: 195.0° to 212.0°		Arc Distance: Out to 78.0 NM Altitude: 8000.0 to 20000.0 Ft.			
5	UKW	N 33° 32' 9.19" W 97° 49' 16.60" E 6	H	1101.9	112.40	UKW	Used
ESV:		Bearing [True]: 14.0° to 42.0° Bearing [Mag]: 8.0° to 36.0°		Arc Distance: Out to 65.0 NM Altitude: 5800.0 to 16000.0 Ft.			
6	LAW	N 34° 29' 46.23" W 98° 24' 47.10" E 9	L	1103.7	109.40	LAW	Used
ESV:		Bearing [True]: 40.0° to 62.0° Bearing [Mag]: 31.0° to 53.0°		Arc Distance: Out to 59.0 NM Altitude: 4200.0 to 20000.0 Ft.			

DMEs Relative to Waypoints		Return To Summary
Waypoint Before	Waypoint After	DME List
GLOPS	LPNA	DUC IRW LAW
LPNA	M1PNA	DUC IRW LAW
M1PNA	M2PNA	DUC IFI IRW LAW
M2PNA	RPNA	DUC IFI IRW LAW
RPNA	GLOPS1	DUC IFI IRW LAW
GLOPS1	MUDDE	DUC IRW LAW
MUDDE	OLFRD	ADM DUC IRW LAW UKW

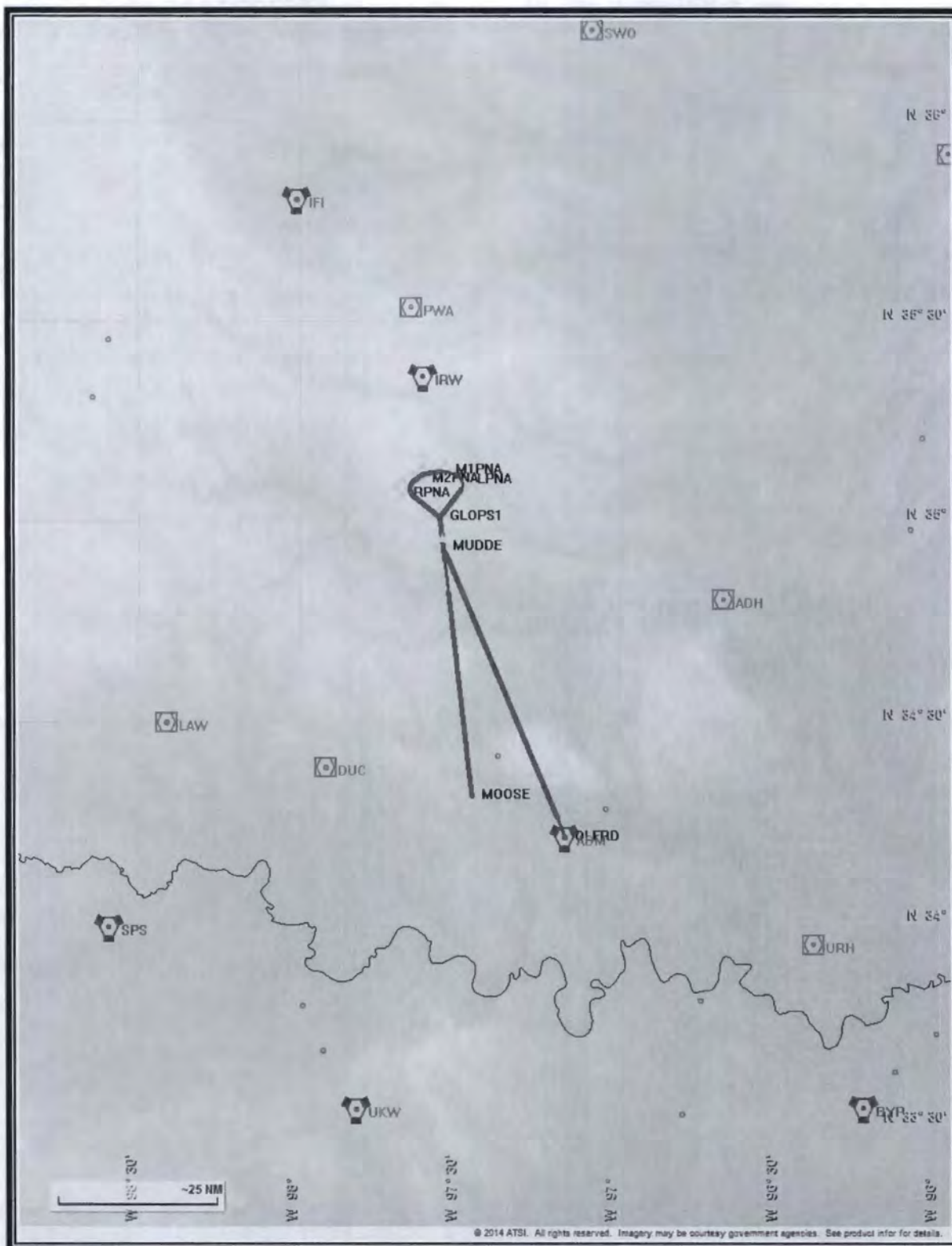




Name: Martha Dunn
Project Name: KOKC MUDDE1
Output File: KOKC MUDDE1 SID
MUDDE MOOSE
20140327_1201
Procedure Name: MUDDE1
Software: RNAV-Pro™
Version: 2.37o
Date/Time: 3/27/2014 12:03:05 PM
Input File: KOKC MUDDE SID
MUDDE MOOSE.txt
Databases: AVNIS Date: 3/11/2014
CIFP Date: 3/6/2014
DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓	
DME/DME	✓	No Critical DMEs Exist
Radars	✓	
Comms	?	
TERPS	?	



Flight Plan					Return To Summary		
Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
MUDDE	WP	N 34° 56' 5.44" W 97° 32' 54.63"	4200.0	VNAV	250.0	Fly By	TF
MOOSE	WP	N 34° 18' 53.07" W 97° 27' 38.70"	8000.0	VNAV	250.0	Fly Over	TF

Flyability

[Return To Summary](#)

Settings:

Flight Type: Departure Transition

Selected Airport: KOKC

Aircraft Category: Cat D

Climb Gradient: *None assigned*

Ground Speeds:

Table:

200.0 Kts up to **11000.0 Ft.**

240.0 Kts up to **18000.0 Ft.**

260.0 Kts up to **24000.0 Ft.**

340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*

Descent During a Turn: Allowed

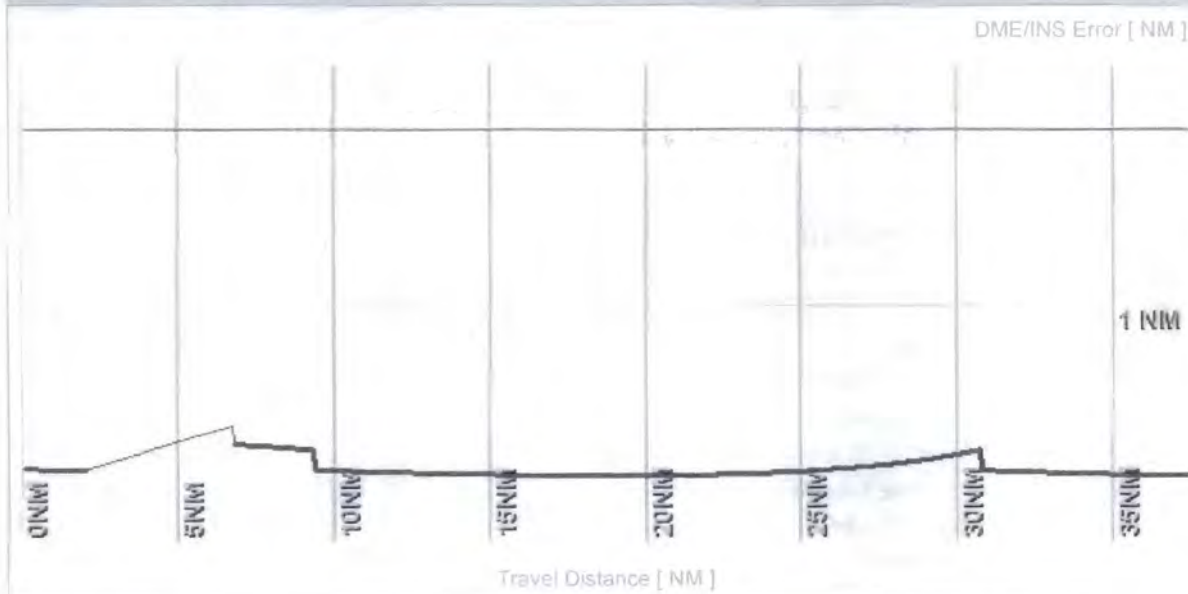
VNAV Mode: Flight Plan

Entire track is fly-able

DME/DME	Return To Summary
Settings:	<p>RNP: 2.0</p> <p>Flight Mode: Manual</p> <p>Line of Sight (DTED Level 0 Max): Evaluated</p> <p>DME Restrictions: Evaluated</p> <p>Inertial Drift: Enabled</p> <p> Initial Drift: 0.558 NM</p> <p> INS Drift Rate: 8.000 NM/Hour</p> <p>Range Mode: OSV</p> <p>Co-Frequencies: Evaluated</p> <p>RNP Edges: Evaluated</p> <p>Min DME Range: 3.0 NM</p> <p>Allowed Gap Length: 4.0 NM</p> <p>DME Types: VOR/DME , VORTAC , and User</p> <p>DME Include Angles: 30 to 150</p> <p>Critical DMEs: Allowed</p> <p>DoD Facilities: Not included</p> <p>Foreign Facilities: Not included</p> <p>Low & Terminal DMEs: Included</p> <p>Flight Check DMEs: Selected</p> <p>Higher Altitudes: Evaluated</p> <p>Near Maximum Altitude: Evaluated</p>
Total Number of DMEs Used: 5	
Maximum DME Error: 0.491 NM.	
No Critical DMEs were found.	
Available DMEs: DUC, LAW, IRW, ADM, UKW	
Duplicate DMEs: OJC	

DME/DME (Continued.)

[Return To Summary](#)



DME/DME (Continued.)

[Return To Summary](#)

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	LAW	N 34° 29' 46.23" W 98° 24' 47.10" E 9	L + ESV	User	NO	0.827	Enabled	5.5 %	5.3 %
2	IRW	N 35° 21' 30.95" W 97° 36' 33.22" E 7	H	Database	NO	0.931	Enabled	12.5 %	12.3 %
3	DUC	N 34° 23' 3.68" W 97° 55' 0.99" E 9	L + ESV	User	NO	1.451	Enabled	64.1 %	64.2 %
4	ADM	N 34° 12' 41.71" W 97° 10' 5.62" E 6	H + ESV	User	NO	1.008	Enabled	74.9 %	75.0 %
5	UKW	N 33° 32' 9.19" W 97° 49' 16.60" E 6	H + ESV	User	NO	0.650	Enabled	17.8 %	17.8 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	LAW	IRW	DUC	ADM	UKW	

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 34° 54' 2.56" W 97° 32' 37.11"	N 34° 49' 24.09" W 97° 31' 57.45"	4.7
	VOR: DUC	Available from N 34° 54' 2.56" W 97° 32' 37.11" to N 34° 49' 24.09" W 97° 31' 57.45"	
	VOR: IRW	Available from N 34° 54' 2.56" W 97° 32' 37.11" to N 34° 49' 24.09" W 97° 31' 57.45"	
	VOR: PWA	Available from N 34° 54' 2.56" W 97° 32' 37.11" to N 34° 52' 16.44" W 97° 32' 21.99"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	ADM	N 34° 12' 41.71" W 97° 10' 5.62" E 6	H	936.8	116.70	ADM	Used
	Restriction:	Bearing [True]: 322.0° to 332.0° Bearing [Mag]: 316.0° to 326.0°		Distance: Beyond 0.0 NM Altitude: Below 4000.0 Ft.			
	ESV:	Bearing [True]: 256.0° to 331.0° Bearing [Mag]: 250.0° to 325.0°		Arc Distance: Out to 76.0 NM Altitude: 8000.0 to 16000.0 Ft.			
2	IFI	N 35° 48' 18.96" W 98° 0' 14.10" E 9	H	1112.0	114.70	IFI	Not Used
	ESV:	Bearing [True]: 150.0° to 170.0° Bearing [Mag]: 141.0° to 161.0°		Arc Distance: Out to 53.0 NM Altitude: 4200.0 to 16000.0 Ft.			

DME/DME (Continued.)

[Return To Summary](#)

User DMEs (Continued.)

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
3	DUC	N 34° 23' 3.68" W 97° 55' 0.99" E 9	L	1089.4	111.00	DUC	Used
		ESV:	Bearing [True]: 33.0° to 50.0° Bearing [Mag]: 24.0° to 41.0°		Arc Distance: Out to 59.0 NM Altitude: 4200.0 to 20000.0 Ft.		
		ESV:	Bearing [True]: 8.0° to 31.0° Bearing [Mag]: 359.0° to 22.0°		Arc Distance: Out to 51.0 NM Altitude: 4200.0 to 20000.0 Ft.		
4	OSW	N 37° 9' 27.04" W 95° 12' 13.08" E 8	L	930.0	117.60	OSW	Not Used
		ESV:	Bearing [True]: 203.0° to 220.0° Bearing [Mag]: 195.0° to 212.0°		Arc Distance: Out to 78.0 NM Altitude: 8000.0 to 20000.0 Ft.		
5	UKW	N 33° 32' 9.19" W 97° 49' 16.60" E 6	H	1101.9	112.40	UKW	Used
		ESV:	Bearing [True]: 14.0° to 42.0° Bearing [Mag]: 8.0° to 36.0°		Arc Distance: Out to 65.0 NM Altitude: 5800.0 to 16000.0 Ft.		
6	LAW	N 34° 29' 46.23" W 98° 24' 47.10" E 9	L	1103.7	109.40	LAW	Used
		ESV:	Bearing [True]: 40.0° to 62.0° Bearing [Mag]: 31.0° to 53.0°		Arc Distance: Out to 59.0 NM Altitude: 4200.0 to 20000.0 Ft.		

DMEs Relative to Waypoints		Return To Summary
Waypoint Before	Waypoint After	DME List
MUDDE	MOOSE	ADM DUC IRW LAW UKW

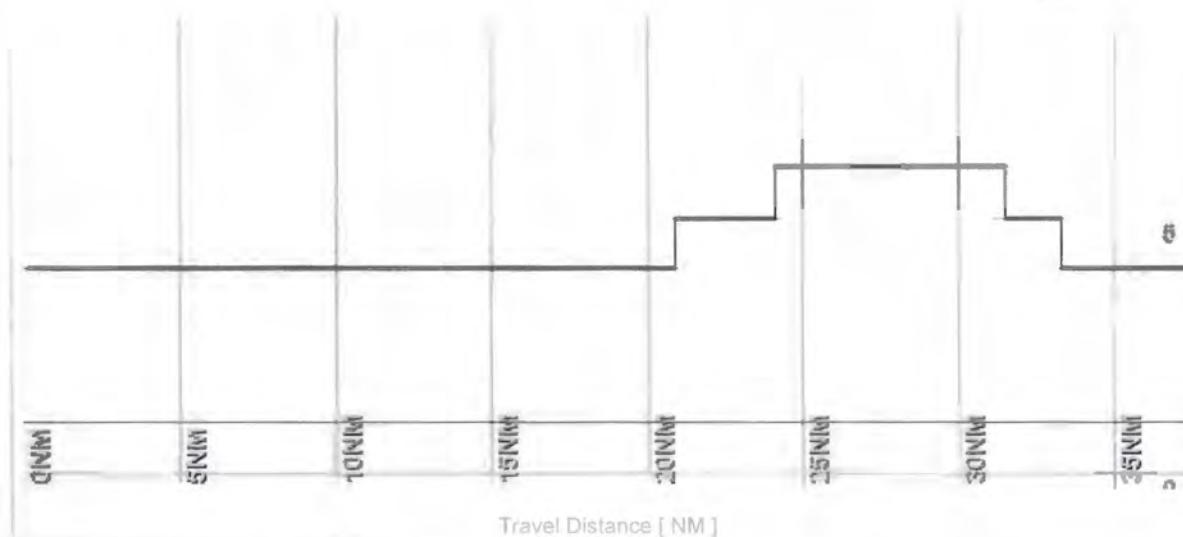
Radar Analysis

[Return To Summary](#)

Settings: Radar Types: ARSR and ASR

Radars Used: FSI OKC TIK ZOKC ZFTW SPSA

Radars Available



ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish				
Facility Data						
Chart Name : LAWTON	City : LAWTON	Ident : LAW	State : OK			
Type/Class : DME	Frequency : M992	Reference No.: 13058468				
Expanded Service Volume Data: (Requesting Officer)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	
FAA 814203-005	31	53	59	42	200	
Requirement: MUDDE 1 RNAV DEPARTURE DME COVERAGE						
Signature: Ramos Marcos		Routing Symbol: AJV-C2			Date: 05/15/2013	
Expanded Service Volume Data: (FMO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 814203-005	31	53	59	42	200	APPROVE
Requirement/Remarks: MUDDE 1 RNAV DEPARTURE DME COVERAGEAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.						
Signature: Meza Michael		Routing Symbol:			Date: 05/21/2013	
Expanded Service Volume Data: (Super FMO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 814203-005	31	53	59	42	200	APPROVE
Requirement/Remarks: MUDDE 1 RNAV DEPARTURE DME COVERAGEAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.						
Signature: Hughes Dennis		Routing Symbol:			Date: 05/21/2013	
Expanded Service Volume Data: (FIFO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 814203-005	31	53				
Requirement/Remarks:						
Signature:		Routing Symbol:			Date:	

ESV Details

Originating Office :		Airspace Docket Number :		Request Type : Establish		
Facility Data						
Chart Name : BOWIE		City : BOWIE		Ident : UKW		State : TX
Type/Class : TACR		Frequency : M1158		Reference No.: 13058470		
Expanded Service Volume Data: (Requesting Officer)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	
FAA 921770-058	8	36	65	58	160	
Requirement: MUDDE 1 RNAV DEPARTURE DME COVERAGE						
Signature: Ramos Marcos		Routing Symbol: AJV-C2			Date: 05/15/2013	
Expanded Service Volume Data: (FMO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 921770-058	8	36	65	58	160	APPROVE
Requirement/Remarks: MUDDE 1 RNAV DEPARTURE DME COVERAGEAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.						
Signature: gazi abduallahil		Routing Symbol:			Date: 05/20/2013	
Expanded Service Volume Data: (Super FMO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 921770-058	8	36	65	58	160	APPROVE
Requirement/Remarks: MUDDE 1 RNAV DEPARTURE DME COVERAGEAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.						
Signature: Hughes Dennis		Routing Symbol:			Date: 05/20/2013	
Expanded Service Volume Data: (FIFO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 921770-058	8	36				
Requirement/Remarks:						
Signature:		Routing Symbol:			Date:	