

Name: MARK SCHOENHOFF
Project Name: KCLT KILNS1 SID
Output File: KCLT KILNS1 SID PNA
MUNBE AUDII
20140826_0810
Procedure Name: KILNS1
Software: RNAV-Pro™
Version: 2.37
Date/Time: 8/26/2014 8:11:04 AM
Input File: [KCLT_PNA_MUNBE_](#)
[LILIC_CCW.txt](#)
Databases: AVNIS Date: 7/24/2014
CIFP Date: 6/26/2014
DTED® (MAX) Date: 2002

Results Summary:

Flyability



Please Check **Flyability** Results

DME/DME



No Critical DMEs Exist

Radars

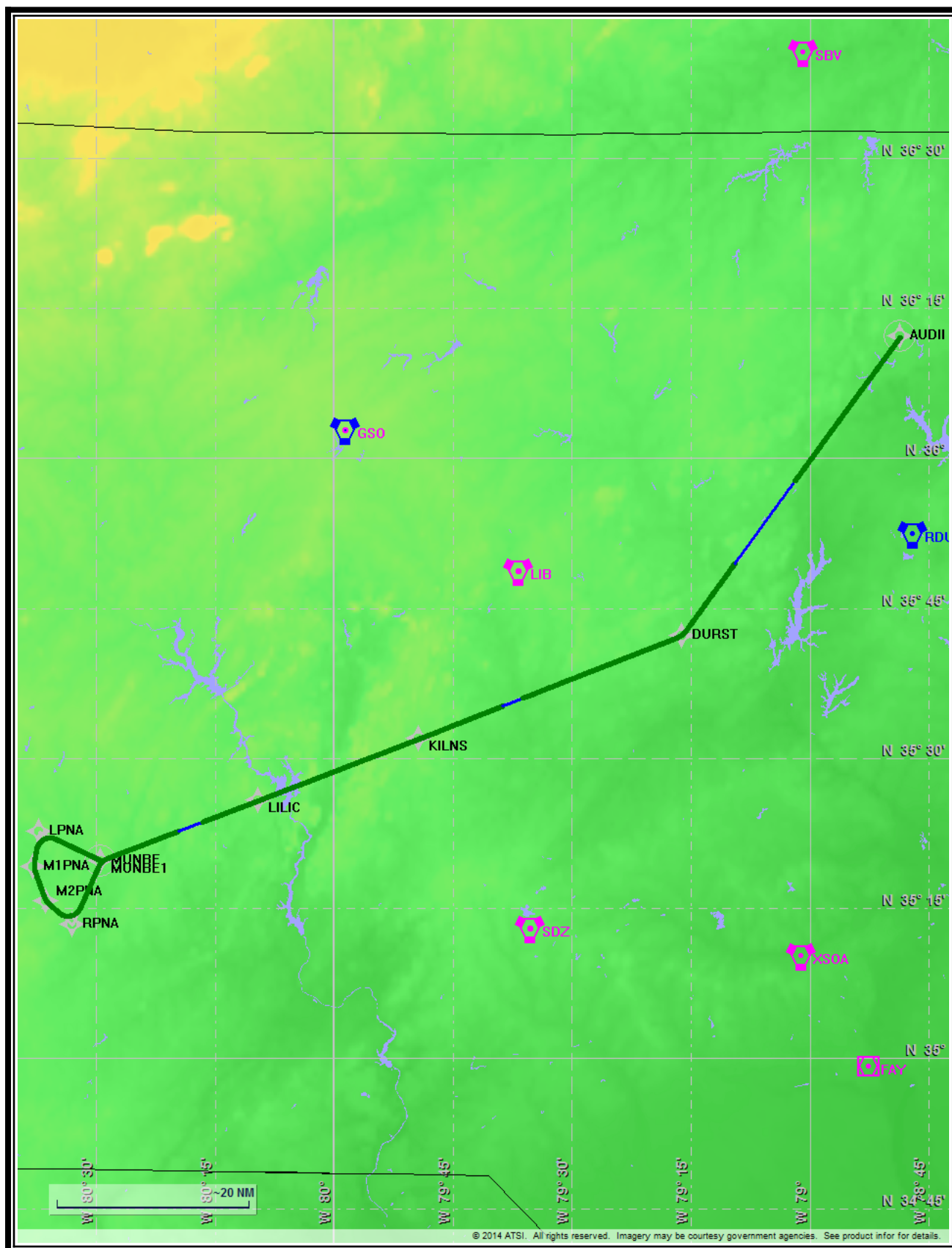


Comms



TERPS

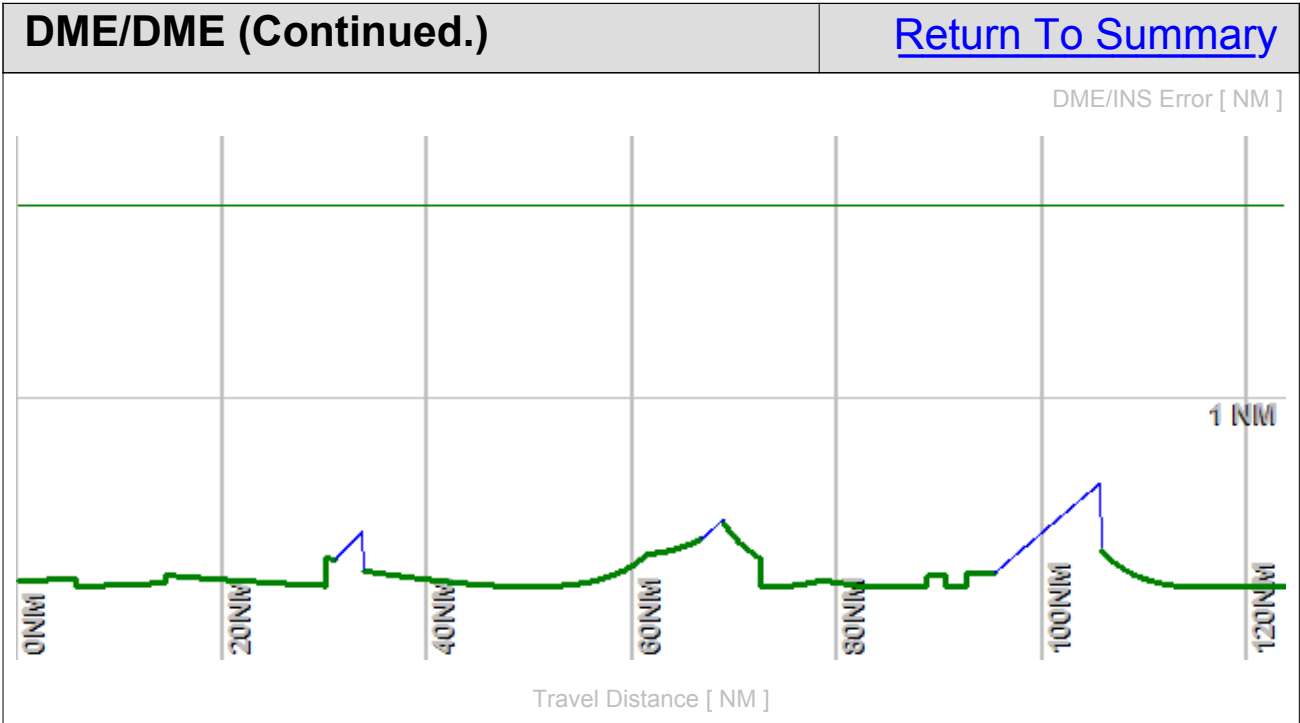




Flight Plan					Return To Summary		
Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
MUNBE	WP	N 35° 19' 45.50" W 80° 29' 21.60"	4000.0	VNAV	180.0	Fly Over	TF
LPNA	WP	N 35° 22' 41.54" W 80° 37' 7.94"	4000.0	VNAV	180.0	Fly By	TF
M1PNA	WP	N 35° 19' 6.91" W 80° 37' 52.71"	4000.0	VNAV	180.0	Fly By	TF
M2PNA	WP	N 35° 15' 42.68" W 80° 36' 20.58"	4000.0	VNAV	180.0	Fly By	TF
RPNA	WP	N 35° 13' 23.51" W 80° 32' 56.44"	4000.0	VNAV	180.0	Fly By	TF
MUNBE1	WP	N 35° 19' 45.50" W 80° 29' 21.60"	4000.0	VNAV	180.0	Fly By	TF
LILIC	WP	N 35° 25' 47.11" W 80° 9' 29.20"	7465.8	VNAV	180.0	Fly By	TF
KILNS	WP	N 35° 31' 56.47" W 79° 49' 17.41"	10986.3	VNAV	180.0	Fly By	TF
DURST	WP	N 35° 42' 15.20" W 79° 16' 5.58"	16777.9	VNAV	210.0	Fly By	TF
AUDII	WP	N 36° 12' 7.71" W 78° 48' 36.26"	18000.0	VNAV	240.0	Fly Over	TF

Flyability		Return To Summary
Settings:	Flight Type: Departure with PNA Selected Airport: KCLT Aircraft Category: Cat D Climb Gradient: <i>None assigned</i> 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: <i>None assigned</i> Descent During a Turn: Allowed VNAV Mode: Flight Plan	
	Required IAS at Fly-By WP KILNS could not be reached with given A/C acceleration performance.	

DME/DME		Return To Summary
Settings:	RNP: 2.0	
	Flight Mode: Manual	
	Line of Sight (DTED Level 0 Max):	Evaluated
	DME Restrictions:	Evaluated
	Inertial Drift:	Enabled
	Initial Drift:	0.558 NM
	INS Drift Rate:	8.000 NM/Hour
	Range Mode:	OSV
	Co-Frequencies:	Evaluated
	RNP Edges:	Evaluated
	Min DME Range:	3.0 NM
	Allowed Gap Length:	4.0 NM
	DME Types:	VOR/DME , VORTAC , and User
	DME Include Angles:	30 to 150
	Critical DMEs:	Allowed
DoD Facilities:	Not included	
Foreign Facilities:	Not included	
Low & Terminal DMEs:	Included	
Flight Check DMEs:	Selected	
Higher Altitudes:	Evaluated	
Near Maximum Altitude:	Evaluated	
PNA Import from RDVA-Pro:	KCLT PNA MUNBE LILIC	
Total Number of DMEs Used: 8		
Maximum DME Error: 0.676 NM.		
No Critical DMEs were found.		
Available DMEs: GSO, SDZ, CLT, BZM, LIB, RDU, FLO, SBV, FAK		
Duplicate DMEs: I-PEP, PTW		

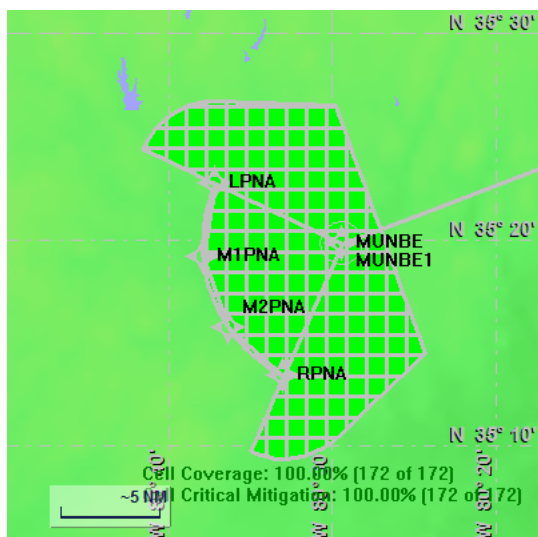


DME/DME (Continued.)						Return To Summary			
DMEs Used									
#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	GSO	N 36° 2' 44.49" W 79° 58' 34.95" W 3	H + ESV	User	NO	1.091	Enabled	48.3 %	47.8 %
2	SDZ	N 35° 12' 55.70" W 79° 35' 16.60" W 3	L + ESV	User	NO	0.847	Enabled	54.6 %	52.3 %
3	BZM	N 35° 52' 7.87" W 81° 14' 25.90" W 6	L + ESV	User	NO	0.676	Enabled	7.8 %	7.1 %
4	CLT	N 35° 11' 25.04" W 80° 57' 6.31" W 5	L	Database	NO	0.676	Enabled	0.9 %	0.8 %
5	LIB	N 35° 48' 41.84" W 79° 36' 45.35" W 3	L + ESV	User	NO	1.042	Enabled	43.9 %	44.1 %
6	RDU	N 35° 52' 21.08" W 78° 47' 0.03" W 4	H	Database	NO	0.912	Enabled	13.7 %	15.0 %
7	FLO	N 34° 13' 58.69" W 79° 39' 25.78" W 3	H	Database	NO	0.719	Enabled	3.4 %	3.7 %
8	SBV	N 36° 40' 30.14" W 79° 0' 52.20" W 5	L	Database	NO	0.676	Enabled	4.1 %	4.5 %
Flight Check DME Selection									
Distance [NM]		Selected DMEs						Alternate	
0.0		SDZ	GSO	CLT					
5.1		SDZ	GSO	CLT	BZM				
8.9		SDZ	GSO	CLT	BZM				
12.6		SDZ	GSO	CLT	BZM				
14.8		SDZ	GSO	CLT					
21.9		SDZ	GSO	CLT	LIB				
39.9		SDZ	GSO	LIB					
57.4		SDZ	GSO	LIB	RDU	FLO			
85.6		SDZ	GSO	LIB	RDU	FLO			
95.7		SBV	GSO	LIB	RDU	FAK			

DME/DME (Continued.)			Return To Summary
<i>Inertial Drift Segments</i>			
#	Start Location	End Location	Length [NM]
1	N 35° 22' 42.66" W 80° 19' 39.51"	N 35° 23' 37.09" W 80° 16' 39.80"	2.6
	VOR: CLT	Available from N 35° 22' 42.66" W 80° 19' 39.51" to N 35° 23' 37.09" W 80° 16' 39.80"	
	VOR: SDZ	Available from N 35° 22' 42.66" W 80° 19' 39.51" to N 35° 23' 37.09" W 80° 16' 39.80"	
2	N 35° 35' 13.54" W 79° 38' 46.69"	N 35° 36' 0.64" W 79° 36' 15.59"	2.2
	VOR: GSO	Available from N 35° 35' 13.54" W 79° 38' 46.69" to N 35° 36' 0.64" W 79° 36' 15.59"	
	VOR: LIB	Available from N 35° 35' 13.54" W 79° 38' 46.69" to N 35° 36' 0.64" W 79° 36' 15.59"	
	VOR: SDZ	Available from N 35° 35' 13.54" W 79° 38' 46.69" to N 35° 36' 0.64" W 79° 36' 15.59"	
	VOR: XSOA	Available from N 35° 35' 13.54" W 79° 38' 46.69" to N 35° 36' 0.64" W 79° 36' 15.59"	
3	N 35° 49' 28.59" W 79° 9' 29.19"	N 35° 57' 42.84" W 79° 1' 55.48"	10.3
	VOR: LIB	Available from N 35° 49' 28.59" W 79° 9' 29.19" to N 35° 57' 42.84" W 79° 1' 55.48"	
	VOR: RDU	Available from N 35° 49' 28.59" W 79° 9' 29.19" to N 35° 57' 42.84" W 79° 1' 55.48"	
	VOR: XSOA	Available from N 35° 49' 28.59" W 79° 9' 29.19" to N 35° 49' 41.44" W 79° 9' 17.42"	
	VOR: DAN	Available from N 35° 56' 35.48" W 79° 2' 57.45" to N 35° 57' 42.84" W 79° 1' 55.48"	

DME/DME (Continued.)					Return To Summary		
User DMEs							
#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	GSO	N 36° 2' 44.49" W 79° 58' 34.95" W 3	H	909.0	116.20	GSO	Used
Restriction:		Bearing [True]: 252.0° to 287.0° Bearing [Mag]: 255.0° to 290.0°			Distance: Beyond 0.0 NM Altitude: Below 6000.0 Ft.		
ESV:		Bearing [True]: 200.0° to 235.0° Bearing [Mag]: 203.0° to 238.0°			Arc Distance: Out to 70.0 NM Altitude: 4000.0 to 16000.0 Ft.		
2	SDZ	N 35° 12' 55.70" W 79° 35' 16.60" W 3	L	590.0	111.80	SDZ	Used
ESV:		Bearing [True]: 247.0° to 289.0° Bearing [Mag]: 250.0° to 292.0°			Arc Distance: Out to 66.0 NM Altitude: 4000.0 to 15000.0 Ft.		
3	LIB	N 35° 48' 41.84" W 79° 36' 45.35" W 3	L	830.0	113.00	LIB	Used
ESV:		Bearing [True]: 224.0° to 236.0° Bearing [Mag]: 227.0° to 239.0°			Arc Distance: Out to 72.0 NM Altitude: 5000.0 to 14000.0 Ft.		
4	BZM	N 35° 52' 7.87" W 81° 14' 25.90" W 6	L	1880.0	110.80	BZM	Used
ESV:		Bearing [True]: 128.0° to 160.0° Bearing [Mag]: 134.0° to 166.0°			Arc Distance: Out to 50.0 NM Altitude: 4000.0 to 10000.0 Ft.		

DMEs Relative to Waypoints		Return To Summary
Waypoint Before	Waypoint After	DME List
MUNBE	LPNA	CLT GSO SDZ
LPNA	M1PNA	BZM CLT GSO SDZ
M1PNA	M2PNA	BZM CLT GSO SDZ
M2PNA	RPNA	BZM CLT GSO SDZ
RPNA	MUNBE1	CLT GSO SDZ
MUNBE1	LILIC	CLT GSO LIB SDZ
LILIC	KILNS	GSO LIB SDZ
KILNS	DURST	FLO GSO LIB RDU SDZ
DURST	AUDII	FAK FLO GSO LIB RDU SBV SDZ



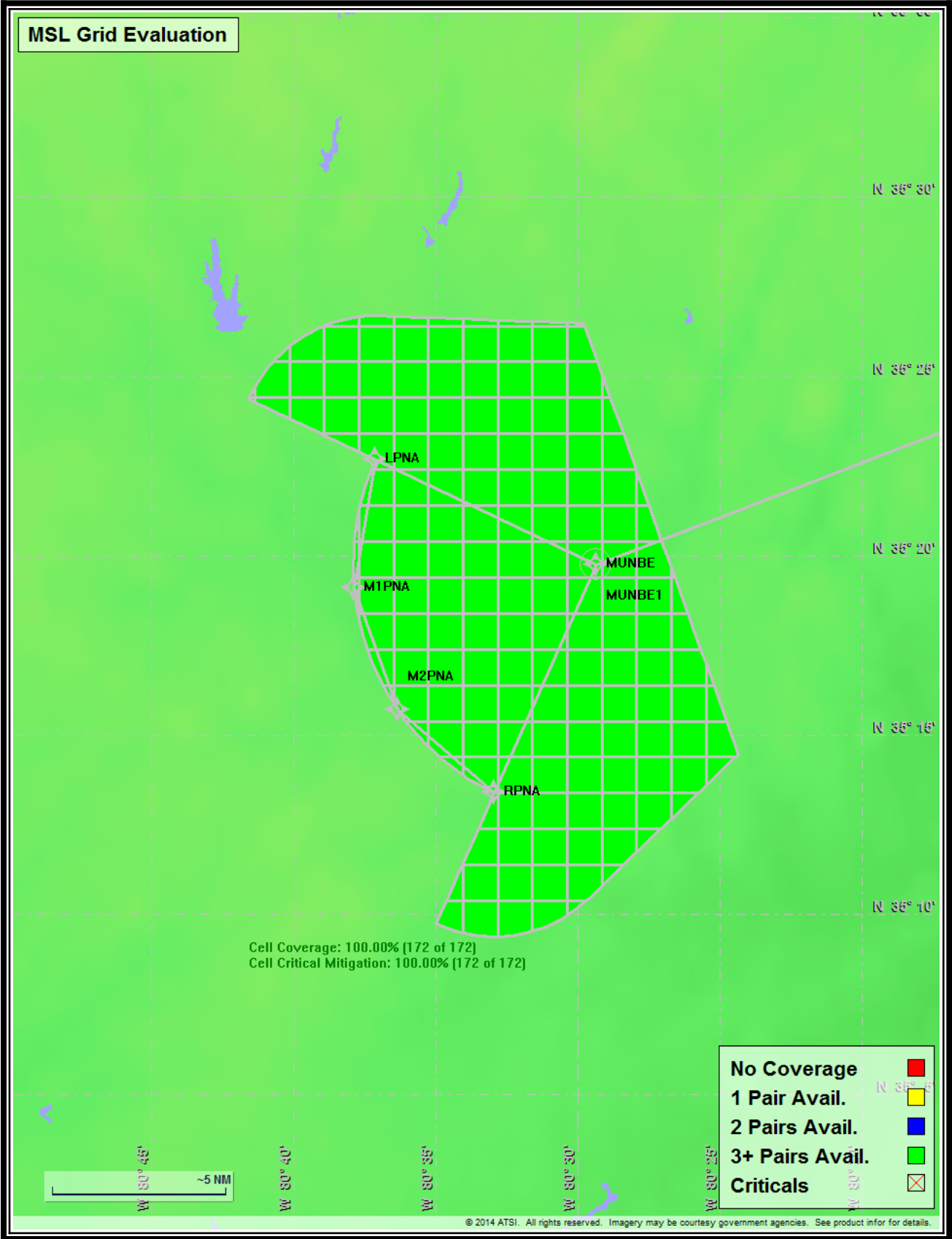
Name: MARK SCHOENHOFF
Project Name: KCLT KILNS1 SID
Software: RNAV-Pro™
Version: 2.37
Date/Time: 8/26/2014 7:58:35 AM
Input File: Grid Area Assessment
Databases: AVNIS Date: 7/24/2014
CIFP Date: 6/26/2014
DTED® (MAX) Date: 2002

Results Summary:

Grid



DME/DME Grid Analysis



DME/DME Grid Analysis		Return To Summary
Coverage Exists		
Settings:	Polygon Grid Definition:	
	1 Lat: N 35° 22' 41.69" Lon: W 80° 37' 7.85"	21 Lat: N 35° 9' 23.22" Lon: W 80° 32' 53.04"
	2 Lat: N 35° 24' 22.43" Lon: W 80° 41' 34.38"	22 Lat: N 35° 9' 24.65" Lon: W 80° 33' 28.73"
	3 Lat: N 35° 24' 48.28" Lon: W 80° 41' 17.40"	23 Lat: N 35° 9' 29.64" Lon: W 80° 34' 3.95"
	4 Lat: N 35° 25' 12.24" Lon: W 80° 40' 56.71"	24 Lat: N 35° 9' 38.12" Lon: W 80° 34' 38.17"
	5 Lat: N 35° 25' 33.96" Lon: W 80° 40' 32.59"	25 Lat: N 35° 9' 45.35" Lon: W 80° 34' 59.40"
	6 Lat: N 35° 25' 53.11" Lon: W 80° 40' 5.42"	26 Lat: N 35° 13' 23.58" Lon: W 80° 32' 56.62"
	7 Lat: N 35° 26' 9.41" Lon: W 80° 39' 35.60"	27 Lat: N 35° 13' 23.58" Lon: W 80° 32' 56.62"
	8 Lat: N 35° 26' 22.61" Lon: W 80° 39' 3.57"	28 Lat: N 35° 13' 47.90" Lon: W 80° 33' 51.75"
	9 Lat: N 35° 26' 32.51" Lon: W 80° 38' 29.81"	29 Lat: N 35° 14' 17.54" Lon: W 80° 34' 42.87"
	10 Lat: N 35° 26' 38.96" Lon: W 80° 37' 54.82"	30 Lat: N 35° 14' 52.07" Lon: W 80° 35' 29.22"
	11 Lat: N 35° 26' 41.88" Lon: W 80° 37' 19.13"	31 Lat: N 35° 15' 30.97" Lon: W 80° 36' 10.10"
	12 Lat: N 35° 26' 41.87" Lon: W 80° 36' 56.07"	32 Lat: N 35° 16' 13.67" Lon: W 80° 36' 44.91"
	13 Lat: N 35° 26' 28.92" Lon: W 80° 29' 48.57"	33 Lat: N 35° 16' 59.52" Lon: W 80° 37' 13.13"
	14 Lat: N 35° 14' 28.41" Lon: W 80° 24' 21.28"	34 Lat: N 35° 17' 47.86" Lon: W 80° 37' 34.32"
	15 Lat: N 35° 10' 26.88" Lon: W 80° 29' 38.08"	35 Lat: N 35° 18' 37.94" Lon: W 80° 37' 48.18"
	16 Lat: N 35° 10' 8.34" Lon: W 80° 30' 5.79"	36 Lat: N 35° 19' 29.04" Lon: W 80° 37' 54.50"
	17 Lat: N 35° 9' 52.71" Lon: W 80° 30' 36.04"	37 Lat: N 35° 20' 20.39" Lon: W 80° 37' 53.17"

DME/DME Grid Analysis (Continued.)		Return To Summary		
Coverage Exists				
Settings:	Polygon Grid Definition:			
	18	Lat: N 35° 9' 40.22" Lon: W 80° 31' 8.39"	38	Lat: N 35° 21' 11.23" Lon: W 80° 37' 44.21"
	19	Lat: N 35° 9' 31.06" Lon: W 80° 31' 42.34"	39	Lat: N 35° 22' 0.78" Lon: W 80° 37' 27.75"
	20	Lat: N 35° 9' 25.36" Lon: W 80° 32' 17.40"	40	Lat: N 35° 22' 41.69" Lon: W 80° 37' 7.85"
	Lat Step: 1 NM			
	Lon Step: 1 NM			
	Line of Sight (DTED Level 0 Max): Evaluated			
	DME Restrictions: Evaluated			
	Co-Frequencies: Evaluated			
	Min DME Range: 3.0 NM			
Allowed Gap Length: 4.0 NM				
DME Types: VOR/DME and VORTAC				
DME Include Angles: 30 to 150				
DoD Facilities: Not included				
Foreign Facilities: Not included				
Low & Terminal DMEs: Included				
Maximum Possible ESVs Used				
Altitude: 4000.0 Ft. MSL				
PNA Import from RDVA-Pro: KCLT PNA MUNBE LILIC				

DME/DME Grid Analysis (Continued.)		Return To Summary
Maximum Gap:	0.0 NM	
Maximum Critical Gap:	0.0 NM	
AGL Altitudes		
Min Cell Altitude	3,196.2 Ft.	
Max Cell Altitude	3,445.5 Ft.	
Mean Cell Altitude	3,308.4 Ft.	
Std. Dev. Cell Altitude	58.4 Ft.	
<i>Statistics based only on passing cells.</i>		
Most Used DMEs: SUG (172), SDZ (172), LIB (172), GSO (172), CTF (172), CLT (172), BZM (172), FLO (102), and CAE (4).		