

**DME ESVs**

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV BRV BRV [IFPA]	N38° 20' 10.53", W077° 21' 10.32"	9.0 W	40	144.5	114.5	UDT ESV BRV	
Restriction:		Bearing [True]: 351.0° to 351.0° Bearing [Mag]: 0° to 360.0°				Distance: Beyond 35.0 NM Altitude: Below 3500.0 ft		
Restriction:		Bearing [True]: 132.0° to 299.0° Bearing [Mag]: 141.0° to 308.0°				Distance: Beyond 24.0 NM Altitude: Below 6000.0 ft		
Restriction:		Bearing [True]: 132.0° to 299.0° Bearing [Mag]: 141.0° to 308.0°				Distance: Beyond 10.0 NM Altitude: Below 3000.0 ft		
ESV:		Bearing [True]: 66.0° to 96.0° Bearing [Mag]: 75.0° to 105.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 23000.0 ft		
2	UDT ESV EMI EMI [IFPA]	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	830.1	117.9	UDT ESV EMI	
Restriction:		Bearing [True]: 273.0° to 47.0° Bearing [Mag]: 281.0° to 55.0°				Distance: Beyond 35.0 NM Altitude: Below 3000.0 ft		
ESV:		Bearing [True]: 102.0° to 162.0° Bearing [Mag]: 110.0° to 170.0°				Arc Distance: Out to 88.0 NM Altitude: 9900.0 to 17000.0 ft		
3	UDT ESV RIC RIC [IFPA]	N37° 30' 08.46", W077° 19' 13.00"	9.0 W	130	167.3	114.1	UDT ESV RIC	
ESV:		Bearing [True]: 6.0° to 106.0° Bearing [Mag]: 15.0° to 115.0°				Arc Distance: Out to 84.0 NM Altitude: 7000.0 to 16000.0 ft		

## DME DME Assessment Results for APPLE1 path ODESA\_SHLBK

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Mark CTR Schoenhoff
Project File:	C:\RNAV PRO 20181221\KLGA\APPLE STAR\KLGA APPLE ONE (RNAV)_191125.tgs
Output File:	C:\RNAV PRO 20181221\KLGA\APPLE STAR\KLGA [IFPA] APPLE1 20191125_1509 EST\ODESA_SHLBK\KLGA APPLE1 RNAV STAR ODESA SHLBK 20191125_1509 EST.pdf
Procedure Name:	APPLE1
Software: DmeDmePlugin:	6.0.0
Date/Time:	11/25/2019 15:09 EST
Databases:	DTED Level 0 MAX

### Failures

No Failures

### Warnings

No Warnings

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
ODESA	WP	N39° 29' 29.00", W075° 49' 44.37"	10000	VNAV	200	FLY_BY	TF
BACKY	WP	N39° 00' 57.71", W076° 05' 04.92"	10000	VNAV	200	FLY_BY	TF
LOUIE	WP	N38° 36' 44.33", W076° 18' 04.37"	10000	VNAV	200	FLY_BY	TF
SHLBK	WP	N38° 20' 16.21", W076° 26' 10.51"	10000	VNAV	200	FLY_BY	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KLGA [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 APPLE1 path ODESA\_SHLBK

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
DME Include Angles:	30 to 150
Critical DMEs:	Not Allowed
DoD Facilities:	Not 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:	Not enabled
Disabled DMEs:	PXT

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.14", W076° 44' 41.09"	10.0 W	40	L	IFPA	NO	Enabled	61.2 %	61.2 %
2	ENO	N39° 13' 53.93", W075° 30' 57.49"	9.0 W	40	L	IFPA	NO	Enabled	55 %	55 %
3	RIC	N37° 30' 08.46", W077° 19' 13.00"	9.0 W	130	H	IFPA	NO	Enabled	24.6 %	24.6 %
4	BAL	N39° 10' 15.83", W076° 39' 40.52"	11.0 W	40	L	IFPA	NO	Enabled	40 %	40 %
5	BRV	N38° 20' 10.53", W077° 21' 10.32"	9.0 W	40	L	IFPA	NO	Enabled	30 %	30.1 %
6	MXE	N39° 55' 04.98", W075° 40' 14.96"	9.0 W	40	L	IFPA	NO	Enabled	17.2 %	17.2 %
7	DQO	N39° 40' 41.30", W075° 36' 25.51"	10.0 W	40	L	IFPA	NO	Enabled	29.6 %	29.6 %
8	OOD	N39° 38' 09.88", W075° 18' 11.00"	10.0 W	40	L	IFPA	NO	Enabled	20.4 %	20.4 %
9	EMI	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	H	IFPA	NO	Enabled	79.1 %	79.1 %
10	ADW	N38° 48' 25.99", W076° 51' 58.52"	10.0 W	40	L	IFPA	NO	Enabled	54.9 %	54.9 %
11	DCA	N38° 51' 34.03", W077° 02' 11.17"	9.0 W	40	L	IFPA	NO	Enabled	3.2 %	3.2 %
12	PXT	N38° 17' 16.28", W076° 24' 00.83"	10.0 W	40	L	IFPA	NO	Disabled		

# DME DME Assessment Results for APPLE1 path ODESA\_SHLBK

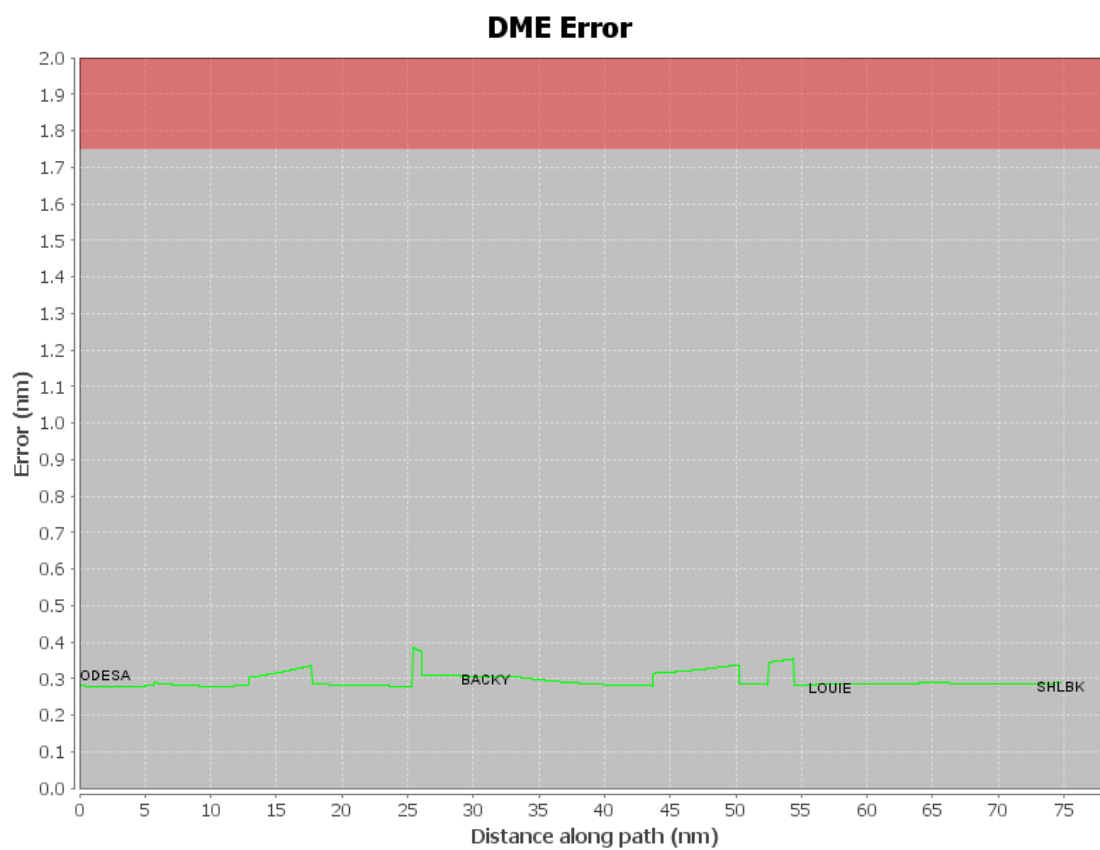
Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	ENO	DQO	OOD	MXE		
5.7	ENO	MXE	OOD			
8.1	ENO	MXE	DQO	OOD		
9.1	ENO	MXE	DQO	BAL	OOD	
12.9	ENO	DQO	OOD	BAL		
15.3	EMI	DQO	ENO	BAL		
24.7	EMI	ENO				
28.4	EMI	ENO	BAL			
29.0	EMI	OTT	ENO	BAL		
33.7	EMI	ENO	OTT	BAL	ADW	
36.8	EMI	ENO	OTT	ADW		
41.2	EMI	OTT	ADW			
50.1	OTT	BAL	EMI	ADW	DCA	
52.5	OTT	BAL	EMI	ADW		
54.5	BRV	BAL	EMI	OTT	ADW	
56.1	EMI	BRV	OTT	ADW		
56.4	EMI	BRV	RIC	ADW	OTT	
74.5	RIC	ADW	OTT	BRV		

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

Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
ODESA	BACKY	EMI, DQO, OOD, ENO, MXE, BAL, OTT
BACKY	LOUIE	EMI, DCA, ADW, ENO, BRV, BAL, RIC, OTT
LOUIE	SHLBK	EMI, ADW, BRV, RIC, OTT

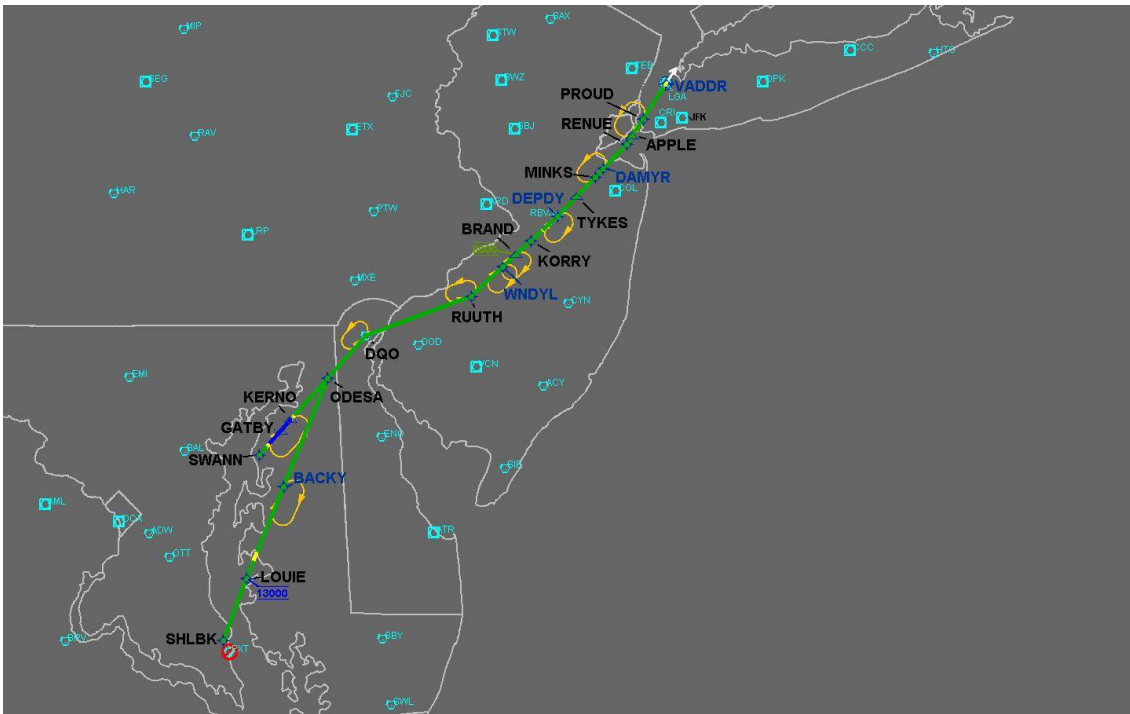
User Data Files								
#	File Name							
1	UserDMEsKLGA [IFPA] APPLE1 RNAV STAR_20191104_0949 EST.udt							
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV RIC RIC [IFPA]	N37° 30' 08.46", W077° 19' 13.00"	9.0 W	130	167.3	114.1	UDT ESV RIC	
ESV:		Bearing [True]: 6.0° to 106.0° Bearing [Mag]: 15.0° to 115.0°				Arc Distance: Out to 84.0 NM Altitude: 7000.0 to 16000.0 ft		
2	UDT ESV EMI EMI [IFPA]	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	830.1	117.9	UDT ESV EMI	
ESV:		Bearing [True]: 102.0° to 162.0° Bearing [Mag]: 110.0° to 170.0°				Arc Distance: Out to 88.0 NM Altitude: 9900.0 to 17000.0 ft		
3	UDT ESV BRV BRV [IFPA]	N38° 20' 10.53", W077° 21' 10.32"	9.0 W	40	144.5	114.5	UDT ESV BRV	
ESV:		Bearing [True]: 66.0° to 96.0° Bearing [Mag]: 75.0° to 105.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 23000.0 ft		

## DME DME Assessment Results for APPLE1 path ODESA\_SHLBK



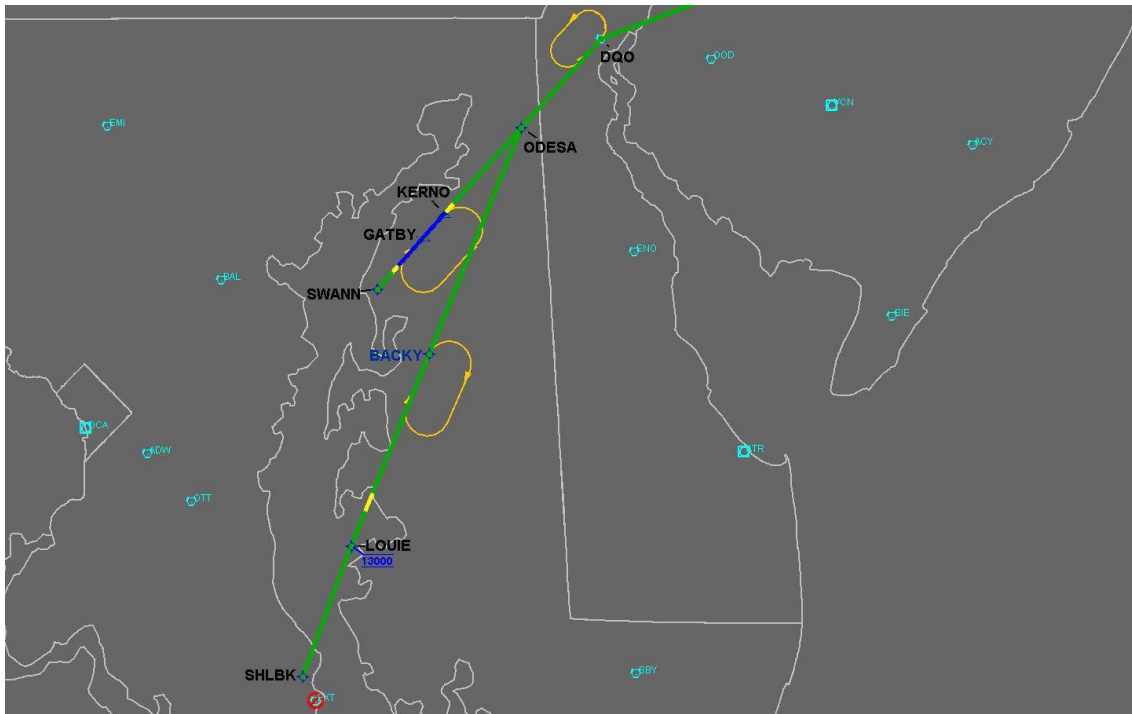
## DME DME Assessment Results for APPLE1 path ODESA\_SHLBK

Graphic Depiction 1



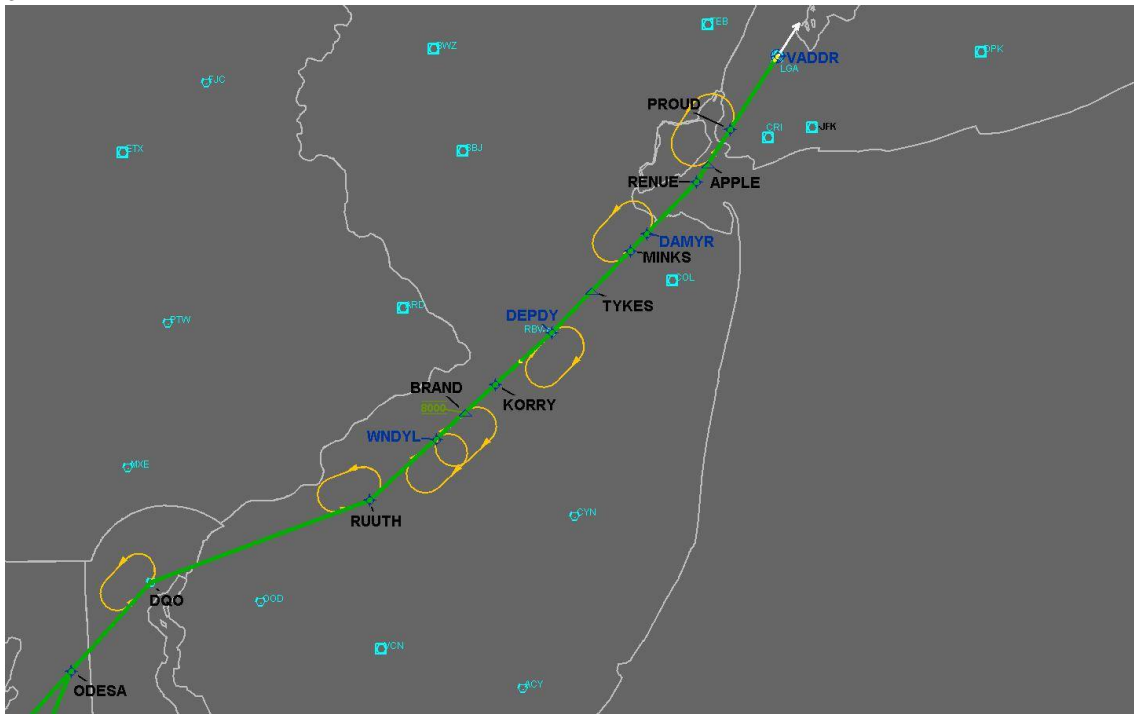
## DME DME Assessment Results for APPLE1 path ODESA\_SHLBK

Graphic Depiction 2



## DME DME Assessment Results for APPLE1 path ODESA\_SHLBK

Graphic Depiction 3





## DME DME Assessment Results for APPLE1 path ODESA\_SWANN

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Mark CTR Schoenhoff
Project File:	C:\RNAV PRO 20181221\KLGA\APPLE STAR\KLGA APPLE ONE (RNAV)_191125.tgs
Output File:	C:\RNAV PRO 20181221\KLGA\APPLE STAR\KLGA [IFPA] APPLE1 20191125_1509 EST\ODESA_SWANN\KLGA APPLE1 RNAV STAR ODESA SWANN 20191125_1509 EST.pdf
Procedure Name:	APPLE1
Software: DmeDmePlugin:	6.0.0
Date/Time:	11/25/2019 15:09 EST
Databases:	DTED Level 0 MAX

### Failures

No Failures

### Warnings

No Warnings

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
ODESA	WP	N39° 29' 29.00", W075° 49' 44.37"	10000	VNAV	200	FLY_BY	TF
KERNO	WP	N39° 18' 36.25", W076° 02' 34.92"	10000	VNAV	200	FLY_BY	TF
GATBY	WP	N39° 15' 40.02", W076° 06' 01.84"	10000	VNAV	200	FLY_BY	TF
SWANN	WP	N39° 09' 05.28", W076° 13' 43.94"	10000	VNAV	200	FLY_BY	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KLGA [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 APPLE1 path ODESA\_SWANN

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
DME Include Angles:	30 to 150
Critical DMEs:	Not Allowed
DoD Facilities:	Not 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:	Not enabled
Disabled DMEs:	PXT

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.14", W076° 44' 41.09"	10.0 W	40	L	IFPA	NO	Enabled	14 %	14 %
2	ENO	N39° 13' 53.93", W075° 30' 57.49"	9.0 W	40	L	IFPA	NO	Enabled	62.8 %	62.8 %
3	BAL	N39° 10' 15.83", W076° 39' 40.52"	11.0 W	40	L	IFPA	NO	Enabled	46.3 %	46.3 %
4	MXE	N39° 55' 04.98", W075° 40' 14.96"	9.0 W	40	L	IFPA	NO	Enabled	52 %	52 %
5	DQO	N39° 40' 41.30", W075° 36' 25.51"	10.0 W	40	L	IFPA	NO	Enabled	32.1 %	32.1 %
6	OOD	N39° 38' 09.88", W075° 18' 11.00"	10.0 W	40	L	IFPA	NO	Enabled	52 %	52 %
7	ADW	N38° 48' 25.99", W076° 51' 58.52"	10.0 W	40	L	IFPA	NO	Enabled	14 %	14 %
8	EMI	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	H	IFPA	NO	Enabled	6.6 %	6.6 %
9	PXT	N38° 17' 16.28", W076° 24' 00.83"	10.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	ENO	DQO	OOD	MXE		
5.4	ENO	DQO	MXE	OOD	BAL	
6.5	ENO	MXE	OOD	BAL		
12.9	ENO	MXE	DQO	BAL	OOD	
14.4						
23.7	OTT	ENO	DQO	BAL	ADW	
24.8	OTT	BAL	ENO	ADW		
25.8	EMI	OTT	ADW	BAL		
26.6	EMI	OTT	ADW	BAL	ENO	

# DME DME Assessment Results for APPLE1 path ODESA\_SWANN

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N39° 18' 50.99", W076° 02' 17.58"	N39° 11' 56.97", W076° 10' 23.20"	9.3267

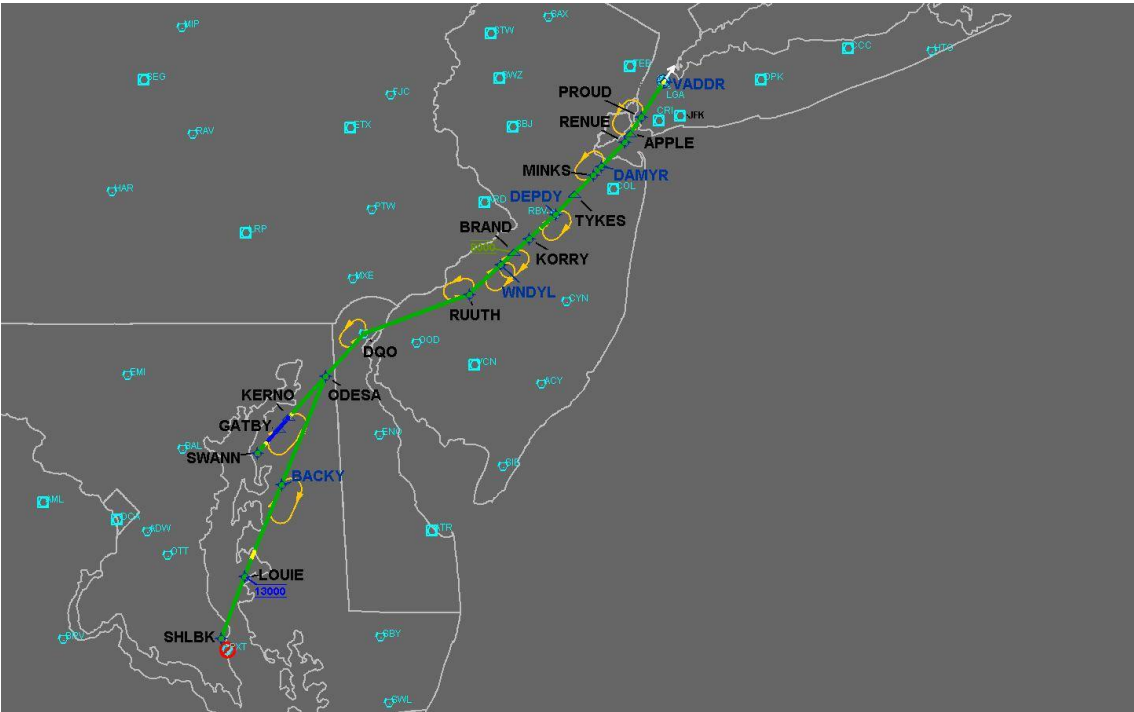
Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
ODESA	KERNO	DQO, OOD, ENO, MXE, BAL
KERNO	GATBY	
GATBY	SWANN	EMI, DQO, ADW, ENO, BAL, OTT

User Data Files								
#	File Name							
1	UserDMEsKLGA [IFPA] APPLE1 RNAV STAR_20191104_0949 EST.udt							
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV RIC RIC [IFPA]	N37° 30' 08.46", W077° 19' 13.00"	9.0 W	130	167.3	114.1	UDT ESV RIC	
ESV:		Bearing [True]: 6.0° to 106.0° Bearing [Mag]: 15.0° to 115.0°				Arc Distance: Out to 84.0 NM Altitude: 7000.0 to 16000.0 ft		
2	UDT ESV EMI EMI [IFPA]	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	830.1	117.9	UDT ESV EMI	
ESV:		Bearing [True]: 102.0° to 162.0° Bearing [Mag]: 110.0° to 170.0°				Arc Distance: Out to 88.0 NM Altitude: 9900.0 to 17000.0 ft		
3	UDT ESV BRV BRV [IFPA]	N38° 20' 10.53", W077° 21' 10.32"	9.0 W	40	144.5	114.5	UDT ESV BRV	
ESV:		Bearing [True]: 66.0° to 96.0° Bearing [Mag]: 75.0° to 105.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 23000.0 ft		

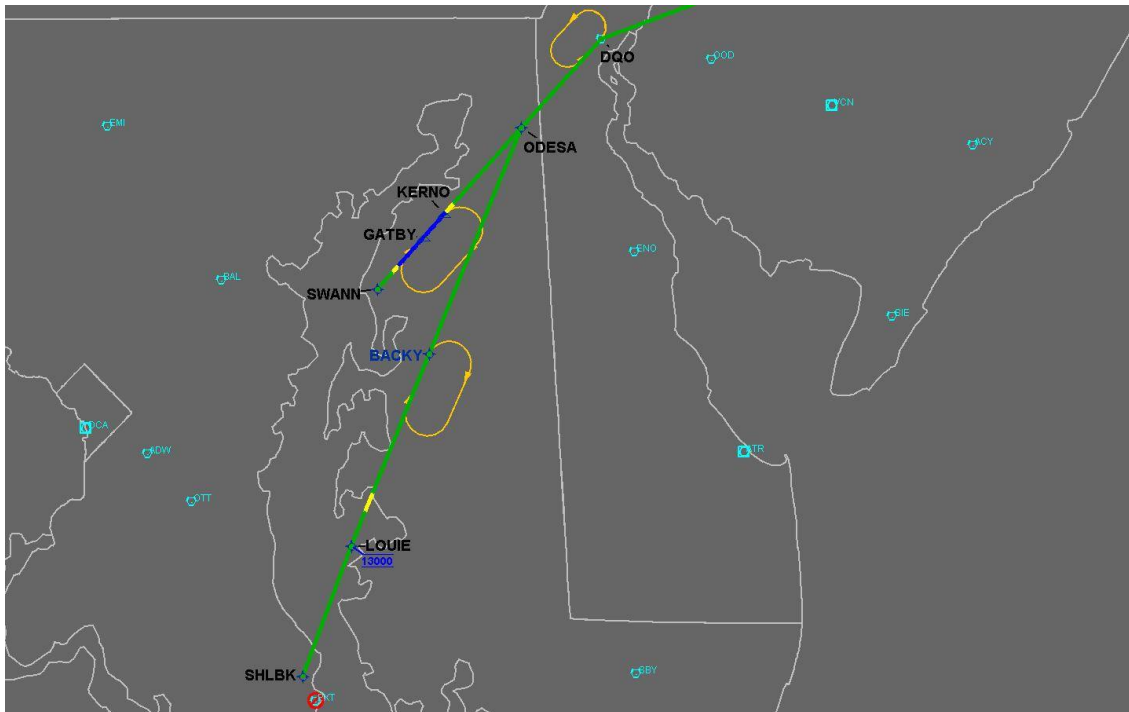


DME DME Assessment Results for APPLE1 path ODESA\_SWANN

Graphic Depiction 1

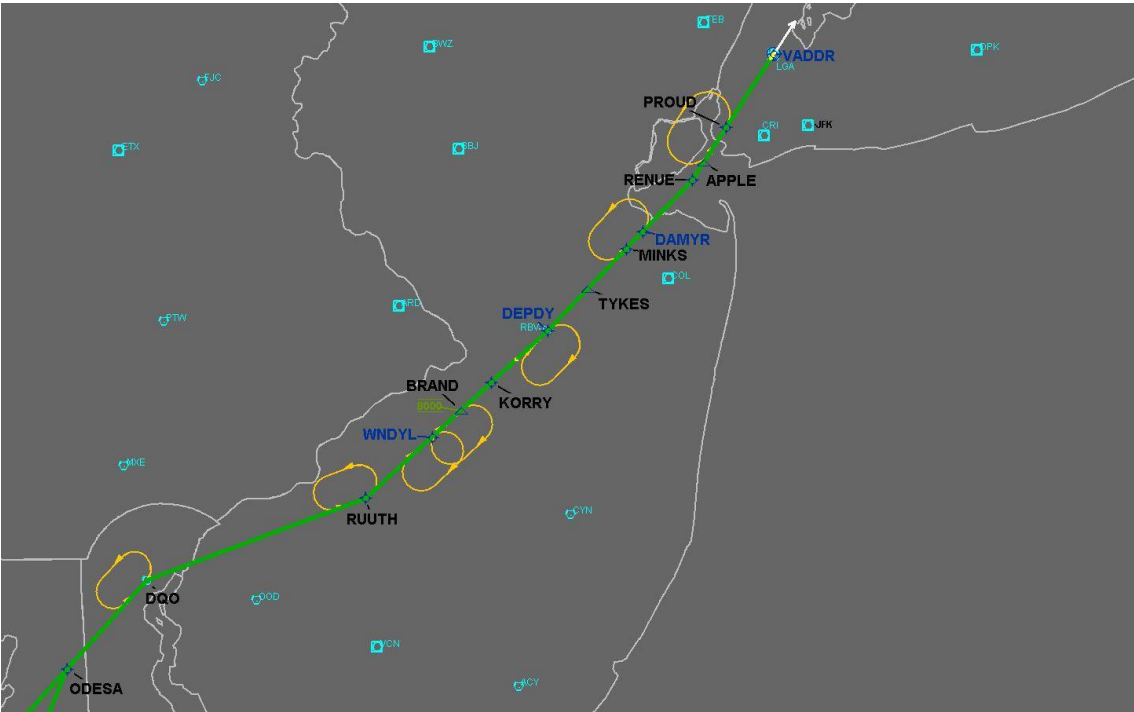


### Graphic Depiction 2



DME DME Assessment Results for APPLE1 path ODESA\_SWANN

Graphic Depiction 3



## DME DME Assessment Results for APPLE1 path SHLBK\_VADDR

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Mark CTR Schoenhoff
Project File:	C:\RNAV PRO 20181221\KLGA\APPLE STAR\KLGA APPLE ONE (RNAV)_191125.tgs
Output File:	C:\RNAV PRO 20181221\KLGA\APPLE STAR\KLGA [IFPA] APPLE1 20191125_1509 EST\SHLBK_VADDR\KLGA APPLE1 RNAV STAR SHLBK VADDR 20191125_1509 EST.pdf
Procedure Name:	APPLE1
Software: DmeDmePlugin:	6.0.0
Date/Time:	11/25/2019 15:09 EST
Databases:	DTED Level 0 MAX

### Failures

No Failures

### Warnings

No Warnings

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
SHLBK	WP	N38° 20' 16.21", W076° 26' 10.51"	10000	VNAV	200	FLY_BY	TF
LOUIE	WP	N38° 36' 44.33", W076° 18' 04.37"	10000	VNAV	200	FLY_BY	TF
BACKY	WP	N39° 00' 57.71", W076° 05' 04.92"	10000	VNAV	200	FLY_BY	TF
ODESA	WP	N39° 29' 29.00", W075° 49' 44.37"	10000	VNAV	200	FLY_BY	TF
DQO	WP	N39° 40' 41.30", W075° 36' 25.51"	10000	VNAV	200	FLY_BY	TF
RUUTH	WP	N39° 51' 01.24", W074° 59' 59.17"	6000	VNAV	200	FLY_BY	TF
WNDYL	WP	N39° 58' 44.47", W074° 48' 58.56"	3000	VNAV	200	FLY_BY	TF
BRAND	WP	N40° 02' 06.28", W074° 44' 09.50"	3000	VNAV	200	FLY_BY	TF
KORRY	WP	N40° 05' 37.83", W074° 39' 05.56"	3000	VNAV	200	FLY_BY	TF
DEPDY	WP	N40° 12' 08.25", W074° 29' 42.67"	3000	VNAV	200	FLY_BY	TF
TYKES	WP	N40° 17' 22.38", W074° 23' 06.13"	3000	VNAV	200	FLY_BY	TF
MINKS	WP	N40° 22' 29.54", W074° 16' 37.10"	3000	VNAV	200	FLY_BY	TF
DAMYR	WP	N40° 24' 38.77", W074° 13' 52.98"	3000	VNAV	200	FLY_BY	TF
RENUE	WP	N40° 31' 06.72", W074° 05' 38.72"	3000	VNAV	200	FLY_BY	TF
APPLE	WP	N40° 33' 22.09", W074° 03' 44.11"	3000	VNAV	200	FLY_BY	TF
PROUD	WP	N40° 37' 47.25", W073° 59' 59.12"	3000	VNAV	200	FLY_BY	TF
VADDR	WP	N40° 47' 00.20", W073° 52' 07.00"	3000	VNAV	200	FLY_OVER	TF



## DME DME Assessment Results for APPLE1 path SHLBK\_VADDR

Flyability	
Flight Type:	RNAV_STAR
Selected Airport:	KLGA [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
DME Include Angles:	30 to 150
Critical DMEs:	Not Allowed
DoD Facilities:	Not 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:	Not enabled
Disabled DMEs:	PXT

**DME DME Assessment Results for APPLE1 path SHLBK\_VADDR**

<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	RBV	N40° 12' 08.65", W074° 29' 42.09"	10.0 W	130	H	IFPA	NO	Enabled	35.3 %	35.3 %
2	CYN	N39° 49' 02.42", W074° 25' 53.85"	10.0 W	130	H	IFPA	NO	Enabled	32.2 %	32.2 %
3	DQO	N39° 40' 41.30", W075° 36' 25.51"	10.0 W	40	L	IFPA	NO	Enabled	30.2 %	30.1 %
4	CMK	N41° 16' 48.32", W073° 34' 52.77"	12.0 W	40	L	IFPA	NO	Enabled	3.4 %	3.4 %
5	ACY	N39° 27' 21.15", W074° 34' 34.73"	10.0 W	40	L	IFPA	NO	Enabled	15.7 %	15.7 %
6	JFK	N40° 37' 58.40", W073° 46' 17.00"	12.0 W	130	H	IFPA	NO	Enabled	21 %	21 %
7	BRV	N38° 20' 10.53", W077° 21' 10.32"	9.0 W	40	L	IFPA	NO	Enabled	11.4 %	11.4 %
8	OOD	N39° 38' 09.88", W075° 18' 11.00"	10.0 W	40	L	IFPA	NO	Enabled	41.3 %	41.2 %
9	DCA	N38° 51' 34.03", W077° 02' 11.17"	9.0 W	40	L	IFPA	NO	Enabled	1.2 %	1.2 %
10	LGA	N40° 47' 01.38", W073° 52' 06.96"	12.0 W	40	L	IFPA	NO	Enabled	18.6 %	18.6 %
11	PTW	N40° 13' 20.03", W075° 33' 36.90"	9.0 W	40	L	IFPA	NO	Enabled	22.9 %	22.9 %
12	RIC	N37° 30' 08.46", W077° 19' 13.00"	9.0 W	130	H	IFPA	NO	Enabled	9.4 %	9.4 %
13	SAX	N41° 04' 03.15", W074° 32' 17.91"	11.0 W	130	H	IFPA	NO	Enabled	6.1 %	6.1 %
14	CRI	N40° 36' 44.90", W073° 53' 40.00"	11.0 W	25	T	IFPA	NO	Enabled	11 %	11 %
15	TEB	N40° 50' 55.39", W074° 03' 44.07"	11.0 W	25	T	IFPA	NO	Enabled	3.4 %	3.4 %
16	ADW	N38° 48' 25.99", W076° 51' 58.52"	10.0 W	40	L	IFPA	NO	Enabled	20.9 %	20.9 %
17	OTT	N38° 42' 21.14", W076° 44' 41.09"	10.0 W	40	L	IFPA	NO	Enabled	23.3 %	23.3 %
18	COL	N40° 18' 41.88", W074° 09' 35.02"	11.0 W	40	L	IFPA	NO	Enabled	23.2 %	23.2 %
19	VCN	N39° 32' 15.62", W074° 58' 01.72"	10.0 W	40	L	IFPA	NO	Enabled	32.8 %	32.7 %
20	ENO	N39° 13' 53.93", W075° 30' 57.49"	9.0 W	40	L	IFPA	NO	Enabled	39 %	39 %
21	ARD	N40° 15' 12.03", W074° 54' 27.40"	10.0 W	40	L	IFPA	NO	Enabled	32 %	32 %
22	SBJ	N40° 34' 58.96", W074° 44' 30.45"	10.0 W	40	L	IFPA	NO	Enabled	25.7 %	25.7 %
23	BAL	N39° 10' 15.83", W076° 39' 40.52"	11.0 W	40	L	IFPA	NO	Enabled	15.2 %	15.2 %
24	MXE	N39° 55' 04.98", W075° 40' 14.96"	9.0 W	40	L	IFPA	NO	Enabled	33.9 %	33.9 %
25	EMI	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	H	IFPA	NO	Enabled	30.1 %	30.1 %
26	PXT	N38° 17' 16.28", W076° 24' 00.83"	10.0 W	40	L	IFPA	NO	Disabled		

# DME DME Assessment Results for APPLE1 path SHLBK\_VADDR

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	RIC	ADW	OTT	BRV		
0.3	RIC	ADW	OTT	EMI	BRV	
18.5	EMI	BRV	OTT	ADW		
18.7	BRV	BAL	EMI	OTT	ADW	
20.4	OTT	BAL	EMI	ADW		
22.3	BRV	BAL	EMI	OTT	ADW	DCA
24.5	OTT	BAL	EMI	ADW	DCA	
24.7	EMI	OTT	ADW			
33.7	EMI	ENO	OTT	ADW		
38.1	EMI	ENO	OTT	BAL	ADW	
41.1	EMI	ENO	OTT	BAL		
45.8	EMI	ENO	BAL			
46.4	EMI	ENO				
50.2	EMI	DQO	BAL	ENO		
59.5	ENO	DQO	BAL	OOD		
61.9	ENO	MXE	DQO	BAL	OOD	
65.8	ENO	MXE	DQO	OOD		
66.7	ENO	MXE	OOD			
69.1	ENO	DQO	MXE	OOD		
79.2	MXE	VCN	ENO	DQO	OOD	
83.1	MXE	VCN	OOD	ENO		
83.9	PTW	VCN	MXE	OOD	ENO	
110.5	MXE	ARD	ACY	OOD	DQO	PTW
111.6	ACY	OOD	DQO	VCN	MXE	PTW
122.0	MXE	VCN	RBV	ACY	OOD	CYN
128.7	CYN	VCN	PTW	RBV	ACY	OOD
129.0	CYN	VCN	RBV	ACY	OOD	ARD
138.4	RBV	CYN	OOD	ARD	VCN	
140.7	RBV	ARD	CYN	VCN	SBJ	
143.7	RBV	ARD	CYN	SBJ		
145.9	CYN	COL	SBJ	RBV	ARD	
146.2	CYN	COL	SBJ	ARD		
154.1	SBJ	JFK	CYN	ARD	COL	
165.1	LGA	SBJ	RBV	CRI	CYN	JFK
170.0	COL	ARD	JFK	LGA	SBJ	CRI
173.2	SBJ	COL	ARD	LGA	RBV	CRI
173.9	SBJ	COL	LGA	ARD	RBV	
175.3	TEB	SBJ	COL	LGA	RBV	JFK
181.1	SBJ	COL	LGA	RBV	JFK	
190.4	RBV	SAX	CMK	JFK	COL	LGA
190.8	CMK	JFK	LGA	COL	SAX	
193.7	SAX	CMK	COL	JFK	CRI	
194.3	SAX	CMK	JFK	CRI		
196.0	SAX	COL	CMK	CRI	JFK	

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

## DME DME Assessment Results for APPLE1 path SHLBK\_VADDR

### Available DMEs by Waypoints

Waypoint Before	Waypoint After	DME List
SHLBK	LOUIE	EMI, ADW, BRV, RIC, OTT
LOUIE	BACKY	EMI, DCA, ADW, BRV, ENO, RIC, BAL, OTT
BACKY	ODESA	EMI, DQO, OOD, ENO, MXE, BAL, OTT
ODESA	DQO	VCN, PTW, DQO, OOD, ENO, MXE
DQO	RUUTH	VCN, PTW, DQO, ARD, OOD, ENO, ACY, RBV, CYN, MXE
RUUTH	WNDYL	VCN, PTW, ARD, DQO, OOD, RBV, ACY, CYN, MXE
WNDYL	BRAND	VCN, ARD, OOD, RBV, ACY, CYN
BRAND	KORRY	VCN, ARD, OOD, RBV, ACY, CYN, SBJ
KORRY	DEPDY	VCN, COL, ARD, RBV, CYN, SBJ
DEPDY	TYKES	COL, ARD, RBV, LGA, CYN, SBJ, JFK
TYKES	MINKS	COL, ARD, RBV, LGA, CYN, SBJ, CRI, JFK
MINKS	DAMYR	COL, ARD, RBV, LGA, CYN, SBJ, CRI, JFK
DAMYR	RENUE	TEB, COL, ARD, RBV, LGA, CYN, SBJ, CRI, JFK
RENUE	APPLE	TEB, COL, RBV, LGA, SBJ, CRI, JFK
APPLE	PROUD	TEB, COL, RBV, LGA, SBJ, CRI, SAX, JFK
PROUD	VADDR	CMK, COL, RBV, LGA, SBJ, SAX, CRI, JFK

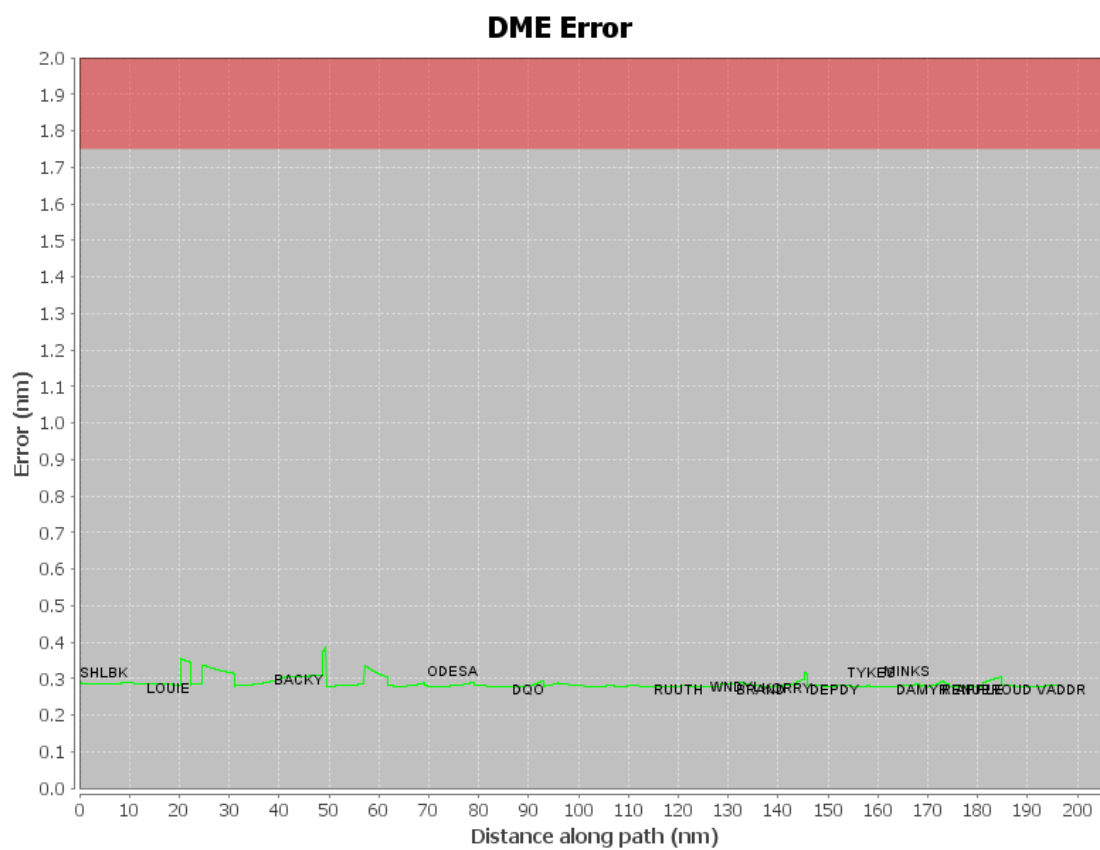
### User Data Files

#	File Name
1	UserDMEsKLGA [IFPA] APPLE1 RNAV STAR_20191104_0949 EST.udt

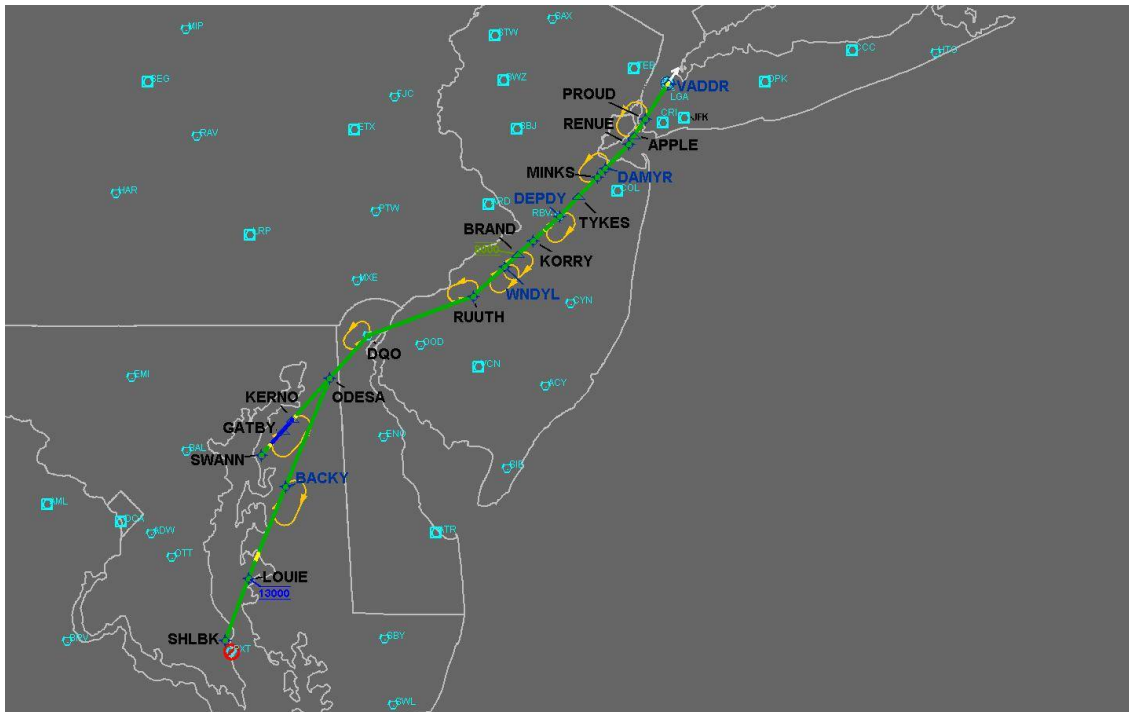
### User DMEs

#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV RIC RIC [IFPA]	N37° 30' 08.46", W077° 19' 13.00"	9.0 W	130	167.3	114.1	UDT ESV RIC	
ESV:		Bearing [True]: 6.0° to 106.0° Bearing [Mag]: 15.0° to 115.0°				Arc Distance: Out to 84.0 NM Altitude: 7000.0 to 16000.0 ft		
2	UDT ESV EMI EMI [IFPA]	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	830.1	117.9	UDT ESV EMI	
ESV:		Bearing [True]: 102.0° to 162.0° Bearing [Mag]: 110.0° to 170.0°				Arc Distance: Out to 88.0 NM Altitude: 9900.0 to 17000.0 ft		
3	UDT ESV BRV BRV [IFPA]	N38° 20' 10.53", W077° 21' 10.32"	9.0 W	40	144.5	114.5	UDT ESV BRV	
ESV:		Bearing [True]: 66.0° to 96.0° Bearing [Mag]: 75.0° to 105.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 23000.0 ft		

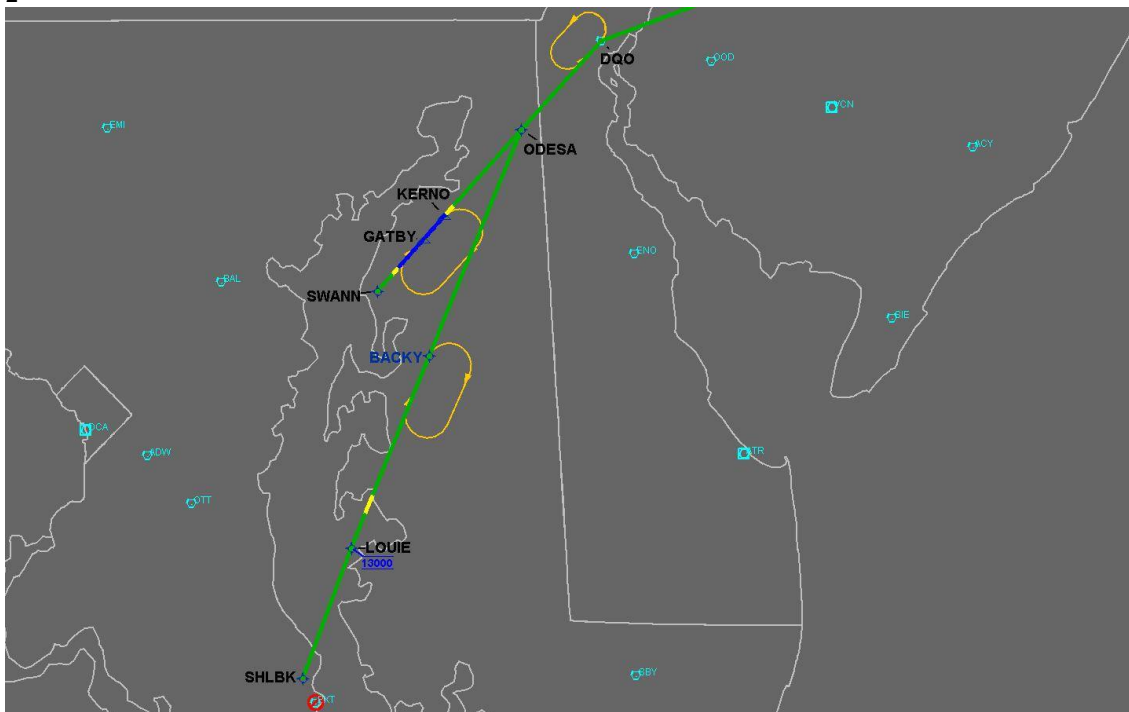
## DME DME Assessment Results for APPLE1 path SHLBK\_VADDR



### Graphic Depiction 1

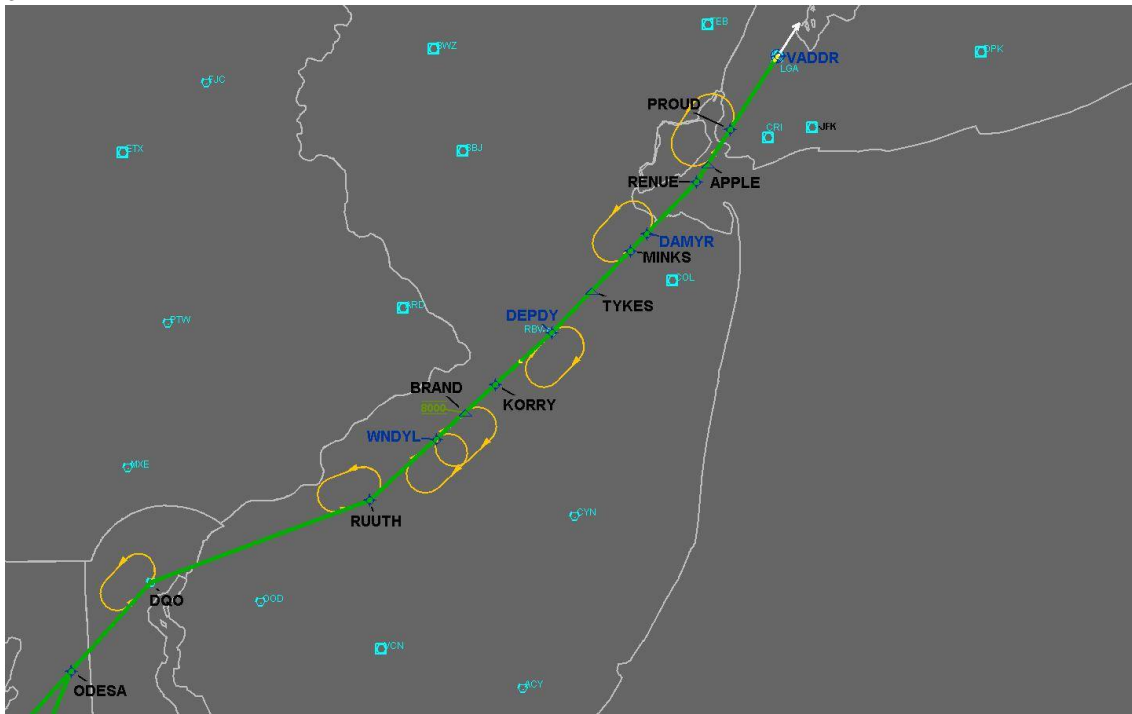


### Graphic Depiction 2



## DME DME Assessment Results for APPLE1 path SHLBK\_VADDR

Graphic Depiction 3





## DME DME Assessment Results for APPLE1 path SWANN\_ODESA

### Results Summary

Flyability:	Completed
DME/DME:	Completed - No Critical DMEs
Name:	Mark CTR Schoenhoff
Project File:	C:\RNAV PRO 20181221\KLGA\APPLE STAR\KLGA APPLE ONE (RNAV)_191125.tgs
Output File:	C:\RNAV PRO 20181221\KLGA\APPLE STAR\KLGA [IFPA] APPLE1 20191125_1509 EST\SWANN_ODESA\KLGA APPLE1 RNAV STAR SWANN ODESA 20191125_1509 EST.pdf
Procedure Name:	APPLE1
Software: DmeDmePlugin:	6.0.0
Date/Time:	11/25/2019 15:09 EST
Databases:	DTED Level 0 MAX

### Failures

No Failures

### Warnings

No Warnings

### Notes For Flight Check

None

### Flight Plan

Name	Type	Lat/Lon	Altitude (ft)	VNAV Mode	Ground Speed (kts)	Turn Type	Leg Type
SWANN	WP	N39° 09' 05.28", W076° 13' 43.94"	10000	VNAV	200	FLY_BY	TF
GATBY	WP	N39° 15' 40.02", W076° 06' 01.84"	10000	VNAV	200	FLY_BY	TF
KERNO	WP	N39° 18' 36.25", W076° 02' 34.92"	10000	VNAV	200	FLY_BY	TF
ODESA	WP	N39° 29' 29.00", W075° 49' 44.37"	10000	VNAV	200	FLY_BY	TF

### Flyability

Flight Type:	RNAV_STAR
Selected Airport:	KLGA [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 APPLE1 path SWANN\_ODESA

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
DME Include Angles:	30 to 150
Critical DMEs:	Not Allowed
DoD Facilities:	Not 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:	Not enabled
Disabled DMEs:	PXT

DME/DME (Continued)										
DMEs Used										
#	Name	Lat/Lon	MAGVAR	Range	Type	Source	Critical	Status	Time	Distance
1	OTT	N38° 42' 21.14", W076° 44' 41.09"	10.0 W	40	L	IFPA	NO	Enabled	14 %	14 %
2	ENO	N39° 13' 53.93", W075° 30' 57.49"	9.0 W	40	L	IFPA	NO	Enabled	62.8 %	62.8 %
3	BAL	N39° 10' 15.83", W076° 39' 40.52"	11.0 W	40	L	IFPA	NO	Enabled	46.3 %	46.3 %
4	DQO	N39° 40' 41.30", W075° 36' 25.51"	10.0 W	40	L	IFPA	NO	Enabled	32.1 %	32.1 %
5	MXE	N39° 55' 04.98", W075° 40' 14.96"	9.0 W	40	L	IFPA	NO	Enabled	52 %	52 %
6	OOD	N39° 38' 09.88", W075° 18' 11.00"	10.0 W	40	L	IFPA	NO	Enabled	52 %	52 %
7	ADW	N38° 48' 25.99", W076° 51' 58.52"	10.0 W	40	L	IFPA	NO	Enabled	14 %	14 %
8	EMI	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	H	IFPA	NO	Enabled	6.6 %	6.6 %
9	PXT	N38° 17' 16.28", W076° 24' 00.83"	10.0 W	40	L	IFPA	NO	Disabled		

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0	EMI	OTT	ADW	BAL	ENO	
1.0	EMI	OTT	ADW	BAL		
1.9	OTT	BAL	ENO	ADW		
2.9	OTT	BAL	DQO	ENO	ADW	
3.9						
13.3	ENO	MXE	DQO	BAL	OOD	
14.7	ENO	MXE	BAL	OOD		
21.2	ENO	MXE	DQO	OOD	BAL	
22.2	ENO	DQO	MXE	OOD		

# DME DME Assessment Results for APPLE1 path SWANN\_ODESA

Inertial Drift Segments			
#	Start Location	End Location	Length [NM]
1	N39° 11' 59.42", W076° 10' 20.33"	N39° 18' 53.45", W076° 02' 14.69"	9.3231

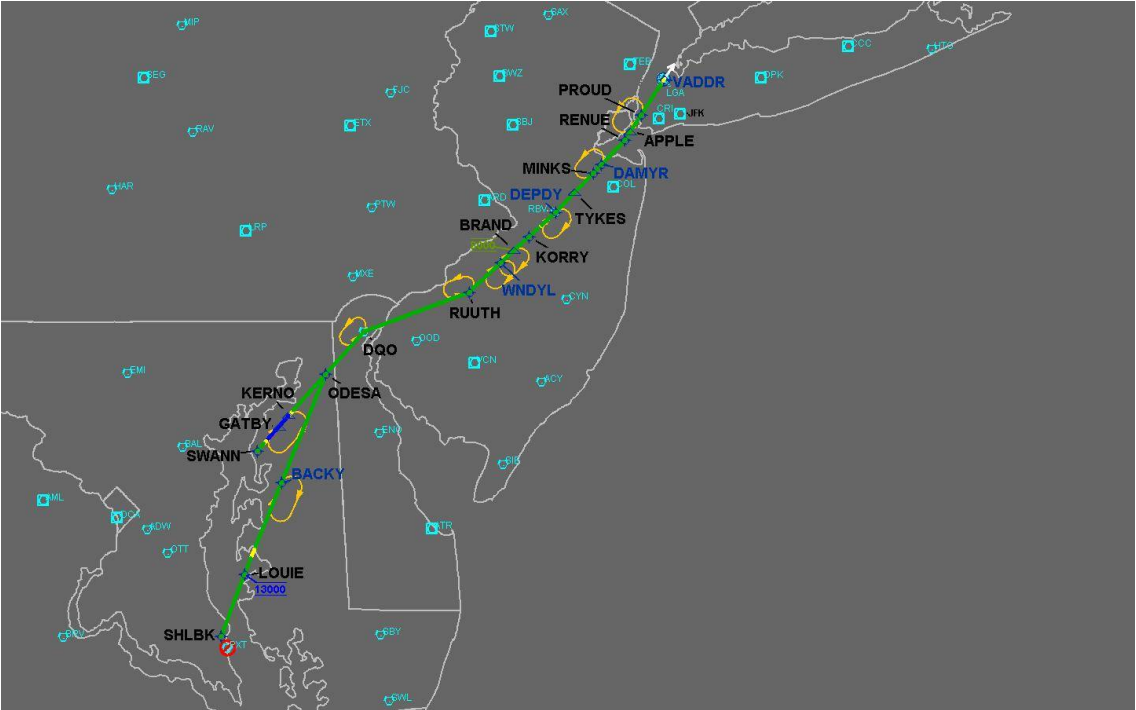
Available DMEs by Waypoints		
Waypoint Before	Waypoint After	DME List
SWANN	GATBY	EMI, DQO, ADW, ENO, BAL, OTT
GATBY	KERNO	
KERNO	ODESA	DQO, OOD, ENO, MXE, BAL

User Data Files								
#	File Name							
1	UserDMEsKLGA [IFPA] APPLE1 RNAV STAR_20191104_0949 EST.udt							
User DMEs								
#	Name	Lat/Lon	MAGVAR	Range	Elevation [ft]	Frequency	Replaces	Status
1	UDT ESV RIC RIC [IFPA]	N37° 30' 08.46", W077° 19' 13.00"	9.0 W	130	167.3	114.1	UDT ESV RIC	
ESV:		Bearing [True]: 6.0° to 106.0° Bearing [Mag]: 15.0° to 115.0°				Arc Distance: Out to 84.0 NM Altitude: 7000.0 to 16000.0 ft		
2	UDT ESV EMI EMI [IFPA]	N39° 29' 42.03", W076° 58' 42.86"	8.0 W	130	830.1	117.9	UDT ESV EMI	
ESV:		Bearing [True]: 102.0° to 162.0° Bearing [Mag]: 110.0° to 170.0°				Arc Distance: Out to 88.0 NM Altitude: 9900.0 to 17000.0 ft		
3	UDT ESV BRV BRV [IFPA]	N38° 20' 10.53", W077° 21' 10.32"	9.0 W	40	144.5	114.5	UDT ESV BRV	
ESV:		Bearing [True]: 66.0° to 96.0° Bearing [Mag]: 75.0° to 105.0°				Arc Distance: Out to 70.0 NM Altitude: 7000.0 to 23000.0 ft		



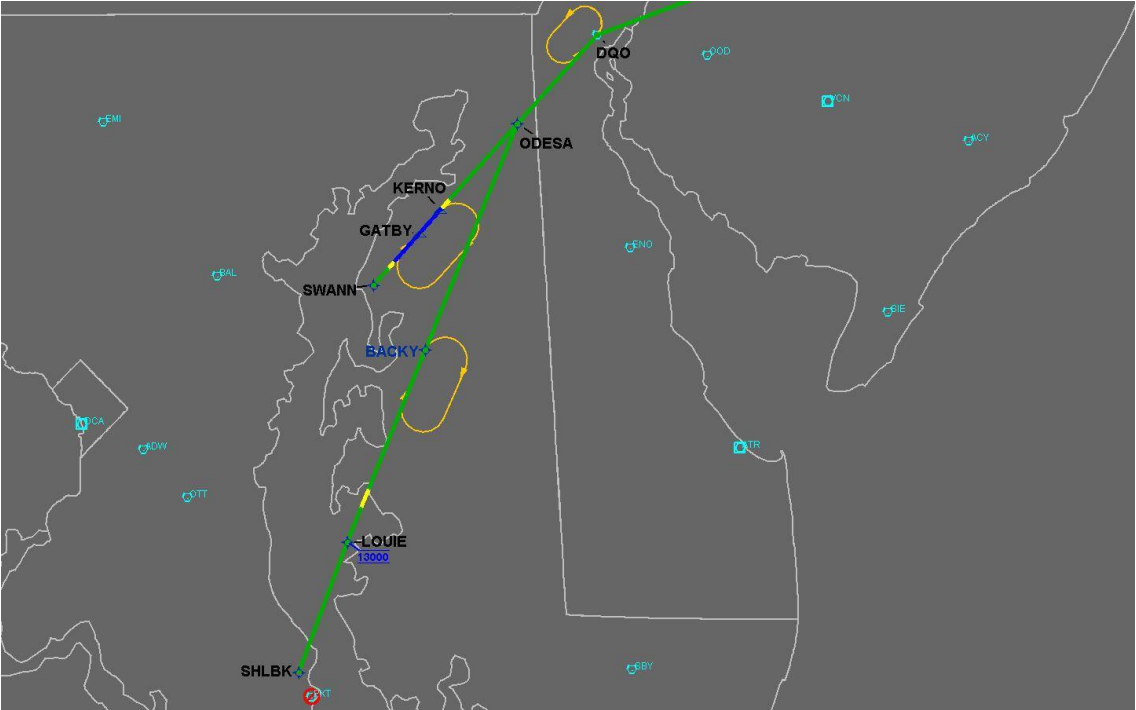
DME DME Assessment Results for APPLE1 path SWANN\_ODESA

Graphic Depiction 1



DME DME Assessment Results for APPLE1 path SWANN\_ODESA

Graphic Depiction 2



### Graphic Depiction 3

