Flight Procedure Tracking Form

Action: FLIGHT CHECK	**Task Type:** SID	**Date Open:** 02/28/2012	**Task #:** 2006071410720503013	**Request #:** 20060714107205	
Procedure: SID WHRLI (RNAV) ONE ST. LOUIS MO KSTL	**Airport ID:** KSTL	**Airport:** LAMBERT-ST LOUIS INTL		**Reimbursable #:**	
City: ST LOUIS	**ST:** MO	**GPS #:**	**Estimated Chart Date:** 09/20/2012	**FICO #:**	
Fac ID:	**Fac. Type:**	**Specialist:** ANKUR VERMA			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	03/29/2012	06/12/2012	JILL OLSON	
QA:	06/12/2012	06/12/2012	STEVEN SZUKALA	
Liaison:	06/12/2012		MARY MCDONALD	DME/DME; REPLACEMENT - 15B, FIG.

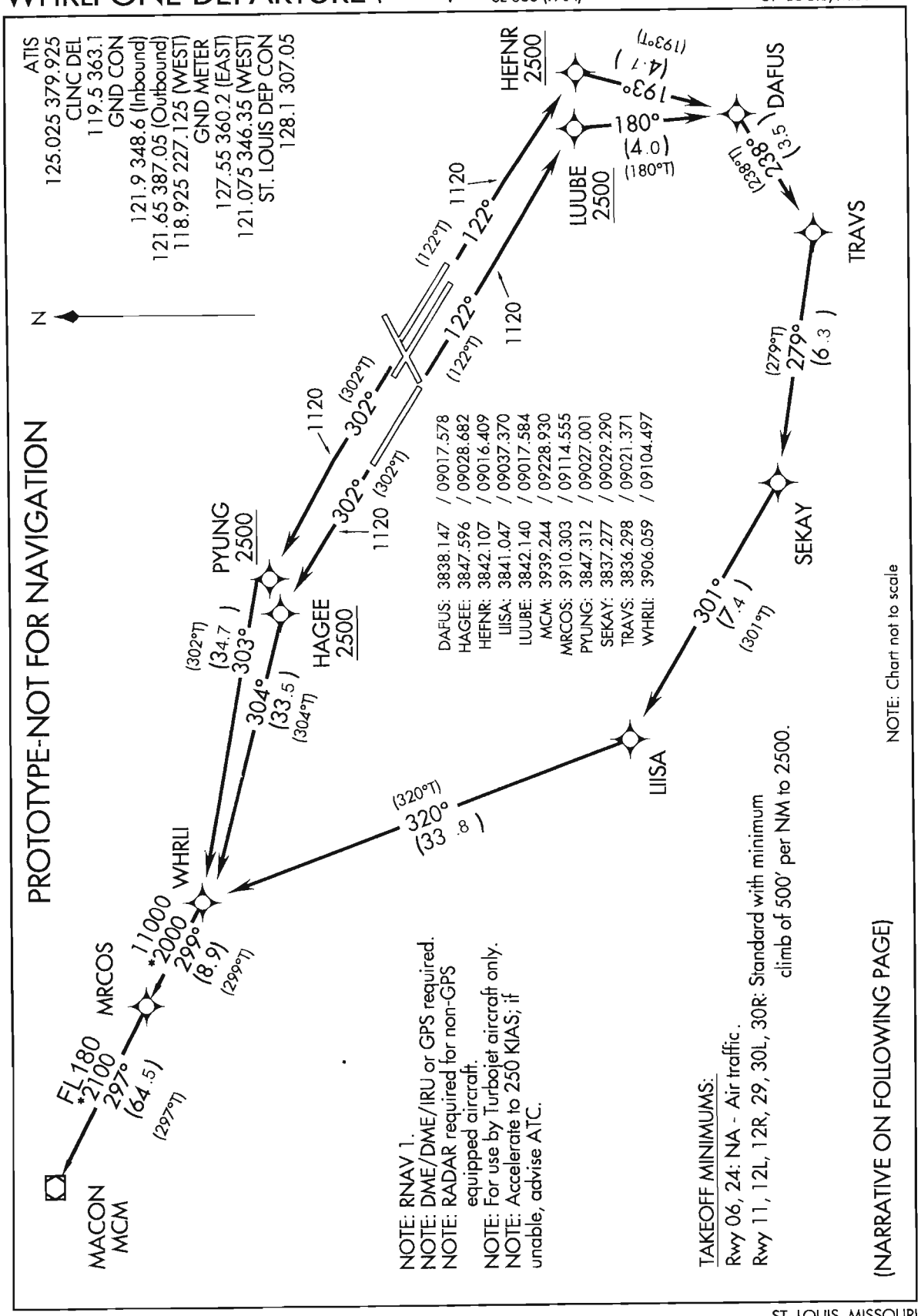
Procedure Comments: ENROUTE **Remark Type:** INFORMATION

ST LOUIS, MO LAMBERT-ST LOUIS INTL (KSTL) WHRLI ONE (RNAV) (SID) ENROUTE-YES FC: 7.24.12 PUB: 9.20.12

ATTACHED FORMS: ESV REPORTS; 8260-15B; 8260-15C; 8260-2(S): DAFUS, ORIG; HAGEE, ORIG; HEFNR, ORIG; LIISA, ORIG; LUUBE, ORIG; MRCOS, ORIG; PYUNG, ORIG; SEKAY, ORIG; TRAVS, ORIG; WHRLI, ORIG; (INFO ONLY) MACON (MCM) VDME, REV 8.

CONTACT: JILL OLSON, AJV-353 LEAD, 405.954.0414
REPLACEMENT PACKAGE TO CORRECTED MEA'S TO MATCH DME/DME PRORUNS. SEE ATTACHED LIST FOR ALL AFFECTED PROCEDURES.

WHRLI ONE DEPARTURE (RNAV)



DEPARTURE ROUTE DESCRIPTION

TAKEOFF RWY 11: Climb heading 122° to 1120 , then direct LUUBE, cross LUUBE at or above 2500, then on depicted route to WHRLI. thence...
TAKEOFF RWY 12L, 12R: Climb heading 122° to 1120 , then direct HEFNR, cross HEFNR at or above 2500, then on depicted route to WHRLI.thence...
TAKEOFF RWY 29: Climb heading 302° to 1120 , then direct HAGEE, cross HAGEE at or above 2500, then on depicted route to WHRLI. thence...
TAKEOFF RWY 30L, 30R: Climb heading 302° to 1120 , then direct PYUNG, cross PYUNG at or above 2500, then on depicted route to WHRLI. thence...

... (Transition). Maintain 5000, expect filed altitude 10 minutes after departure.

MACON TRANSITION (WHRLI1.MCM):

TAKE-OFF OBSTACLE NOTES

Rwy 11: Multiple signs, trees, towers, and bldgs beginning 2348′ from DER, 205′ left of centerline, up to 219′ AGL/774′ MSL. Multiple signs, trees, towers, and bldgs beginning 2363′ from DER, 489′ right of centerline, up to 114′ AGL/694′ MSL.

Rwy 12L: Tree 1331′ from DER, 667′ right of centerline, 75′ AGL/654′ MSL.

Rwy 12R: Traffic signal and sign beginning 1413′ from DER, 702′ right of centerline, up to 17′ AGL/672′ MSL. Tree 1930′ from DER, 372′ left of centerline, 67′ AGL/636′ MSL.

Rwy 30L: Multiple trees, poles, and roads beginning 906′ from DER, 600′ left of centerline, up to 84′ AGL/663′ MSL. OL on LOC 614′ from DER, on centerline, 9′ AGL/558′ MSL. Multiple trees, poles, roads, terrain, and bldgs beginning 283′ from DER, 185′ right of centerline, up to 65′ AGL/684′ MSL.

Rwy 30R: OL on GS 1895′ from DER, 899′ left of centerline, 28′ AGL/587′ MSL. Multiple OL on bldgs, trees, and electrical system beginning 2039′ from DER, 387′ right of centerline, up to 81′ AGL/670′ MSL.

Prototype: Not for navigation

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : QUINCY	City : QUINCY	Ident : UIN	State : IL
Type/Class : TACR	Frequency : M1170	Reference No.: 10061284	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 861428-023	154	201	55	50	170

Requirement: ESTABLISH AN ESV FOR THE STL SID WHRLI

Signature: Mallett Gary	Routing Symbol: AJV-C2	Date: 06/07/2010

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 861428-023	154	201	55	50	170	APPROVE

Requirement/Remarks: ESTABLISH AN ESV FOR THE STL SID WHRLIApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: NASSR NASHAAT	Routing Symbol:	Date: 06/11/2010

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 861428-023	154	201	55	50	170	APPROVE

Requirement/Remarks: ESTABLISH AN ESV FOR THE STL SID WHRLIApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 06/28/2010

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 861428-023	154	201				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish

Facility Data

Chart Name : ST LOUIS	City : SAINT LOUIS	Ident : STL	State : MO
Type/Class : TACR	Frequency : M1208	Reference No.: 10061285	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 704271-035	283	310	60	50	170

Requirement: ESTABLISH AN ESV FOR THE STL SID WHRLI

Signature: Mallett Gary	Routing Symbol: AJV-C2	Date: 06/07/2010

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704271-035	283	310	60	50	170	APPROVE

Requirement/Remarks: ESTABLISH AN ESV FOR THE STL SID WHRLIApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: BOWERS MIKE	Routing Symbol:	Date: 06/07/2010

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704271-035	283	310	60	50	170	APPROVE

Requirement/Remarks: ESTABLISH AN ESV FOR THE STL SID WHRLIApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 06/28/2010

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704271-035	283	310				

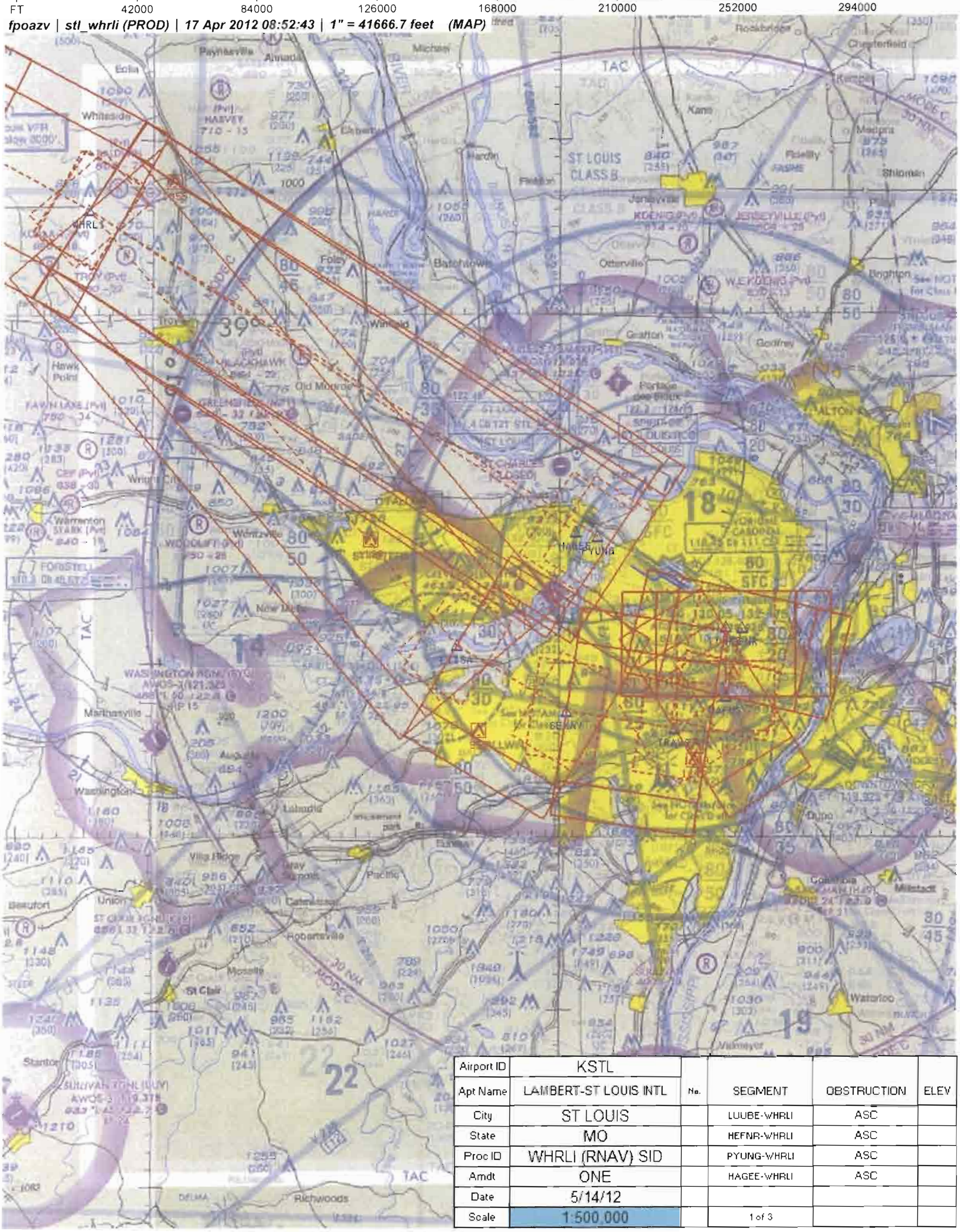
Requirement/Remarks:

Signature:	Routing Symbol:	Date:

NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

fpoazv | stl_whrli (PROD) | 17 Apr 2012 08:52:43 | 1" = 41666.7 feet (MAP)

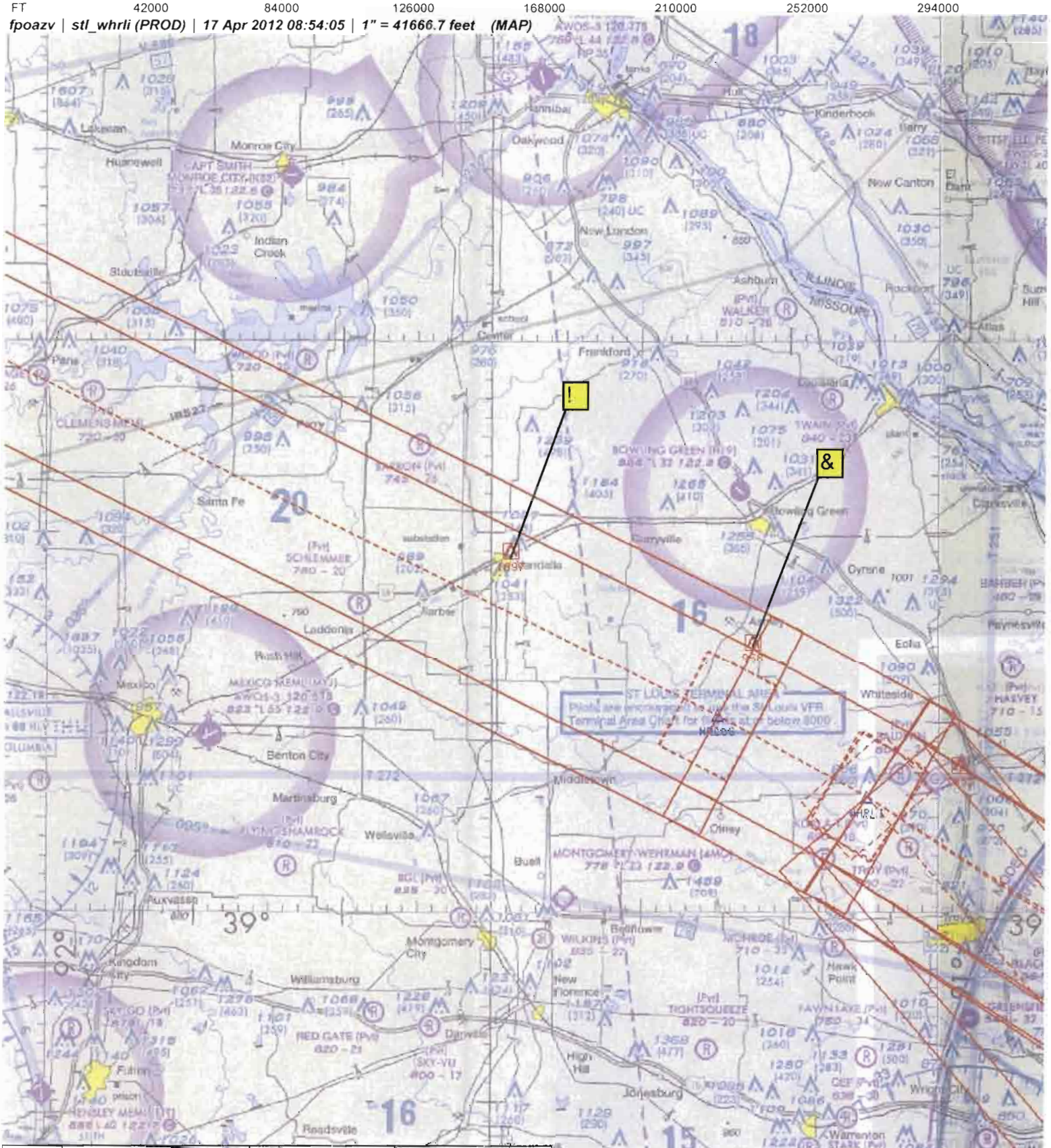


Airport ID	KSTL				
Apt Name	LAMBERT-ST LOUIS INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City	ST LOUIS		LUUBE-WHRLI	ASC	
State	MO		HEFNR-WHRLI	ASC	
Proc ID	WHRLI (RNAV) SID		PYUNG-WHRLI	ASC	
Amdt	ONE		HAGEE-WHRLI	ASC	
Date	5/14/12				
Scale	1:500,000		1 of 3		

NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

fpoazv | stl_whrli (PROD) | 17 Apr 2012 08:54:05 | 1" = 41666.7 feet (MAP)

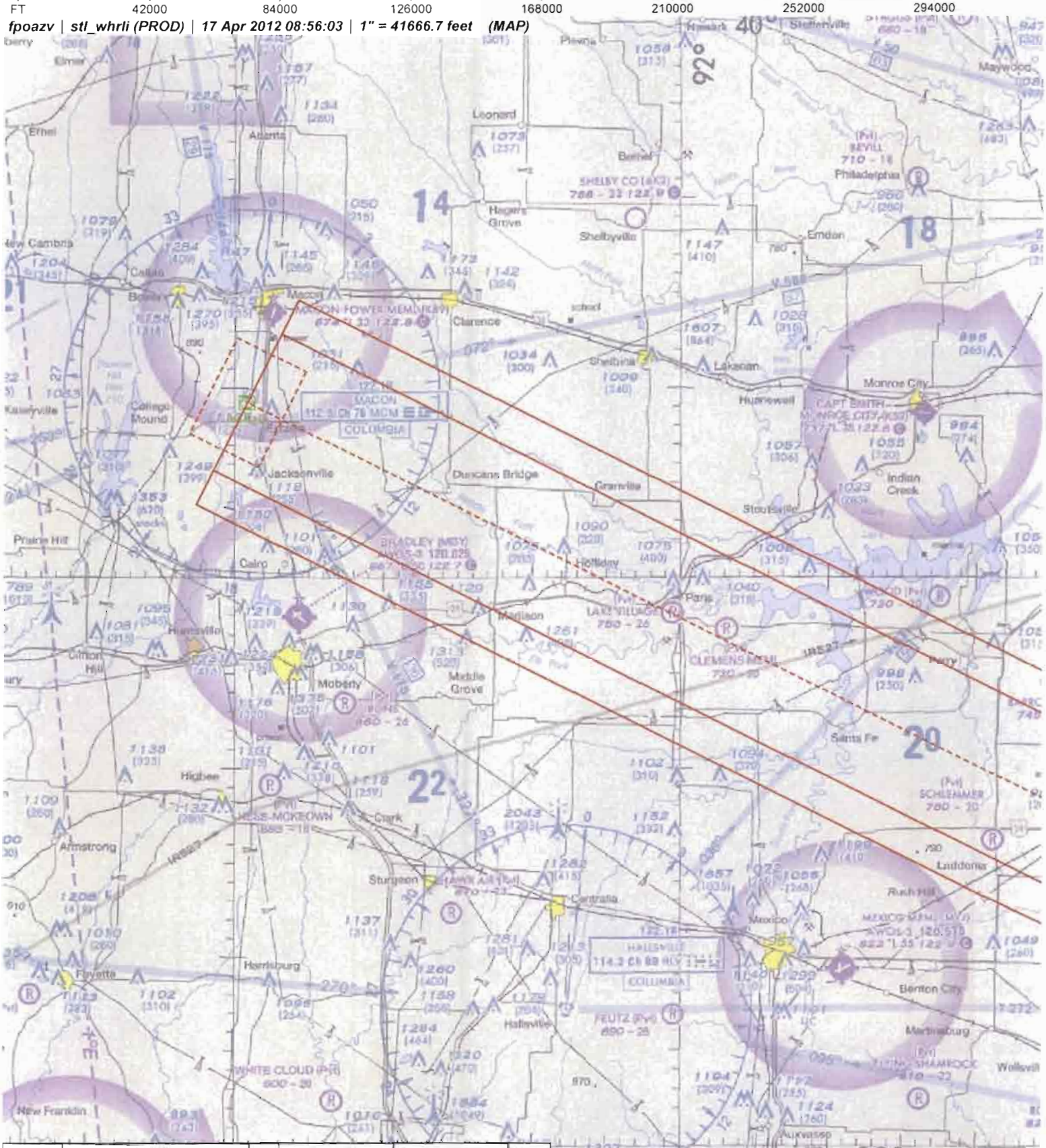


Airport ID	KSTL				
Apt Name	LAMBERT-ST LOUIS INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City	ST LOUIS	&	WHRLI-MRCOS	AAO	958
State	MO	!	MRCOS-MCM VOR/DME	TOWER	1097
Proc ID	WHRLI (RNAV) SID				
Amdt	ONE				
Date	5/14/12				
Scale	1:500,000		2 of 3		

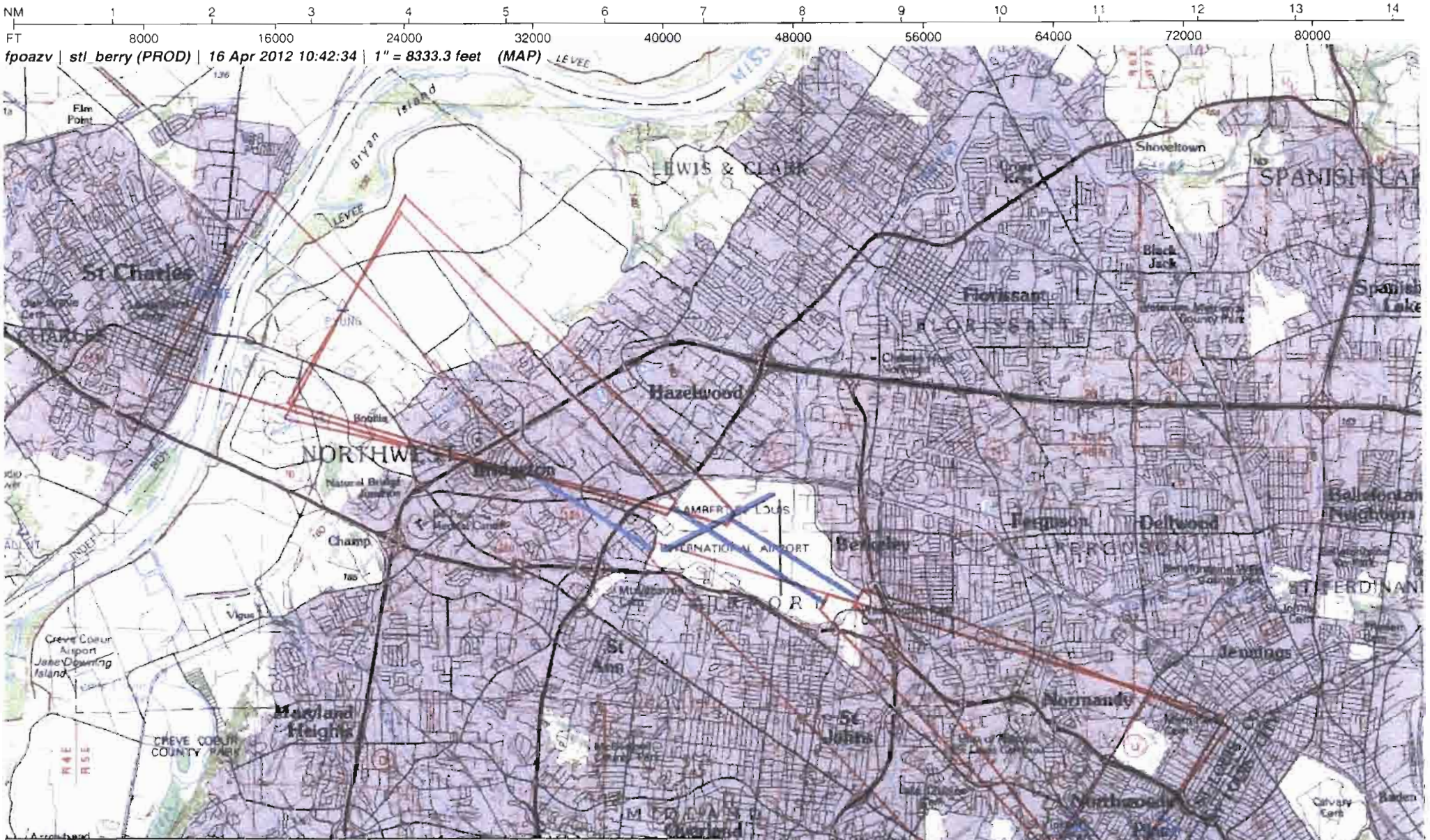
NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

fpoazv | stl_whrli (PROD) | 17 Apr 2012 08:56:03 | 1" = 41666.7 feet (MAP)



Airport ID	KSTL				
Apt Name	LAMBERT-ST LOUIS INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City	ST LOUIS		MRCOS-MCM VOR/DME	ON MAP 2	
State	MO				
Proc ID	WHRLI (RNAV) SID				
Amdt	ONE				
Date	5/14/12				
Scale	1:500,000		3 of 3		



Airport ID	KSTL				
Apt Name	LAMBERT-ST LOUIS INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City	ST LOUIS		ICA RWY 11/29	ASC	
State	MO		ICA RWY 12R/30L	ASC	
Proc ID	WHRLI (RNAV) SID		ICA RWY 12L/30R	ASC	
Amdt	ONE				
Date	5/14/12				
Scale	1:100,000				

U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI	ONE	WHRLI1.WHRLI	NONE		

TYPE: RNAV SID

DP ROUTE DESCRIPTION:

TAKEOFF RWY 11: CLIMB HEADING 122.17 TO 1120, THEN DIRECT LUUBE, CROSS LUUBE AT OR ABOVE 2500, THEN ON DEPICTED ROUTE TO WHRLI. THENCE...
TAKEOFF RWY 12L, 12R: CLIMB HEADING 122.19 TO 1120, THEN DIRECT HEFNR, CROSS HEFNR AT OR ABOVE 2500, THEN ON DEPICTED ROUTE TO WHRLI. THENCE...
TAKEOFF RWY 29: CLIMB HEADING 302.18 TO 1120, THEN DIRECT HAGEE, CROSS HAGEE AT OR ABOVE 2500, THEN ON DEPICTED ROUTE TO WHRLI. THENCE...
TAKEOFF RWY 30L: CLIMB HEADING 302.20 TO 1120, THEN DIRECT PYUNG, CROSS PYUNG AT OR ABOVE 2500, THEN ON DEPICTED ROUTE TO WHRLI. THENCE...
TAKEOFF RWY 30R: CLIMB HEADING 302.21 TO 1120, THEN DIRECT PYUNG, CROSS PYUNG AT OR ABOVE 2500, THEN ON DEPICTED ROUTE TO WHRLI. THENCE...

... (TRANSITION). MAINTAIN 5000, EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes
MACON	WHRLI1.MCM	WHRLI	MRCOS	TRACK 298.50	8.90	11000	2000	
		MRCOS	MCM VOR/DME	TRACK 297.03	64.49	FL180	2100	

QUALITY CHECKED 1

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI	ONE	WHRLI1.WHRLI	NONE		

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTE: RNAV 1.
NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.
NOTE: FOR USE BY TURBOJET AIRCRAFT ONLY.
NOTE: ACCELERATE TO 250 KIAS; IF UNABLE, ADVISE ATC.

TAKEOFF MINIMUMS:
RWY 06, 24: NA – AIR TRAFFIC.
RWY 11, 12L, 12R, 29, 30L, 30R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 2500.

TAKEOFF OBSTACLES NOTES:

NOTE: RWY 11, MULTIPLE SIGNS, TREES, TOWERS, AND BLDGS BEGINNING 2348 FT FROM DER, 205 FT LEFT OF CENTERLINE, UP TO 219 FT AGL/774 FT MSL. MULTIPLE SIGNS, TREES, TOWERS, AND BLDGS BEGINNING 2363 FT FROM DER, 489 FT RIGHT OF CENTERLINE, UP TO 114 FT AGL/694 FT MSL.

NOTE: RWY 12L, TREE 1331 FT FROM DER, 667 FT RIGHT OF CENTERLINE, 75 FT AGL/654 FT MSL.

NOTE: RWY 12R, TRAFFIC SIGNAL AND SIGN BEGINNING 1413 FT FROM DER, 702 FT RIGHT OF CENTERLINE, UP TO 17 FT AGL/672 FT MSL. TREE 1930 FT FROM DER, 372 FT LEFT OF CENTERLINE, 67 FT AGL/636 FT MSL.

NOTE: RWY 30L, MULTIPLE TREES, POLES, AND ROADS BEGINNING 906 FT FROM DER, 600 FT LEFT OF CENTERLINE, UP TO 84 FT AGL/663 FT MSL. OL ON LOC 614 FT FROM DER, ON CENTERLINE, 9 FT AGL/558 FT MSL. MULTIPLE TREES, POLES, ROADS, TERRAIN, AND BLDGS BEGINNING 283 FT FROM DER, 185 FT RIGHT OF CENTERLINE, UP TO 65 FT AGL/684 FT MSL.

NOTE: RWY 30R, OL ON GS 1895 FT FROM DER, 899 FT LEFT OF CENTERLINE, 28 FT AGL/587 FT MSL. MULTIPLE OL ON BLDGS, TREES, AND ELECTRICAL SYSTEM BEGINNING 2039 FT FROM DER, 387 FT RIGHT OF CENTERLINE, UP TO 81 FT AGL/670 FT MSL.

CONTROLLING OBSTACLES:

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KSTL 00 EPOCH YEAR: 2000
DME/DME ASSESSMENT: SAT (RNP 2.0)

U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI	ONE	WHRLI1.WHRLI	NONE		

AIRPORTS SERVED:

LAMBERT-ST. LOUIS INTL ST. LOUIS, MO

COMMUNICATIONS:

ATIS, CLNC DEL, GND CON, GND METER, ATCT, DEP CON

FIXES AND/OR NAVAIDS:

REMARKS:

QUALITY CHECKED

U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI	ONE	WHRLI1.WHRLI	NONE		

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:

ROUTINE

DEVELOPED BY:

JILL OLSON (ANKUR VERMA) AJV-353 5/14/2012

APPROVED BY:

LARRY STROUT AJV-353

COORDINATED WITH:

ATA, ALPA, APA, AOPA, NBAA, ZKC ARTCC, STL DEP CON

CHANGES:

ORIGINAL.

REASONS:

PER CENTRAL FPT REQUEST.

6/21/2012:THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 5/14/2012
CHANGED MEA ALTITUDE FROM 9200 TO 11000 FOR SEGMENT WHRLI TO MRCOS
CHANGED MEA ALTITUDE FROM 11000 TO FL180 FOR SEGMENT MRCOS TO MCM VOR/DME

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI	ONE	WHRLI1.WHRLI	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW11 (AER)	384535.83N/0902435.55W	N	-	-	-	-			
1120 MSL	-	-	-	VA	122.17	-			CG 500 FT/NM TO 2500.
LUUBE	384208.40N/0901735.03W	Y	FB	DF	-	-	AT/ABOVE 2500		
DAFUS	383808.82N/0901734.70W	Y	FB	TF	179.94	3.99			
TRAVS	383617.86N/0902122.28W	Y	FB	TF	238.16	3.50			
SEKAY	383716.62N/0902917.37W	Y	FB	TF	279.00	6.28			
LIISA	384102.84N/0903722.22W	Y	FB	TF	300.79	7.37			
WHRLI	390603.54N/0910429.84W	Y	FB	TF	319.86	32.76			
RW12L (AER)	384506.41N/0902158.66W	N	-	-	-	-			
1120 MSL	-	-	-	VA	122.19	-			CG 500 FT/NM TO 2500.
HEFNR	384206.39N/0901624.55W	Y	FB	DF	-	-	AT/ABOVE 2500		
DAFUS	383808.82N/0901734.70W	Y	FB	TF	193.04	4.06			
TRAVS	383617.86N/0902122.28W	Y	FB	TF	238.16	3.50			
SEKAY	383716.62N/0902917.37W	Y	FB	TF	279.00	6.28			
LIISA	384102.84N/0903722.22W	Y	FB	TF	300.79	7.37			
WHRLI	390603.54N/0910429.84W	Y	FB	TF	319.86	32.76			
RW12R (AER)*	384511.59N/0902239.98W*	N	-	-	-	-			*DISPL THLD (467)
1120 MSL	-	-	-	VA	122.19	-			CG 500 FT/NM TO 2500.
HEFNR	384206.39N/0901624.55W	Y	FB	DF	-	-	AT/ABOVE 2500		
DAFUS	383808.82N/0901734.70W	Y	FB	TF	193.04	4.06			
TRAVS	383617.86N/0902122.28W	Y	FB	TF	238.16	3.50			
SEKAY	383716.62N/0902917.37W	Y	FB	TF	279.00	6.28			
LIISA	384102.84N/0903722.22W	Y	FB	TF	300.79	7.37			
WHRLI	390603.54N/0910429.84W	Y	FB	TF	319.86	32.76			
RW29 (AER)	384448.46N/0902259.39W	N	-	-	-	-			
1120 MSL	-	-	-	VA	302.18	-			CG 500 FT/NM TO 2500.
HAGEE	384735.74N/0902840.90W	Y	FB	DF	-	-	AT/ABOVE 2500		
WHRLI	390603.54N/0910429.84W	Y	FB	TF	303.62	33.48			

QUALITY CHECKED 3

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI	ONE	WHRLI1.WHRLI	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW30L (AER)*	384417.08N/0902049.42W*	N	-	-	-	-			*DISPL THLD (201)
1120 MSL	-	-	-	VA	302.20	-			CG 500 FT/NM TO 2500.
PYUNG	384718.73N/0902700.07W	Y	FB	DF	-	-	AT/ABOVE 2500		
WHRLI	390603.54N/0910429.84W	Y	FB	TF	302.82	34.74			
RW30R (AER)	384418.99N/0902022.51W	N	-	-	-	-			
1120 MSL	-	-	-	VA	302.21	-			CG 500 FT/NM TO 2500.
PYUNG	384718.73N/0902700.07W	Y	FB	DF	-	-	AT/ABOVE 2500		
WHRLI	390603.54N/0910429.84W	Y	FB	TF	302.82	34.74			
WHRLI	390603.54N/0910429.84W	Y	-	IF	-	-			WHRLI1.MCM
MRCOS	391018.16N/0911433.29W	Y	FB	TF	298.50	8.90			
MCM VOR/DME	393914.62N/0922855.77W	Y	FB	TF	297.03	64.49			

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI (RNAV)	**ONE**	**WHRLI1.WHRLI**	**NONE**		

ARINC PACKET - 424-18 - SID

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        MCM   K3011290VDL  N39391462W092285577    N39391462W092285577E0060008701     NARMACON

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   DAFUS K30    W     N38380882W090173470                      W0010     NAR           DAFUS
        SUSAEAENRT   HAGEE K30    W     N38473574W090284090                      W0009     NAR           HAGEE
        SUSAEAENRT   HEFNR K30    W     N38420639W090162455                      W0011     NAR           HEFNR
        SUSAEAENRT   LIISA K30    W     N38410284W090372222                      W0008     NAR           LIISA
        SUSAEAENRT   LUUBE K30    W     N38420840W090173503                      W0010     NAR           LUUBE
        SUSAEAENRT   MRCOS K30    W     N39101816W091143329                      W0004     NAR           MRCOS
        SUSAEAENRT   PYUNG K30    W     N38471873W090270007                      W0009     NAR           PYUNG
        SUSAEAENRT   SEKAY K30    W     N38371662W090291737                      W0009     NAR           SEKAY
        SUSAEAENRT   TRAVS K30    W     N38361786W090212228                      W0010     NAR           TRAVS
        SUSAEAENRT   WHRLI K30    W     N39060354W091042984                      W0005     NAR           WHRLI

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTLK3ASTL     0     110YHN38445531W090221210E000000618         1800018000C    MNAR    LAMBERT-ST LOUIS INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTLK3DWHRLI14RW11  010         0        VA                        1222        + 01120     18000
        SUSAP KSTLK3DWHRLI14RW11  020LUUBEK3EA0E    010DF                                    + 02500
        SUSAP KSTLK3DWHRLI14RW11  030DAFUSK3EA0E    010TF                        17990040
        SUSAP KSTLK3DWHRLI14RW11  040TRAVSK3EA0E    010TF                        23820035
        SUSAP KSTLK3DWHRLI14RW11  050SEKAYK3EA0E    010TF                        27900063
        SUSAP KSTLK3DWHRLI14RW11  060LIISAK3EA0E    010TF                        30080074
        SUSAP KSTLK3DWHRLI14RW11  070WHRLIK3EA0EE   010TF                        31990328
        SUSAP KSTLK3DWHRLI14RW12B 010         0        VA                        1222        + 01120     18000
        SUSAP KSTLK3DWHRLI14RW12B 020HEFNRK3EA0E    010DF                                    + 02500
        SUSAP KSTLK3DWHRLI14RW12B 030DAFUSK3EA0E    010TF                        19300041
        SUSAP KSTLK3DWHRLI14RW12B 040TRAVSK3EA0E    010TF                        23820035
        SUSAP KSTLK3DWHRLI14RW12B 050SEKAYK3EA0E    010TF                        27900063
        SUSAP KSTLK3DWHRLI14RW12B 060LIISAK3EA0E    010TF                        30080074
        SUSAP KSTLK3DWHRLI14RW12B 070WHRLIK3EA0EE   010TF                        31990328
        SUSAP KSTLK3DWHRLI14RW29  010         0        VA                        3022        + 01120     18000
        SUSAP KSTLK3DWHRLI14RW29  020HAGEEK3EA0E    010DF                                    + 02500
        SUSAP KSTLK3DWHRLI14RW29  030WHRLIK3EA0EE   010TF                        30360335
```

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI (RNAV)	ONE	WHRLI1.WHRLI	NONE		

```
SUSAP KSTLK3DWHRLI14RW30B 010         0        VA                    3022        + 01120     18000
SUSAP KSTLK3DWHRLI14RW30B 020PYUNGK3EA0E    010DF                                + 02500
SUSAP KSTLK3DWHRLI14RW30B 030WHRLIK3EA0EE   010TF                    30280347
SUSAP KSTLK3DWHRLI15      010WHRLIK3EA0E      IF                                             18000
SUSAP KSTLK3DWHRLI15      020MRCOSK3EA0E    010TF                    29850089
SUSAP KSTLK3DWHRLI15      030MCM  K3D 0VE   010TF                    29700645
```

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSTLK3GRW11    0090011222 N38453583W090243555-0700    +0157000618000059150IIOGZ3
        SUSAP KSTLK3GRW12L   0090031222 N38450641W090215866+0800    +0129700528000054150IILDZ3
        SUSAP KSTLK3GRW12R   0110191222 N38451159W090223998+0400    +0133200540046754200IILMR1
        SUSAP KSTLK3GRW29    0090013022 N38444846W090225939+0700    +0138100556000056150IIRQN1
        SUSAP KSTLK3GRW30L   0110193022 N38441708W090204942-0400    +0146300583020158200IIBKY1    IRMKL
        SUSAP KSTLK3GRW30R   0090033022 N38441899W090202251-0800    +0152900605000057150IISJW3
```

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI (RNAV)	**ONE**	**WHRLI1.WHRLI**	**NONE**		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW11		010		VA		FB		122.2()		AA 01120	
	RW11	LUUBE	020		DF		FB	1.0			AA 02500	
	RW11	DAFUS	030		TF		FB	1.0	179.9()	004.0		
	RW11	TRAVS	040		TF		FB	1.0	238.2()	003.5		
	RW11	SEKAY	050		TF		FB	1.0	279.0()	006.3		
	RW11	LIISA	060		TF		FB	1.0	300.8()	007.4		
	RW11	WHRLI	070		TF		FB	1.0	319.9()	032.8		
	RW12B		010		VA		FB		122.2()		AA 01120	
	RW12B	HEFNR	020		DF		FB	1.0			AA 02500	
	RW12B	DAFUS	030		TF		FB	1.0	193.0()	004.1		
	RW12B	TRAVS	040		TF		FB	1.0	238.2()	003.5		
	RW12B	SEKAY	050		TF		FB	1.0	279.0()	006.3		
	RW12B	LIISA	060		TF		FB	1.0	300.8()	007.4		
	RW12B	WHRLI	070		TF		FB	1.0	319.9()	032.8		
	RW29		010		VA		FB		302.2()		AA 01120	
	RW29	HAGEE	020		DF		FB	1.0			AA 02500	
	RW29	WHRLI	030		TF		FB	1.0	303.6()	033.5		
	RW30B		010		VA		FB		302.2()		AA 01120	
	RW30B	PYUNG	020		DF		FB	1.0			AA 02500	
	RW30B	WHRLI	030		TF		FB	1.0	302.8()	034.7		
		WHRLI	010		IF		FB					
		MRCOS	020		TF		FB	1.0	298.5()	008.9		
		MCM	030		TF		FB	1.0	297.0()	064.5		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
MCM	N393914.62	W0922855.77	N3939.244	W09228.930
DAFUS	N383808.82	W0901734.70	N3838.147	W09017.578
HAGEE	N384735.74	W0902840.90	N3847.596	W09028.682
HEFNR	N384206.39	W0901624.55	N3842.107	W09016.409
LIISA	N384102.84	W0903722.22	N3841.047	W09037.370
LUUBE	N384208.40	W0901735.03	N3842.140	W09017.584
MRCOS	N391018.16	W0911433.29	N3910.303	W09114.555
PYUNG	N384718.73	W0902700.07	N3847.312	W09027.001
SEKAY	N383716.62	W0902917.37	N3837.277	W09029.290
TRAVS	N383617.86	W0902122.28	N3836.298	W09021.371
WHRLI	N390603.54	W0910429.84	N3906.059	W09104.497
RW11	N384535.83	W0902435.55	N3845.597	W09024.593
RW12L	N384506.41	W0902158.66	N3845.107	W09021.978
RW12R	N384511.59	W0902239.98	N3845.193	W09022.666
RW29	N384448.46	W0902259.39	N3844.808	W09022.990
RW30L	N384417.08	W0902049.42	N3844.285	W09020.824

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
WHRLI (RNAV)	ONE	WHRLI1.WHRLI	NONE		

RW30R	N384418.99	W0902022.51	N3844.317	W09020.375

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW11	00618	59
RW12L	00528	54
RW12R	00540	54
RW29	00556	56
RW30L	00583	58
RW30R	00605	57

RADIO FIX AND HOLDING DATA RECORD

NAME: DAFUS **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 383808.82N/0901734.70W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BERYY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BGOOD (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BRAKK (RNAV)			KSTL	ST LOUIS	MO (US)
DP	CHUUC (RNAV)			KSTL	ST LOUIS	MO (US)
DP	JAHNY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/09/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: HAGEE **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384735.74N/0902840.90W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BERYY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BGOOD (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BRAKK (RNAV)			KSTL	ST LOUIS	MO (US)
DP	CHUUC (RNAV)			KSTL	ST LOUIS	MO (US)
DP	DRUSE (RNAV)			KSTL	ST LOUIS	MO (US)
DP	JAHNY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/09/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: HEFNR **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384206.39N/0901624.55W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BERYY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BGOOD (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BRAKK (RNAV)			KSTL	ST LOUIS	MO (US)
DP	CHUUC (RNAV)			KSTL	ST LOUIS	MO (US)
DP	DRUSE (RNAV)			KSTL	ST LOUIS	MO (US)
DP	JAHNY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/09/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: LIISA **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384102.84N/0903722.22W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BRAKK (RNAV)			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/09/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: LUUBE **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384208.40N/0901735.03W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BERYY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BGOOD (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BRAKK (RNAV)			KSTL	ST LOUIS	MO (US)
DP	CHUUC (RNAV)			KSTL	ST LOUIS	MO (US)
DP	DRUSE (RNAV)			KSTL	ST LOUIS	MO (US)
DP	JAHNY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/09/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: MRCOS **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 391018.16N/0911433.29W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/10/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: PYUNG **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 384718.73N/0902700.07W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BERYY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BGOOD (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BRAKK (RNAV)			KSTL	ST LOUIS	MO (US)
DP	CHUUC (RNAV)			KSTL	ST LOUIS	MO (US)
DP	DRUSE (RNAV)			KSTL	ST LOUIS	MO (US)
DP	JAHNY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/09/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: SEKAY **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 383716.62N/0902917.37W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BRAKK (RNAV)			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/09/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: TRAVS **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 383617.86N/0902122.28W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BGOOD (RNAV)			KSTL	ST LOUIS	MO (US)
DP	BRAKK (RNAV)			KSTL	ST LOUIS	MO (US)
DP	JAHNY (RNAV)			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/09/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: SAT APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: WHRLI **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 390603.54N/0910429.84W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 09/20/2012

DEVELOPED BY: **DATE:** 04/10/2012 **OFFICE:** AJV-353 **NAME:** JILL OLSON (STEVE NELSON)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY: STL APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

NAME: MACON VOR/DME **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 393914.62N/0922855.77W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	MACON	MCM	VOR/DME	L							17500

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	N	MCM	VOR/DME	342.00	162.00	R	1		2400	6000	4	5
2	S	MCM	VOR/DME	188.00	008.00	R	1		2400	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (29-001488)	394527.32N/0923204.32W	1284	5E
2	200	TOWER (29-002040)	393602.00N/0923425.00W	1249	5D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	OZARK			KALN	ALTON/ST LOUIS	IL (US)
DP	OZARK			KBLV	BELLEVILLE	IL (US)
DP	OZARK			KCPS	CAHOKIA/ST LOUIS	IL (US)
DP	LAKES			KFLV	FORT LEAVENWORTH	KS (US)
DP	LAKES			KIXD	OLATHE	KS (US)
DP	LAKES			KOJC	OLATHE	KS (US)
DP	LAKES			KMCI	KANSAS CITY	MO (US)
DP	LAKES			KMKC	KANSAS CITY	MO (US)
DP	LAKES			KSTJ	ST JOSEPH	MO (US)
DP	OZARK			KSTL	ST LOUIS	MO (US)
DP	WHRLI (RNAV)			KSTL	ST LOUIS	MO (US)
DP	OZARK			KSUS	ST LOUIS	MO (US)
EN ROUTE	V175					(US)
EN ROUTE	V424					(US)
EN ROUTE	V586					(US)
IAP	NDB RWY 14			KCHT	CHILLICOTHE	MO (US)
IAP	RNAV (GPS) RWY 32			KCHT	CHILLICOTHE	MO (US)
IAP	ILS OR LOC/DME RWY 36		1	KIRK	KIRKSVILLE	MO (US)
IAP	GPS RWY 2			KK89	MACON	MO (US)
IAP	VOR RWY 2		2	KK89	MACON	MO (US)
IAP	VOR/DME OR GPS RWY 20		2	KK89	MACON	MO (US)
IAP	RNAV (GPS) RWY 13			KMBY	MOBERLY	MO (US)
IAP	VOR/DME-A		1	KMBY	MOBERLY	MO (US)
IAP	RNAV (GPS) RWY 9			KK52	MONROE CITY	MO (US)
STAR	BRAYMER			KFLV	FORT LEAVENWORTH	KS (US)
STAR	BRAYMER			KIXD	OLATHE	KS (US)
STAR	BRAYMER			KOJC	OLATHE	KS (US)
STAR	BRAYMER			KMCI	KANSAS CITY	MO (US)
STAR	BRAYMER			KMCI	KANSAS CITY	MO (US)
STAR	BRAYMER			KMKC	KANSAS CITY	MO (US)
STAR	BRAYMER			KLXT	LEE'S SUMMIT	MO (US)
STAR	BRAYMER			KGPH	MOSBY	MO (US)
STAR	BRAYMER			KSTJ	ST JOSEPH	MO (US)

REQUIRED CHARTING: DP, STAR, IAP, CONTROLLER, EN ROUTE LOW

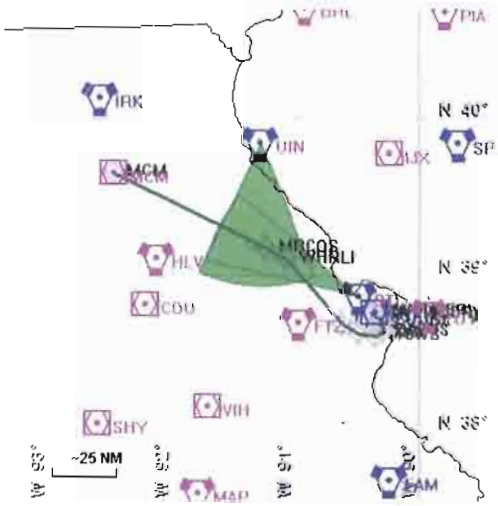
COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 01/13/2011

REASON FOR REVISION:
UPDATED FIX USE.
ADDED PRECIPITOUS TERRAIN EVALUATION REMARK.
UPDATED HOLDING PAT 1 AND 2 CONTROLLING OBSTACLE DATA.

DEVELOPED BY:	**DATE:** 08/17/2010	**OFFICE:** AVN-120	**NAME:** DONALD LANIER
APPROVED BY:	**DATE:** 11/16/2010	**OFFICE:** AVN-120	**NAME:** GREGORY YAMAMOTO
	SIGNATURE:		

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZKC
ATC FACILITY:
OTHER:



Name:	enanders
Project Name:	
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	2/23/2012 11:01:30 AM
Input File:	WHRLI RW11 MCM 20120...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔	**Please Check Flyability Results**
DME/DME	✔	
Radars	✔	
Comms		
TERPS		

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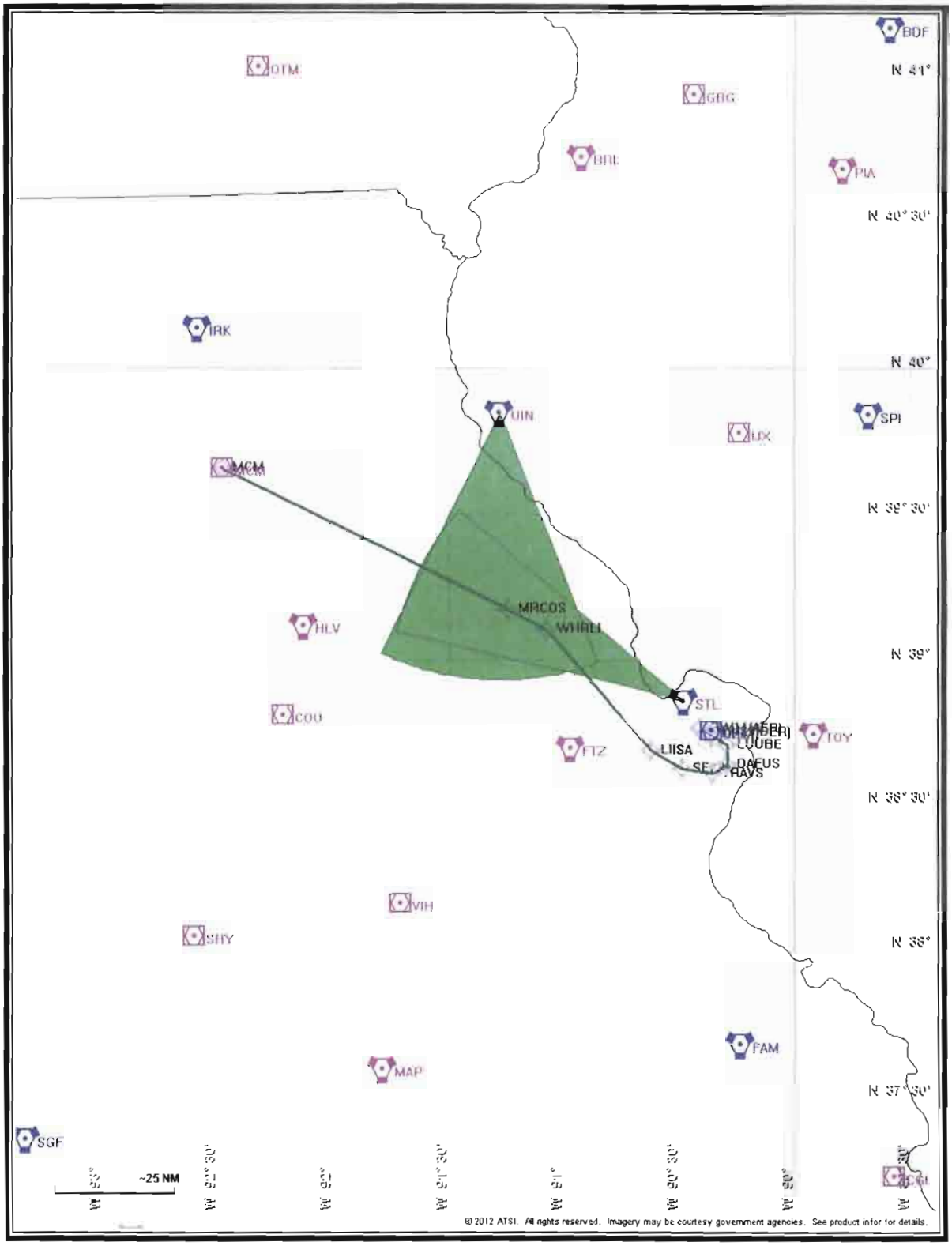

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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW11(A...	WP	N 38° 45' 35.83" W 90° 24' 35.55"	618.0	VNAV	0.0	Fly Over	TF
RW29(D...	WP	N 38° 44' 48.46" W 90° 22' 59.39"	591.0	VNAV	130.0	Fly Over	VA
GH11:	WP	N 38° 44' 12.38" W 90° 21' 46.17"	1120.0	VNAV	145.0	Fly Over	DF
LUUBE	WP	N 38° 42' 8.40" W 90° 17' 35.03"	2500.0	VNAV	180.0	Fly By	TF
DAFUS	WP	N 38° 38' 8.82" W 90° 17' 34.70"	3297.8	VNAV	180.0	Fly By	TF
TRAVS	WP	N 38° 36' 17.86" W 90° 21' 22.28"	3997.8	VNAV	180.0	Fly By	TF
SEKAY	WP	N 38° 37' 16.62" W 90° 29' 17.37"	5254.4	VNAV	180.0	Fly By	TF
LIISA	WP	N 38° 41' 2.84" W 90° 37' 22.22"	6727.6	VNAV	180.0	Fly By	TF
WHRLI	WP	N 39° 6' 3.54" W 91° 4' 29.84"	13278.8	VNAV	210.0	Fly By	TF
MRCOS	WP	N 39° 10' 18.16" W 91° 14' 33.29"	15058.8	VNAV	210.0	Fly By	TF
MCM	WP	N 39° 39' 14.62" W 92° 28' 55.77"	18000.0	VNAV	240.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL

Climb Gradient: 200 Ft/NM after next to last waypoint up to 18000.0 Ft

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSTL
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **29000.0 Ft.**
280.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Required IAS at Fly-By WP TRAVS could not be reached with given A/C acceleration performance.

Flight Track comes into contact with terrain. Minimum AGL along route was -2.94 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

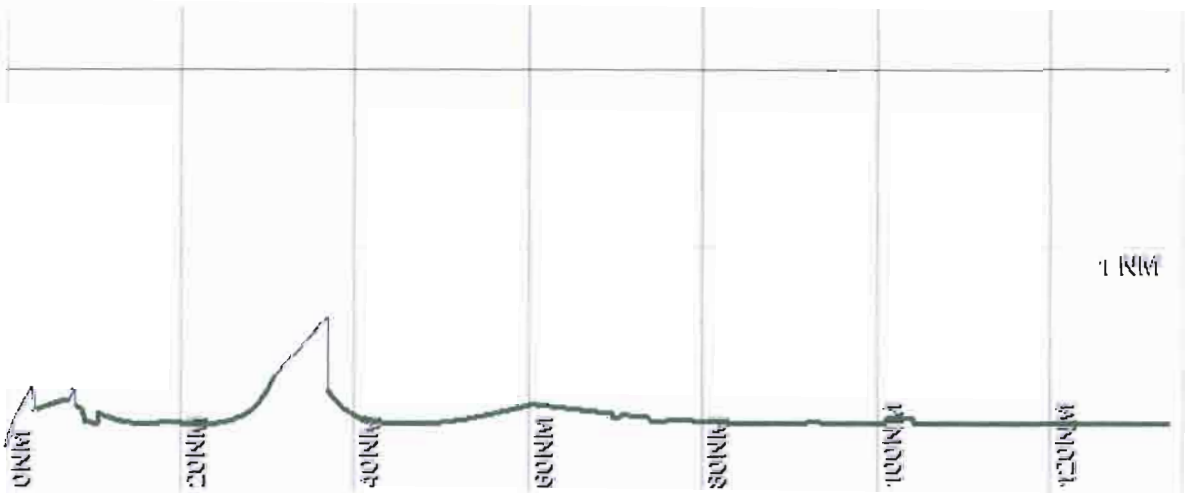
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , 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
Minimum MSL DMEs Avail: 1839 Ft.

Total Number of DMEs Used: 9

Maximum DME Error: 0.716 NM.

No Critical DMEs were found.

Available DMEs: STL, FTZ, CSX, TOY, UIN, SPI, IRK, HLV, MCM, LMN



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H + ESV	User	NO	0.947	Enabled	40.8 %	41.9 %
2	FTZ	N 38° 41' 39.58" W 90° 58' 16.17"	L	Database	NO	1.386	Enabled	37.6 %	37.0 %
3	CSX	N 38° 45' 9.88" W 90° 21' 39.46"	H	Database	NO	0.811	Enabled	20.6 %	19.8 %
4	TOY	N 38° 44' 20.97" W 89° 55' 7.06"	L	Database	NO	0.716	Enabled	2.0 %	1.3 %
5	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H + ESV	User	NO	0.860	Enabled	43.7 %	47.0 %
6	SPI	N 39° 50' 23.04" W 89° 40' 39.83"	H	Database	NO	0.716	Enabled	0.6 %	0.7 %
7	HLV	N 39° 6' 48.75" W 92° 7' 41.64"	L	Database	NO	0.716	Enabled	10.7 %	11.5 %
8	IRK	N 40° 8' 6.08" W 92° 35' 30.17"	H	Database	NO	0.716	Enabled	22.9 %	24.7 %
9	MCM	N 39° 39' 14.62" W 92° 28' 55.77"	L	Database	NO	0.716	Enabled	1.0 %	1.0 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.5	STL					
2.5	STL	FTZ	CSX			
6.1	STL	FTZ	CSX	TOY		
10.1	STL	FTZ	CSX	TOY		
13.2	STL	FTZ	CSX			
19.5	STL	FTZ	CSX			
26.9	STL	FTZ	CSX	UIN		
59.7	STL	FTZ	CSX	UIN		
69.0	STL	FTZ	SPI	UIN	HLV	CSX
79.0	STL	IRK	CSX	UIN	HLV	
93.8	MCM	IRK	CSX	UIN	HLV	STL

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 45' 35.83" W 90° 24' 35.55"	N 38° 43' 58.09" W 90° 21' 17.23"	3.1
	VOR: CSX	Available from N 38° 45' 35.83" W 90° 24' 35.55" to N 38° 43' 58.09" W 90° 21' 17.23"	
	VOR: FTZ	Available from N 38° 45' 35.83" W 90° 24' 35.55" to N 38° 43' 58.09" W 90° 21' 17.23"	
	VOR: STL	Available from N 38° 45' 35.83" W 90° 24' 35.55" to N 38° 43' 58.09" W 90° 21' 17.23"	
	VOR: TOY	Available from N 38° 45' 35.83" W 90° 24' 35.55" to N 38° 43' 58.09" W 90° 21' 17.23"	
2	N 38° 41' 30.98" W 90° 17' 34.72"	N 38° 40' 44.93" W 90° 17' 34.71"	0.8
	VOR: CSX	Available from N 38° 41' 30.98" W 90° 17' 34.72" to N 38° 40' 44.93" W 90° 17' 34.71"	
	VOR: FTZ	Available from N 38° 41' 30.98" W 90° 17' 34.72" to N 38° 40' 44.93" W 90° 17' 34.71"	
	VOR: STL	Available from N 38° 41' 30.98" W 90° 17' 34.72" to N 38° 40' 44.93" W 90° 17' 34.71"	
	VOR: TOY	Available from N 38° 41' 30.98" W 90° 17' 34.72" to N 38° 40' 44.93" W 90° 17' 34.71"	
3	N 38° 43' 27.55" W 90° 39' 58.58"	N 38° 48' 13.09" W 90° 45' 6.50"	6.2
	VOR: CSX	Available from N 38° 43' 27.55" W 90° 39' 58.58" to N 38° 48' 13.09" W 90° 45' 6.50"	
	VOR: FTZ	Available from N 38° 43' 27.55" W 90° 39' 58.58" to N 38° 48' 13.09" W 90° 45' 6.50"	
	VOR: STL	Available from N 38° 43' 27.55" W 90° 39' 58.58" to N 38° 48' 13.09" W 90° 45' 6.50"	
	VOR: TOY	Available from N 38° 43' 27.55" W 90° 39' 58.58" to N 38° 48' 13.09" W 90° 45' 6.50"	

DME/DME (Continued.)

Return To Summary

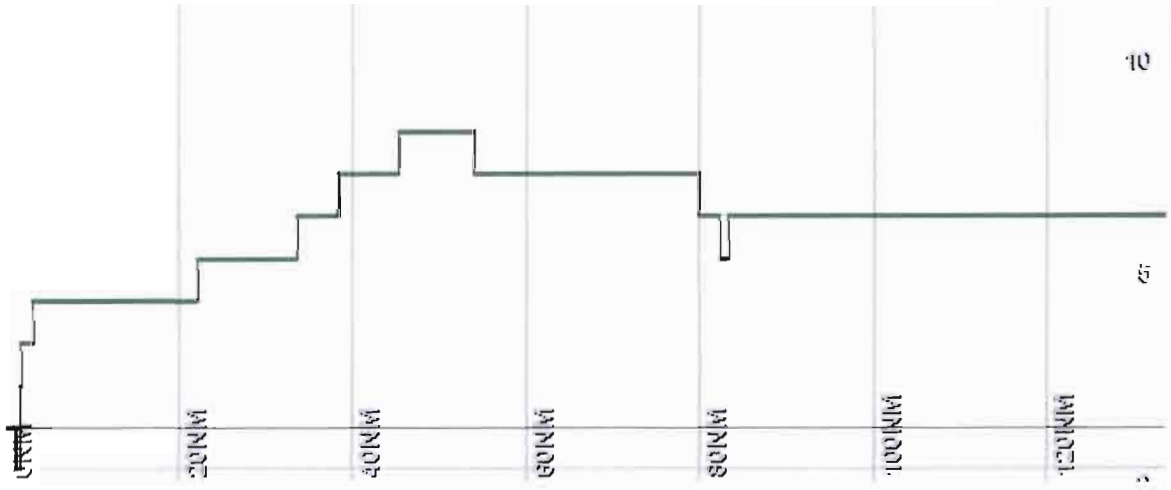
User DMEs

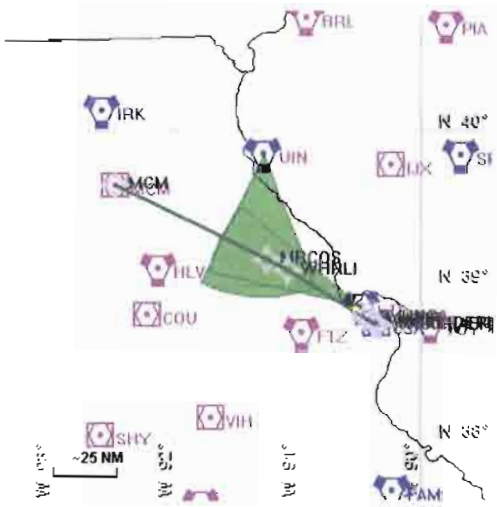
#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H	715.1	113.60	UIN	Used
		ESV: Bearing [True]: 159.0° to 206.0° Bearing [Mag]: 154.0° to 201.0°			Arc Distance: Out to 55.0 NM Altitude: 5000.0 to 17000.0 Ft.		
2	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H	449.5	117.40	STL	Used
		ESV: Bearing [True]: 284.0° to 311.0° Bearing [Mag]: 283.0° to 310.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 17000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR





Name:	enanders
Project Name:	
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	2/23/2012 12:09:47 PM
Input File:	WHRLI RW30R MCM 2012...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔	**Please Check Flyability Results**
DME/DME	✔	
Radars	✔	
Comms		
TERPS		

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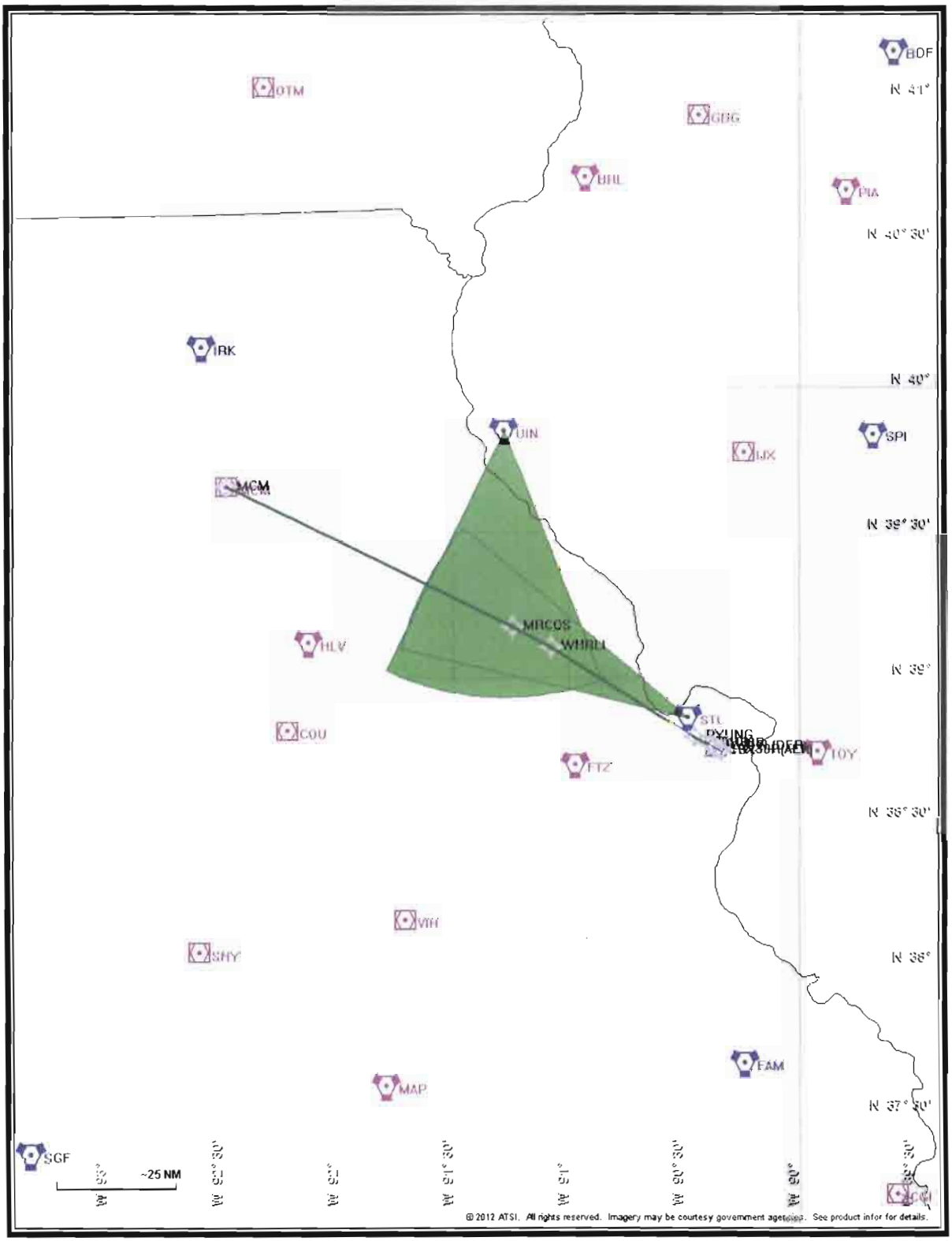
BDF
N 41°
OTM
GBG
BIL
PIA
N 40° 30'
IRK
N 40°
UIN
SPI
IJX
MCM
N 39° 30'
MRCOS
WHRLI
HLV
N 39°
STL
COU
TOY
FTZ
N 38° 30'
VIH
SHY
N 38°
EAM
MAP
N 37° 30'
SGF
~25 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW30R(...	WP	N 38° 44' 18.99" W 90° 20' 22.51"	604.5	VNAV	0.0	Fly Over	TF
RW12L(...	WP	N 38° 45' 6.41" W 90° 21' 58.66"	563.3	VNAV	130.0	Fly Over	VA
GH30R	WP	N 38° 45' 44.28" W 90° 23' 15.46"	1120.0	VNAV	145.0	Fly Over	DF
PYUNG	WP	N 38° 47' 18.73" W 90° 27' 0.07"	2500.0	VNAV	180.0	Fly By	TF
WHRLI	WP	N 39° 6' 3.54" W 91° 4' 29.84"	9447.1	VNAV	180.0	Fly By	TF
MRCOS	WP	N 39° 10' 18.16" W 91° 14' 33.29"	11227.1	VNAV	210.0	Fly By	TF
MCM	WP	N 39° 39' 14.62" W 92° 28' 55.77"	18000.0	VNAV	240.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL

Climb Gradient: 200 Ft/NM after next to last waypoint up to 18000.0 Ft

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSTL
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **29000.0 Ft.**
280.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was -19.95 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

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:** 0.165 NM
- **INS Drift Rate:** 8.000 NM/Hour

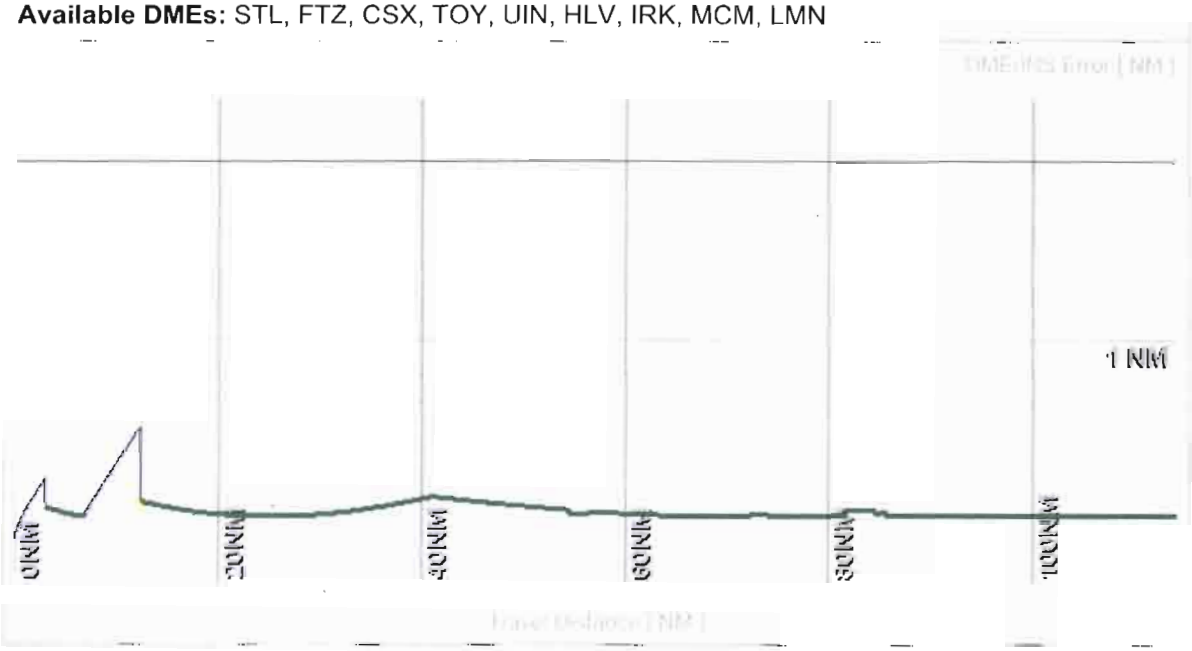
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , and User
DME Include Angles: 30 to 150
Critical DMEs: Allowed
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Flight Check DMEs: Selected
Higher Altitudes: Evaluated
Near Maximum Altitude: Evaluated
Minimum MSL DMEs Avail: 1773 Ft.

Total Number of DMEs Used: 7

Maximum DME Error: 0.646 NM.

No Critical DMEs were found.

Available DMEs: STL, FTZ, CSX, TOY, UIN, HLV, IRK, MCM, LMN



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H + ESV	User	NO	1.056	Enabled	39.7 %	41.1 %
2	FTZ	N 38° 41' 39.58" W 90° 58' 16.17"	L	Database	NO	1.314	Enabled	28.2 %	28.3 %
3	CSX	N 38° 45' 9.88" W 90° 21' 39.46"	H	Database	NO	0.730	Enabled	15.8 %	16.9 %
4	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H + ESV	User	NO	0.646	Enabled	51.3 %	55.8 %
5	HLV	N 39° 6' 48.75" W 92° 7' 41.64"	L	Database	NO	0.646	Enabled	12.3 %	13.4 %
6	IRK	N 40° 8' 6.08" W 92° 35' 30.17"	H	Database	NO	0.646	Enabled	26.6 %	29.0 %
7	MCM	N 39° 39' 14.62" W 92° 28' 55.77"	L	Database	NO	0.646	Enabled	0.4 %	0.4 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.5						
2.6	STL	FTZ	CSX			
5.9	STL	FTZ	CSX	TOY	UIN	
40.5	STL	FTZ	CSX	UIN		
49.5	STL	FTZ	HLV	UIN		
59.7	STL	CSX	HLV	UIN	IRK	MCM
85.5	STL	MCM	HLV	UIN	IRK	CSX

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 44' 18.99" W 90° 20' 22.51"	N 38° 45' 55.28" W 90° 23' 41.89"	3.1
	VOR: CSX	Available from N 38° 44' 18.99" W 90° 20' 22.51" to N 38° 45' 55.28" W 90° 23' 41.89"	
	VOR: FTZ	Available from N 38° 44' 18.99" W 90° 20' 22.51" to N 38° 45' 55.28" W 90° 23' 41.89"	
	VOR: STL	Available from N 38° 44' 18.99" W 90° 20' 22.51" to N 38° 45' 55.28" W 90° 23' 41.89"	
	VOR: TOY	Available from N 38° 44' 18.99" W 90° 20' 22.51" to N 38° 45' 55.28" W 90° 23' 41.89"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 38° 47' 44.36" W 90° 27' 52.02"	N 38° 50' 45.36" W 90° 33' 50.61"	5.6
	VOR: CSX	Available from N 38° 47' 44.36" W 90° 27' 52.02" to N 38° 50' 45.36" W 90° 33' 50.61"	
	VOR: FTZ	Available from N 38° 47' 44.36" W 90° 27' 52.02" to N 38° 50' 45.36" W 90° 33' 50.61"	
	VOR: STL	Available from N 38° 47' 44.36" W 90° 27' 52.02" to N 38° 50' 45.36" W 90° 33' 50.61"	
	VOR: TOY	Available from N 38° 47' 44.36" W 90° 27' 52.02" to N 38° 50' 45.36" W 90° 33' 50.61"	

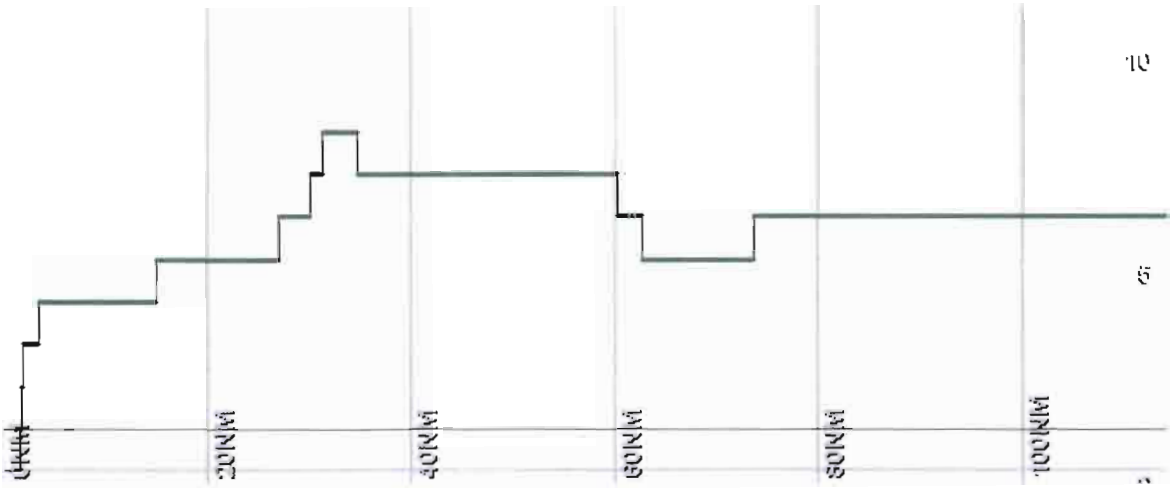
User DMEs

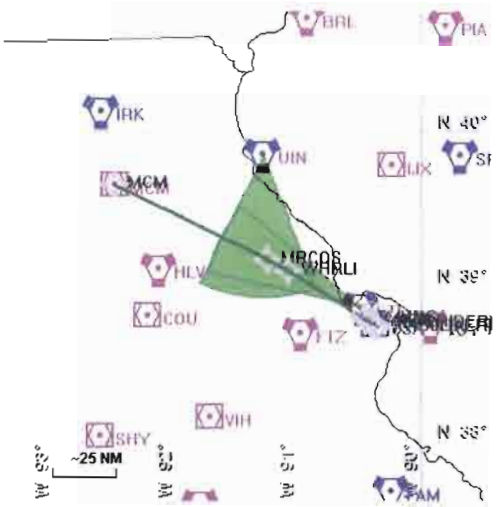
#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H	715.1	113.60	UIN	Used
		ESV: Bearing [True]: 159.0° to 206.0° Bearing [Mag]: 154.0° to 201.0°			Arc Distance: Out to 55.0 NM Altitude: 5000.0 to 17000.0 Ft.		
2	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H	449.5	117.40	STL	Used
		ESV: Bearing [True]: 284.0° to 311.0° Bearing [Mag]: 283.0° to 310.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 17000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types**: ARSR and ASR





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Project Name:	
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	2/23/2012 11:58:16 AM
Input File:	WHRLI RW30L MCM 2012...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔	**Please Check Flyability Results**
DME/DME	✔	
Radars	✔	
Comms		
TERPS		

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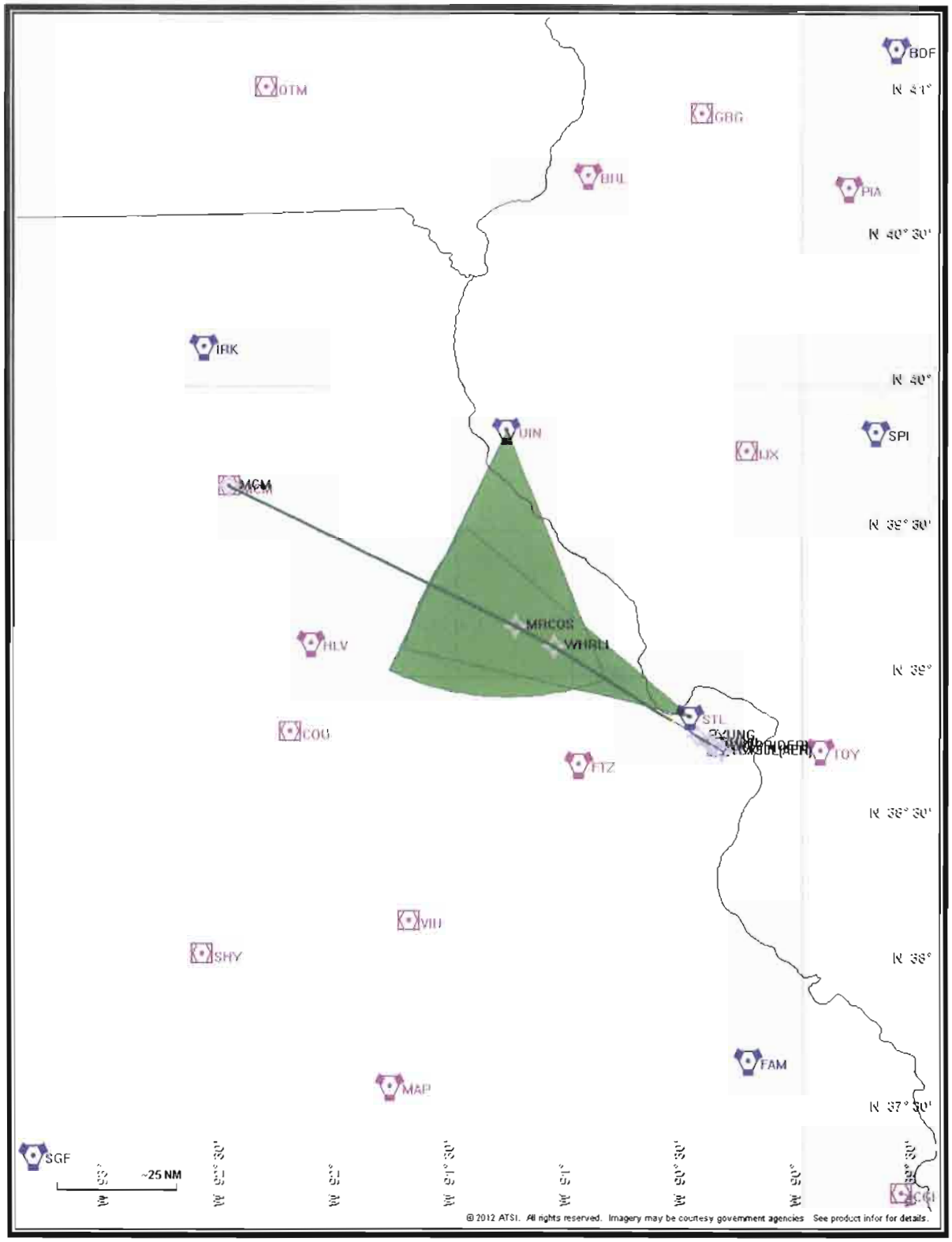
BDF
OTM
GBG
BIL
PIA
IRK
UIN
SPI
IJX
MCM
MRCOS
WHRLI
HLV
STL
COU
FTZ
TOY
VIH
SHY
FAM
MAP
SGF
~25 NM
N 41°
N 40° 30'
N 40°
N 39° 30'
N 39°
N 38° 30'
N 38°
N 37° 30'
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW30L(...	WP	N 38° 44' 17.08" W 90° 20' 49.42"	585.8	VNAV	0.0	Fly Over	TF
RW12R(...	WP	N 38° 45' 14.05" W 90° 22' 44.97"	576.6	VNAV	130.0	Fly Over	VA
GH30L	WP	N 38° 45' 51.06" W 90° 24' 0.06"	1120.0	VNAV	145.0	Fly Over	DF
PYUNG	WP	N 38° 47' 18.73" W 90° 27' 0.07"	2500.0	VNAV	180.0	Fly By	TF
WHRLI	WP	N 39° 6' 3.54" W 91° 4' 29.84"	9447.1	VNAV	180.0	Fly By	TF
MRCOS	WP	N 39° 10' 18.16" W 91° 14' 33.29"	11227.1	VNAV	210.0	Fly By	TF
MCM	WP	N 39° 39' 14.62" W 92° 28' 55.77"	18000.0	VNAV	240.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL

Climb Gradient: 200 Ft/NM after next to last waypoint up to 18000.0 Ft

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSTL
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **29000.0 Ft.**
280.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was -31.97 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

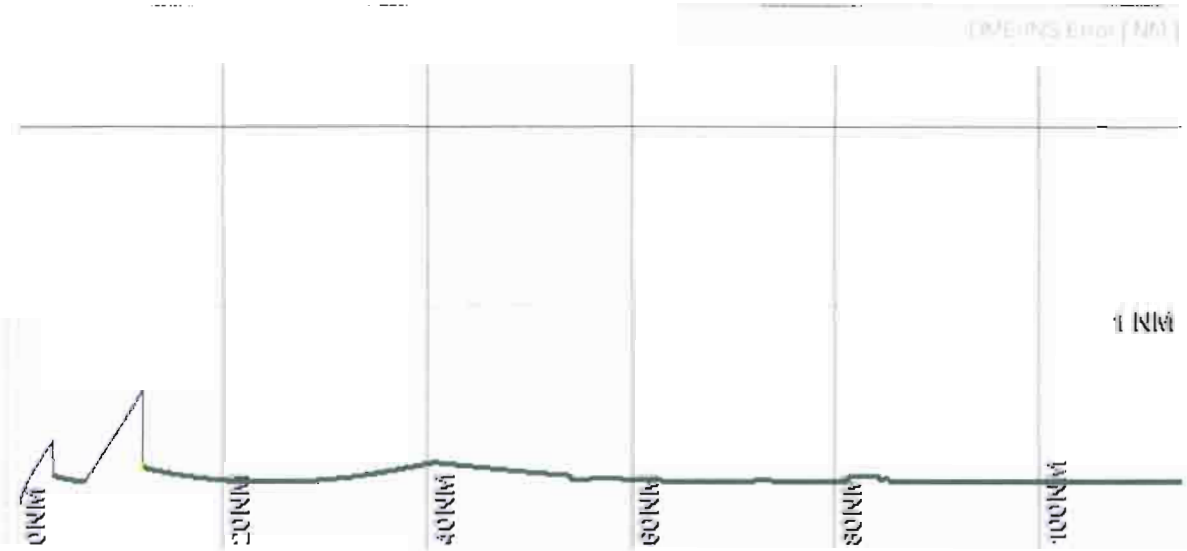
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , 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
Minimum MSL DMEs Avail: 1662 Ft.

Total Number of DMEs Used: 7

Maximum DME Error: 0.652 NM.

No Critical DMEs were found.

Available DMEs: STL, FTZ, CSX, TOY, UIN, HLV, IRK, MCM, LMN



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H + ESV	User	NO	1.043	Enabled	39.0 %	40.6 %
2	FTZ	N 38° 41' 39.58" W 90° 58' 16.17"	L	Database	NO	1.320	Enabled	27.8 %	27.9 %
3	CSX	N 38° 45' 9.88" W 90° 21' 39.46"	H	Database	NO	0.746	Enabled	16.1 %	17.1 %
4	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H + ESV	User	NO	0.652	Enabled	51.3 %	55.9 %
5	HLV	N 39° 6' 48.75" W 92° 7' 41.64"	L	Database	NO	0.652	Enabled	12.4 %	13.5 %
6	IRK	N 40° 8' 6.08" W 92° 35' 30.17"	H	Database	NO	0.652	Enabled	26.6 %	29.0 %
7	MCM	N 39° 39' 14.62" W 92° 28' 55.77"	L	Database	NO	0.652	Enabled	0.4 %	0.4 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.8						
2.9	STL	FTZ	CSX			
5.7	STL	FTZ	CSX	TOY	UIN	
40.2	STL	FTZ	CSX	UIN		
49.2	STL	FTZ	HLV	UIN		
59.3	STL	CSX	HLV	UIN	IRK	MCM
85.2	STL	MCM	HLV	UIN	IRK	CSX

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 44' 17.08" W 90° 20' 49.42"	N 38° 46' 1.13" W 90° 24' 20.75"	3.3
	VOR: CSX	Available from N 38° 44' 17.08" W 90° 20' 49.42" to N 38° 46' 1.13" W 90° 24' 20.75"	
	VOR: FTZ	Available from N 38° 44' 17.08" W 90° 20' 49.42" to N 38° 46' 1.13" W 90° 24' 20.75"	
	VOR: STL	Available from N 38° 44' 17.08" W 90° 20' 49.42" to N 38° 46' 1.13" W 90° 24' 20.75"	
	VOR: TOY	Available from N 38° 44' 17.08" W 90° 20' 49.42" to N 38° 46' 1.13" W 90° 24' 20.75"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 38° 47' 44.14" W 90° 27' 51.06"	N 38° 50' 45.70" W 90° 33' 51.03"	5.6
	VOR: CSX	Available from N 38° 47' 44.14" W 90° 27' 51.06" to N 38° 50' 45.70" W 90° 33' 51.03"	
	VOR: FTZ	Available from N 38° 47' 44.14" W 90° 27' 51.06" to N 38° 50' 45.70" W 90° 33' 51.03"	
	VOR: STL	Available from N 38° 47' 44.14" W 90° 27' 51.06" to N 38° 50' 45.70" W 90° 33' 51.03"	
	VOR: TOY	Available from N 38° 47' 44.14" W 90° 27' 51.06" to N 38° 50' 45.70" W 90° 33' 51.03"	

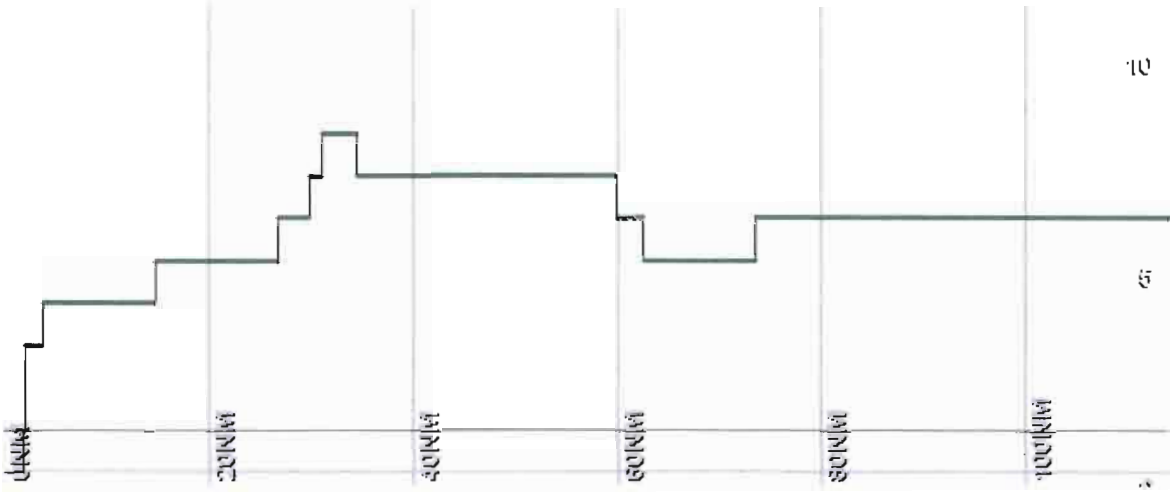
User DMEs

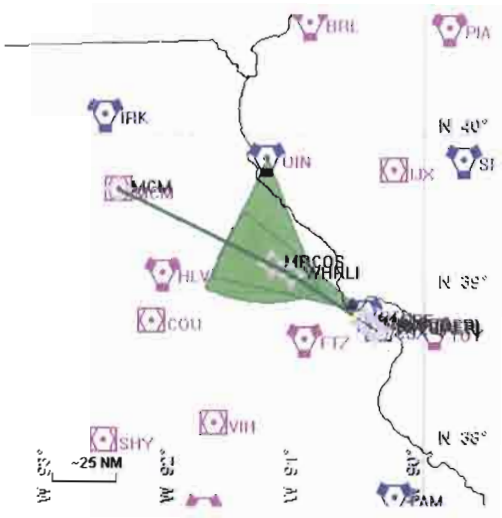
#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H	715.1	113.60	UIN	Used
		ESV: Bearing [True]: 159.0° to 206.0° Bearing [Mag]: 154.0° to 201.0°			Arc Distance: Out to 55.0 NM Altitude: 5000.0 to 17000.0 Ft.		
2	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H	449.5	117.40	STL	Used
		ESV: Bearing [True]: 284.0° to 311.0° Bearing [Mag]: 283.0° to 310.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 17000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types**: ARSR and ASR





Name:	enanders
Project Name:	
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	2/23/2012 11:45:59 AM
Input File:	WHRLI RW29 MCM 20120...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔	**Please Check Flyability Results**
DME/DME	✔	
Radars	✔	
Comms		
TERPS		

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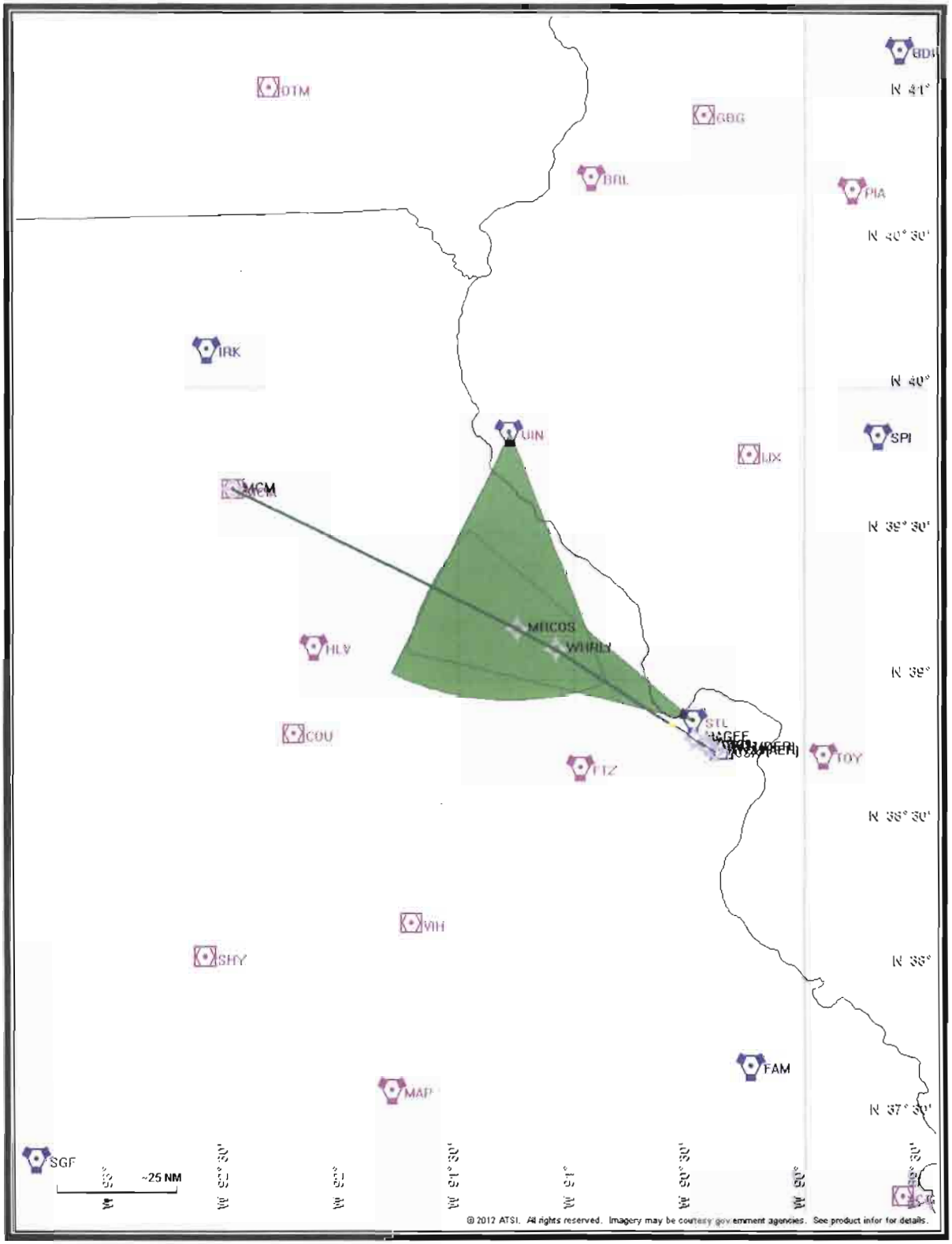
DTM
GBG
BDR
BRL
PIA
IRK
UIN
SPI
LJX
MCM
MRCOS
WHRLI
HLV
STL
COU
TOY
FTZ
VIH
SHY
FAM
MAF
SGF
~25 NM
N 41°
N 40° 30'
N 40°
N 39° 30'
N 39°
N 38° 30'
N 38°
N 37° 30'
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW29(A...	WP	N 38° 44' 48.46" W 90° 22' 59.39"	556.0	VNAV	0.0	Fly Over	TF
RW11(D...	WP	N 38° 45' 35.83" W 90° 24' 35.55"	653.0	VNAV	130.0	Fly Over	VA
GH29:	WP	N 38° 46' 7.94" W 90° 25' 40.74"	1120.0	VNAV	145.0	Fly Over	DF
HAGEE	WP	N 38° 47' 35.74" W 90° 28' 40.90"	2500.0	VNAV	180.0	Fly By	TF
WHRLI	WP	N 39° 6' 3.54" W 91° 4' 29.84"	9196.2	VNAV	180.0	Fly By	TF
MRCOS	WP	N 39° 10' 18.16" W 91° 14' 33.29"	10976.3	VNAV	180.0	Fly By	TF
MCM	WP	N 39° 39' 14.62" W 92° 28' 55.77"	18000.0	VNAV	240.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL

Climb Gradient: 200 Ft/NM after next to last waypoint up to 18000.0 Ft

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSTL
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **29000.0 Ft.**
280.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was -47.99 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

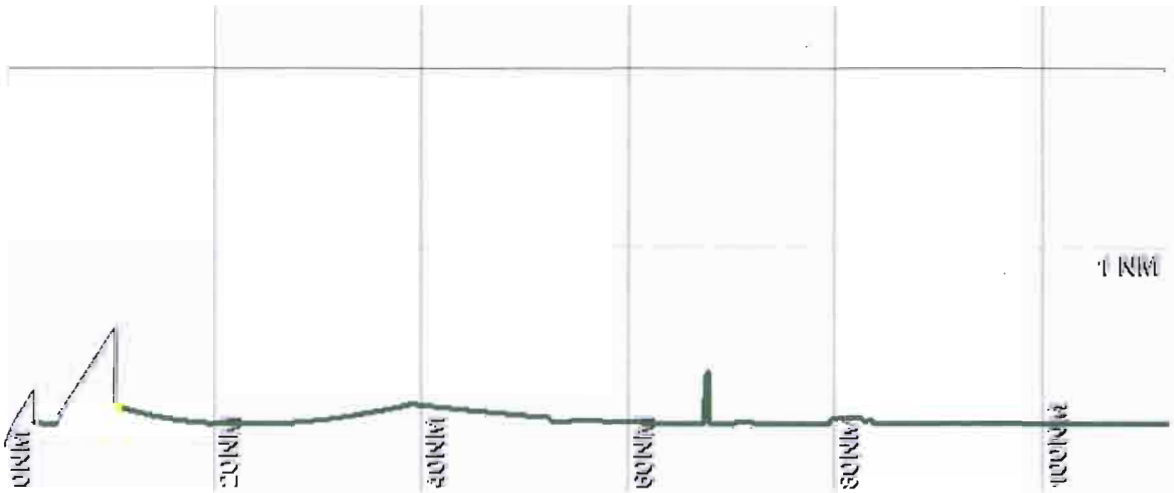
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , 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
Minimum MSL DMEs Avail: 1661 Ft.

Total Number of DMEs Used: 7

Maximum DME Error: 0.675 NM.

No Critical DMEs were found.

Available DMEs: STL, FTZ, CSX, TOY, UIN, HLV, IRK, MCM, LMN



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H + ESV	User	NO	0.965	Enabled	37.2 %	39.5 %
2	FTZ	N 38° 41' 39.58" W 90° 58' 16.17"	L	Database	NO	1.322	Enabled	26.7 %	26.9 %
3	CSX	N 38° 45' 9.88" W 90° 21' 39.46"	H	Database	NO	0.795	Enabled	16.9 %	17.2 %
4	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H + ESV	User	NO	0.675	Enabled	52.0 %	56.7 %
5	HLV	N 39° 6' 48.75" W 92° 7' 41.64"	L	Database	NO	0.675	Enabled	12.9 %	14.0 %
6	IRK	N 40° 8' 6.08" W 92° 35' 30.17"	H	Database	NO	0.675	Enabled	27.1 %	29.5 %
7	MCM	N 39° 39' 14.62" W 92° 28' 55.77"	L	Database	NO	0.675	Enabled	0.4 %	0.4 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.5	STL					
2.5	STL	FTZ	CSX			
5.2	STL	FTZ	CSX	TOY	UIN	
38.5	STL	FTZ	CSX	UIN		
47.5	STL	FTZ	HLV	UIN		
67.7	STL	IRK	HLV	UIN	CSX	MCM
83.5	STL	IRK	HLV	UIN	MCM	CSX

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 44' 48.46" W 90° 22' 59.39"	N 38° 46' 19.70" W 90° 26' 4.80"	2.9

VOR: CSX	Available from N 38° 44' 48.46" W 90° 22' 59.39" to N 38° 46' 19.70" W 90° 26' 4.80"
VOR: FTZ	Available from N 38° 44' 48.46" W 90° 22' 59.39" to N 38° 46' 19.70" W 90° 26' 4.80"
VOR: STL	Available from N 38° 44' 48.46" W 90° 22' 59.39" to N 38° 46' 19.70" W 90° 26' 4.80"
VOR: TOY	Available from N 38° 44' 48.46" W 90° 22' 59.39" to N 38° 46' 19.70" W 90° 26' 4.80"

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 38° 47' 16.83" W 90° 28' 2.05"	N 38° 50' 31.84" W 90° 34' 20.26"	5.9
	VOR: CSX	Available from N 38° 47' 16.83" W 90° 28' 2.05" to N 38° 50' 31.84" W 90° 34' 20.26"	
	VOR: FTZ	Available from N 38° 47' 16.83" W 90° 28' 2.05" to N 38° 50' 31.84" W 90° 34' 20.26"	
	VOR: STL	Available from N 38° 47' 16.83" W 90° 28' 2.05" to N 38° 50' 31.84" W 90° 34' 20.26"	
	VOR: TOY	Available from N 38° 47' 16.83" W 90° 28' 2.05" to N 38° 50' 31.84" W 90° 34' 20.26"	

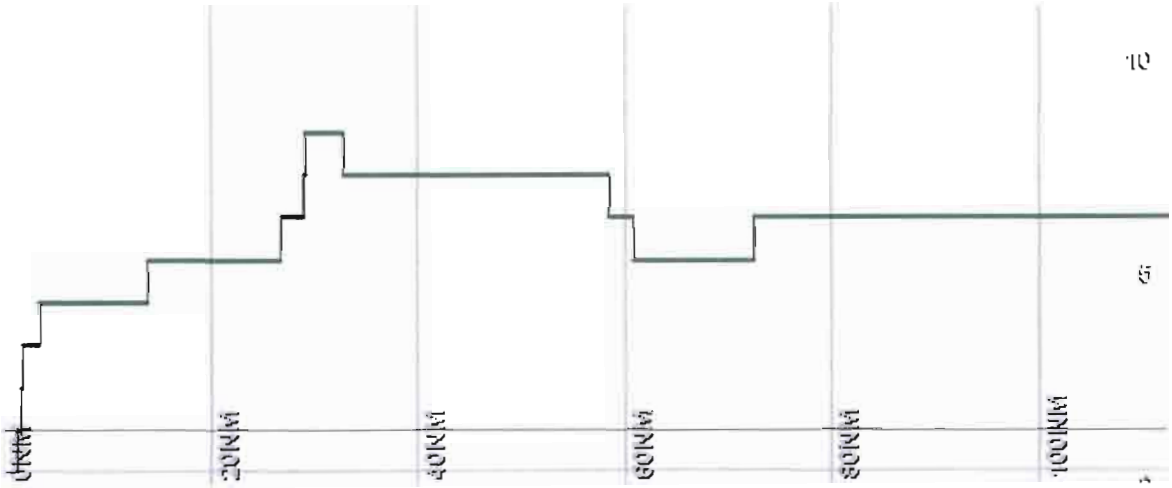
User DMEs

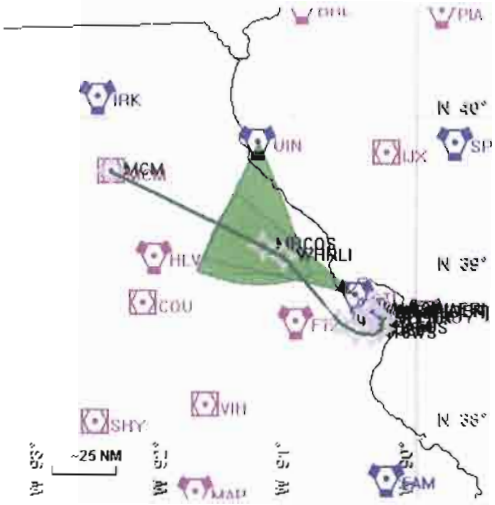
#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H	715.1	113.60	UIN	Used
		ESV: Bearing [True]: 159.0° to 206.0° Bearing [Mag]: 154.0° to 201.0°			Arc Distance: Out to 55.0 NM Altitude: 5000.0 to 17000.0 Ft.		
2	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H	449.5	117.40	STL	Used
		ESV: Bearing [True]: 284.0° to 311.0° Bearing [Mag]: 283.0° to 310.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 17000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR





Name:	enanders
Project Name:	
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	2/23/2012 11:28:50 AM
Input File:	WHRLI RW12R MCM 2012...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔	**Please Check Flyability Results**
DME/DME	✔	
Radars	✔	
Comms		
TERPS		

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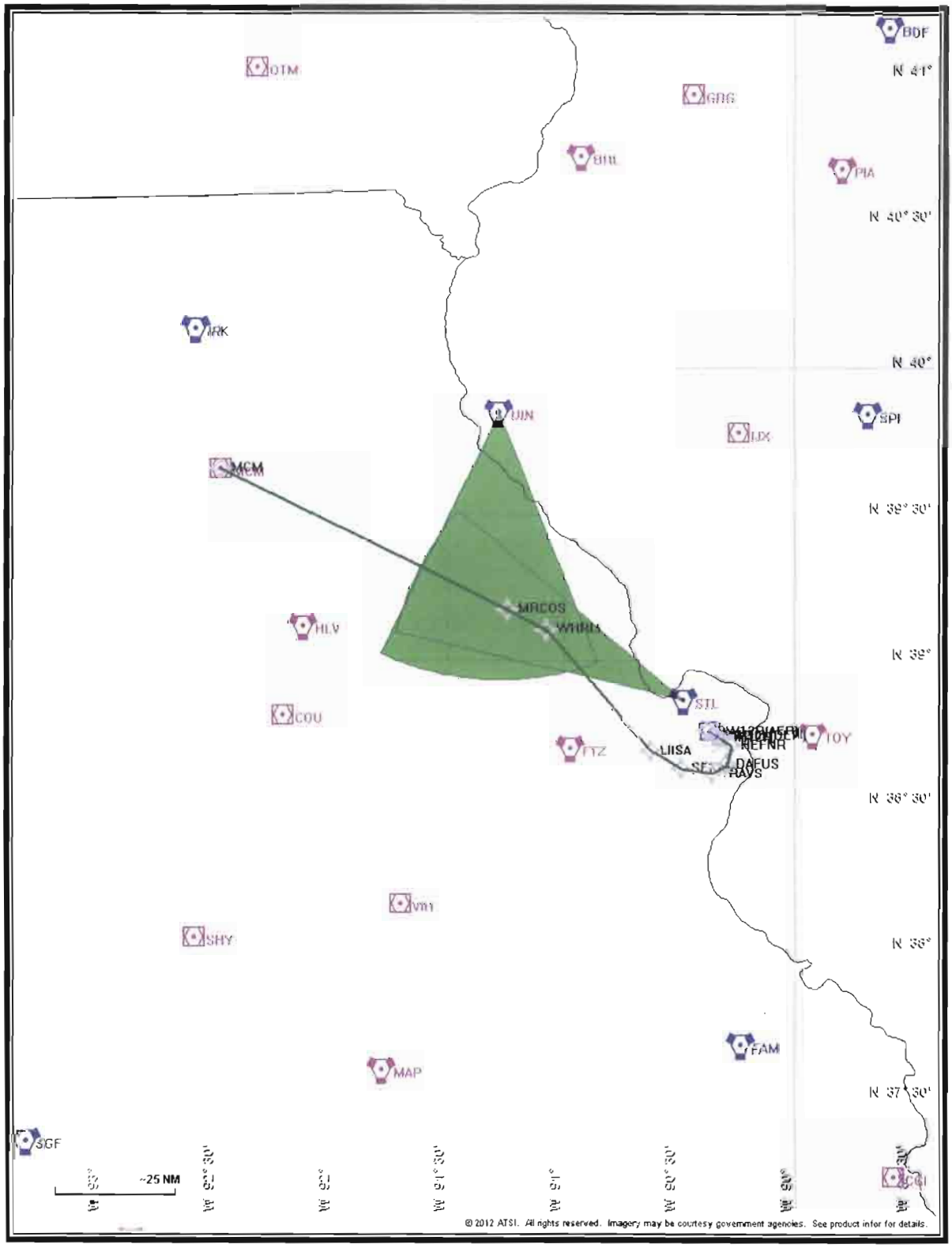
BDF
N 41°
OTM
GBG
BIIL
PIA
N 40° 30'
IRK
N 40°
UIN
SPI
LIX
MCM
N 39° 30'
MRCOS
WHRLI
HLV
N 39°
STL
COU
TOY
FTZ
LIISA
REFNR
DAFUS
RAVS
N 38° 30'
VIN
SHY
N 38°
FAM
MAP
N 37° 30'
SGF
~25 NM
CGI
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW12R(...	WP	N 38° 45' 11.59" W 90° 22' 39.98"	541.6	VNAV	0.0	Fly Over	TF
RW30L(...	WP	N 38° 44' 16.01" W 90° 20' 47.27"	620.8	VNAV	130.0	Fly Over	VA
GH12R	WP	N 38° 43' 41.83" W 90° 19' 37.95"	1120.0	VNAV	145.0	Fly Over	DF
HEFNR	WP	N 38° 42' 6.39" W 90° 16' 24.55"	2500.0	VNAV	180.0	Fly By	TF
DAFUS	WP	N 38° 38' 8.82" W 90° 17' 34.70"	3312.0	VNAV	180.0	Fly By	TF
TRAVS	WP	N 38° 36' 17.86" W 90° 21' 22.28"	4012.0	VNAV	180.0	Fly By	TF
SEKAY	WP	N 38° 37' 16.62" W 90° 29' 17.37"	5268.6	VNAV	180.0	Fly By	TF
LIISA	WP	N 38° 41' 2.84" W 90° 37' 22.22"	6741.8	VNAV	180.0	Fly By	TF
WHRLI	WP	N 39° 6' 3.54" W 91° 4' 29.84"	13293.0	VNAV	210.0	Fly By	TF
MRCOS	WP	N 39° 10' 18.16" W 91° 14' 33.29"	15073.1	VNAV	210.0	Fly By	TF
MCM	WP	N 39° 39' 14.62" W 92° 28' 55.77"	18000.0	VNAV	240.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL

Climb Gradient: 200 Ft/NM after next to last waypoint up to 18000.0 Ft

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSTL
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **29000.0 Ft.**
280.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Required IAS at Fly-By WP TRAVS could not be reached with given A/C acceleration performance.

Flight Track comes into contact with terrain. Minimum AGL along route was -71.92 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

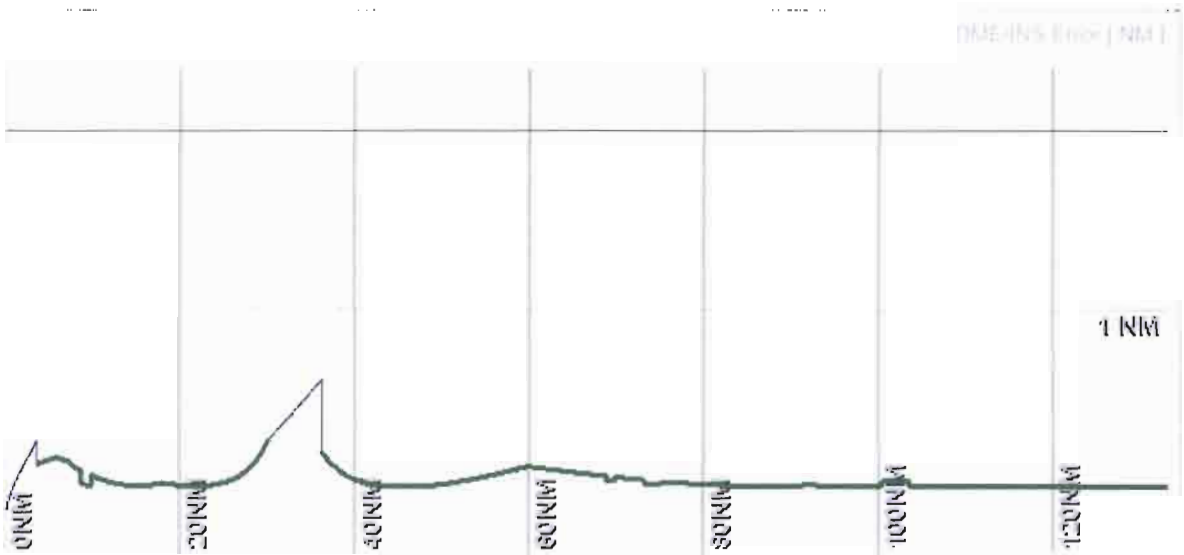
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , 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
Minimum MSL DMEs Avail: 2017 Ft.

Total Number of DMEs Used: 9

Maximum DME Error: 0.714 NM.

No Critical DMEs were found.

Available DMEs: STL, FTZ, CSX, TOY, UIN, SPI, IRK, HLV, MCM, LMN



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H + ESV	User	NO	0.947	Enabled	40.4 %	41.7 %
2	FTZ	N 38° 41' 39.58" W 90° 58' 16.17"	L	Database	NO	1.386	Enabled	38.7 %	37.5 %
3	CSX	N 38° 45' 9.88" W 90° 21' 39.46"	H	Database	NO	0.811	Enabled	21.3 %	20.1 %
4	TOY	N 38° 44' 20.97" W 89° 55' 7.06"	L	Database	NO	0.714	Enabled	1.2 %	0.8 %
5	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H + ESV	User	NO	0.862	Enabled	43.8 %	47.1 %
6	SPI	N 39° 50' 23.04" W 89° 40' 39.83"	H	Database	NO	0.714	Enabled	0.7 %	0.7 %
7	HLV	N 39° 6' 48.75" W 92° 7' 41.64"	L	Database	NO	0.714	Enabled	10.7 %	11.6 %
8	IRK	N 40° 8' 6.08" W 92° 35' 30.17"	H	Database	NO	0.714	Enabled	23.0 %	24.8 %
9	MCM	N 39° 39' 14.62" W 92° 28' 55.77"	L	Database	NO	0.714	Enabled	1.0 %	1.1 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.8						
2.8	STL	FTZ	CSX			
5.4	STL	FTZ	CSX	TOY		
9.5	STL	FTZ	CSX	TOY		
12.6	STL	FTZ	CSX			
18.9	STL	FTZ	CSX			
26.3	STL	FTZ	CSX	UIN		
59.0	STL	FTZ	CSX	UIN		
68.4	STL	FTZ	SPI	UIN	HLV	CSX
78.4	STL	IRK	CSX	UIN	HLV	
93.1	MCM	IRK	CSX	UIN	HLV	STL

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 45' 11.59" W 90° 22' 39.98"	N 38° 43' 21.04" W 90° 18' 55.84"	3.5
	VOR: CSX	Available from N 38° 45' 11.59" W 90° 22' 39.98" to N 38° 43' 21.04" W 90° 18' 55.84"	
	VOR: FTZ	Available from N 38° 45' 11.59" W 90° 22' 39.98" to N 38° 43' 21.04" W 90° 18' 55.84"	
	VOR: STL	Available from N 38° 45' 11.59" W 90° 22' 39.98" to N 38° 43' 21.04" W 90° 18' 55.84"	
	VOR: TOY	Available from N 38° 45' 11.59" W 90° 22' 39.98" to N 38° 43' 21.04" W 90° 18' 55.84"	
2	N 38° 43' 26.53" W 90° 39' 57.49"	N 38° 48' 12.08" W 90° 45' 5.40"	6.2
	VOR: CSX	Available from N 38° 43' 26.53" W 90° 39' 57.49" to N 38° 48' 12.08" W 90° 45' 5.40"	
	VOR: FTZ	Available from N 38° 43' 26.53" W 90° 39' 57.49" to N 38° 48' 12.08" W 90° 45' 5.40"	
	VOR: STL	Available from N 38° 43' 26.53" W 90° 39' 57.49" to N 38° 48' 12.08" W 90° 45' 5.40"	
	VOR: TOY	Available from N 38° 43' 26.53" W 90° 39' 57.49" to N 38° 48' 12.08" W 90° 45' 5.40"	

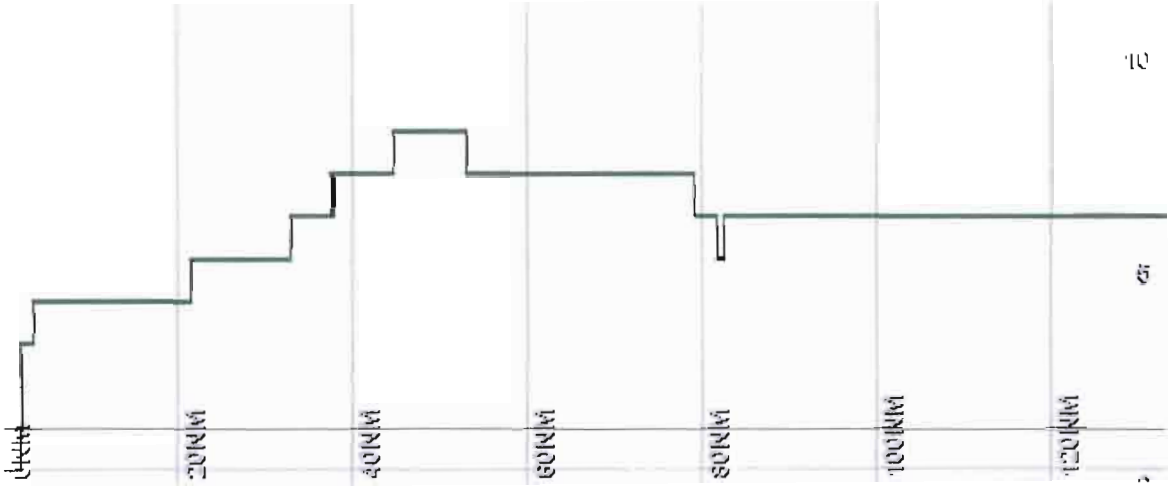
User DMEs

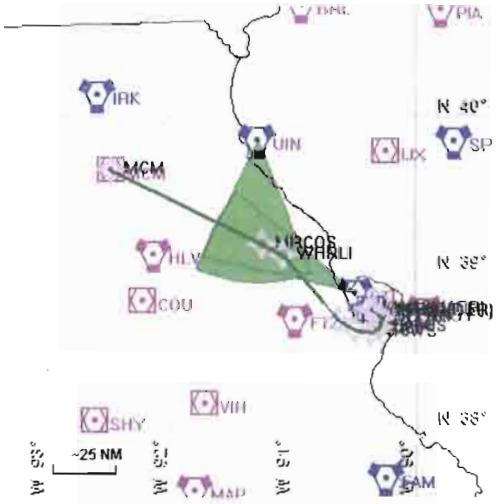
#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H	715.1	113.60	UIN	Used
		ESV: Bearing [True]: 159.0° to 206.0° Bearing [Mag]: 154.0° to 201.0°			Arc Distance: Out to 55.0 NM Altitude: 5000.0 to 17000.0 Ft.		
2	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H	449.5	117.40	STL	Used
		ESV: Bearing [True]: 284.0° to 311.0° Bearing [Mag]: 283.0° to 310.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 17000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR





Name:	enanders
Project Name:	
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	2/23/2012 11:15:13 AM
Input File:	WHRLI RW12L MCM 2012...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔ **Please Check Flyability Results**
DME/DME	✔
Radars	✔
Comms	
TERPS	

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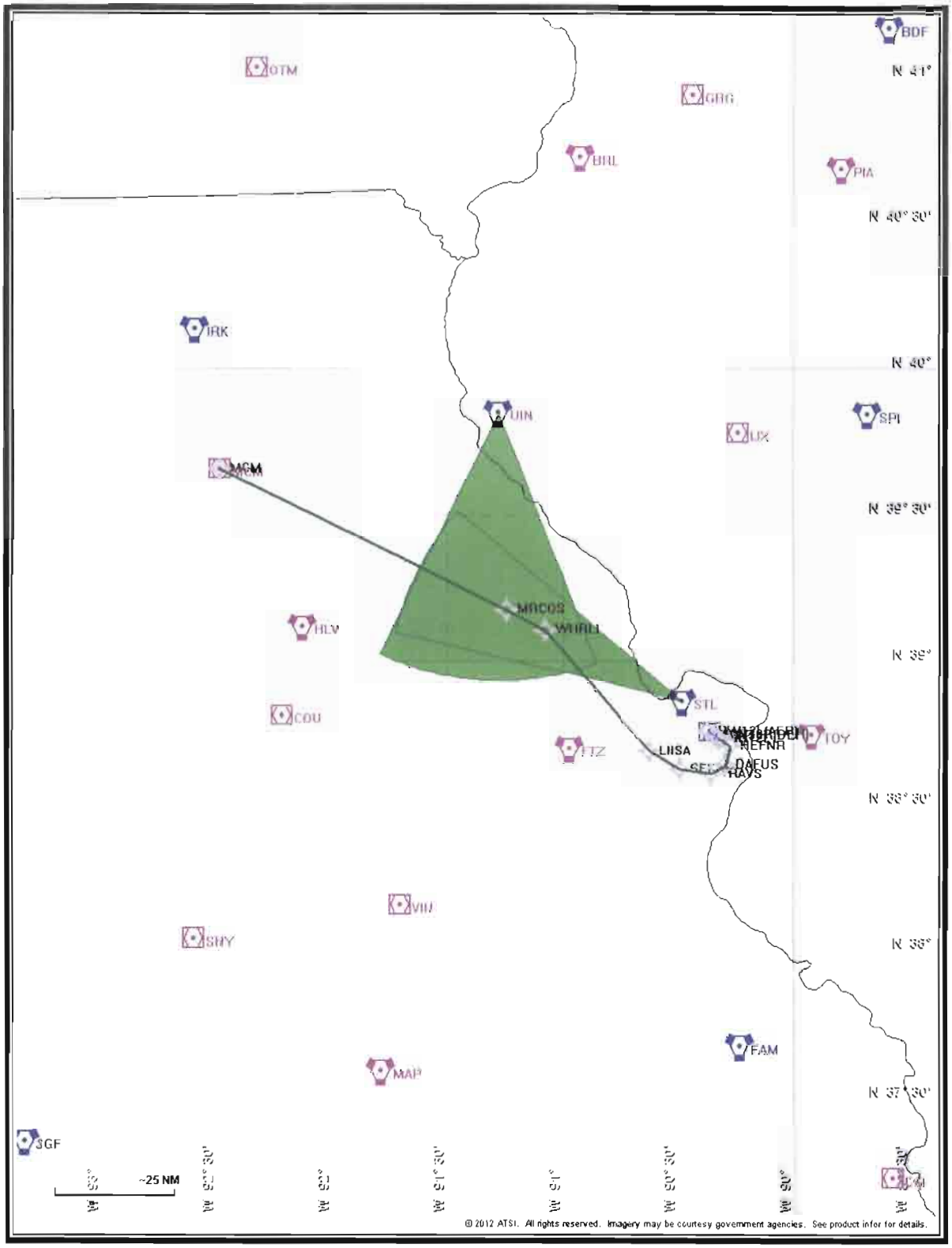
BDF
N 41°
OTM
GBG
BRL
PIA
N 40° 30'
IRK
N 40°
UIN
SPI
UX
MCM
N 39° 30'
MRCOS
WHRLI
HLV
N 39°
STL
COU
TOY
FTZ
LIISA
REFNR
DAFUS
HAYS
N 38° 30'
VIU
SHY
N 38°
FAM
MAP
N 37° 30'
SGF
~25 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW12L(...	WP	N 38° 45' 6.41" W 90° 21' 58.66"	528.3	VNAV	0.0	Fly Over	TF
RW30R(...	WP	N 38° 44' 18.99" W 90° 20' 22.51"	639.5	VNAV	130.0	Fly Over	VA
GH12L	WP	N 38° 43' 45.99" W 90° 19' 15.61"	1120.0	VNAV	145.0	Fly Over	DF
HEFNR	WP	N 38° 42' 6.39" W 90° 16' 24.55"	2500.0	VNAV	180.0	Fly By	TF
DAFUS	WP	N 38° 38' 8.82" W 90° 17' 34.70"	3312.0	VNAV	180.0	Fly By	TF
TRAVS	WP	N 38° 36' 17.86" W 90° 21' 22.28"	4012.0	VNAV	180.0	Fly By	TF
SEKAY	WP	N 38° 37' 16.62" W 90° 29' 17.37"	5268.6	VNAV	180.0	Fly By	TF
LIISA	WP	N 38° 41' 2.84" W 90° 37' 22.22"	6741.8	VNAV	180.0	Fly By	TF
WHRLI	WP	N 39° 6' 3.54" W 91° 4' 29.84"	13293.0	VNAV	210.0	Fly By	TF
MRCOS	WP	N 39° 10' 18.16" W 91° 14' 33.29"	15073.1	VNAV	210.0	Fly By	TF
MCM	WP	N 39° 39' 14.62" W 92° 28' 55.77"	18000.0	VNAV	240.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL

Climb Gradient: 200 Ft/NM after next to last waypoint up to 18000.0 Ft

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSTL
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1120.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **29000.0 Ft.**
280.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Required IAS at Fly-By WP TRAVS could not be reached with given A/C acceleration performance.

Flight Track comes into contact with terrain. Minimum AGL along route was -64.22 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

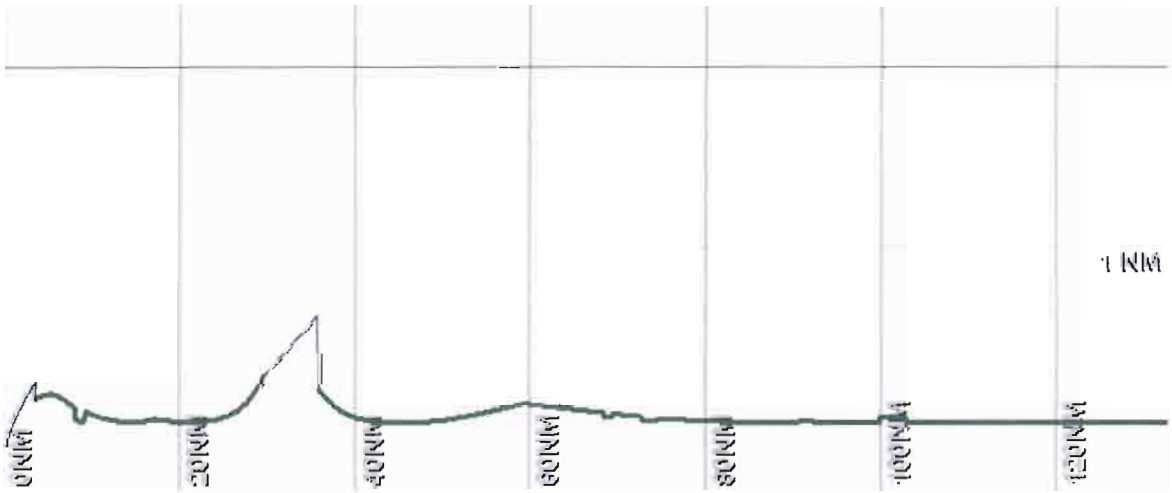
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , TACAN , 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
Minimum MSL DMEs Avail: 2122 Ft.

Total Number of DMEs Used: 9

Maximum DME Error: 0.717 NM.

No Critical DMEs were found.

Available DMEs: STL, FTZ, CSX, TOY, UIN, SPI, IRK, HLV, MCM, LMN



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H + ESV	User	NO	0.948	Enabled	40.2 %	41.6 %
2	FTZ	N 38° 41' 39.58" W 90° 58' 16.17"	L	Database	NO	1.386	Enabled	38.7 %	37.5 %
3	CSX	N 38° 45' 9.88" W 90° 21' 39.46"	H	Database	NO	0.809	Enabled	21.4 %	20.0 %
4	TOY	N 38° 44' 20.97" W 89° 55' 7.06"	L	Database	NO	0.717	Enabled	1.2 %	0.8 %
5	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H + ESV	User	NO	0.862	Enabled	43.9 %	47.3 %
6	SPI	N 39° 50' 23.04" W 89° 40' 39.83"	H	Database	NO	0.717	Enabled	0.7 %	0.8 %
7	HLV	N 39° 6' 48.75" W 92° 7' 41.64"	L	Database	NO	0.717	Enabled	10.8 %	11.6 %
8	IRK	N 40° 8' 6.08" W 92° 35' 30.17"	H	Database	NO	0.717	Enabled	23.2 %	25.0 %
9	MCM	N 39° 39' 14.62" W 92° 28' 55.77"	L	Database	NO	0.717	Enabled	1.0 %	1.1 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.5						
2.5	STL	FTZ	CSX			
4.9	STL	FTZ	CSX	TOY		
9.0	STL	FTZ	CSX	TOY		
12.1	STL	FTZ	CSX			
18.4	STL	FTZ	CSX			
25.8	STL	FTZ	CSX	UIN		
58.5	STL	FTZ	CSX	UIN		
67.9	STL	FTZ	SPI	UIN	HLV	CSX
77.9	STL	IRK	CSX	UIN	HLV	
92.6	MCM	IRK	CSX	UIN	HLV	STL

DME/DME (Continued.)

Return To Summary

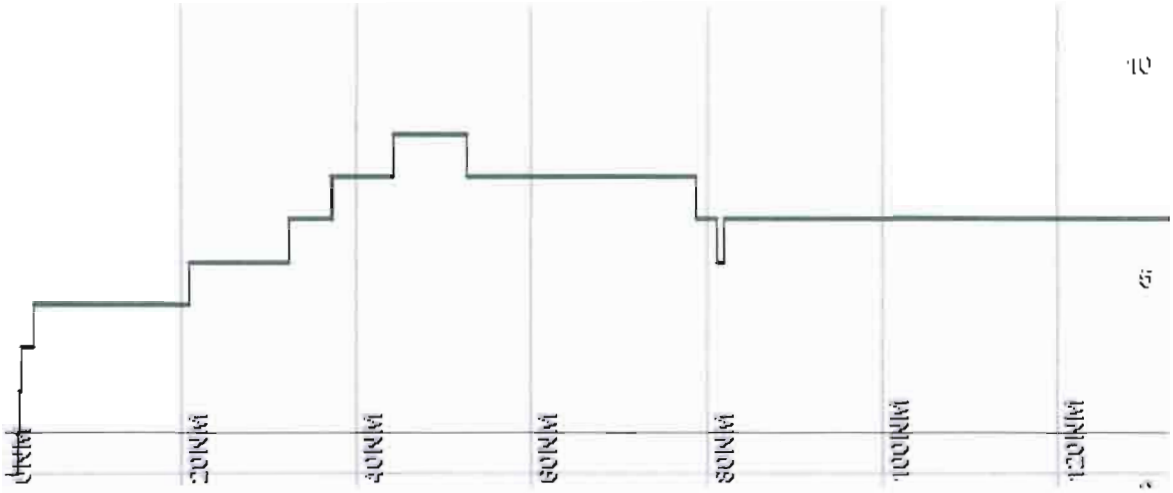
Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 45' 6.41" W 90° 21' 58.66"	N 38° 43' 19.48" W 90° 18' 29.92"	3.3
	VOR: CSX	Available from N 38° 45' 6.41" W 90° 21' 58.66" to N 38° 43' 19.48" W 90° 18' 29.92"	
	VOR: FTZ	Available from N 38° 45' 6.41" W 90° 21' 58.66" to N 38° 43' 19.48" W 90° 18' 29.92"	
	VOR: STL	Available from N 38° 45' 6.41" W 90° 21' 58.66" to N 38° 43' 19.48" W 90° 18' 29.92"	
	VOR: TOY	Available from N 38° 45' 6.41" W 90° 21' 58.66" to N 38° 43' 19.48" W 90° 18' 29.92"	
2	N 38° 43' 28.18" W 90° 39' 59.26"	N 38° 48' 13.73" W 90° 45' 7.18"	6.2
	VOR: CSX	Available from N 38° 43' 28.18" W 90° 39' 59.26" to N 38° 48' 13.73" W 90° 45' 7.18"	
	VOR: FTZ	Available from N 38° 43' 28.18" W 90° 39' 59.26" to N 38° 48' 13.73" W 90° 45' 7.18"	
	VOR: STL	Available from N 38° 43' 28.18" W 90° 39' 59.26" to N 38° 48' 13.73" W 90° 45' 7.18"	
	VOR: TOY	Available from N 38° 43' 28.18" W 90° 39' 59.26" to N 38° 48' 13.73" W 90° 45' 7.18"	

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	UIN	N 39° 50' 52.35" W 91° 16' 44.13"	H	715.1	113.60	UIN	Used
		ESV: Bearing [True]: 159.0° to 206.0° Bearing [Mag]: 154.0° to 201.0°			Arc Distance: Out to 55.0 NM Altitude: 5000.0 to 17000.0 Ft.		
2	STL	N 38° 51' 38.48" W 90° 28' 56.52"	H	449.5	117.40	STL	Used
		ESV: Bearing [True]: 284.0° to 311.0° Bearing [Mag]: 283.0° to 310.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 17000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types**: ARSR and ASR