Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: SID	Date Open: 09/21/2009	Task #: 2009092115639507002	Request #: 20090921156395
Procedure: SID FEDRA (RNAV) ONE LOUISVILLE KY KSDF		Airport ID: KSDF	Airport: LOUISVILLE INTL-STANDIFORD FLD		Reimbursable #:
City: LOUISVILLE	ST: KY	GPS #:		Estimated Chart Date: 07/26/2012	FICO #: 1073548
Fac ID:	Fac. Type: Proc D	Specialist: RONALD SALPINO			

Procedure Review

P2

	Rec'd	Rel'd	Full Name	Comments
Lead:	01/10/2012	04/25/2012	MARLON ROBINSON	DME / DME
QA:	04/25/2012	04/26/2012	STEVEN SZUKALA	ESV REQUEST INCLUDED
Liaison:	04/26/2012		Alfonso	DME/DME - APPROVAL REQUEST

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

pg 1 of 5

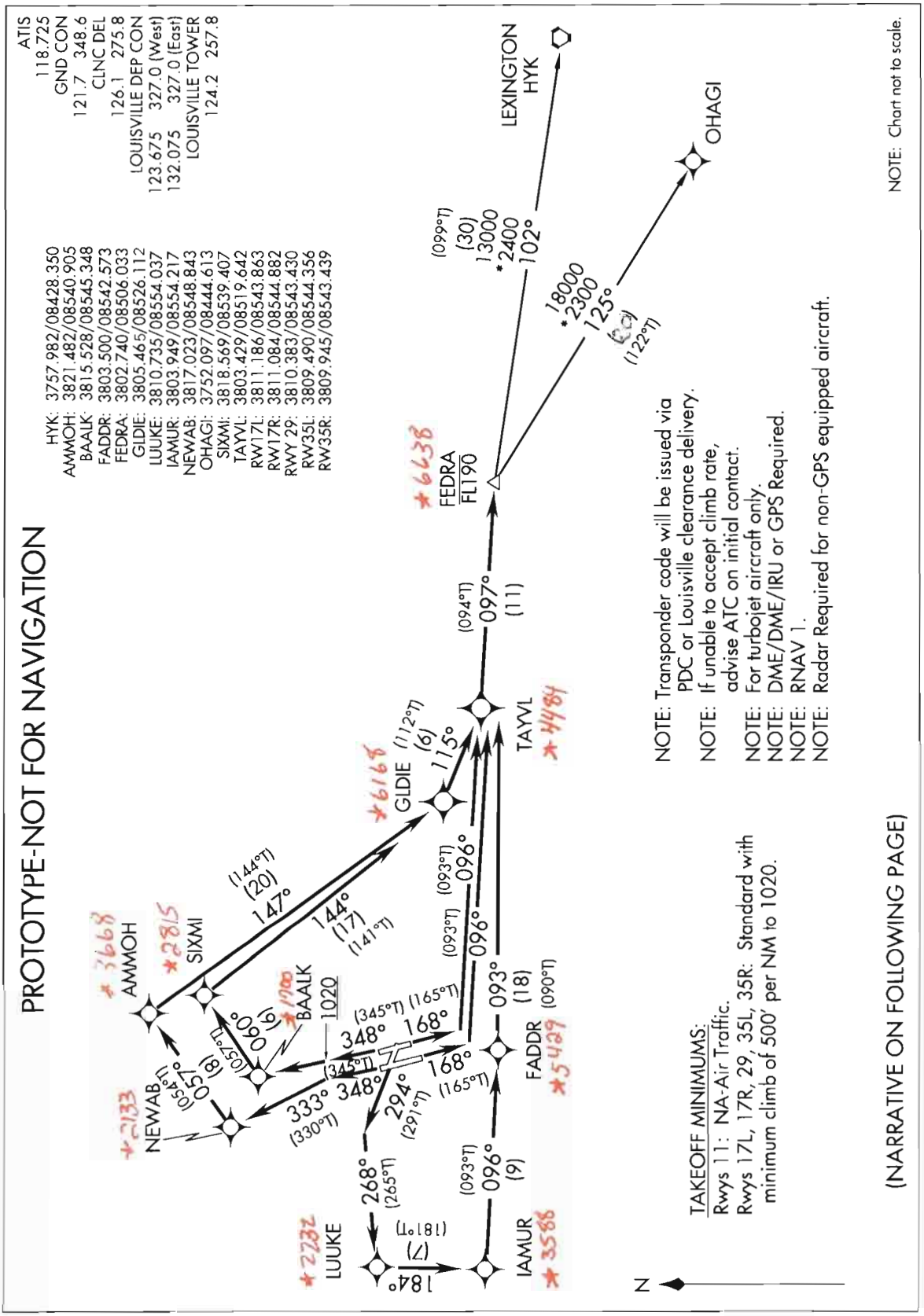
LOUISVILLE, KY LOUISVILLE INTL-STANDIFORD FIELD (KSDF) FEDRA ONE (RNAV) (SID) ENROUTE -YES FC: 5.29.12 PUB: 7.26.12

ATTACHED FORMS: ESV REPORTS; 8260-15B; 8260-15C; 8260-2(S): AMMOH, ORIG; BAALK, ORIG; FADDR, ORIG; FEDRA-INT, REV 5; GLDIE, ORIG; IAMUR, ORIG; LUUKE, ORIG; NEWAB, ORIG; OHAGI, ORIG; SIXMI, ORIG; TAYVL, ORIG; (INFO ONLY) LEXINGTON (HYK) VTAC, REV 22.

CONTACT: DON SMITH, AJV-352 LEAD, 405.954.1036:

FEDRA ONE DEPARTURE (RNAV)

SL-239 (FAA)



FEDRA ONE DEPARTURE (RNAV)

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 17L: Climb heading 168° to intercept course 096° to TAYVL, then on depicted route to FEDRA, cross FEDRA at or below FL190, thence. . . .
TAKEOFF RUNWAY 17R: Climb heading 168° to intercept course 096° to TAYVL, then on depicted route to FEDRA, cross FEDRA at or below FL190, thence. . . .
TAKEOFF RUNWAY 29: Climb heading 294° to intercept course 268° to LUUKE, then on depicted route to FEDRA, cross FEDRA at or below FL190, thence. . . .
TAKEOFF RUNWAY 35L: Climb heading 348° to intercept course 333° to NEWAB, then on depicted route to FEDRA, cross FEDRA at or below FL190, thence. . . .
TAKEOFF RUNWAY 35L: Climb heading 348° to 1020, then direct BAALK, then on depicted route to FEDRA, cross FEDRA at or below FL190, thence. . . .

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

LEXINGTON TRANSITION(FEDRA1.HKY) :
OHAGI TRANSITION (FEDRA1.OHAGI):

TAKEOFF OBSTACLE NOTES:
Rwy 17L: Light tower 622′ from DER, 643′ right of centerline, 25′ AGL/496′ MSL.
OL on DME 498′ from DER, 299′ right of centerline, 14′ AGL/485′ MSL.
Multiple trees and lighted towers beginning 328′ from DER, 302′ left of centerline, up to 89′ AGL/560′ MSL.
Sign 723′ from DER, 637′ left of centerline, 26′ AGL/497′ MSL.
Rwy 17R: Pole 748′ from DER, 664′ right of centerline, 24′ AGL/505′ MSL.
Pole 666′ from DER, 336′ left of centerline, 24′ AGL/496′ MSL.
Rwy 29: Tree 1257′ from DER, 809′ left of centerline, 69′ AGL/550′ MSL.
Stack 1213′ from DER, 329′ left of centerline, 37′ AGL/518′ MSL.
Poles beginning 873′ from DER, 223′ left of centerline, up to 29′ AGL/509′ MSL.
Trees beginning 1033′ from DER, 73′ right of centerline, 73′ AGL/571′ MSL.
Obstruction light on glideslope 474′ from DER, 398′ right of centerline, 49′ AGL/526′ MSL.
Pole 1255 from DER, 760′ right of centerline, 29′ AGL/515′ MSL.
Rwy 35L: Poles beginning 686′ from DER, 115′ left of centerline, up to 38′ AGL/541′ MSL.
Lighted tower 258′ from DER, 260′ left of centerline, 44′ AGL/500′ MSL.
Poles beginning 270′ from DER, 231′ right of centerline, up to 64′ AGL/526′ MSL.
Trees beginning 1596′ from DER, 262′ right of centerline up to 86′ AGL/560′ MSL.
Rwy 35R: Multiple trees and poles beginning 542′ from DER, 303′ right of centerline up to 88′ AGL/580′ MSL.

PROTOTYPE-NOT FOR NAVIGATION

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : CINCINNATTI	City : COVINGTON	Ident : CVG	State : KY
Type/Class : TACR	Frequency : M1207	Reference No.: 10123504	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 672108-053	216	235	75	45	110

Requirement: ESTABLISH ESV FOR SDF EMAUS RNAV STAR

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 12/29/2010

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 672108-053	216	235	75	45	110	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: Cassella Charles	Routing Symbol:	Date: 01/03/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 672108-053	216	235	75	45	110	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 01/03/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 672108-053	216	235				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : FT KNOX	City : FT KNOX	Ident : NONE	State : KY
Type/Class : NONE	Frequency : M1113	Reference No.: 11055111	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
AR 106249-001	21	66	33	30	120

Requirement: ESTABLISH ESV FOR SDF RNAV SIDS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 05/02/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 106249-001	21	66	33	30	120	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF RNAV SIDSApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 06/13/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 106249-001	21	66	33	30	120	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF RNAV SIDSApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 06/13/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 106249-001	21	66				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : LONDON	City : LONDON	Ident : LOZ	State : KY
Type/Class : TACR	Frequency : M1195	Reference No.: 11034499	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 698205-006	323	345	85	70	240

Requirement: ESTABLISH ESV FOR SDF FEDRA RNAV SID

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/02/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698205-006	323	345	85	70	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF FEDRA RNAV SIDApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: Cassella Charles	Routing Symbol:	Date: 03/03/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698205-006	323	345	85	70	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF FEDRA RNAV SIDApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/07/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698205-006	323	345				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : LONDON	City : LONDON	Ident : LOZ	State : KY
Type/Class : TACR	Frequency : M1195	Reference No.: 10123450	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 698205-003	323	345	95	95	240

Requirement: ESTABLISH ESV FOR SDF FEDRA RNAV SID

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 12/22/2010

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698205-003	323	345	95	95	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF FEDRA RNAV SIDApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 12/22/2010

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698205-003	323	345	95	95	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF FEDRA RNAV SIDApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 12/22/2010

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698205-003	323	345				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : NEW HOPE	City : NEW HOPE	Ident : EWO	State : KY
Type/Class : DME	Frequency : M1006	Reference No.: 11034498	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 703993-004	47	77	54	70	240

Requirement: ESTABLISH ESV FOR SDF FEDRA RNAV SID

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/02/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703993-004	47	77	54	70	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF FEDRA RNAV SIDApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: Cassella Charles	Routing Symbol:	Date: 03/03/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703993-004	47	77	54	70	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF FEDRA RNAV SIDApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/07/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703993-004	47	77				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : NABB	City : NABB	Ident : ABB	State : IN
Type/Class : TACR	Frequency : M1158	Reference No.: 11075943	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 860877-040	141	0	42	26	175

Requirement: GRANDFATHERED: GRANDFATHERED FIX FEDRA ALREADY EXISTS AND FLIGHT CHECKED IN 1999. FIX BEING ADDED TO SID FEDRA (RNAV)

Signature: Salpino Ronald	Routing Symbol: AJV-352	Date: 07/28/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 860877-040	141	0	42	26	175	APPROVE

Requirement/Remarks: GRANDFATHERED: GRANDFATHERED FIX FEDRA ALREADY EXISTS AND FLIGHT CHECKEDApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: NASSR NASHAAT	Routing Symbol:	Date: 07/28/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 860877-040	141	0	42	26	175	APPROVE

Requirement/Remarks: GRANDFATHERED: GRANDFATHERED FIX FEDRA ALREADY EXISTS AND FLIGHT CHECKEDApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 08/02/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 860877-040	141	0				

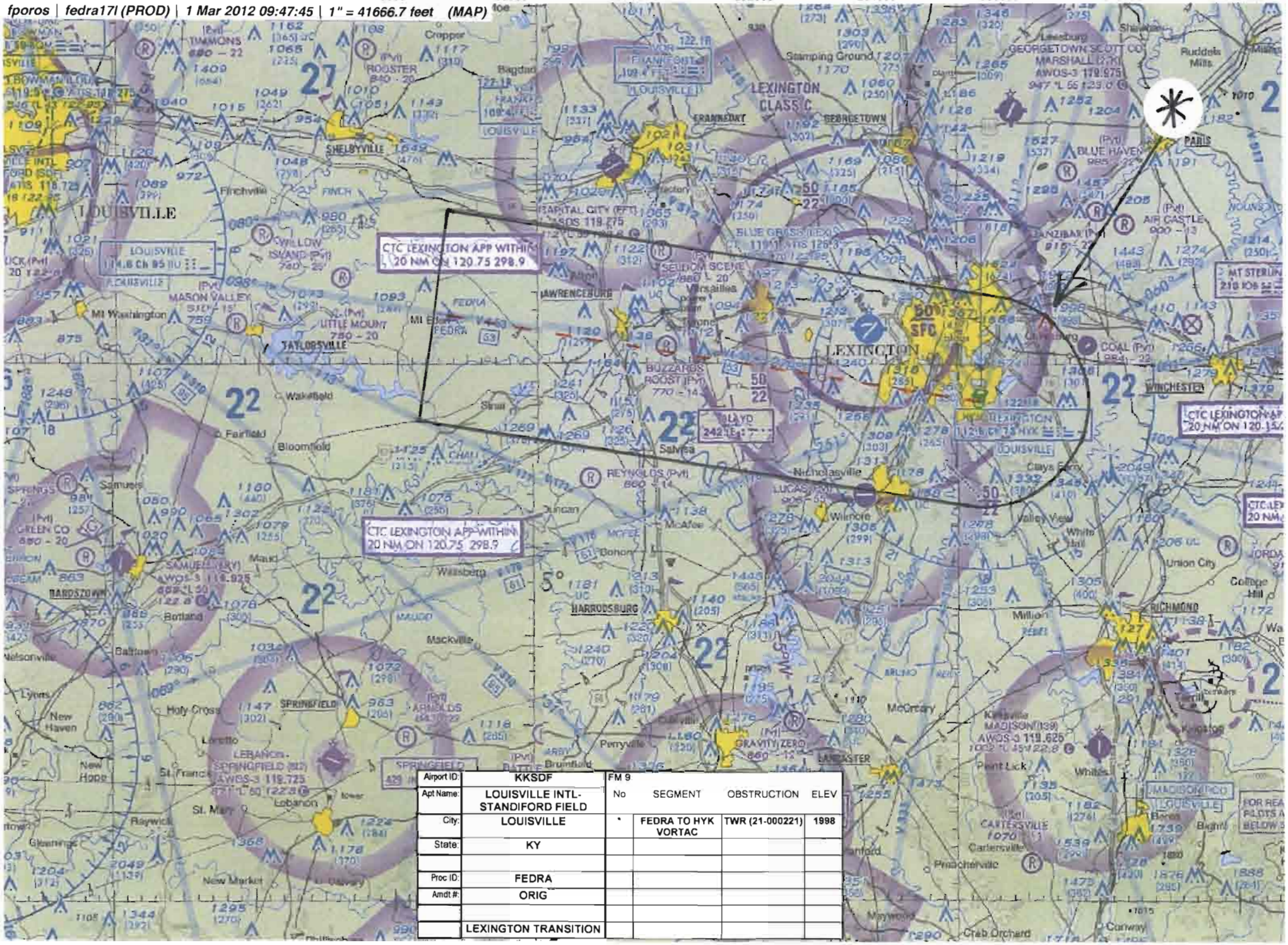
Requirement/Remarks:

Signature:	Routing Symbol:	Date:

NM 7 14 21 28 35 42 49 56 63 70

FT 42000 84000 126000 168000 210000 252000 294000 336000 378000 420000

fporos | fedra17l (PROD) | 1 Mar 2012 09:47:45 | 1" = 41666.7 feet (MAP)

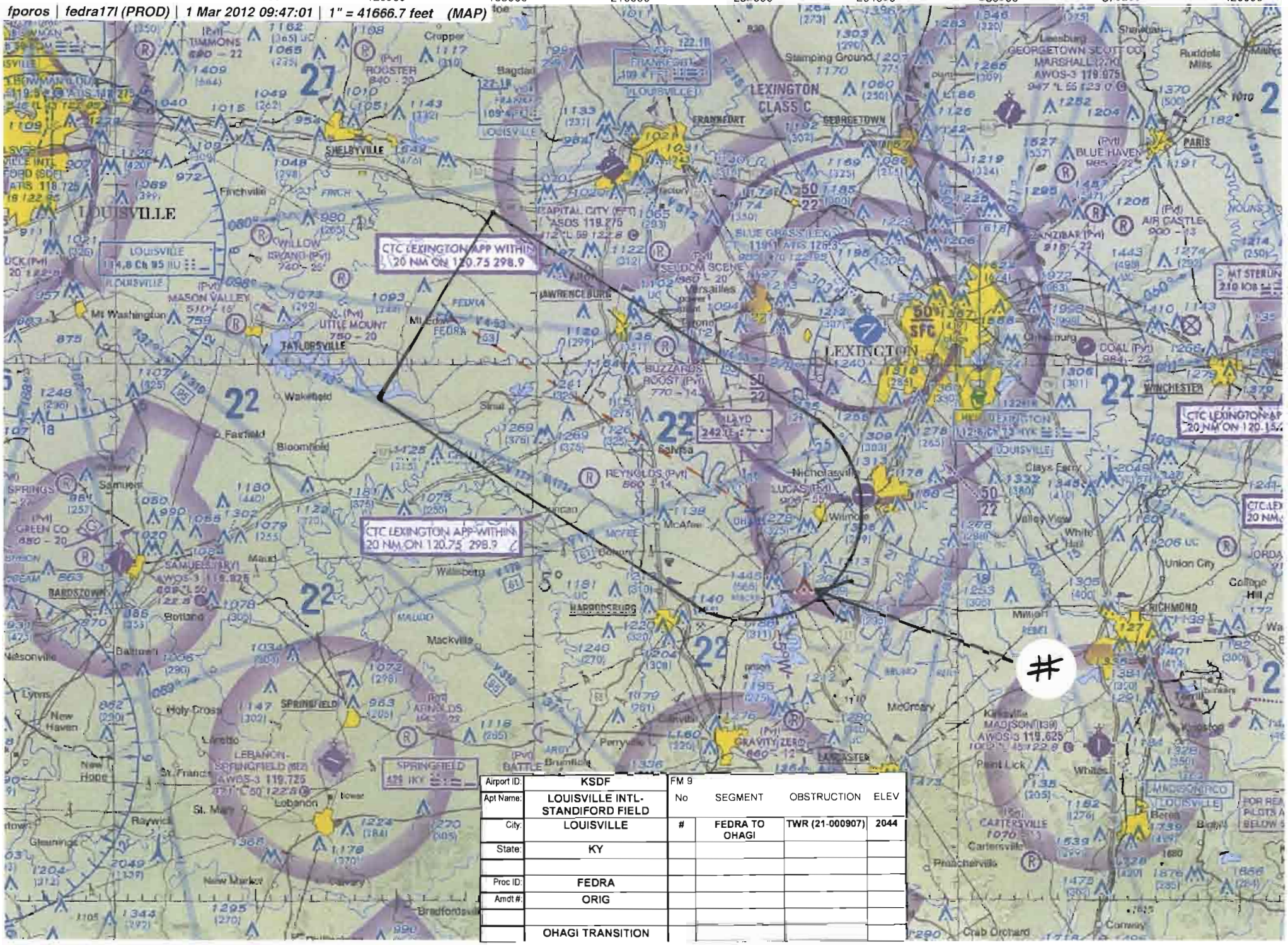


Airport ID:	KKSDF	FM 9			
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD	No	SEGMENT	OBSTRUCTION	ELEV
City:	LOUISVILLE	*	FEDRA TO HYK VORTAC	TWR (21-000221)	1998
State:	KY				
Proc ID:	FEDRA				
Amdt #:	ORIG				
	LEXINGTON TRANSITION				

NM 7 14 21 28 35 42 49 56 63 70

FT 42000 84000 126000 168000 210000 252000 294000 336000 378000 420000

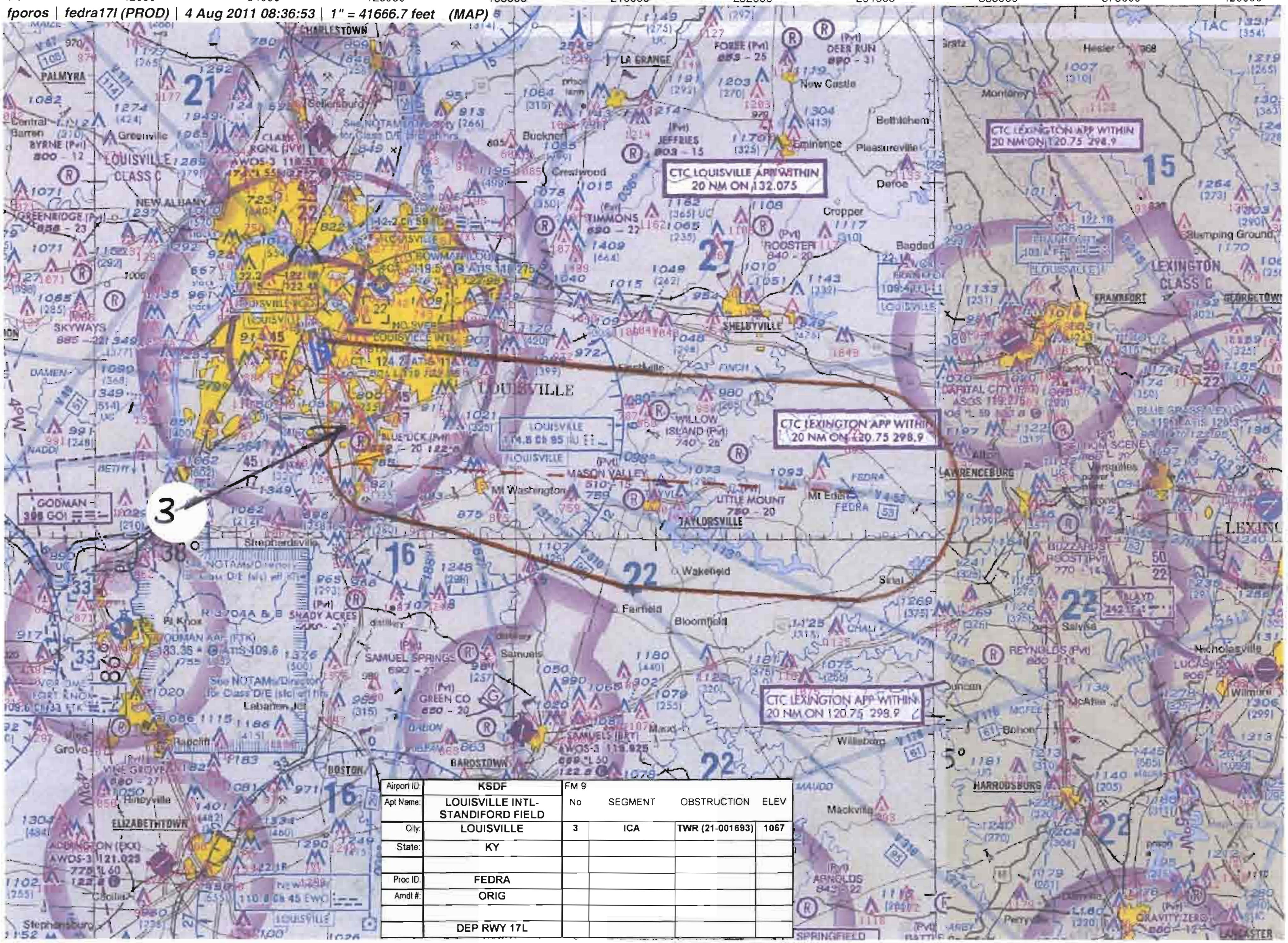
fporos | fedra17l (PROD) | 1 Mar 2012 09:47:01 | 1" = 41666.7 feet (MAP)



Airport ID:	KSDF	FM 9			
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD	No	SEGMENT	OBSTRUCTION	ELEV
City:	LOUISVILLE	#	FEDRA TO OHAGI	TWR (21-000907)	2044
State:	KY				
Proc ID:	FEDRA				
Amdt #:	ORIG				
	OHAGI TRANSITION				

NM	7	14	21	28	35	42	49	56	63	70
FT	42000	84000	126000	168000	210000	252000	294000	336000	378000	420000

fporos | fedra17l (PROD) | 4 Aug 2011 08:36:53 | 1" = 41666.7 feet (MAP)

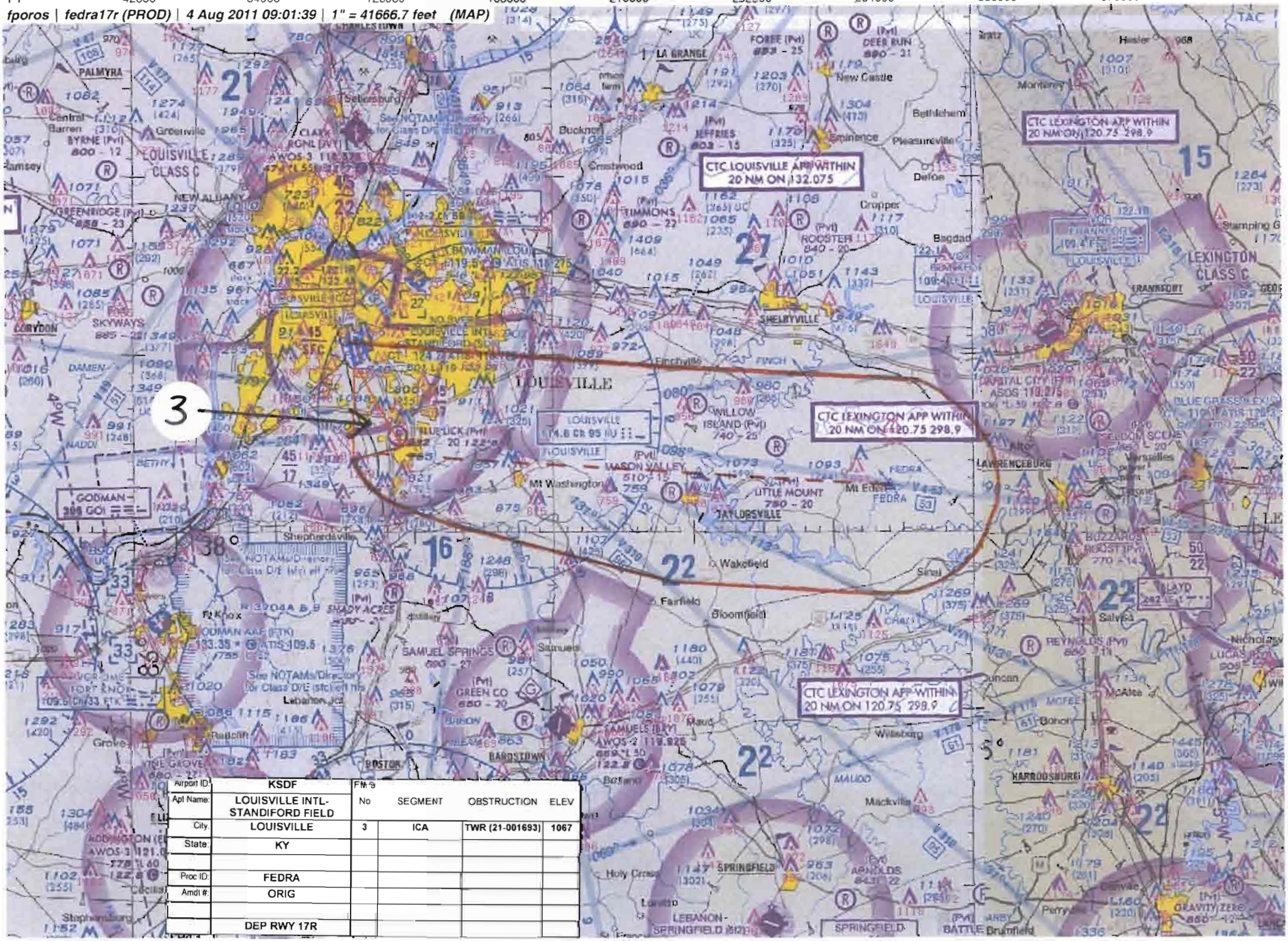


Airport ID:	KSDF	FM 9			
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD	No	SEGMENT	OBSTRUCTION	ELEV
City:	LOUISVILLE	3	ICA	TWR (21-001693)	1067
State:	KY				
Proc ID:	FEDRA				
Amdt #:	ORIG				
	DEP RWY 17L				

NM 7 14 21 28 35 42 49 56 63 70

FT 42000 84000 126000 168000 210000 252000 294000 336000 378000 420000

fporos | fedra17r (PROD) | 4 Aug 2011 09:01:39 | 1" = 41666.7 feet (MAP)



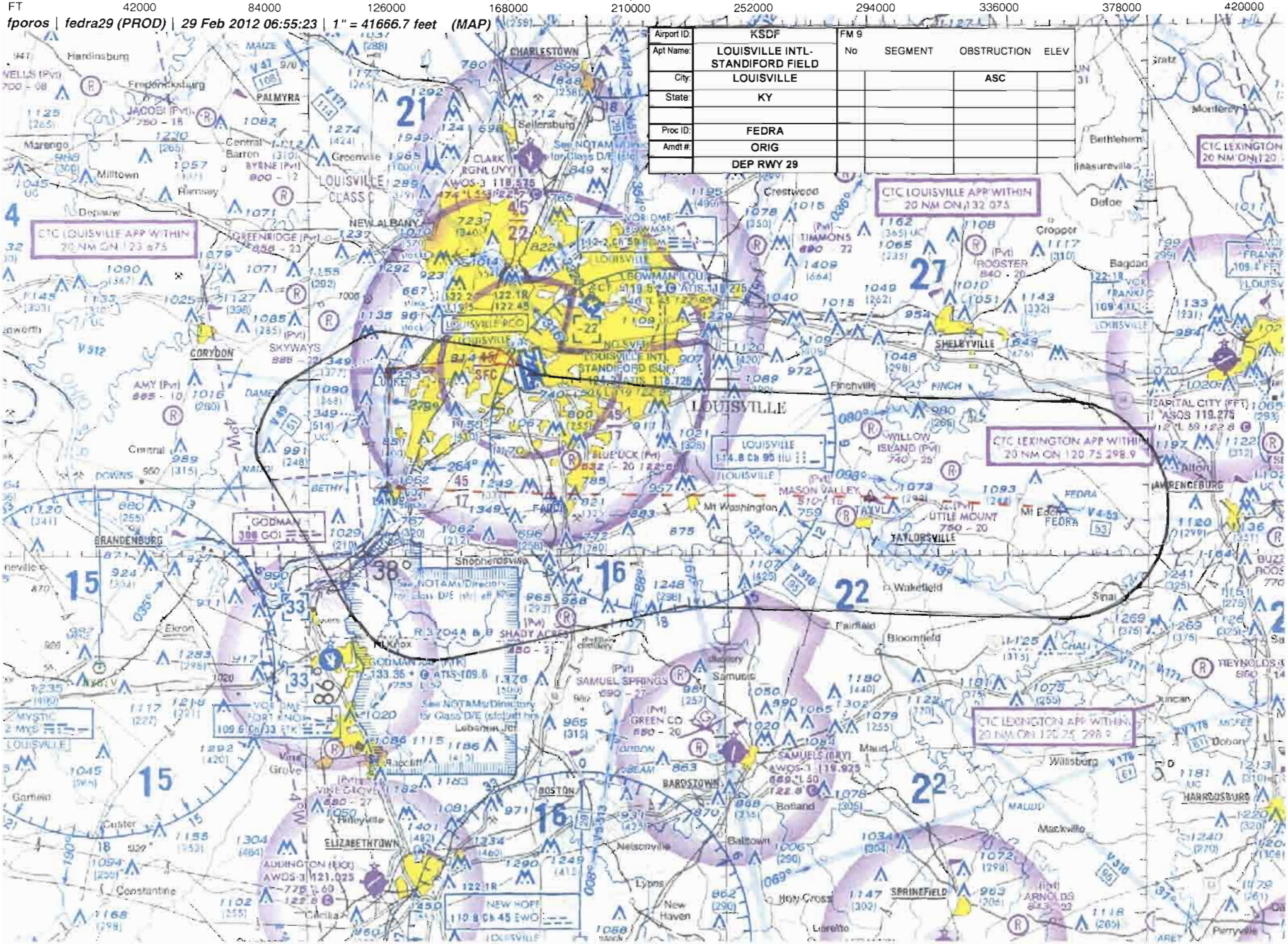
Airport ID:	KSDF	FMS No	SEGMENT	OBSTRUCTION	ELEV
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD				
City:	LOUISVILLE	3	ICA	TWR (21-001693)	1067
State:	KY				
Proc ID:	FEDRA				
Amdt #:	ORIG				
	DEP RWY 17R				

NM 7 14 21 28 35 42 49 56 63 70

FT 42000 84000 126000 168000 210000 252000 294000 336000 378000 420000

fporos | fedra29 (PROD) | 29 Feb 2012 06:55:23 | 1" = 41666.7 feet (MAP)

Airport ID:	KSDF	FM 9			
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD	No	SEGMENT	OBSTRUCTION	ELEV
City:	LOUISVILLE			ASC	
State:	KY				
Proc ID:	FEDRA				
Amdt #:	ORIG				
	DEP RWY 29				

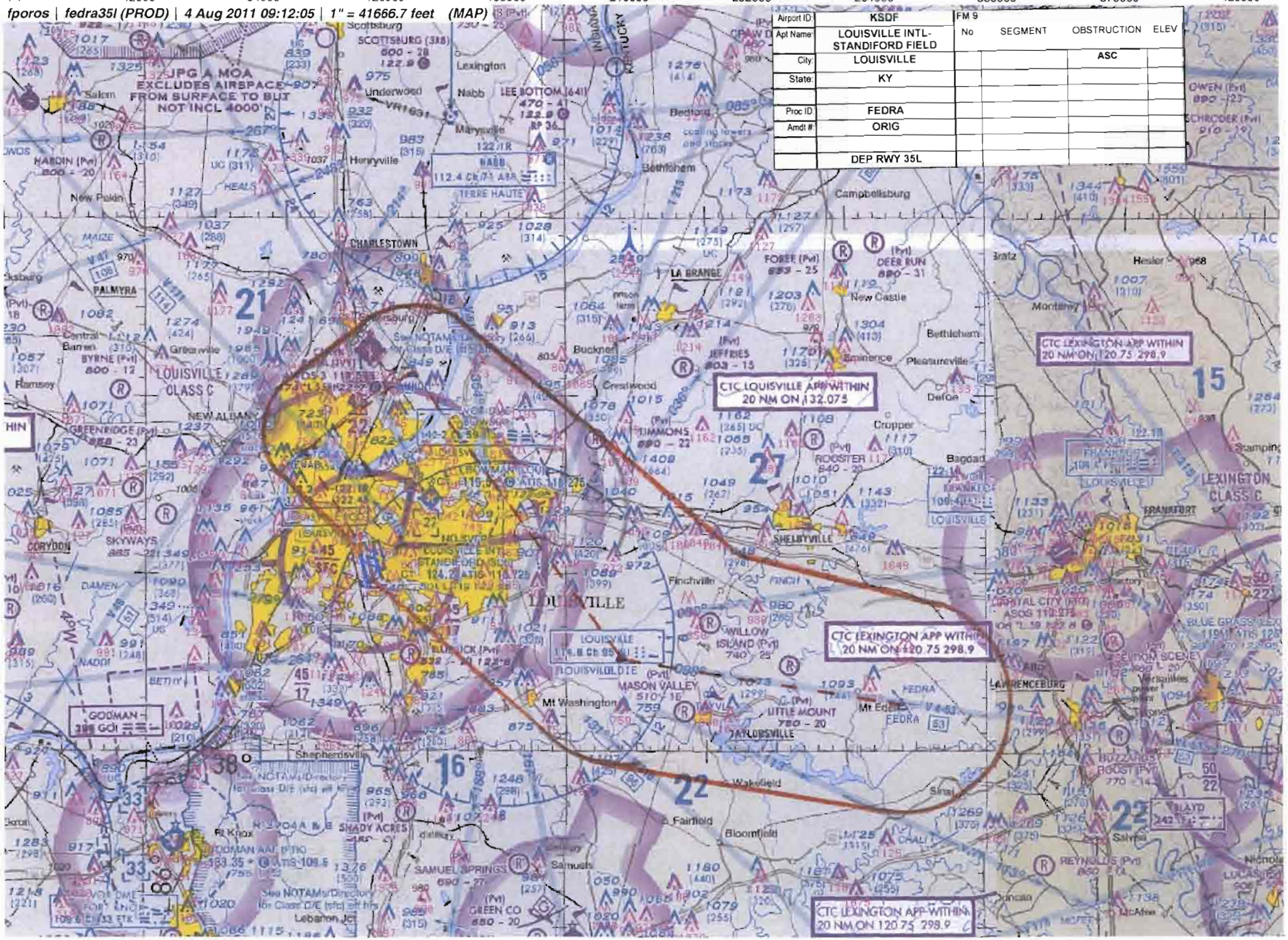


NM 7 14 21 28 35 42 49 56 63 70

FT 42000 84000 126000 168000 210000 252000 294000 336000 378000 420000

fporos | fedra35l (PROD) | 4 Aug 2011 09:12:05 | 1" = 41666.7 feet (MAP)

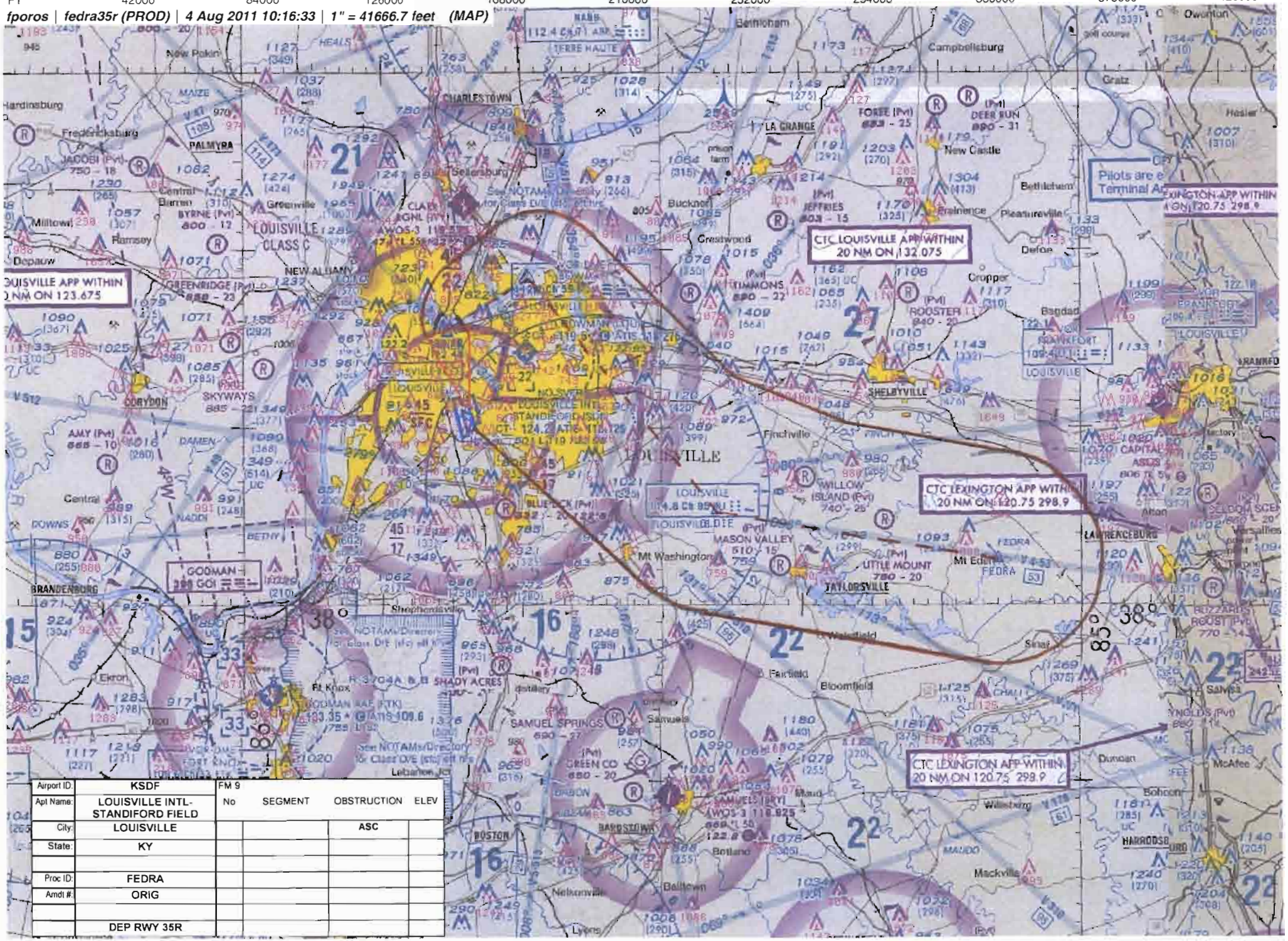
Airport ID:	KSDF	FM 9			
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD	No	SEGMENT	OBSTRUCTION	ELEV
City:	LOUISVILLE			ASC	
State:	KY				
Proc ID:	FEDRA				
Amdt #:	ORIG				
	DEP RWY 35L				



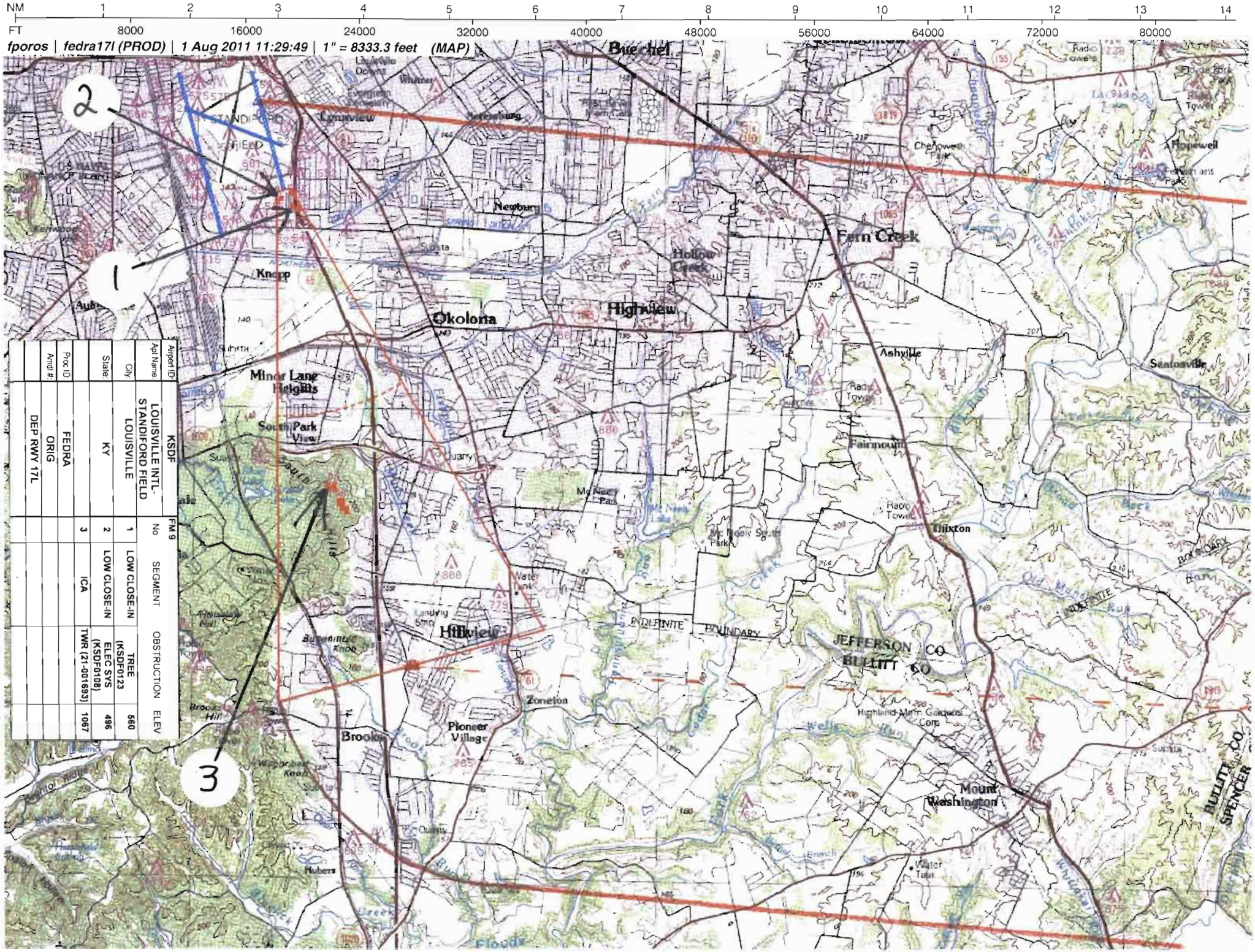
NM 7 14 21 28 35 42 49 56 63 70

FT 42000 84000 126000 168000 210000 252000 294000 336000 378000 420000

fporos | fedra35r (PROD) | 4 Aug 2011 10:16:33 | 1" = 41666.7 feet (MAP)



Airport ID:	KSDF	FM 9			
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD	No	SEGMENT	OBSTRUCTION	ELEV
City:	LOUISVILLE			ASC	
State:	KY				
Proc ID:	FEDRA				
Amdt #:	ORIG				
	DEP RWY 35R				



Airport ID	Apt Name	City	State	Proc ID	Amdt #	Proc ID	Amdt #
KSDF	LOUISVILLE INTL-STANDIFORD FIELD	LOUISVILLE	KY	FEDRA		ORIG	
DEP RWY 17L							

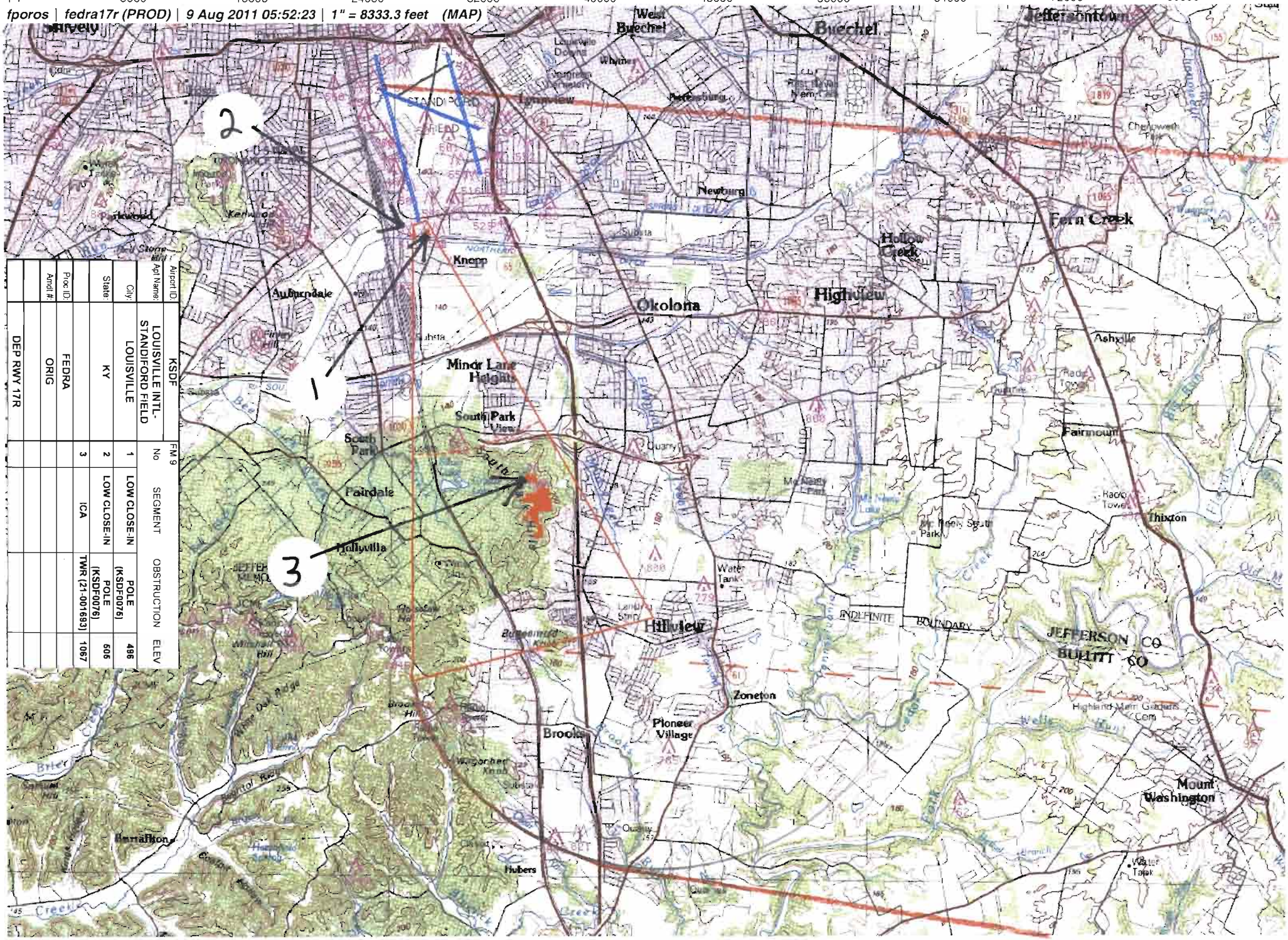
FM 9

No	SEGMENT	OBSTRUCTION	ELEV
1	LOW CLOSE-IN	TREE (KSDF0123)	560
2	LOW CLOSE-IN	ELEC SYS (KSDF0108)	496
3	ICA	TWR (21-001693)	1067

NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fporos | fedra17r (PROD) | 9 Aug 2011 05:52:23 | 1" = 8333.3 feet (MAP)

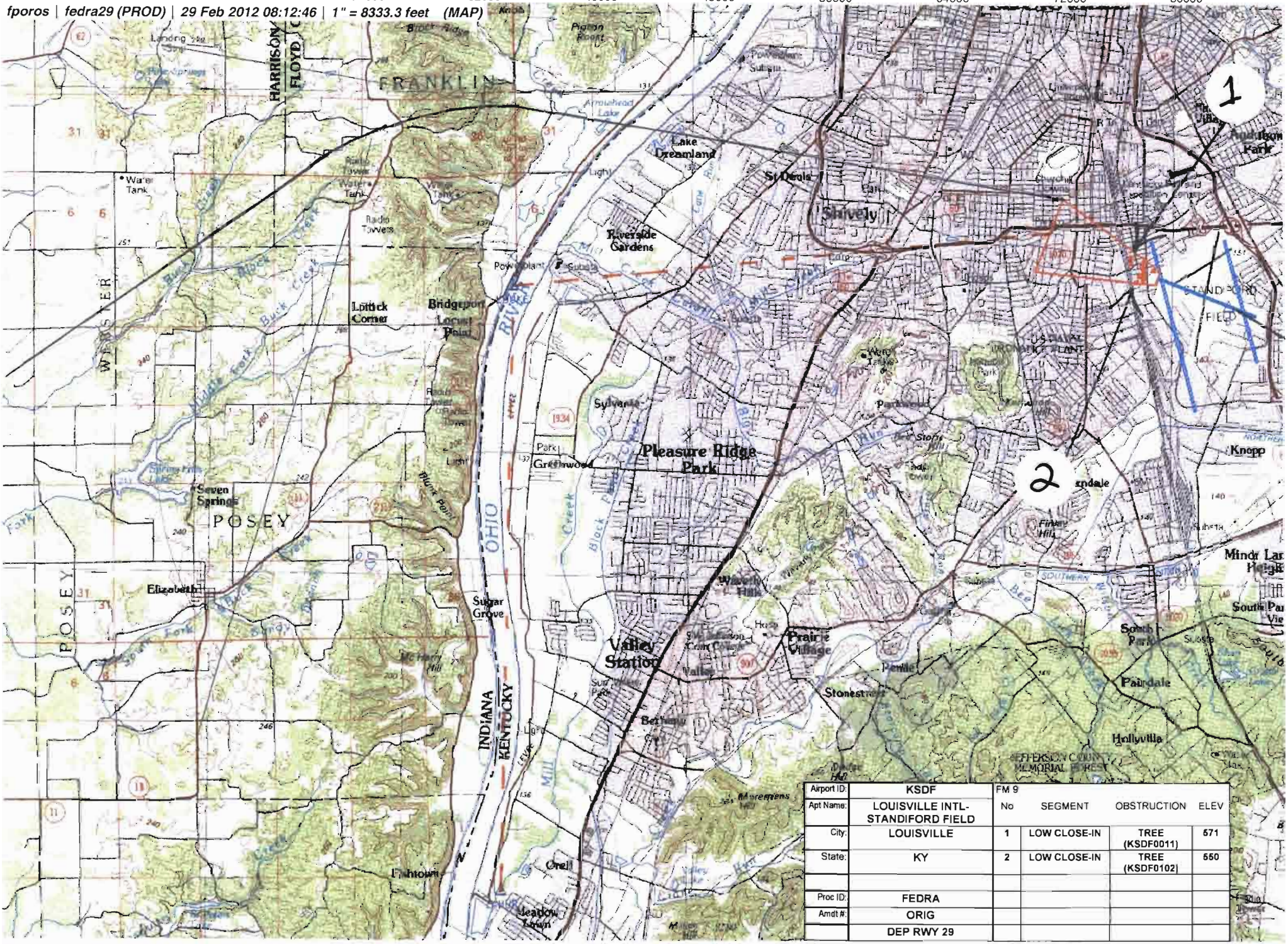


Airport ID:	KSDF	FM 9									
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD										
City:	LOUISVILLE	No	SEGMENT	OBSTRUCTION	ELEV						
State:	KY	1	LOW CLOSE-IN	POLE (KSDF0076)	496						
Proc ID:	FEDRA	2	LOW CLOSE-IN	POLE (KSDF0076)	506						
Amdt #:	ORIG	3	ICA	TWR (21-001693)	1067						
	DEP RWY 17R										

NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fporos | fedra29 (PROD) | 29 Feb 2012 08:12:46 | 1" = 8333.3 feet (MAP)

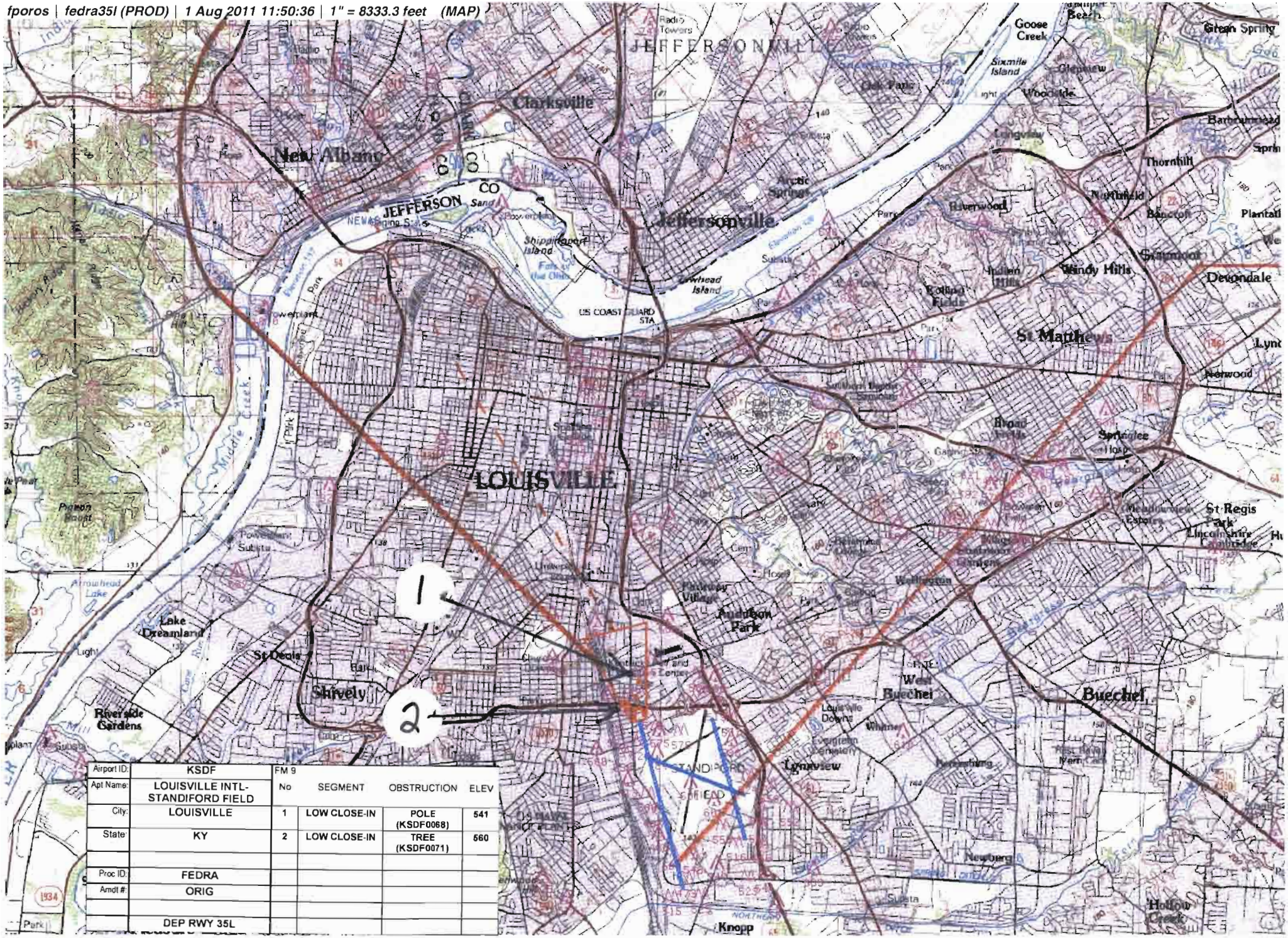


Airport ID:	KSDF	FM 9			
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD	No	SEGMENT	OBSTRUCTION	ELEV
City:	LOUISVILLE	1	LOW CLOSE-IN	TREE (KSDF0011)	571
State:	KY	2	LOW CLOSE-IN	TREE (KSDF0102)	550
Proc ID:	FEDRA				
Amdt #:	ORIG				
	DEP RWY 29				

NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fporos | fedra35l (PROD) | 1 Aug 2011 11:50:36 | 1" = 8333.3 feet (MAP)

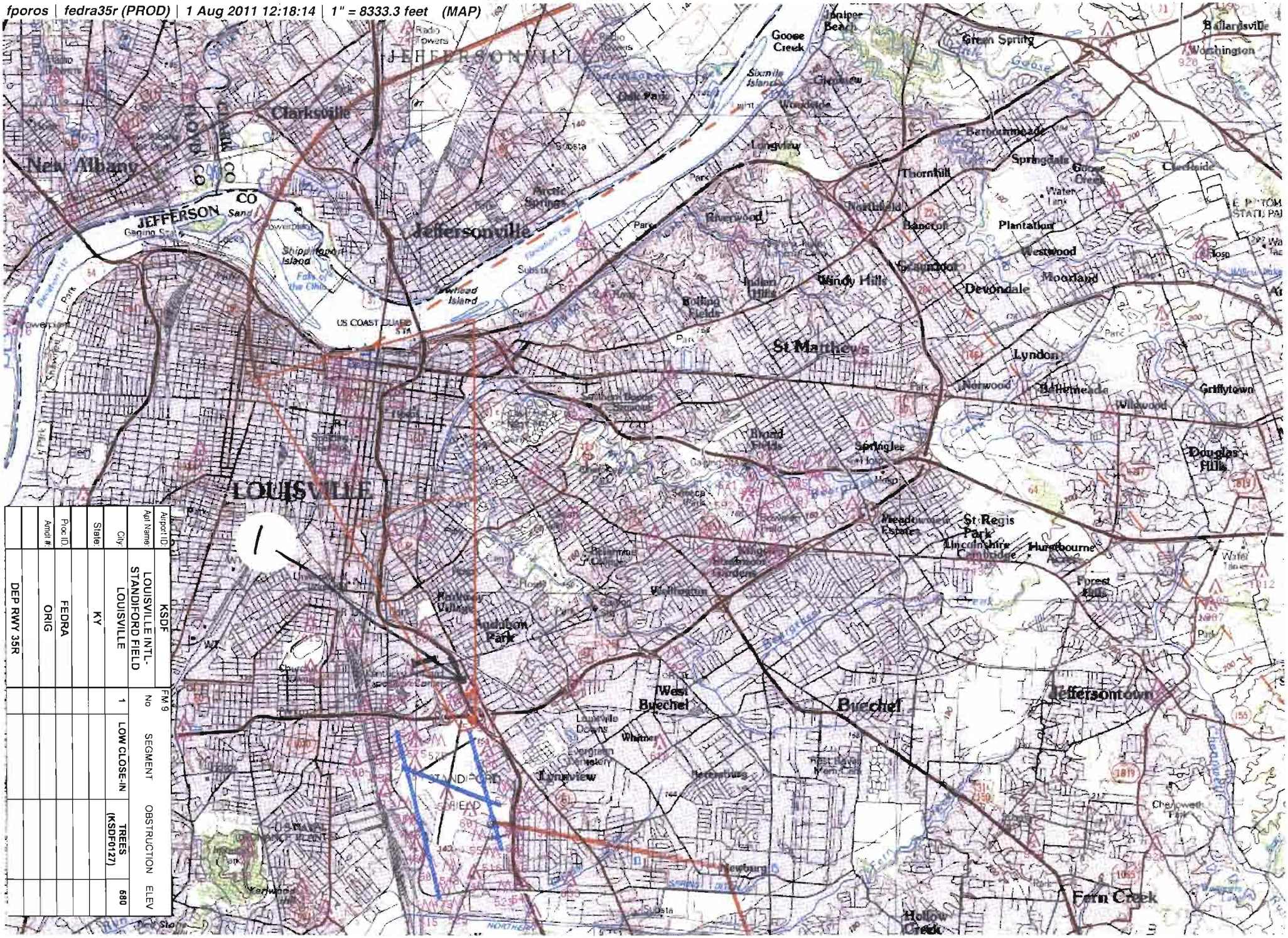


Airport ID:	KSDF	FM 9			
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD	No	SEGMENT	OBSTRUCTION	ELEV
City:	LOUISVILLE	1	LOW CLOSE-IN	POLE (KSDF0068)	541
State:	KY	2	LOW CLOSE-IN	TREE (KSDF0071)	560
Proc ID:	FEDRA				
Amdt #:	ORIG				
	DEP RWY 35L				

NM 1 2 3 4 5 6 7 8 9 10 11 12 13 14

FT 8000 16000 24000 32000 40000 48000 56000 64000 72000 80000

fporos | fedra35r (PROD) | 1 Aug 2011 12:18:14 | 1" = 8333.3 feet (MAP)



Airport ID:	KSDF
Apt Name:	LOUISVILLE INTL-STANDIFORD FIELD
City:	LOUISVILLE
State:	KY
Proc ID:	FEDRA
Amdt #:	ORIG
	DEP RWY 35R

FM 9

No	SEGMENT	OBSTRUCTION	ELEV
1	LOW CLOSE-IN	TREES (KSDF0127)	680

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
FEDRA	ONE	FEDRA1.FEDRA	NONE		

TYPE: RNAV SID

DP ROUTE DESCRIPTION:

TAKEOFF RWY 17L: CLIMB HEADING 167.91 TO INTERCEPT COURSE 096.28 TO TAYVL, THEN ON DEPICTED ROUTE TO FEDRA, CROSS FEDRA AT OR BELOW FL190, THENCE...
TAKEOFF RWY 17R: CLIMB HEADING 168.41 TO INTERCEPT COURSE 096.28 TO TAYVL, THEN ON DEPICTED ROUTE TO FEDRA, CROSS FEDRA AT OR BELOW FL190, THENCE...
TAKEOFF RWY 29: CLIMB HEADING 294.13 TO INTERCEPT COURSE 267.80 TO LUUKE, THEN ON DEPICTED ROUTE TO FEDRA, CROSS FEDRA AT OR BELOW FL 190, THENCE...
TAKEOFF RWY 35L: CLIMB HEADING 348.39 TO INTERCEPT COURSE 332.50 TO NEWAB, THEN ON DEPICTED ROUTE TO FEDRA, CROSS FEDRA AT OR BELOW FL190, THENCE...
TAKEOFF RWY 35R: CLIMB HEADING 347.92 TO 1020, THEN DIRECT BAALK, THEN ON DEPICTED ROUTE TO FEDRA, CROSS FEDRA AT OR BELOW FL190, THENCE...

...(TRANSITION). MAINTAIN 5000, EXPECT CLEARANCE TO 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
LEXINGTON	FEDRA1.HYK	FEDRA	HYK VORTAC	TRACK 101.87	30.16	13000	3000	
OHAGI	FEDRA1.OHAGI	FEDRA	OHAGI	TRACK 125.00	20.00	18000	3100	

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTE: TRANSPONDER CODE WILL BE ISSUED VIA PDC OR LOUISVILLE CLEARANCE DELIVERY.
NOTE: IF UNABLE TO ACCEPT CLIMB RATE, ADVISE ATC ON INITIAL CONTACT.
NOTE: FOR TURBOJET AIRCRAFT ONLY.
NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RNAV 1.
NOTE: RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.

RWY 11, NA-AIR TRAFFIC.
RWY 17L, 17R, 29, 35L, 35R, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1020.

QUALITY CHECK

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
FEDRA	ONE	FEDRA1.FEDRA	NONE		

TAKEOFF OBSTACLES NOTES:

NOTE: RWY 17L, LIGHT TOWER 622 FT FROM DER, 643 FT RIGHT OF CENTERLINE, 25 FT AGL/496 FT MSL. OBSTRUCTION LIGHT ON DME 498 FT FROM DER, 299 FT RIGHT OF CENTERLINE, 14 FT AGL/485 FT MSL. MULTIPLE TREES AND LIGHTED TOWERS BEGINNING 328 FT FROM DER, 302 FT LEFT OF CENTERLINE, UP TO 89 FT AGL/560 FT MSL. SIGN 723 FT FROM DER, 637 FT LEFT OF CENTERLINE, 26 FT AGL/497 FT MSL.
NOTE: RWY 17R, POLE 748 FT FROM DER, 664 FT RIGHT OF CENTERLINE, 24 FT AGL/505 FT MSL. POLE 666 FT FROM DER, 336 FT LEFT OF CENTERLINE, 24 FT AGL/496 FT MSL.
NOTE RWY 29, TREE 1257 FT FROM DER, 809 FT LEFT OF CENTERLINE, 69 FT AGL/550 FT MSL. STACK 1213 FT FROM DER, 329 FT LEFT OF CENTERLINE, 37 FT AGL/518 FT MSL. POLES BEGINNING 873 FT FROM DER, 223 FT LEFT OF CENTERLINE, UP TO 29 FT AGL/509 FT MSL. TREES BEGINNING 1033 FT FROM DER, 73 FT RIGHT OF CENTERLINE, 73 FT AGL/571 FT MSL. OBSTRUCTION LIGHT ON GLIDESLOPE 474 FT FROM DER, 398 FT RIGHT OF CENTERLINE, 49 FT AGL/526 FT MSL. POLE 1255 FT FROM DER, 760 FT RIGHT OF CENTERLINE, 29 FT AGL/515 FT MSL.
NOTE: RWY 35L, POLES BEGINNING 686 FT FROM DER, 115 FT LEFT OF CENTERLINE, UP TO 38 FT AGL/541 FT MSL. LIGHTED TOWER 258 FT FROM DER, 260 FT LEFT OF CENTERLINE 44 FT AGL/500 FT MSL. POLES BEGINNING 270 FT FROM DER, 231 FT RIGHT OF CENTERLINE, UP TO 64 FT AGL/526 MSL. TREES BEGINNING 1596 FT FROM DER, 262 FT RIGHT OF CENTERLINE UP TO 86 FT AGL/560 FT MSL.
NOTE: RWY 35R, MULTIPLE TREES AND POLES BEGINNING 542 FT FROM DER, 303 FT RIGHT OF CENTERLINE UP TO 88 FT AGL/580 FT MSL.

CONTROLLING OBSTACLES:

RWY 17L/17R: 1067 FT MSL TOWER, 380628.00N/0854246.00W

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KSDF 3W EPOCH YEAR 95. DME/DME ASSESSMENT: SAT (RNP 2.0)

AIRPORTS SERVED:

LOUISVILLE INTL-STANDIFORD FIELD — LOUISVILLE, KY

COMMUNICATIONS:

ATIS, GND CON, CLNC DEL, DEP CON, TOWER

FIXES AND/OR NAVAIDS:

SIXMI, AMMOH, GLDIE, IAMUR, FADDR.

REMARKS:

CLIMB GRADIENTS REQUIRED TO SUPPORT RNAV-PRO DME/DME/IRU LIMITATIONS.

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
FEDRA	ONE	FEDRA1.FEDRA	NONE		

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:
ROUTINE

DEVELOPED BY:
RONALD O SALPINO AJV-352 01/30/2012

APPROVED BY:
DARRYEL ADAMS AJV-352

COORDINATED WITH:
ATA, ALPA, APA, AOPA, NBAA, ZID

CHANGES:

REASONS:

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
FEDRA	ONE	FEDRA1.FEDRA	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW17L (AER)*	381111.14N/0854351.76W*	N	-	-	-	-			* DISPL THLD (329 FT)
	380427.39N/0854134.02W	-	-	VI	164.91	6.96			CG 500 FT/NM TO 1020
TAYVL	380325.71N/0851938.51W	Y	FB	CF	093.28	17.35			RECOMMENDED NAVAID FFT VOR
FEDRA	380244.41N/0850601.98W	Y	FB	TF	093.59	10.77	AT/BELOW FL190		VI/CF PERMITTED
RW17R (AER)*	381105.06N/0854452.93W*	N	-	-	-	-			*DISPL THLD (850 FT)
	380430.79N/0854242.93W	-	-	VI	165.41	6.78			CG 500 FT/NM TO 1020
TAYVL	380325.71N/0851938.51W	Y	FB	CF	093.28	18.25			RECOMMENDED NAVAID FFT VOR VI/CF PERMITTED
FEDRA	380244.41N/0850601.98W	Y	FB	TF	093.59	10.77	AT/BELOW FL190		
RW29 (AER)	381022.99N/0854325.77W	N	-	-	-	-			
	381117.30N/0854623.95W	-		VI	291.13	2.51			CG 500 FT/NM TO 1020
LUUKE	381044.12N/0855402.21W	Y	FB	CF	264.80	6.05			RECOMMENDED NAVAID FFT VOR
IAMUR	380356.96N/0855412.99W	Y	FB	TF	181.20	6.78			VI/CF PERMITTED
FADDR	380329.97N/0854234.40W	Y	FB	TF	092.74	9.21			
TAYVL	380325.71N/0851938.51W	Y	FB	TF	090.11	18.11			
FEDRA	380244.41N/0850601.98W	Y	FB	TF	093.59	10.77	AT/BELOW FL190		
RW35L (AER)*	380929.40N/0854421.37W*	N	-	-	-	-			*DISPL THLD (1040 FT)
	381213.75N/0854515.61W	-	-	VI	345.39	2.83			CG 500 FT/NM TO 1020
NEWAB	381701.38N/0854850.58W	Y	FB	CF	329.50	5.56			RECOMMENDED NAVAID FFT VOR
AMMOH	382128.92N/0854054.31W	Y	FB	TF	054.47	7.67			VI/CF PERMITTED
GLDIE	380527.92N/0852606.74W	Y	FB	TF	143.85	19.80			
TAYVL	380325.71N/0851938.51W	Y	FB	TF	111.68	5.50			
FEDRA	380244.41N/0850601.98W	Y	FB	TF	093.59	10.77	AT/BELOW FL190		

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
FEDRA	ONE	FEDRA1.FEDRA	NONE		

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW35R (AER)*	380956.70N/0854326.34W*	N	-	-	-	-			*DISPL THLD (450 FT)
1020 MSL	-	-	-	VA	344.92	-			CG 500 FT/NM TO 1020
BAALK	381531.67N/0854520.85W	Y	FB	DF	-	-			
SIXMI	381834.12N/0853924.41W	Y	FB	TF	056.97	5.58			
GLDIE	380527.92N/0852606.74W	Y	FB	TF	141.25	16.77			
TAYVL	380325.71N/0851938.51W	Y	FB	TF	111.68	5.50			
FEDRA	380244.41N/0850601.98W	Y	FB	TF	093.59	10.77	AT/BELOW FL190		
FEDRA	380244.41N/0850601.98W	Y	-	IF	-	-			FEDRA1.HYK
HYK VORTAC	375758.94N/0842820.98W	Y	FB	TF	098.87	30.16			
FEDRA	380244.41N/0850601.98W	Y	-	IF	-	-			FEDRA1.OHAGI
OHAGI	375205.84N/0844436.80W	Y	FB	TF	122.00	20.00			

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
FEDRA RNAV	ONE	FEDRA1.FEDRA	NONE		

ARINC PACKET - 424-18 - SID

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        FFT   K5010940V T  N38105672W084543104                     W0030     0     NARFRANKFORT
        SUSAD        HYK   K5011260VTL  N37575894W084282098    N37575894W084282098E0000010391     NARLEXINGTON

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   AMMOH K50    W     N38212892W085405431                     W0045     NAR          AMMOH
        SUSAEAENRT   BAALK K50    W     N38153167W085452085                     W0045     NAR          BAALK
        SUSAEAENRT   FADDR K50    W     N38032997W085423440                     W0045     NAR          FADDR
        SUSAEAENRT   FEDRA K50    C   L N38024441W085060198                     W0049     NAR          FEDRA
        SUSAEAENRT   GLDIE K50    W     N38052792W085260674                     W0047     NAR          GLDIE
        SUSAEAENRT   IAMUR K50    W     N38035696W085541299                     W0043     NAR          IAMUR
        SUSAEAENRT   LUUKE K50    W     N38104412W085540221                     W0043     NAR          LUUKE
        SUSAEAENRT   NEWAB K50    W     N38170138W085485058                     W0044     NAR          NEWAB
        SUSAEAENRT   OHAGI K50    W     N37520584W084443680                     W0052     NAR          OHAGI
        SUSAEAENRT   SIXMI K50    W     N38183412W085392441                     W0045     NAR          SIXMI
        SUSAEAENRT   TAYVL K50    W     N38032571W085193851                     W0047     NAR          TAYVL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSDFK5ASDF     0     118YHN38102671W085441140W003000501         1800018000C    MNAR    LOUISVILLE INTL-STANDIFORD FIE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSDFK5DFEDRA14RW17L 010         0        VI                    1679                    18000
        SUSAP KSDFK5DFEDRA14RW17L 020TAYVLK5EA0E    010CF FFT K5      2524021209630174D
        SUSAP KSDFK5DFEDRA14RW17L 030FEDRAK5EA0EE   010TF                    09660108    - FL190
        SUSAP KSDFK5DFEDRA14RW17R 010         0        VI                    1684                    18000
        SUSAP KSDFK5DFEDRA14RW17R 020TAYVLK5EA0E    010CF FFT K5      2524021209630183D
        SUSAP KSDFK5DFEDRA14RW17R 030FEDRAK5EA0EE   010TF                    09660108    - FL190
        SUSAP KSDFK5DFEDRA14RW29  010         0        VI                    2941                    18000
        SUSAP KSDFK5DFEDRA14RW29  020LUUKEK5EA0E    010CF FFT K5      2731046926780061D
        SUSAP KSDFK5DFEDRA14RW29  030IAMURK5EA0E    010TF                    18420068
        SUSAP KSDFK5DFEDRA14RW29  040FADDRK5EA0E    010TF                    09570092
        SUSAP KSDFK5DFEDRA14RW29  050TAYVLK5EA0E    010TF                    09310181
        SUSAP KSDFK5DFEDRA14RW29  060FEDRAK5EA0EE   010TF                    09660108    - FL190
        SUSAP KSDFK5DFEDRA14RW35L 010         0        VI                    3484                    18000
        SUSAP KSDFK5DFEDRA14RW35L 020NEWABK5EA0E    010CF FFT K5      2814043233250056D
        SUSAP KSDFK5DFEDRA14RW35L 030AMMOHK5EA0E    010TF                    05750077
```

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
FEDRA RNAV	ONE	FEDRA1.FEDRA	NONE		

```
SUSAP KSDFK5DFEDRA14RW35L 040GLDIEK5EA0E    010TF                    14690198
SUSAP KSDFK5DFEDRA14RW35L 050TAYVLK5EA0E    010TF                    11470055
SUSAP KSDFK5DFEDRA14RW35L 060FEDRAK5EA0EE   010TF                    09660108    - FL190
SUSAP KSDFK5DFEDRA14RW35R 010          0       VA                    3479        + 01020     18000
SUSAP KSDFK5DFEDRA14RW35R 020BAALKK5EA0E    010DF
SUSAP KSDFK5DFEDRA14RW35R 030SIXMIK5EA0E    010TF                    06000056
SUSAP KSDFK5DFEDRA14RW35R 040GLDIEK5EA0E    010TF                    14420168
SUSAP KSDFK5DFEDRA14RW35R 050TAYVLK5EA0E    010TF                    11470055
SUSAP KSDFK5DFEDRA14RW35R 060FEDRAK5EA0EE   010TF                    09660108    - FL190
SUSAP KSDFK5DFEDRA16HYK   010FEDRAK5EA0E       IF                                            18000
SUSAP KSDFK5DFEDRA16HYK   020HYK  K5D 0VE   010TF                    10190302
SUSAP KSDFK5DFEDRA16OHAGI 010FEDRAK5EA0E       IF                                            18000
SUSAP KSDFK5DFEDRA16OHAGI 020OHAGIK5EA0EE   010TF                    12500200
```

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSDFK5GRW17L   0085791679 N38111114W085435176-0300    +011890049903295515 0IIPKI1
        SUSAP KSDFK5GRW17R   0118901684 N38110506W085445293-0200    +011470048608505015 0IISNU1
        SUSAP KSDFK5GRW29    0072502941 N38102299W085432577+0000    +011310048000005515 0RILKS0
        SUSAP KSDFK5GRW35L   0118903484 N38092940W085442137+0200    +010740046110405915 0IIRLI3
        SUSAP KSDFK5GRW35R   0085793479 N38095670W085432634+0300    +011040047204506015 0IIJJM3
```

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
FEDRA RNAV	ONE	FEDRA1.FEDRA	NONE		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW17L		010		VI		FB		167.9()			
	RW17L	TAYVL	020		CF		FB	1.0	096.3()	017.4		
	RW17L	FEDRA	030		TF		FB	1.0	096.6()	010.8	AB FL190	
	RW17R		010		VI		FB		168.4()			
	RW17R	TAYVL	020		CF		FB	1.0	096.3()	018.3		
	RW17R	FEDRA	030		TF		FB	1.0	096.6()	010.8	AB FL190	
	RW29		010		VI		FB		294.1()			
	RW29	LUUKE	020		CF		FB	1.0	267.8()	006.1		
	RW29	IAMUR	030		TF		FB	1.0	184.2()	006.8		
	RW29	FADDR	040		TF		FB	1.0	095.7()	009.2		
	RW29	TAYVL	050		TF		FB	1.0	093.1()	018.1		
	RW29	FEDRA	060		TF		FB	1.0	096.6()	010.8	AB FL190	
	RW35L		010		VI		FB		348.4()			
	RW35L	NEWAB	020		CF		FB	1.0	332.5()	005.6		
	RW35L	AMMOH	030		TF		FB	1.0	057.5()	007.7		
	RW35L	GLDIE	040		TF		FB	1.0	146.9()	019.8		
	RW35L	TAYVL	050		TF		FB	1.0	114.7()	005.5		
	RW35L	FEDRA	060		TF		FB	1.0	096.6()	010.8	AB FL190	
	RW35R		010		VA		FB		347.9()		AA 01020	
	RW35R	BAALK	020		DF		FB	1.0				
	RW35R	SIXMI	030		TF		FB	1.0	060.0()	005.6		
	RW35R	GLDIE	040		TF		FB	1.0	144.2()	016.8		
	RW35R	TAYVL	050		TF		FB	1.0	114.7()	005.5		
	RW35R	FEDRA	060		TF		FB	1.0	096.6()	010.8	AB FL190	
	HYK	FEDRA	010		IF		FB					
	HYK	HYK	020		TF		FB	1.0	101.9()	030.2		
	OHAGI	FEDRA	010		IF		FB					
	OHAGI	OHAGI	020		TF		FB	1.0	125.0()	020.0		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
FFT	N381056.72	W0845431.04	N3810.945	W08454.517
HYK	N375758.94	W0842820.98	N3757.982	W08428.350
AMMOH	N382128.92	W0854054.31	N3821.482	W08540.905
BAALK	N381531.67	W0854520.85	N3815.528	W08545.348
FADDR	N380329.97	W0854234.40	N3803.500	W08542.573
FEDRA	N380244.41	W0850601.98	N3802.740	W08506.033
GLDIE	N380527.92	W0852606.74	N3805.465	W08526.112
IAMUR	N380356.96	W0855412.99	N3803.949	W08554.217
LUUKE	N381044.12	W0855402.21	N3810.735	W08554.037
NEWAB	N381701.38	W0854850.58	N3817.023	W08548.843
OHAGI	N375205.84	W0844436.80	N3752.097	W08444.613

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
FEDRA RNAV	ONE	FEDRA1.FEDRA	NONE		

SIXMI	N381834.12	W0853924.41	N3818.569	W08539.407
TAYVL	N380325.71	W0851938.51	N3803.429	W08519.642
RW17L	N381111.14	W0854351.76	N3811.186	W08543.863
RW17R	N381105.06	W0854452.93	N3811.084	W08544.882
RW29	N381022.99	W0854325.77	N3810.383	W08543.430
RW35L	N380929.40	W0854421.37	N3809.490	W08544.356
RW35R	N380956.70	W0854326.34	N3809.945	W08543.439

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW17L	00499	55
RW17R	00486	50
RW29	00480	55
RW35L	00461	59
RW35R	00472	60

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: AMMOH **STATE:** IN **COUNTRY:** US

LATITUDE/LONGITUDE: 382128.92N/0854054.31W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 07/27/2011 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BAALK **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 381531.67N/0854520.85W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 07/27/2011 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: FADDR **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380329.97N/0854234.40W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 04/20/2012 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: FEDRA **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380244.41N/0850601.98W **TYPE:** WP, INT, DME

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

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	LOUISVILLE	IIU	VORTAC	H	097.57	098.57	22.86	22.86		2600	17500
2	NABB	ABB	VORTAC	L	141.00	142.00		41.22		2600	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
ABB	VORTAC	R-141	42	2600	17500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
LOUISVILLE (FAC 1) AND NABB (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)
EN ROUTE	V4	1, 2				(US)
EN ROUTE	V53	1, 2				(US)

REQUIRED CHARTING: DP, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
UPDATE FIX USE.
UPDATE FORM TO 8260.19D CRITERIA.
ADDED DISTANCE FROM FAC FOR FACILITIES 1 AND 2.
CHANGED FPO FROM ATL TO EASTERN.
ADDED WP TO TYPE.

DEVELOPED BY: **DATE:** 07/28/2011 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: GLDIE **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380527.92N/0852606.74W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 07/28/2011 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECK

RADIO FIX AND HOLDING DATA RECORD

NAME: IAMUR **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380356.96N/0855412.99W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 03/05/2012 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: LUUKE **STATE:** IN **COUNTRY:** US

LATITUDE/LONGITUDE: 381044.12N/0855402.21W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	APALO (RNAV)			KSDF	LOUISVILLE	KY (US)
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)
DP	MYSTIC (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 01/26/2012 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: NEWAB **STATE:** IN **COUNTRY:** US

LATITUDE/LONGITUDE: 381701.38N/0854850.58W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 07/28/2011 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECK

RADIO FIX AND HOLDING DATA RECORD

NAME: OHAGI **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 375205.84N/0844436.80W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 01/27/2012 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SIXMI **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 381834.12N/0853924.41W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 07/28/2011 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: TAYVL **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380325.71N/0851938.51W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 07/28/2011 **OFFICE:** AJV-352 **NAME:** RONALD SALPINO

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: LEXINGTON VORTAC **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 375758.94N/0842820.98W **TYPE:**

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

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	LEXINGTON	HYK	VORTAC	L							17500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

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	SE	HYK	VORTAC	124.00	304.00	R	1		3100	6000	4	5
2	S	HYK	VORTAC	185.81	005.81	R	1		3000	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (21-002125)	375250.86N/0841915.94W	2049	5E
1	310	TOWER (21-002125)	375250.86N/0841915.94W	2049	5E
2	200	TOWER (21-000128)	380207.00N/0842702.00W	1586	4D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 22	KLEX	LEXINGTON	KY (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BLUEGRASS	1		KCVG	COVINGTON	KY (US)
DP	CINCINNATI	1		KCVG	COVINGTON	KY (US)
DP	KENLN (RNAV)			KCVG	COVINGTON	KY (US)
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)
DP	CHATANOOGA	1		KCHA	CHATTANOOGA	TN (US)
DP	TITAN	1		KBNA	NASHVILLE	TN (US)
EN ROUTE	T215	1				(US)
EN ROUTE	T217	1				(US)
EN ROUTE	V171	1				(US)
EN ROUTE	V178	1				(US)
EN ROUTE	V333	1				(US)
EN ROUTE	V4	1				(US)
EN ROUTE	V493	1				(US)
EN ROUTE	V512	1				(US)
EN ROUTE	V53	1				(US)
EN ROUTE	V57	1				(US)
EN ROUTE	V97	1				(US)
IAP	LOC RWY 24	1	1	KFFT	FRANKFORT	KY (US)
IAP	VOR RWY 24	1	1	KFFT	FRANKFORT	KY (US)
IAP	VOR/DME RWY 3	1	2	K27K	GEORGETOWN	KY (US)
IAP	ILS OR LOC RWY 22	1	1	KLEX	LEXINGTON	KY (US)
IAP	ILS OR LOC RWY 4	1	1	KLEX	LEXINGTON	KY (US)
IAP	VOR-A	1	1	KLEX	LEXINGTON	KY (US)
IAP	VOR/DME RWY 18	1		KI39	RICHMOND	KY (US)
STAR	REDSTONE	1		KJVY	JEFFERSONVILLE	IN (US)
STAR	HARDU	1		KCVG	COVINGTON	KY (US)
STAR	CLEGG	1		KLEX	LEXINGTON	KY (US)
STAR	REDSTONE	1		KLOU	LOUISVILLE	KY (US)
STAR	REDSTONE	1		KSDF	LOUISVILLE	KY (US)
STAR	GENUS	1		KLUK	CINCINNATI	OH (US)
STAR	GUITR	1		KBNA	NASHVILLE	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 22 **DATE OF REVISION:** 07/29/2010

REASON FOR REVISION:
1. UPDATED COORDINATES.
2. CHANGED HOLDING RESTRICTION VERBAGE TO PLURAL.

QUALITY CHECKED

DEVELOPED BY:	**DATE:** 01/22/2010	**OFFICE:** AVN-110	**NAME:** PETER GETZ (DAVID SAUER)
APPROVED BY:	**DATE:** 06/25/2010	**OFFICE:** AVN-110	**NAME:** GEORGE DAVIS
	SIGNATURE:		

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: LEX APP CON
OTHER:

QUALITY CHECKED

APPROVAL LETTER REQUESTED FOR:

FEDRA (RNAV) DEPARTURE, Louisville INTL-Standiford Field, KY (KSDF)

A VA-DF design did not meet criteria. Therefore, it mandated use of a VI-CF leg. Additionally, it's a necessary track for noise abatement.

In accordance with AFS-400 Memo dated 12/17/07, use of Heading to an Intercept (VI) Legs on Area Navigation (RNAV) Departures, request approval to use VI-CF construction for a new Departure Procedure.

FAAO 8260.46D, CHG 1, Appendix A, Paragraph 6b appears to authorize this providing it is used as the first leg of a departure and is followed by a CF, which is the case.

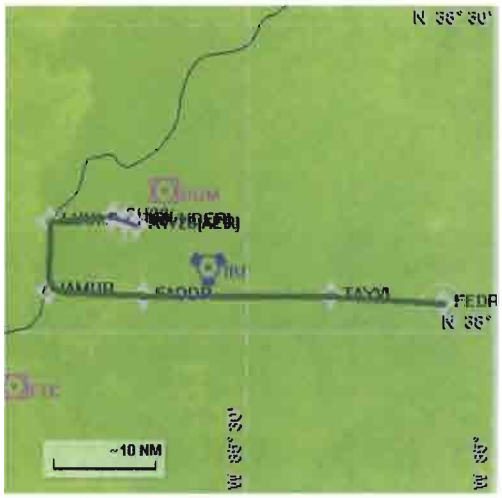
Attachments:

1:500,000 & 1:1000,000 Maps

IAPA Initial Climb Area Printout

No ESV

RNAV-Pro™ Results for KSDF FEDRA1 SID RW29 FEDRA 20111121
SID Level 2 DME/DME/IRU
11/21/2011 12:22:44 PM



Name:	Dennis Osterhage
Project Name:	KSDF FEDRA1 SID RW29 FEDRA 20111121
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	11/21/2011 12:22:44 PM
Input File:	KSDF FEDRA1 SID RW29...
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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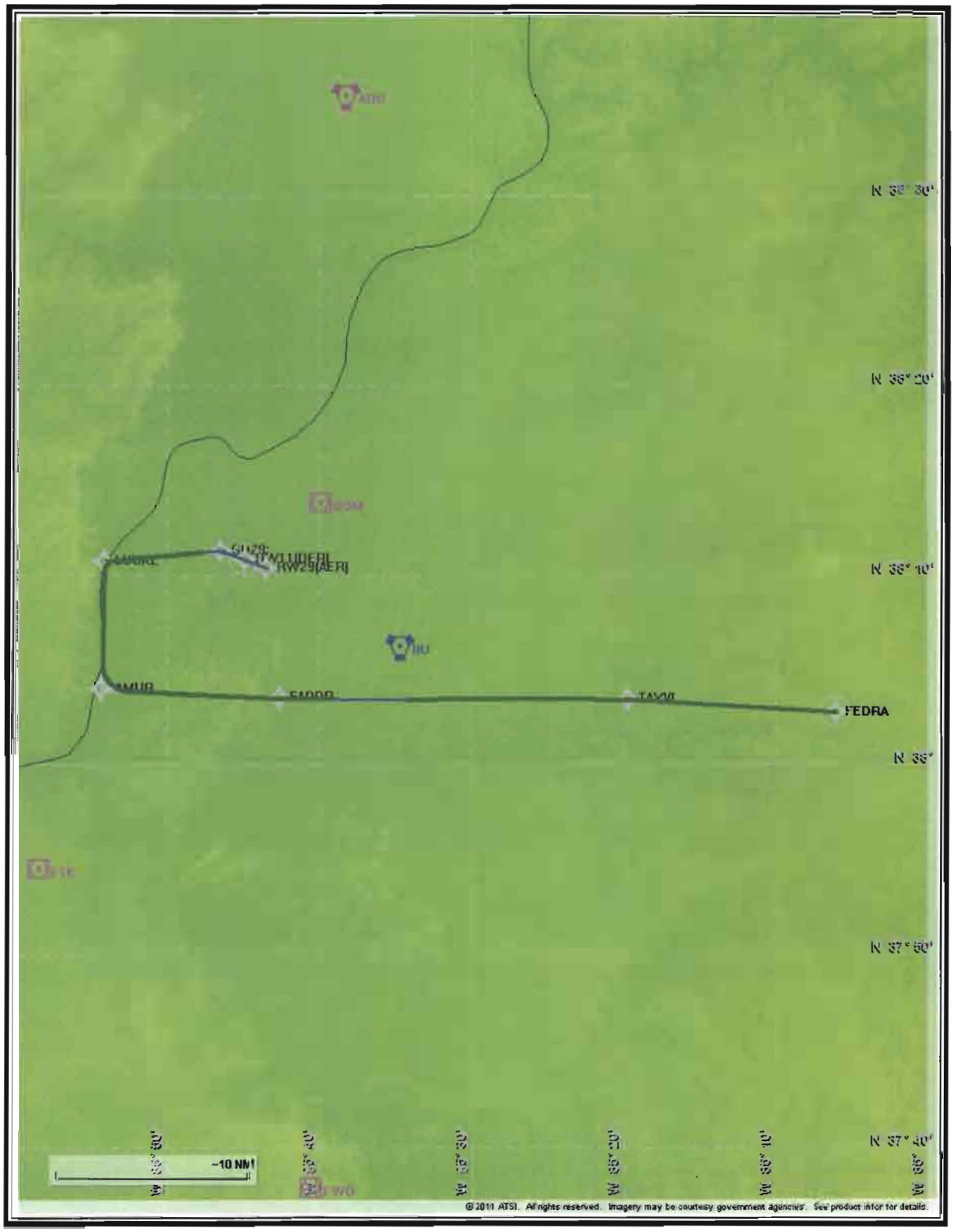
N 38° 30'
N 38° 20'
N 38° 10'
N 38°
N 37° 50'
N 37° 40'
W 85° 50'
W 85° 40'
W 85° 30'
W 85° 20'
W 85° 10'
W 85°
~10 NM
FEDRA
RW29(AER)
IIU
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW29(A...	WP	N 38° 10' 22.99" W 85° 43' 25.77"	480.1	VNAV	0.0	Fly By	TF
RW11(D...	WP	N 38° 10' 48.82" W 85° 44' 50.46"	511.6	VNAV	130.0	Fly Over	VI
GH29:	WP	N 38° 11' 17.29" W 85° 46' 24.02"	1020.0	VNAV	145.0	Fly By	CF - 264.8°
LUUKE	WP	N 38° 10' 44.12" W 85° 54' 2.21"	2232.6	VNAV	180.0	Fly By	TF
IAMUR	WP	N 38° 3' 56.96" W 85° 54' 12.99"	3588.6	VNAV	180.0	Fly By	TF
FADDR	WP	N 38° 3' 29.97" W 85° 42' 34.40"	5429.9	VNAV	180.0	Fly By	TF
TAYVL	WP	N 38° 3' 25.71" W 85° 19' 38.51"	9052.2	VNAV	180.0	Fly By	TF
FEDRA	WP	N 38° 2' 44.41" W 85° 6' 1.98"	11206.5	VNAV	210.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSDF
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

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

Flight Track comes into contact with terrain. Minimum AGL along route was -30.50 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:

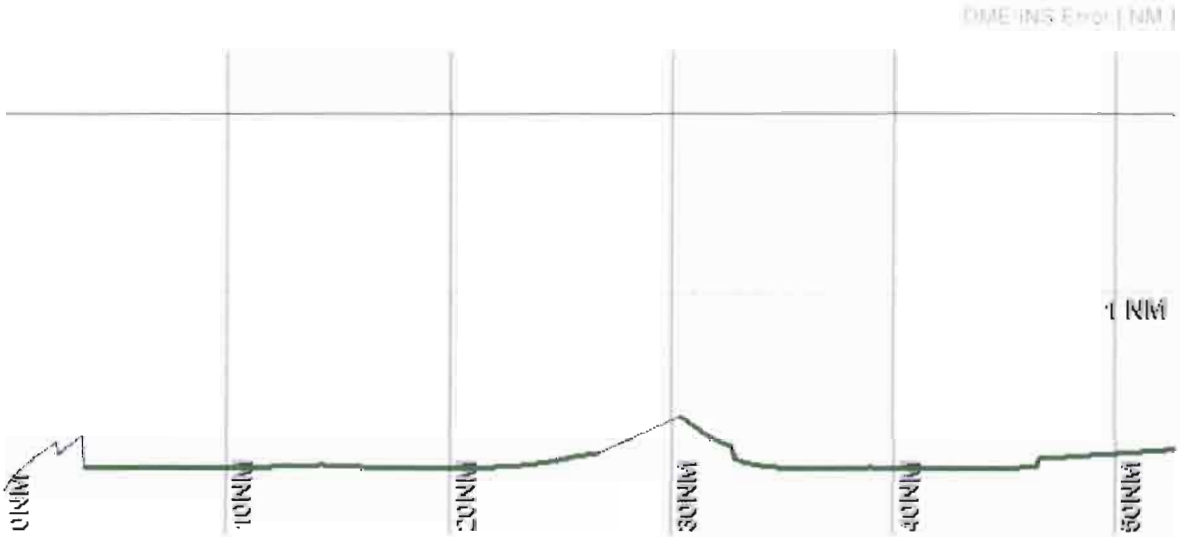
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 1020 Ft.

Total Number of DMEs Used: 5

Maximum DME Error: 0.493 NM.

No Critical DMEs were found.

Available DMEs: BQM, IIU, ABB, EWO, HYK



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	Database	NO	0.610	Enabled	34.0 %	33.8 %
2	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	0.866	Enabled	49.5 %	54.0 %
3	ABB	N 38° 35' 19.82" W 85° 38' 9.57"	L	Database	NO	0.662	Enabled	10.0 %	7.1 %
4	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	Database	NO	0.744	Enabled	70.6 %	77.5 %
5	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L	Database	NO	0.493	Enabled	0.1 %	0.1 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.2	BQM					
2.3	BQM	IIU	ABB	EWO		
8.0	BQM	IIU	ABB	EWO		
13.7	BQM	IIU	ABB	EWO		
23.7	BQM	IIU	ABB	EWO		
41.7	BQM	IIU	ABB	EWO	HYK	

Inertial Drift Segments

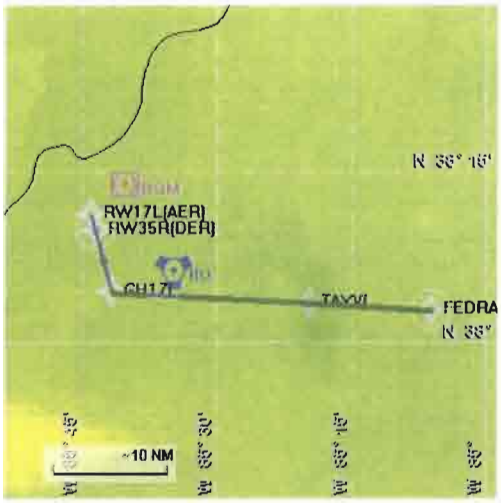
#	Start Location	End Location	Length [NM]
1	N 38° 10' 22.99" W 85° 43' 25.77"	N 38° 11' 13.15" W 85° 46' 10.45"	2.3
	VOR: ABB	Available from N 38° 10' 22.99" W 85° 43' 25.77" to N 38° 11' 13.15" W 85° 46' 10.45"	
	VOR: BQM	Available from N 38° 10' 22.99" W 85° 43' 25.77" to N 38° 11' 13.15" W 85° 46' 10.45"	
	VOR: EWO	Available from N 38° 10' 22.99" W 85° 43' 25.77" to N 38° 11' 13.15" W 85° 46' 10.45"	
	VOR: FFT	Available from N 38° 10' 22.99" W 85° 43' 25.77" to N 38° 10' 55.88" W 85° 45' 13.70"	
	VOR: FTK	Available from N 38° 10' 22.99" W 85° 43' 25.77" to N 38° 11' 13.15" W 85° 46' 10.45"	
	VOR: IIU	Available from N 38° 10' 22.99" W 85° 43' 25.77" to N 38° 11' 13.15" W 85° 46' 10.45"	
	VOR: MYS	Available from N 38° 10' 22.99" W 85° 43' 25.77" to N 38° 11' 13.15" W 85° 46' 10.45"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 38° 11' 15.18" W 85° 46' 17.61"	N 38° 11' 12.93" W 85° 47' 40.76"	1.1
	VOR: ABB	Available from N 38° 11' 15.18" W 85° 46' 17.61" to N 38° 11' 12.93" W 85° 47' 40.76"	
	VOR: BQM	Available from N 38° 11' 15.18" W 85° 46' 17.61" to N 38° 11' 12.93" W 85° 47' 40.76"	
	VOR: EWO	Available from N 38° 11' 15.18" W 85° 46' 17.61" to N 38° 11' 12.93" W 85° 47' 40.76"	
	VOR: FTK	Available from N 38° 11' 15.18" W 85° 46' 17.61" to N 38° 11' 12.93" W 85° 47' 40.76"	
	VOR: IIU	Available from N 38° 11' 15.18" W 85° 46' 17.61" to N 38° 11' 12.93" W 85° 47' 40.76"	
	VOR: MYS	Available from N 38° 11' 15.18" W 85° 46' 17.61" to N 38° 11' 12.93" W 85° 47' 40.76"	
3	N 38° 3' 29.35" W 85° 39' 0.88"	N 38° 3' 28.79" W 85° 34' 18.11"	3.7
	VOR: ABB	Available from N 38° 3' 29.35" W 85° 39' 0.88" to N 38° 3' 28.79" W 85° 34' 18.11"	
	VOR: BQM	Available from N 38° 3' 29.35" W 85° 39' 0.88" to N 38° 3' 28.79" W 85° 34' 18.11"	
	VOR: EWO	Available from N 38° 3' 29.35" W 85° 39' 0.88" to N 38° 3' 28.79" W 85° 34' 18.11"	
	VOR: FFT	Available from N 38° 3' 29.35" W 85° 39' 0.88" to N 38° 3' 28.79" W 85° 34' 18.11"	
	VOR: FTK	Available from N 38° 3' 29.35" W 85° 39' 0.88" to N 38° 3' 28.79" W 85° 34' 18.11"	
	VOR: IIU	Available from N 38° 3' 29.35" W 85° 39' 0.88" to N 38° 3' 28.79" W 85° 34' 18.11"	
	VOR: MYS	Available from N 38° 3' 29.35" W 85° 39' 0.88" to N 38° 3' 28.79" W 85° 34' 18.11"	



Name:	Dennis Osterhage
Project Name:	KSDF FEDRA1 SID RW17L FEDRA 20120206
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	2/6/2012 10:05:21 AM
Input File:	KSDF FEDRA1 SID RW17...
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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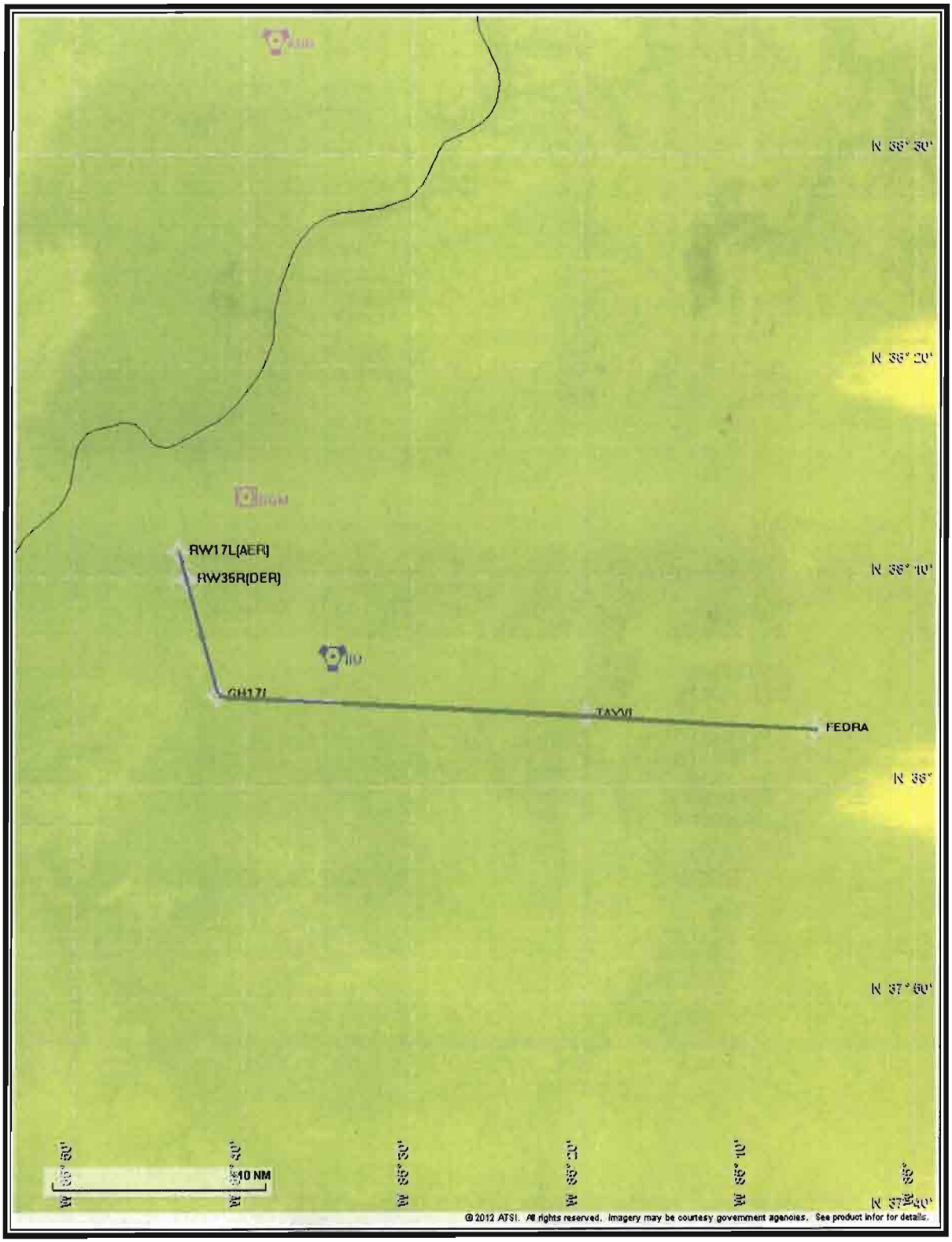
RW17L(AER)
RW35R(DER)
GH17I
TAYVI
FEDRA
10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW17L(...	WP	N 38° 11' 11.14" W 85° 43' 51.76"	500.8	VNAV	0.0	Fly By	TF
RW35R(...	WP	N 38° 9' 52.40" W 85° 43' 24.87"	506.4	VNAV	130.0	Fly Over	VI
GH17L	WP	N 38° 4' 23.09" W 85° 41' 32.58"	1020.0	VNAV	145.0	Fly By	CF - 93.3°
TAYVL	WP	N 38° 3' 25.71" W 85° 19' 38.51"	4484.5	VNAV	180.0	Fly By	TF
FEDRA	WP	N 38° 2' 44.41" W 85° 6' 1.98"	6638.8	VNAV	180.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSDF
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was -27.42 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:

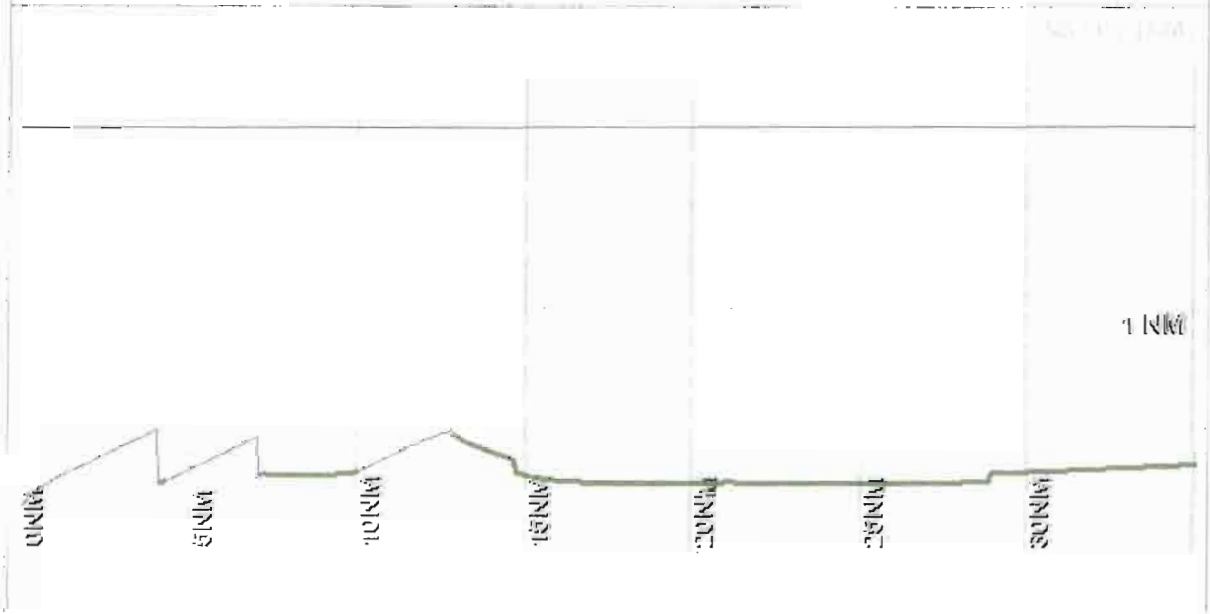
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 1020 Ft.

Total Number of DMEs Used: 4

Maximum DME Error: 0.496 NM.

No Critical DMEs were found.

Available DMEs: BQM, IIU, ABB, EWO, HYK



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	Database	NO	1.149	Enabled	32.6 %	35.8 %
2	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	1.069	Enabled	39.0 %	44.4 %
3	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	Database	NO	0.747	Enabled	49.7 %	63.4 %
4	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L	Database	NO	0.496	Enabled	0.1 %	0.2 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.4	BQM	IIU				
6.7	BQM	IIU	EWO	ABB		
24.3	BQM	IIU	EWO	ABB	HYK	

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 11' 11.14" W 85° 43' 51.76"	N 38° 7' 19.95" W 85° 42' 32.86"	4.0

VOR: ABB	Available from N 38° 11' 11.14" W 85° 43' 51.76" to N 38° 7' 19.95" W 85° 42' 32.86"
VOR: BQM	Available from N 38° 11' 11.14" W 85° 43' 51.76" to N 38° 7' 19.95" W 85° 42' 32.86"
VOR: EWO	Available from N 38° 11' 11.14" W 85° 43' 51.76" to N 38° 7' 19.95" W 85° 42' 32.86"
VOR: FFT	Available from N 38° 11' 11.14" W 85° 43' 51.76" to N 38° 7' 19.95" W 85° 42' 32.86"
VOR: FTK	Available from N 38° 11' 11.14" W 85° 43' 51.76" to N 38° 7' 19.95" W 85° 42' 32.86"
VOR: IIU	Available from N 38° 11' 11.14" W 85° 43' 51.76" to N 38° 7' 19.95" W 85° 42' 32.86"
VOR: MYS	Available from N 38° 11' 11.14" W 85° 43' 51.76" to N 38° 7' 19.95" W 85° 42' 32.86"

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 38° 7' 4.48" W 85° 42' 27.58"	N 38° 4' 26.44" W 85° 41' 26.63"	2.8
	VOR: ABB	Available from N 38° 7' 4.48" W 85° 42' 27.58" to N 38° 4' 26.44" W 85° 41' 26.63"	
	VOR: BQM	Available from N 38° 7' 4.48" W 85° 42' 27.58" to N 38° 4' 26.44" W 85° 41' 26.63"	
	VOR: EWO	Available from N 38° 7' 4.48" W 85° 42' 27.58" to N 38° 4' 26.44" W 85° 41' 26.63"	
	VOR: FFT	Available from N 38° 7' 4.48" W 85° 42' 27.58" to N 38° 4' 26.44" W 85° 41' 26.63"	
	VOR: FTK	Available from N 38° 7' 4.48" W 85° 42' 27.58" to N 38° 4' 26.44" W 85° 41' 26.63"	
	VOR: IIU	Available from N 38° 7' 4.48" W 85° 42' 27.58" to N 38° 4' 26.44" W 85° 41' 26.63"	
	VOR: MYS	Available from N 38° 7' 4.48" W 85° 42' 27.58" to N 38° 4' 26.44" W 85° 41' 26.63"	
3	N 38° 4' 24.02" W 85° 41' 22.60"	N 38° 4' 19.97" W 85° 41' 11.08"	0.2
	VOR: ABB	Available from N 38° 4' 24.02" W 85° 41' 22.60" to N 38° 4' 19.97" W 85° 41' 11.08"	
	VOR: BQM	Available from N 38° 4' 24.02" W 85° 41' 22.60" to N 38° 4' 19.97" W 85° 41' 11.08"	
	VOR: EWO	Available from N 38° 4' 24.02" W 85° 41' 22.60" to N 38° 4' 19.97" W 85° 41' 11.08"	
	VOR: FFT	Available from N 38° 4' 24.02" W 85° 41' 22.60" to N 38° 4' 19.97" W 85° 41' 11.08"	
	VOR: FTK	Available from N 38° 4' 24.02" W 85° 41' 22.60" to N 38° 4' 19.97" W 85° 41' 11.08"	
	VOR: IIU	Available from N 38° 4' 24.02" W 85° 41' 22.60" to N 38° 4' 19.97" W 85° 41' 11.08"	
	VOR: MYS	Available from N 38° 4' 24.02" W 85° 41' 22.60" to N 38° 4' 19.97" W 85° 41' 11.08"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
4	N 38° 4' 10.90" W 85° 37' 43.71"	N 38° 4' 2.22" W 85° 34' 9.34"	2.8
	VOR: ABB	Available from N 38° 4' 10.90" W 85° 37' 43.71" to N 38° 4' 2.22" W 85° 34' 9.34"	
	VOR: BQM	Available from N 38° 4' 10.90" W 85° 37' 43.71" to N 38° 4' 2.22" W 85° 34' 9.34"	
	VOR: EWO	Available from N 38° 4' 10.90" W 85° 37' 43.71" to N 38° 4' 2.22" W 85° 34' 9.34"	
	VOR: FFT	Available from N 38° 4' 10.90" W 85° 37' 43.71" to N 38° 4' 2.22" W 85° 34' 9.34"	
	VOR: FTK	Available from N 38° 4' 10.90" W 85° 37' 43.71" to N 38° 4' 2.22" W 85° 34' 9.34"	
	VOR: IIU	Available from N 38° 4' 10.90" W 85° 37' 43.71" to N 38° 4' 2.22" W 85° 34' 9.34"	
	VOR: MYS	Available from N 38° 4' 10.90" W 85° 37' 43.71" to N 38° 4' 2.22" W 85° 34' 9.34"	

Name:	Dennis Osterhage
Project Name:	KSDF FEDRA1 SID RW17R OHAGI 20111102
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	11/14/2011 2:33:56 PM
Input File:	KSDF FEDRA1 SID RW17...
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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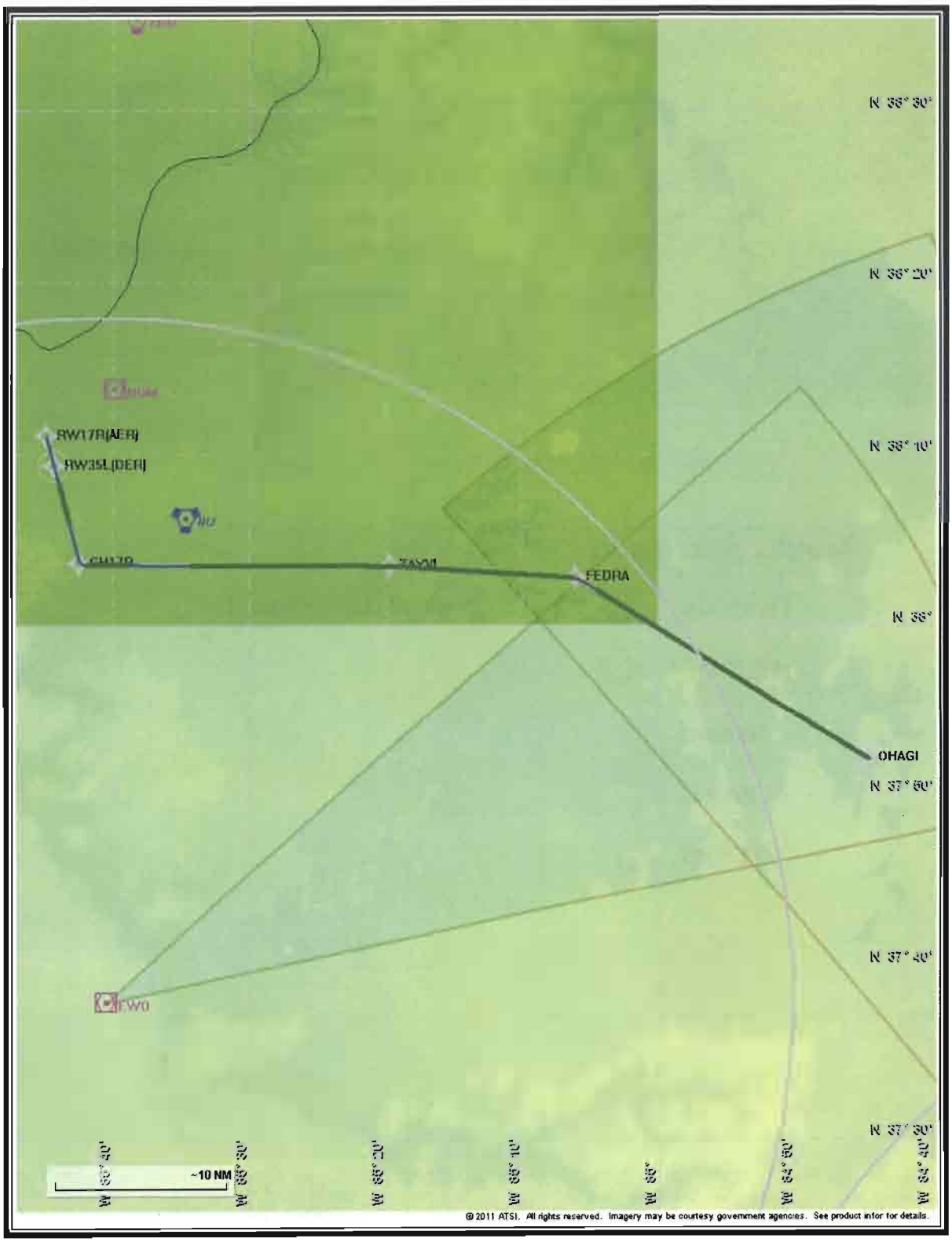
RW17R(AER)
RW35L(DER)
FEDRA
OHAGI
N 38° 30'
N 38° 20'
N 38° 10'
N 38°
N 37° 50'
N 37° 40'
N 37° 30'
W 85° 50'
W 85° 40'
W 85° 30'
W 85° 20'
W 85° 10'
W 85°
W 84° 50'
W 84° 40'
~10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW17R(...	WP	N 38° 11' 5.06" W 85° 44' 52.93"	489.9	VNAV	0.0	Fly By	TF
RW35L(...	WP	N 38° 9' 19.45" W 85° 44' 18.11"	496.4	VNAV	130.0	Fly Over	VI
GH17R	WP	N 38° 3' 33.18" W 85° 42' 24.15"	1020.0	VNAV	145.0	Fly By	CF - 90.3°
TAYVL	WP	N 38° 3' 25.71" W 85° 19' 38.51"	4666.3	VNAV	180.0	Fly By	TF
FEDRA	WP	N 38° 2' 44.41" W 85° 6' 1.98"	6820.6	VNAV	180.0	Fly By	TF
OHAGI	WP	N 37° 52' 5.84" W 84° 44' 36.80"	10820.6	VNAV	180.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSDF
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was 1.05 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:

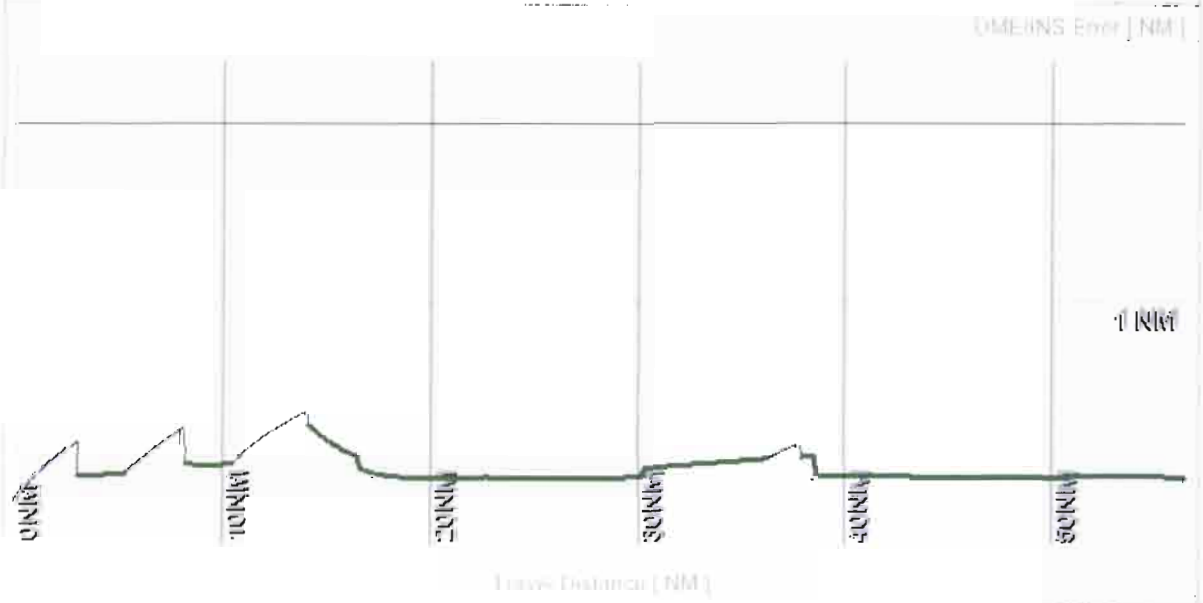
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 1020 Ft.

Total Number of DMEs Used: 5

Maximum DME Error: 0.553 NM.

No Critical DMEs were found.

Available DMEs: BQM, IIU, EWO, ABB, HYK, LOZ



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	Database	NO	1.234	Enabled	26.5 %	25.8 %
2	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	1.136	Enabled	30.6 %	30.8 %
3	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L + ESV	User	NO	0.811	Enabled	58.4 %	69.0 %
4	LOZ	N 37° 1' 59.31" W 84° 6' 36.29"	L + ESV	User	NO	0.568	Enabled	26.9 %	31.8 %
5	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L	Database	NO	0.553	Enabled	2.7 %	3.2 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.8	BQM	IIU				
7.4	BQM	IIU	EWO	ABB		
25.5	BQM	IIU	EWO	ABB	HYK	
35.9	LOZ	IIU	EWO	HYK		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 11' 5.06" W 85° 44' 52.93"	N 38° 8' 15.36" W 85° 43' 57.02"	2.9
	VOR: ABB	Available from N 38° 11' 5.06" W 85° 44' 52.93" to N 38° 8' 15.36" W 85° 43' 57.02"	
	VOR: BQM	Available from N 38° 11' 5.06" W 85° 44' 52.93" to N 38° 8' 15.36" W 85° 43' 57.02"	
	VOR: EWO	Available from N 38° 11' 5.06" W 85° 44' 52.93" to N 38° 8' 15.36" W 85° 43' 57.02"	
	VOR: FFT	Available from N 38° 11' 5.06" W 85° 44' 52.93" to N 38° 8' 15.36" W 85° 43' 57.02"	
	VOR: FTK	Available from N 38° 11' 5.06" W 85° 44' 52.93" to N 38° 8' 15.36" W 85° 43' 57.02"	
	VOR: IIU	Available from N 38° 11' 5.06" W 85° 44' 52.93" to N 38° 8' 15.36" W 85° 43' 57.02"	
	VOR: MYS	Available from N 38° 11' 5.06" W 85° 44' 52.93" to N 38° 8' 15.36" W 85° 43' 57.02"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 38° 5' 59.72" W 85° 43' 12.34"	N 38° 3' 30.29" W 85° 41' 56.83"	2.8
	VOR: ABB	Available from N 38° 5' 59.72" W 85° 43' 12.34" to N 38° 3' 30.29" W 85° 41' 56.83"	
	VOR: BQM	Available from N 38° 5' 59.72" W 85° 43' 12.34" to N 38° 3' 30.29" W 85° 41' 56.83"	
	VOR: EWO	Available from N 38° 5' 59.72" W 85° 43' 12.34" to N 38° 3' 30.29" W 85° 41' 56.83"	
	VOR: FFT	Available from N 38° 5' 59.72" W 85° 43' 12.34" to N 38° 3' 30.29" W 85° 41' 56.83"	
	VOR: FTK	Available from N 38° 5' 59.72" W 85° 43' 12.34" to N 38° 3' 30.29" W 85° 41' 56.83"	
	VOR: IIU	Available from N 38° 5' 59.72" W 85° 43' 12.34" to N 38° 3' 30.29" W 85° 41' 56.83"	
	VOR: MYS	Available from N 38° 5' 59.72" W 85° 43' 12.34" to N 38° 3' 30.29" W 85° 41' 56.83"	
3	N 38° 3' 29.70" W 85° 38' 59.52"	N 38° 3' 29.07" W 85° 34' 20.87"	3.7
	VOR: ABB	Available from N 38° 3' 29.70" W 85° 38' 59.52" to N 38° 3' 29.07" W 85° 34' 20.87"	
	VOR: BQM	Available from N 38° 3' 29.70" W 85° 38' 59.52" to N 38° 3' 29.07" W 85° 34' 20.87"	
	VOR: EWO	Available from N 38° 3' 29.70" W 85° 38' 59.52" to N 38° 3' 29.07" W 85° 34' 20.87"	
	VOR: FFT	Available from N 38° 3' 29.70" W 85° 38' 59.52" to N 38° 3' 29.07" W 85° 34' 20.87"	
	VOR: FTK	Available from N 38° 3' 29.70" W 85° 38' 59.52" to N 38° 3' 29.07" W 85° 34' 20.87"	
	VOR: IIU	Available from N 38° 3' 29.70" W 85° 38' 59.52" to N 38° 3' 29.07" W 85° 34' 20.87"	
	VOR: MYS	Available from N 38° 3' 29.70" W 85° 38' 59.52" to N 38° 3' 29.07" W 85° 34' 20.87"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
4	N 38° 2' 44.41" W 85° 6' 21.04"	N 38° 2' 0.51" W 85° 4' 32.91"	1.6
	VOR: BQM	Available from N 38° 2' 44.41" W 85° 6' 21.04" to N 38° 2' 0.51" W 85° 4' 32.91"	
	VOR: EWO	Available from N 38° 2' 44.41" W 85° 6' 21.04" to N 38° 2' 0.51" W 85° 4' 32.91"	
	VOR: FFT	Available from N 38° 2' 44.41" W 85° 6' 21.04" to N 38° 2' 0.51" W 85° 4' 32.91"	
	VOR: HYK	Available from N 38° 2' 44.41" W 85° 6' 21.04" to N 38° 2' 0.51" W 85° 4' 32.91"	
	VOR: IIU	Available from N 38° 2' 44.41" W 85° 6' 21.04" to N 38° 2' 0.51" W 85° 4' 32.91"	

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	LOZ	N 37° 1' 59.31" W 84° 6' 36.29"	L	1245.4	116.10	LOZ	Used
		ESV: Bearing [True]: 320.0° to 342.0° Bearing [Mag]: 323.0° to 345.0°			Arc Distance: Out to 85.0 NM Altitude: 7000.0 to 24000.0 Ft.		
2	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	960.0	110.80	EWO	Used
		ESV: Bearing [True]: 48.0° to 78.0° Bearing [Mag]: 47.0° to 77.0°			Arc Distance: Out to 54.0 NM Altitude: 7000.0 to 24000.0 Ft.		

Name:	Dennis Osterhage
Project Name:	KSDF FEDRA1 SID RW35L HYK 20111121
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	11/21/2011 12:36:26 PM
Input File:	KSDF FEDRA1 SID RW35...
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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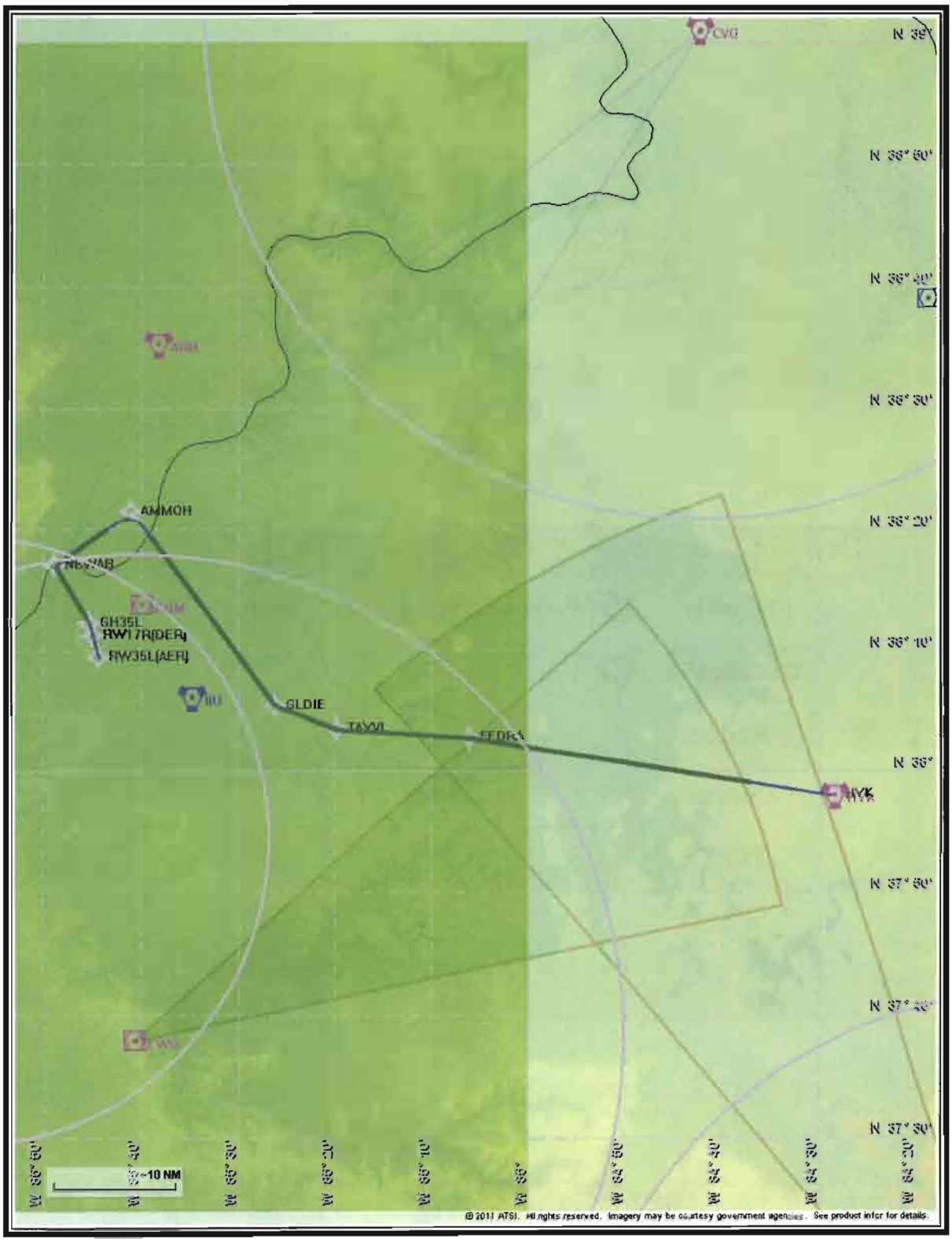
CVG
N 38°
N 38° 40'
N 38° 30'
N 38° 20'
N 38° 10'
N 38°
N 37° 50'
N 37° 40'
N 37° 30'
AMMOH
GH35L
RW17R(DER)
RW35L(AER)
GLDIE
TAYVI
FEDRA
HYK
W 85° 50'
W 85° 40'
W 85° 30'
W 85° 20'
W 85° 10'
W 85°
W 84° 50'
W 84° 40'
W 84° 30'
W 84° 20'
~10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW35L(...	WP	N 38° 9' 29.40" W 85° 44' 21.37"	461.4	VNAV	0.0	Fly By	TF
RW17R(...	WP	N 38° 11' 13.19" W 85° 44' 55.65"	524.9	VNAV	130.0	Fly Over	VI
GH35L	WP	N 38° 12' 13.94" W 85° 45' 15.73"	1020.0	VNAV	145.0	Fly By	CF - 329.5°
NEWAB	WP	N 38° 17' 1.38" W 85° 48' 50.58"	2133.6	VNAV	180.0	Fly By	TF
AMMOH	WP	N 38° 21' 28.92" W 85° 40' 54.31"	3668.1	VNAV	180.0	Fly By	TF
GLDIE	WP	N 38° 5' 27.92" W 85° 26' 6.74"	7627.2	VNAV	180.0	Fly By	TF
TAYVL	WP	N 38° 3' 25.71" W 85° 19' 38.51"	8727.1	VNAV	180.0	Fly By	TF
FEDRA	WP	N 38° 2' 44.41" W 85° 6' 1.98"	10881.3	VNAV	180.0	Fly By	TF
HYK	WP	N 37° 57' 58.83" W 84° 28' 21.06"	13000.0	VNAV	210.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL

Climb Gradient: 200 Ft/NM after next to last waypoint up to 13000.0 Ft

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSDF
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

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

Flight Track comes into contact with terrain. Minimum AGL along route was -14.71 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:

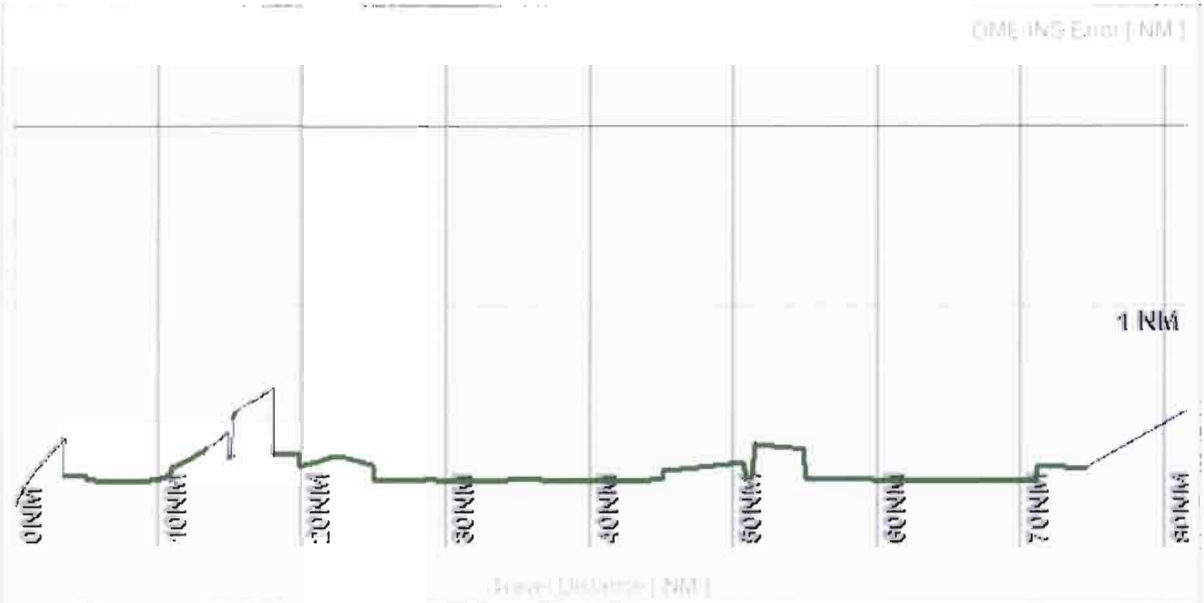
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 1088 Ft.

Total Number of DMEs Used: 8

Maximum DME Error: 0.660 NM.

No Critical DMEs were found.

Available DMEs: IIU, ABB, BQM, EWO, FTK, CVG, HYK, LOZ



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	ABB	N 38° 35' 19.82" W 85° 38' 9.57"	L	Database	NO	0.767	Enabled	23.1 %	17.0 %
2	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	0.714	Enabled	22.9 %	22.1 %
3	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	Database	NO	0.660	Enabled	33.3 %	30.8 %
4	FTK	N 37° 54' 25.98" W 85° 58' 21.23"	T + ESV	User	NO	0.733	Enabled	5.4 %	5.7 %
5	CVG	N 39° 0' 57.53" W 84° 42' 12.05"	L + ESV	User	NO	0.660	Enabled	9.2 %	9.8 %
6	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L + ESV	User	NO	0.660	Enabled	39.6 %	45.6 %
7	LOZ	N 37° 1' 59.31" W 84° 6' 36.29"	L + ESV	User	NO	1.189	Enabled	23.1 %	29.0 %
8	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L	Database	NO	0.660	Enabled	3.2 %	4.1 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.8						
2.7	ABB	IIU	BQM			
7.9	ABB	IIU	BQM	EWO	FTK	
14.4	ABB	IIU	CVG	EWO	FTK	BQM
24.4	ABB	BQM	CVG	EWO	FTK	IIU
34.4	ABB	BQM	IIU	EWO		
40.1	ABB	BQM	IIU	EWO	LOZ	HYK
51.1	LOZ	HYK	IIU	EWO		

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 9' 29.40" W 85° 44' 21.37"	N 38° 12' 43.10" W 85° 45' 36.21"	3.4
	VOR: ABB	Available from N 38° 9' 29.40" W 85° 44' 21.37" to N 38° 12' 43.10" W 85° 45' 36.21"	
	VOR: BQM	Available from N 38° 9' 29.40" W 85° 44' 21.37" to N 38° 12' 43.10" W 85° 45' 36.21"	
	VOR: EWO	Available from N 38° 9' 29.40" W 85° 44' 21.37" to N 38° 12' 43.10" W 85° 45' 36.21"	
	VOR: FFT	Available from N 38° 9' 29.40" W 85° 44' 21.37" to N 38° 12' 7.43" W 85° 45' 13.61"	
	VOR: FTK	Available from N 38° 9' 29.40" W 85° 44' 21.37" to N 38° 12' 43.10" W 85° 45' 36.21"	
	VOR: IIU	Available from N 38° 9' 29.40" W 85° 44' 21.37" to N 38° 12' 43.10" W 85° 45' 36.21"	
	VOR: MYS	Available from N 38° 9' 29.40" W 85° 44' 21.37" to N 38° 12' 43.10" W 85° 45' 36.21"	
2	N 38° 20' 0.58" W 85° 43' 32.07"	N 38° 20' 48.93" W 85° 42' 1.65"	1.4
	VOR: ABB	Available from N 38° 20' 0.58" W 85° 43' 32.07" to N 38° 20' 48.93" W 85° 42' 1.65"	
	VOR: BQM	Available from N 38° 20' 0.58" W 85° 43' 32.07" to N 38° 20' 48.93" W 85° 42' 1.65"	
	VOR: FFT	Available from N 38° 20' 0.58" W 85° 43' 32.07" to N 38° 20' 48.93" W 85° 42' 1.65"	
	VOR: FTK	Available from N 38° 20' 0.58" W 85° 43' 32.07" to N 38° 20' 48.93" W 85° 42' 1.65"	
	VOR: IIU	Available from N 38° 20' 0.58" W 85° 43' 32.07" to N 38° 20' 48.93" W 85° 42' 1.65"	
	VOR: MYS	Available from N 38° 20' 0.58" W 85° 43' 32.07" to N 38° 20' 48.93" W 85° 42' 1.65"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
3	N 38° 20' 53.33" W 85° 41' 45.67"	N 38° 20' 54.12" W 85° 41' 41.56"	0.1
	VOR: ABB	Available from N 38° 20' 53.33" W 85° 41' 45.67" to N 38° 20' 54.12" W 85° 41' 41.56"	
	VOR: BQM	Available from N 38° 20' 53.33" W 85° 41' 45.67" to N 38° 20' 54.12" W 85° 41' 41.56"	
	VOR: FFT	Available from N 38° 20' 53.33" W 85° 41' 45.67" to N 38° 20' 54.12" W 85° 41' 41.56"	
	VOR: FTK	Available from N 38° 20' 53.33" W 85° 41' 45.67" to N 38° 20' 54.12" W 85° 41' 41.56"	
	VOR: IIU	Available from N 38° 20' 53.33" W 85° 41' 45.67" to N 38° 20' 54.12" W 85° 41' 41.56"	
	VOR: MYS	Available from N 38° 20' 53.33" W 85° 41' 45.67" to N 38° 20' 54.12" W 85° 41' 41.56"	
4	N 38° 20' 56.11" W 85° 41' 20.56"	N 38° 19' 25.63" W 85° 39' 0.28"	2.5
	VOR: ABB	Available from N 38° 20' 56.11" W 85° 41' 20.56" to N 38° 19' 25.63" W 85° 39' 0.28"	
	VOR: BQM	Available from N 38° 20' 56.11" W 85° 41' 20.56" to N 38° 19' 25.63" W 85° 39' 0.28"	
	VOR: FFT	Available from N 38° 20' 56.11" W 85° 41' 20.56" to N 38° 19' 25.63" W 85° 39' 0.28"	
	VOR: FTK	Available from N 38° 20' 56.11" W 85° 41' 20.56" to N 38° 19' 25.63" W 85° 39' 0.28"	
	VOR: IIU	Available from N 38° 20' 56.11" W 85° 41' 20.56" to N 38° 19' 25.63" W 85° 39' 0.28"	
	VOR: MYS	Available from N 38° 20' 56.11" W 85° 41' 20.56" to N 38° 19' 25.63" W 85° 39' 0.28"	
5	N 37° 59' 6.71" W 84° 37' 8.73"	N 37° 57' 59.27" W 84° 28' 24.42"	7.0
	VOR: FFT	Available from N 37° 59' 6.71" W 84° 37' 8.73" to N 37° 57' 59.27" W 84° 28' 24.42"	
	VOR: HYK	Available from N 37° 59' 6.71" W 84° 37' 8.73" to N 37° 57' 59.27" W 84° 28' 24.42"	

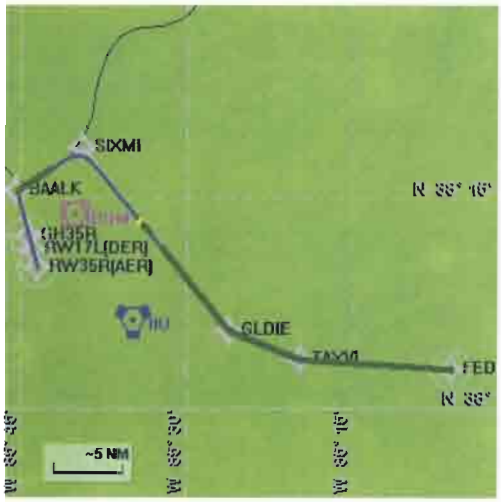
DME/DME (Continued.)

Return To Summary

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	LOZ	N 37° 1' 59.31" W 84° 6' 36.29"	L	1245.4	116.10	LOZ	Used
		ESV: Bearing [True]: 320.0° to 342.0° Bearing [Mag]: 323.0° to 345.0°			Arc Distance: Out to 85.0 NM Altitude: 7000.0 to 24000.0 Ft.		
2	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	960.0	110.80	EWO	Used
		ESV: Bearing [True]: 48.0° to 78.0° Bearing [Mag]: 47.0° to 77.0°			Arc Distance: Out to 54.0 NM Altitude: 7000.0 to 24000.0 Ft.		
3	CVG	N 39° 0' 57.53" W 84° 42' 12.05"	L	879.4	117.30	CVG	Used
		ESV: Bearing [True]: 212.0° to 231.0° Bearing [Mag]: 216.0° to 235.0°			Arc Distance: Out to 75.0 NM Altitude: 4500.0 to 11000.0 Ft.		
4	FTK	N 37° 54' 25.98" W 85° 58' 21.23"	T	734.0	109.60	FTK	Used
		ESV: Bearing [True]: 20.0° to 65.0° Bearing [Mag]: 21.0° to 66.0°			Arc Distance: Out to 33.0 NM Altitude: 3000.0 to 12000.0 Ft.		

No ESV's.



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Version:	2.35
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Input File:	KSDF FEDRA1 SID RW35...
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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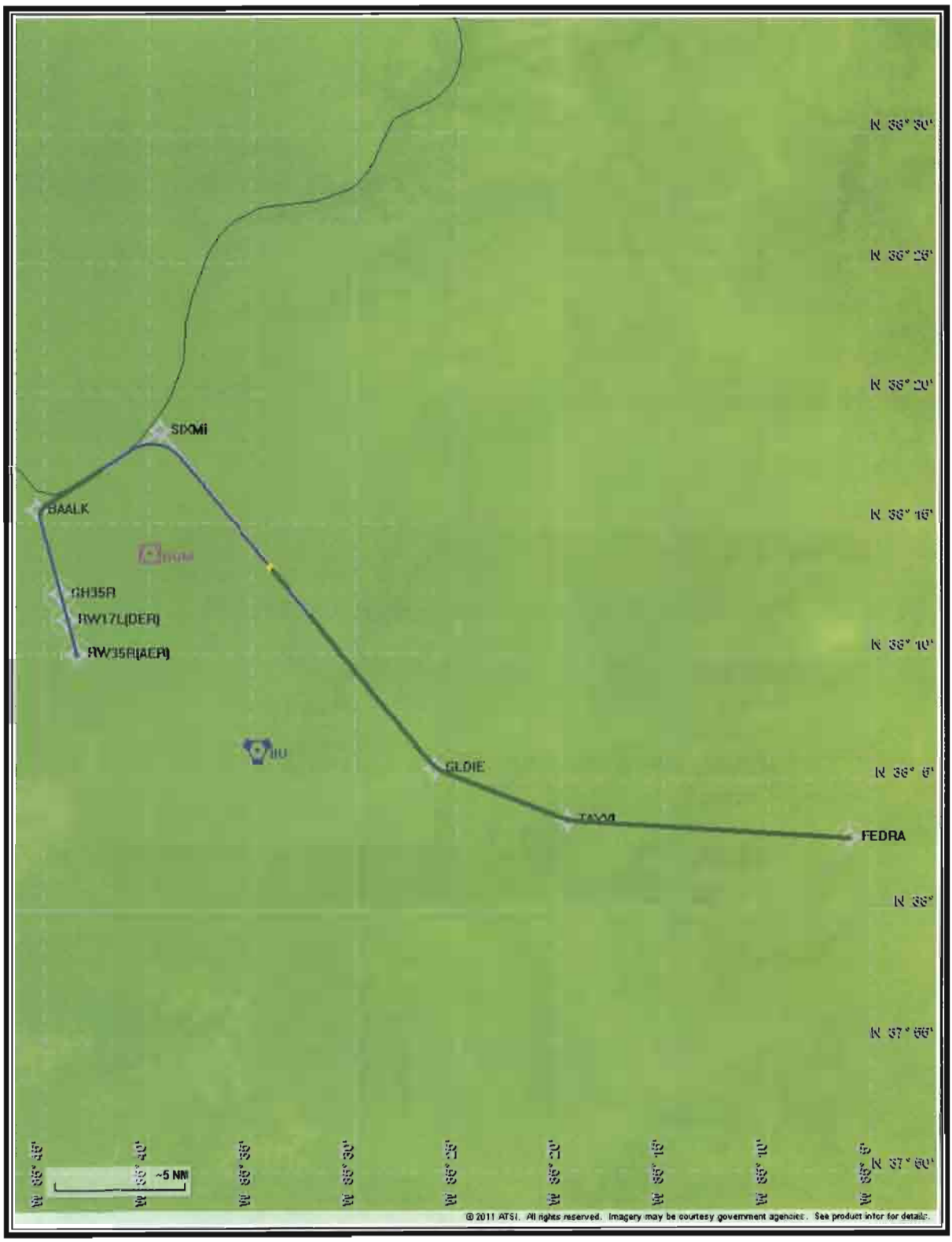
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W 85° 45'
W 85° 40'
W 85° 35'
W 85° 30'
W 85° 25'
W 85° 20'
W 85° 15'
W 85° 10'
W 85° 5'
~5 NM
SDOMI
BAALK
GH35R
RW17L(DER)
RW35R(AER)
IIU
GLDIE
FEDRA
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW35R(...	WP	N 38° 9' 56.70" W 85° 43' 26.34"	471.4	VNAV	0.0	Fly Over	TF
RW17L(...	WP	N 38° 11' 14.28" W 85° 43' 52.83"	535.8	VNAV	130.0	Fly Over	VA
GH35R	WP	N 38° 12' 14.51" W 85° 44' 13.40"	1020.0	VNAV	145.0	Fly Over	DF
BAALK	WP	N 38° 15' 31.67" W 85° 45' 20.85"	1700.0	VNAV	180.0	Fly By	TF
SIXMI	WP	N 38° 18' 34.12" W 85° 39' 24.41"	2815.4	VNAV	180.0	Fly By	TF
GLDIE	WP	N 38° 5' 27.92" W 85° 26' 6.74"	6168.9	VNAV	180.0	Fly By	TF
TAYVL	WP	N 38° 3' 25.71" W 85° 19' 38.51"	7268.9	VNAV	180.0	Fly By	TF
FEDRA	WP	N 38° 2' 44.41" W 85° 6' 1.98"	9423.1	VNAV	180.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KSDF
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1020.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Flight Track comes into contact with terrain. Minimum AGL along route was -26.78 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:

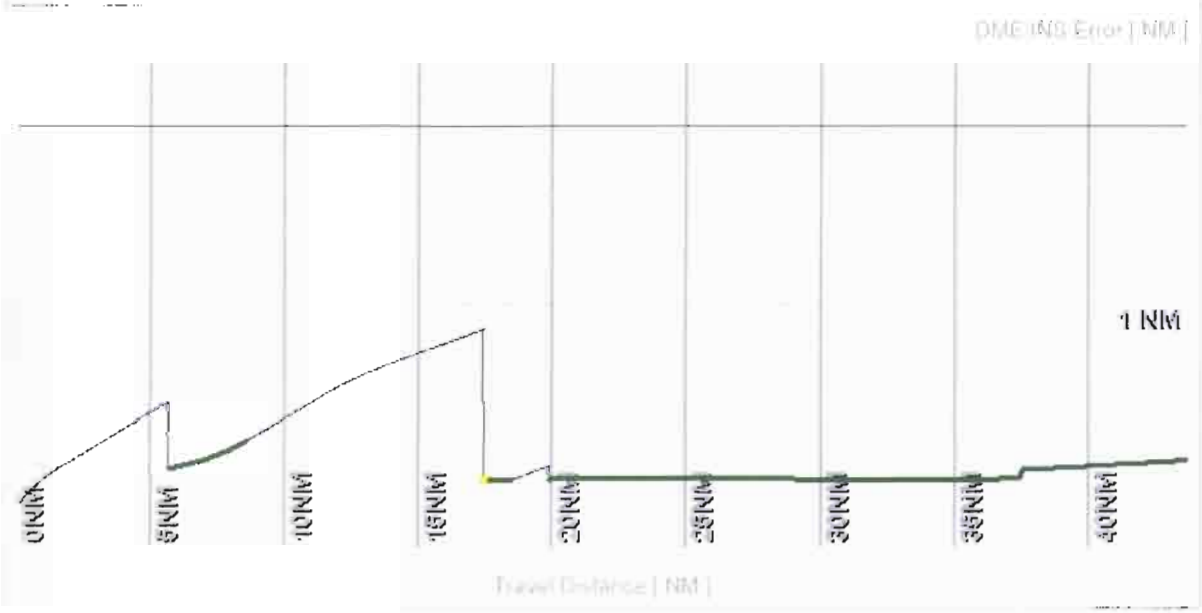
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 1700 Ft.

Total Number of DMEs Used: 4

Maximum DME Error: 0.898 NM.

No Critical DMEs were found.

Available DMEs: IIU, ABB, EWO, BQM, HYK



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	ABB	N 38° 35' 19.82" W 85° 38' 9.57"	L	Database	NO	1.256	Enabled	10.6 %	8.5 %
2	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	1.265	Enabled	22.2 %	22.7 %
3	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	Database	NO	1.227	Enabled	33.4 %	41.1 %
4	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	Database	NO	1.227	Enabled	45.0 %	55.3 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0						
1.4						
2.4	ABB	IIU				
5.3	ABB	IIU				
9.9	ABB	IIU	BQM	EWO		
26.9	ABB	IIU	BQM	EWO		
32.5	ABB	IIU	BQM	EWO	HYK	

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 38° 9' 56.70" W 85° 43' 26.34"	N 38° 15' 20.96" W 85° 45' 14.58"	5.6
	VOR: ABB	Available from N 38° 9' 56.70" W 85° 43' 26.34" to N 38° 15' 20.96" W 85° 45' 14.58"	
	VOR: BQM	Available from N 38° 9' 56.70" W 85° 43' 26.34" to N 38° 15' 20.96" W 85° 45' 14.58"	
	VOR: EWO	Available from N 38° 9' 56.70" W 85° 43' 26.34" to N 38° 15' 20.96" W 85° 45' 14.58"	
	VOR: FFT	Available from N 38° 9' 56.70" W 85° 43' 26.34" to N 38° 14' 38.13" W 85° 45' 2.53"	
	VOR: FTK	Available from N 38° 9' 56.70" W 85° 43' 26.34" to N 38° 15' 20.96" W 85° 45' 14.58"	
	VOR: IIU	Available from N 38° 9' 56.70" W 85° 43' 26.34" to N 38° 15' 20.96" W 85° 45' 14.58"	
	VOR: MYS	Available from N 38° 9' 56.70" W 85° 43' 26.34" to N 38° 15' 20.96" W 85° 45' 14.58"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 38° 17' 5.97" W 85° 42' 17.16"	N 38° 13' 22.75" W 85° 34' 9.77"	8.8
	VOR: ABB	Available from N 38° 17' 5.97" W 85° 42' 17.16" to N 38° 13' 22.75" W 85° 34' 9.77"	
	VOR: BQM	Available from N 38° 17' 5.97" W 85° 42' 17.16" to N 38° 13' 22.75" W 85° 34' 9.77"	
	VOR: EWO	Available from N 38° 17' 5.97" W 85° 42' 17.16" to N 38° 13' 22.75" W 85° 34' 9.77"	
	VOR: FFT	Available from N 38° 17' 5.97" W 85° 42' 17.16" to N 38° 13' 22.75" W 85° 34' 9.77"	
	VOR: FTK	Available from N 38° 17' 5.97" W 85° 42' 17.16" to N 38° 13' 22.75" W 85° 34' 9.77"	
	VOR: IIU	Available from N 38° 17' 5.97" W 85° 42' 17.16" to N 38° 13' 22.75" W 85° 34' 9.77"	
	VOR: MYS	Available from N 38° 17' 5.97" W 85° 42' 17.16" to N 38° 13' 22.75" W 85° 34' 9.77"	
3	N 38° 12' 30.76" W 85° 33' 16.73"	N 38° 11' 28.36" W 85° 32' 13.12"	1.3
	VOR: ABB	Available from N 38° 12' 30.76" W 85° 33' 16.73" to N 38° 11' 28.36" W 85° 32' 13.12"	
	VOR: BQM	Available from N 38° 12' 30.76" W 85° 33' 16.73" to N 38° 11' 28.36" W 85° 32' 13.12"	
	VOR: EWO	Available from N 38° 12' 30.76" W 85° 33' 16.73" to N 38° 11' 28.36" W 85° 32' 13.12"	
	VOR: FFT	Available from N 38° 12' 30.76" W 85° 33' 16.73" to N 38° 11' 28.36" W 85° 32' 13.12"	
	VOR: FTK	Available from N 38° 12' 30.76" W 85° 33' 16.73" to N 38° 11' 28.36" W 85° 32' 13.12"	
	VOR: IIU	Available from N 38° 12' 30.76" W 85° 33' 16.73" to N 38° 11' 28.36" W 85° 32' 13.12"	
	VOR: MYS	Available from N 38° 12' 30.76" W 85° 33' 16.73" to N 38° 11' 28.36" W 85° 32' 13.12"	