Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: SID	Date Open: 09/21/2010	Task #: 20100921257141 4102010	Request #: 20100921257141
Procedure: SID KRSTA (RNAV) ONE NASHVILLE TN KBNA		Airport ID: KBNA	Airport: NASHVILLE INTL		Reimbursable #:
City: NASHVILLE	ST: TN	GPS #:		Estimated Chart Date: 11/15/2012	FICO #: 1090939
Fac ID: BNA	Fac. Type: PROC-D	Specialist: DAVID SAUER			

P1

DME / DME

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	05/04/2012	07/20/2012	DONALD SMITH	
QA:	07/20/2012	07/20/2012	STEVEN SZUKALA	ESV REQUEST INCLUDED
Liaison:	07/20/2012		K. Spurlin	P1: ESV; DME/DME; REPLACEMENT 8/6/12

Procedure Comments: ENROUTE

Remark Type: INFORMATION

PAGE 2 of 14

NASHVILLE, TN; NASHVILLE INTL (KBNA), SID KRSTA (RNAV) ONE; ENROUTE-YES FC BY 9/18/12; PUB 11/15/12
ESV(S): (4): CENTRAL CITY (CCT) VTAC (1); NEW HOPE (EWO) VDME (1); GRAHAM (GHM) VTAC (1); LOUISVILLE (IIU) VTACX) (1).
ATTACHED FORMS: 8260-15B, 8260-15C
8260-2(S): BOGAA, ORIG; CERAH, ORIG; FOOFY, ORIG; JOOON, ORIG; KDNCE, ORIG; KLSTR, ORIG; KRSTA, ORIG; MJOM, ORIG; OLSIE, ORIG; RADNR, ORIG; YAHYA, ORIG.
REPLACEMENT 8/6/12; -15B
CONTACT: DON SMITH/MARLON ROBINSON-AJV-352 LEADS, 405.954.1036/405.954.3636.

(KRSTA1.KRSTA) FIG

SL-282 (FAA)

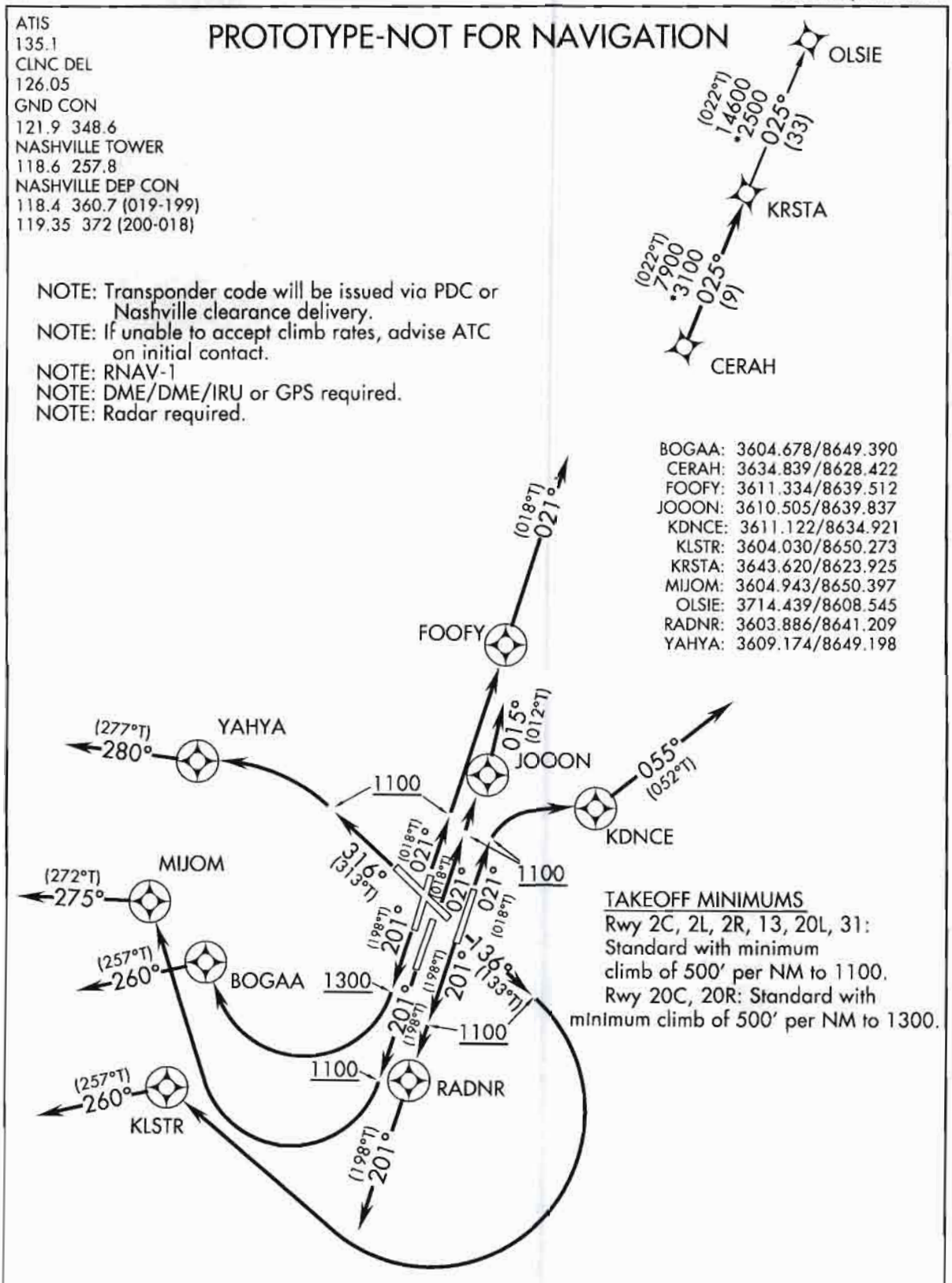
KRSTA ONE DEPARTURE

NASHVILLE INTL (BNA)
NASHVILLE, TENNESSEE

PROTOTYPE-NOT FOR NAVIGATION

ATIS
135.1
CLNC DEL
126.05
GND CON
121.9 348.6
NASHVILLE TOWER
118.6 257.8
NASHVILLE DEP CON
118.4 360.7 (019-199)
119.35 372 (200-018)

NOTE: Transponder code will be issued via PDC or Nashville clearance delivery.
NOTE: If unable to accept climb rates, advise ATC on initial contact.
NOTE: RNAV-1
NOTE: DME/DME/IRU or GPS required.
NOTE: Radar required.



NOTE: Chart not to scale.

KRSTA ONE DEPARTURE
(KRSTA1.KRSTA) FIG

NASHVILLE, TENNESSEE
NASHVILLE INTL (BNA)

AUTOMATED SL-282 KRSTA DEPARTURE

SE-1
15 JUN 2012
COMPILER: CW
REVIEWER:
DBL CHK:
EFF: FIG
UID#: 16823

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 2C: Climb heading 021° to 1100 MSL, then direct JOOON, then on heading 015°, thence. . . .
TAKEOFF RUNWAY 2L: Climb heading 021° to 1100 MSL, then direct FOOFY, then on heading 021°, thence. . . .
TAKEOFF RUNWAY 2R: Climb heading 021° to 1100 MSL, then right turn direct KDNCE, then on heading 055°, thence. . . .
TAKEOFF RUNWAY 13: Climb heading 136° to 1100 MSL, then right turn direct KLSTR, then on heading 260°, thence. . . .
TAKEOFF RUNWAY 20C: Climb heading 201° to 1100 MSL, then right turn direct MOJIM, then on heading 275°, thence. . . .
TAKEOFF RUNWAY 20L: Climb heading 201° to 1100 MSL, then direct RADNR, then on heading 201°, thence. . . .
TAKEOFF RUNWAY 20R: Climb heading 201° to 1300 MSL, then right turn direct BOGAA, then on heading 260°, thence. . . .
TAKEOFF RUNWAY 31: Climb heading 316° to 1100 MSL, then left turn direct YAHYA, then on heading 280°, thence. . . .

. . . .Expect radar vectors to CERAH, then on track 025° to KRSTA, maintain 4000. Expect clearance to filed altitude within 5 minutes after departure.

OLSIE TRANSITION (KRSTA1.OLSIE)

TAKEOFF OBSTACLE NOTES

Rwy 2L: Trees beginning 203′ from DER, 489′ right of centerline, up to 60′ AGL/576′ MSL.
Rwy 13: Blast fence obstruction light 335′ from DER, 64′ left of centerline, 6′ AGL/595′ MSL.
Trees beginning 2852′ from DER, 28′ right of centerline, up to 60′ AGL/685′ MSL.
Pole 3761′ from DER, 726′ right of centerline, 60′ AGL/689′ MSL.
Rwy 20C: Trees beginning 2089′ from DER, 934′ right of centerline, up to 60′ AGL/623′ MSL.
Rwy 20L: Trees beginning 1844′ from DER, 720′ left of centerline, up to 60′ AGL/639′ MSL.
Rwy 20R: Flagpole 1298′ from DER, 777′ right of centerline, 37′ AGL/636′ MSL.
Building 2183′ from DER, 1083′ right of centerline, 91′ AGL/680′ MSL.
Rwy 31: Ground 2′ from DER, 498′ left of centerline, 541′ MSL.
LOC obstruction light 303′ from DER, on centerline, 48′ AGL/547′ MSL.
Blast fence obstruction light 382′ from DER, 50′ left of centerline, 30′ AGL/569′ MSL.
Trees beginning 789′ from DER, 331′ right of centerline, up to 60′ AGL/602′ MSL.
Pole 1012′ from DER, 429′ left of centerline, 29′ AGL/578′ MSL.
Transmission tower 1882′ from DER, 219′ right of centerline, 61′ AGL/610′ MSL.
Pole 2037′ from DER, 422′ right of centerline, 47′ AGL/596′ MSL.
Transmission tower 2778′ from DER, 83′ left of centerline, 91′ AGL/630′ MSL.

PROTOTYPE-NOT FOR NAVIGATION

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : LOUISVILLE	City : LOUISVILLE	Ident : IIU	State : KY
Type/Class : TACR	Frequency : M1182	Reference No.: 12031159	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 704184-062	198	211	82	80	160

Requirement: ESTABLISH ESV FOR KBNA RNAV SIDS		
Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/22/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704184-062	198	211	82	80	160	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: Cassella Charles	Routing Symbol:	Date: 03/27/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704184-062	198	211	82	80	160	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/28/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704184-062	198	211				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

FR57A

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : GRAHAM	City : GRAHAM	Ident : GHM	State : TN
Type/Class : TACR	Frequency : M1014	Reference No.: 12031161	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 755483-010	36	45	78	70	240

Requirement: ESTABLISH ESV FOR KBNA RNAV SIDS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/22/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-010	36	45	78	70	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: Cassella Charles	Routing Symbol:	Date: 03/27/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-010	36	45	78	70	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/28/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-010	36	45				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

KRSTA

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.: 12031160	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 703993-007	206	217	67	80	240

Requirement: ESTABLISH ESV FOR KBNA RNAV SIDS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/22/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703993-007	206	217	67	80	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: Cassella Charles	Routing Symbol:	Date: 03/27/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703993-007	206	217	67	80	240	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/28/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703993-007	206	217				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : CENTRAL CITY	City : CENTRAL CITY	Ident : CCT	State : KY
Type/Class : TACR	Frequency : M996	Reference No.: 12031158	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 703978-012	97	156	72	58	240

Requirement: ESTABLISH ESV FOR KBNA RNAV SIDS		
Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/22/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703978-012	97	156	72	58	160	RESTRICT

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSRESTRICTED TO MAX ALT 16,000 FEET DUE TO CO CHANNEL INTERFERENCE		
Signature: Cassella Charles	Routing Symbol:	Date: 03/26/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703978-012	97	156	72	58	160	RESTRICT

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSRESTRICTED TO MAX ALT 16,000 FEET DUE TO CO CHANNEL INTERFERENCE		
Signature: Cassella Charles	Routing Symbol:	Date: 03/26/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703978-012	97	156	72	58	140	RESTRICT

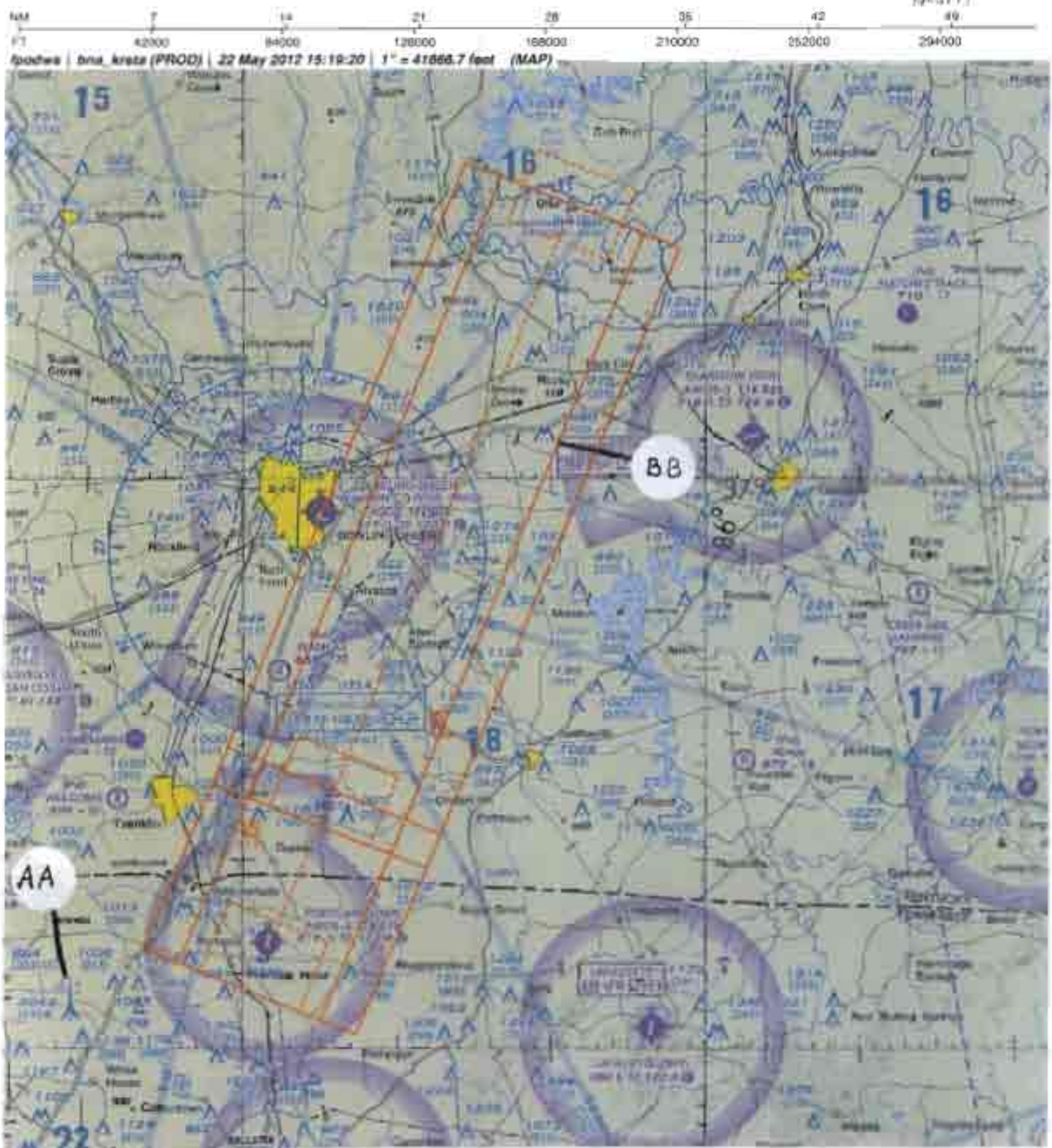
Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSRESTRICTED. MAX ALT FL=140. CO CHANNEL INTERFERENCE WITH HRS.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/29/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703978-012	97	156	72	58	140	RESTRICT

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV SIDSRESTRICTED. MAX ALT FL=140. CO CHANNEL INTERFERENCE WITH HRS.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/29/2012

KRSTA

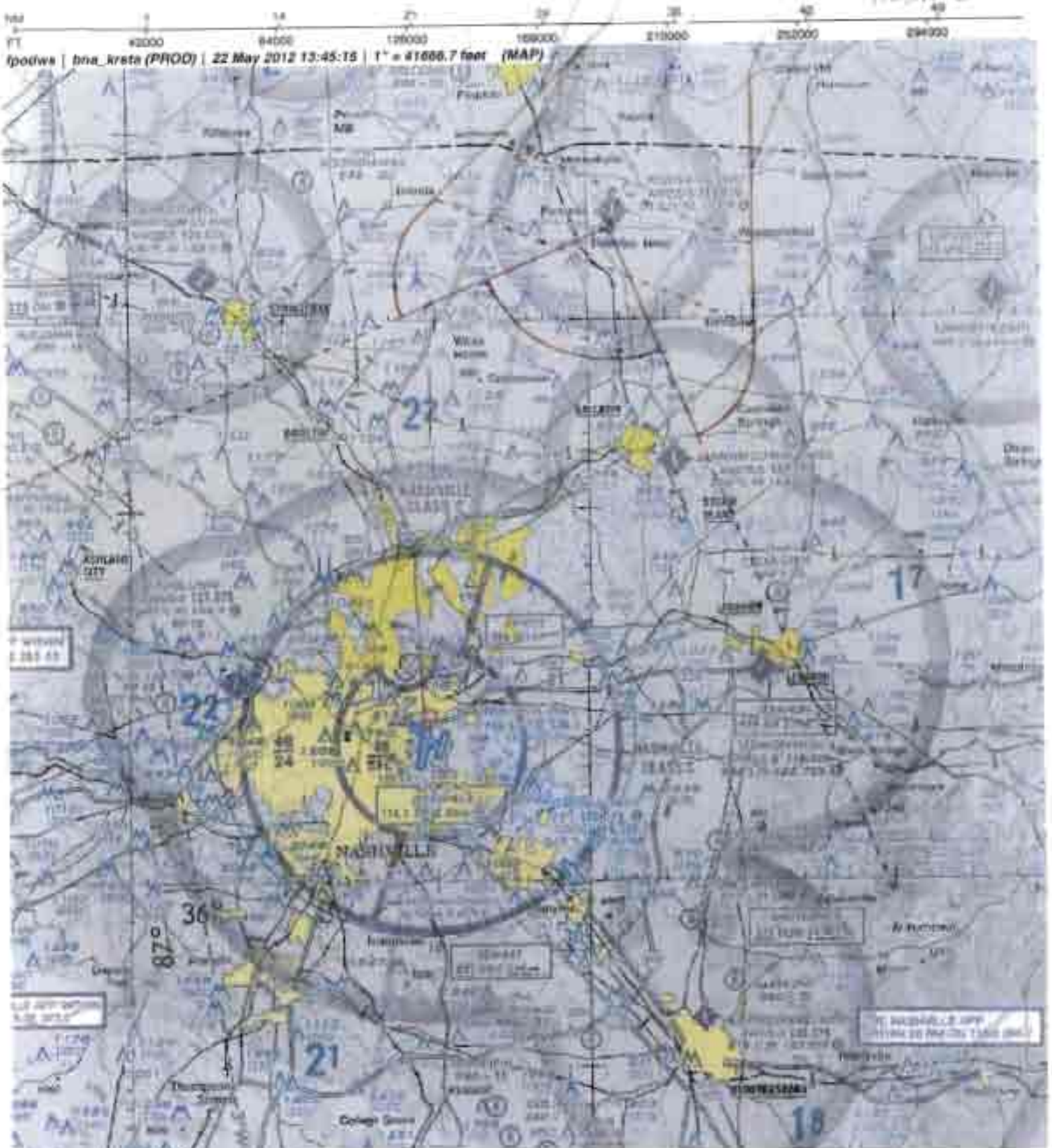


Airport ID:	KBNA
Apt Name:	NASHVILLE INTL
City:	NASHVILL
State:	TENNESSEE
Proc ID:	KRSTA (RNAV)
Amdt #:	ONE
Scale:	1: 500,000

No.	SEGMENT	OBSTRUCTION	ELEV
AA	CERAH - KRSTA MOCA	TOWER	2049
BB	KRSTA - OLSIE MOCA	TOWER	1460

Airport ID:	KBNA
Apt Name:	NASHVILLE INTL
City:	NASHVILL
State:	TENNESSEE
Proc ID:	KRSTA (RNAV)
Amdt #:	ONE
Scale:	1: 500,000

No.	SEGMENT	OBSTRUCTION	ELEV
	RWY 02C PNA		ASC



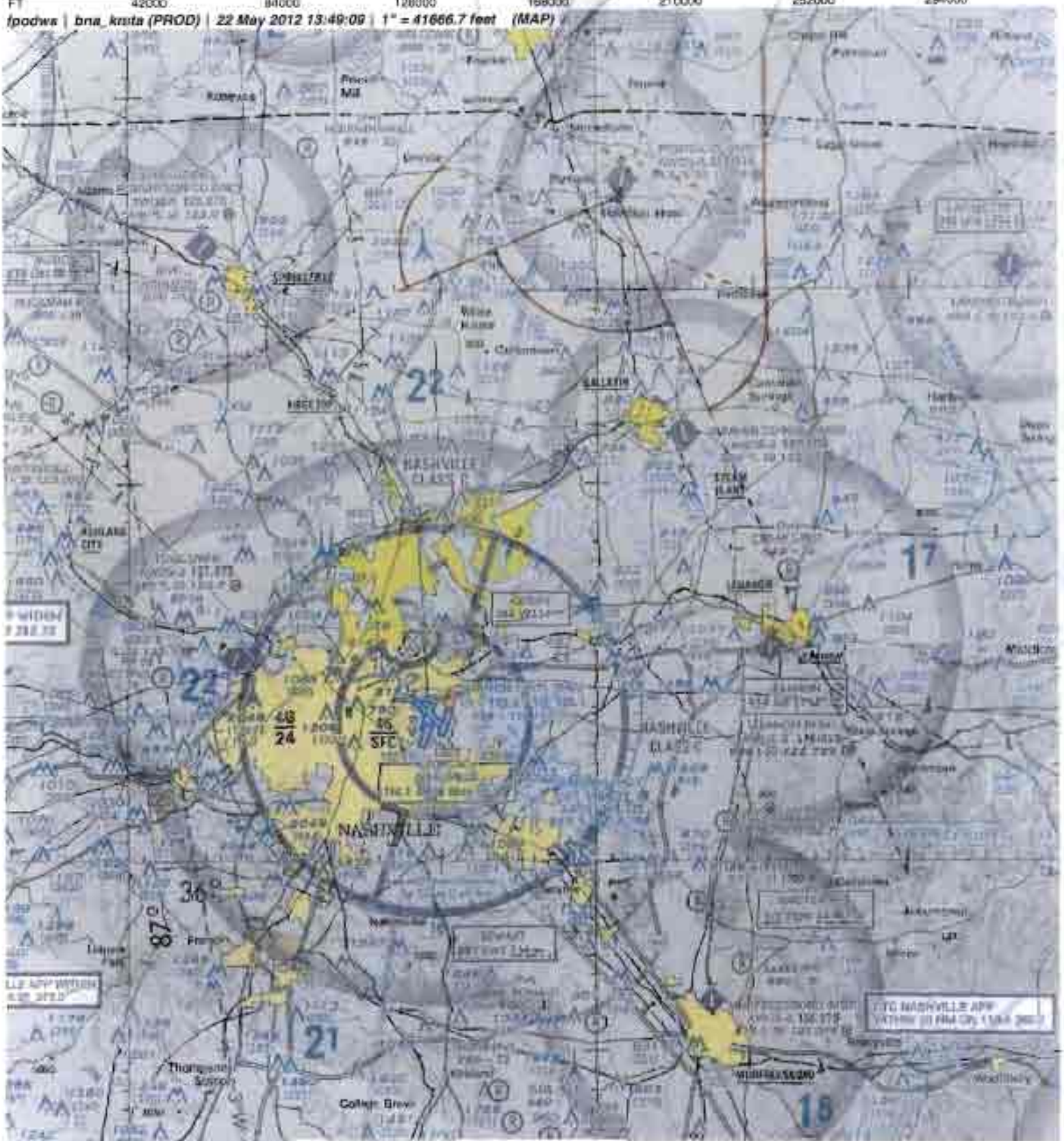
Airport ID:	KBNA				
Apt Name:	NASHVILLE INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City:	NASHVILL		RWY 02L PNA		ASC
State:	TENNESSEE				
Proc ID:	KRSTA (BNAV)				
Amdt #:	ONE				
Scale:	1: 500,000				

KRSTA 2R

NM 7 14 21 28 35 42 49

FT 42000 84000 126000 168000 210000 252000 294000

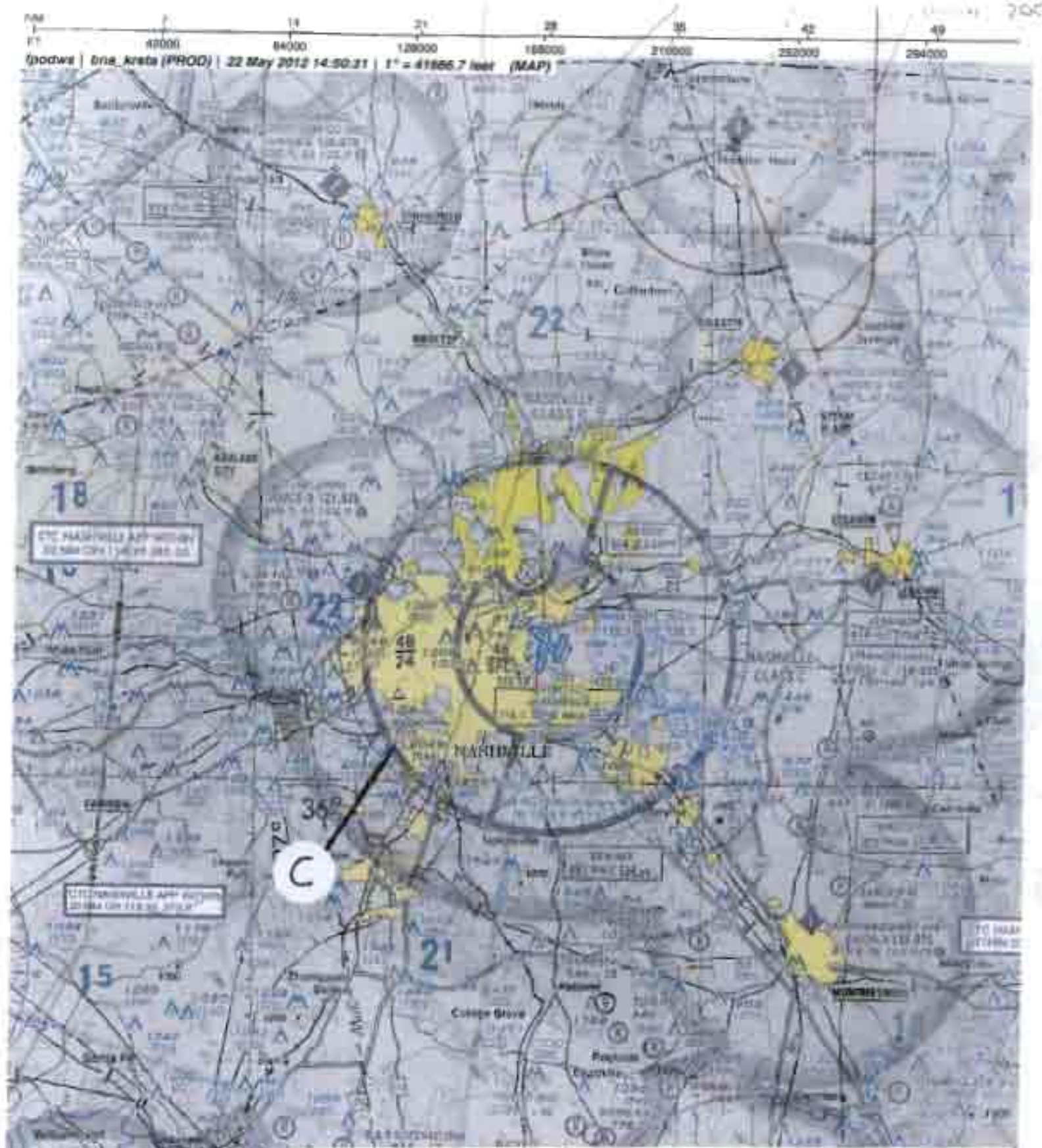
fpodws | bna_krsta (PROD) | 22 May 2012 13:49:09 | 1" = 41666.7 feet (MAP)



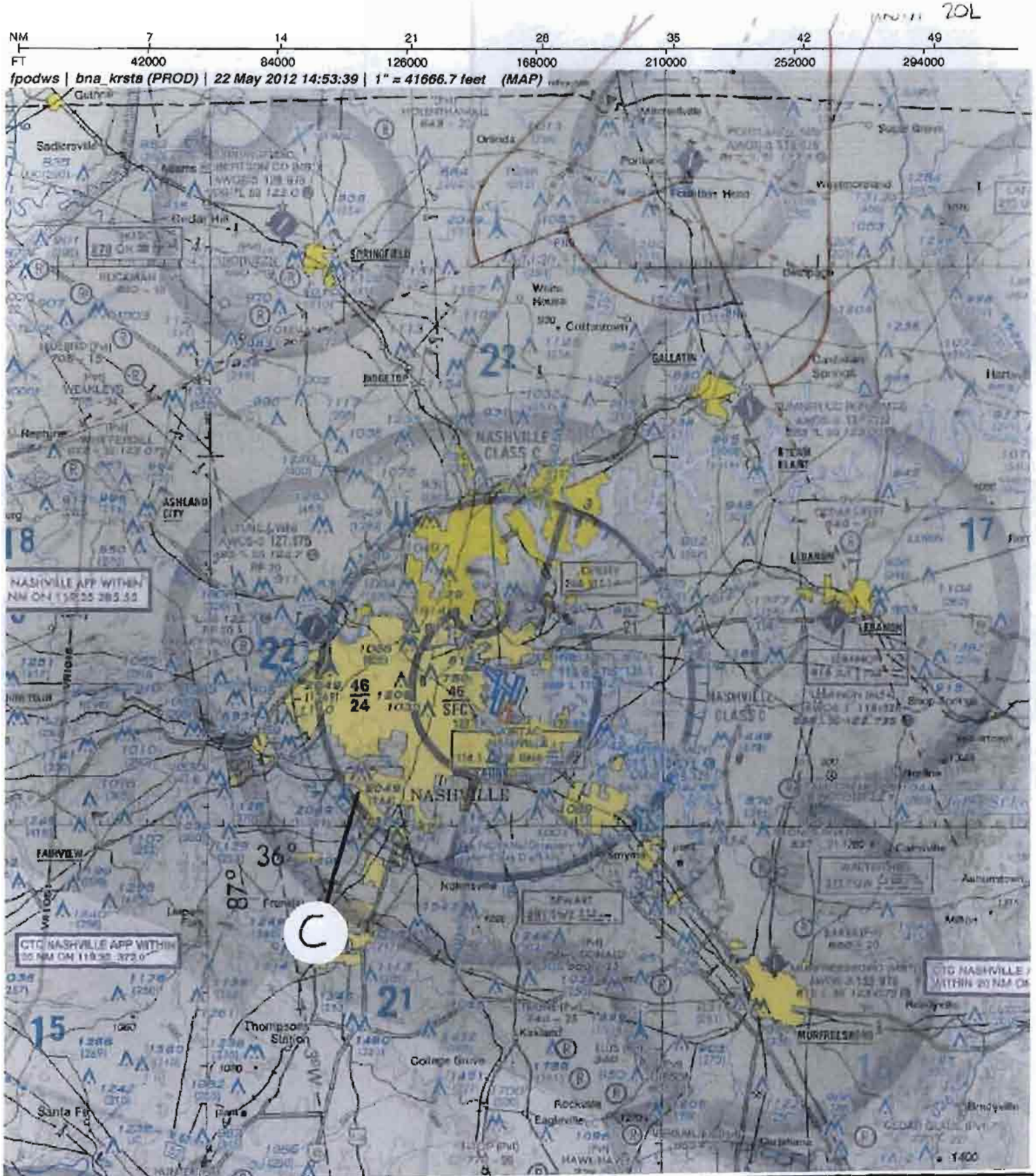
Airport ID:	KBNA
Apt Name:	NASHVILLE INTL
City:	NASHVILL
State:	TENNESSEE
Proc ID:	KRSTA (RNAV)
Amdt #:	ONE
Scale:	1: 500,000

No.	SEGMENT	OBSTRUCTION	ELEV
	RWY 02R PNA		ASC

Airport ID	KBNA				
Apt Name	NASHVILLE INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City	NASHVILL		RWY 13 PNA		ASC
State	TENNESSEE				
Proc ID	KRSTA (RNAV)				
Amdt #	ONE				
Scale	1: 500,000				

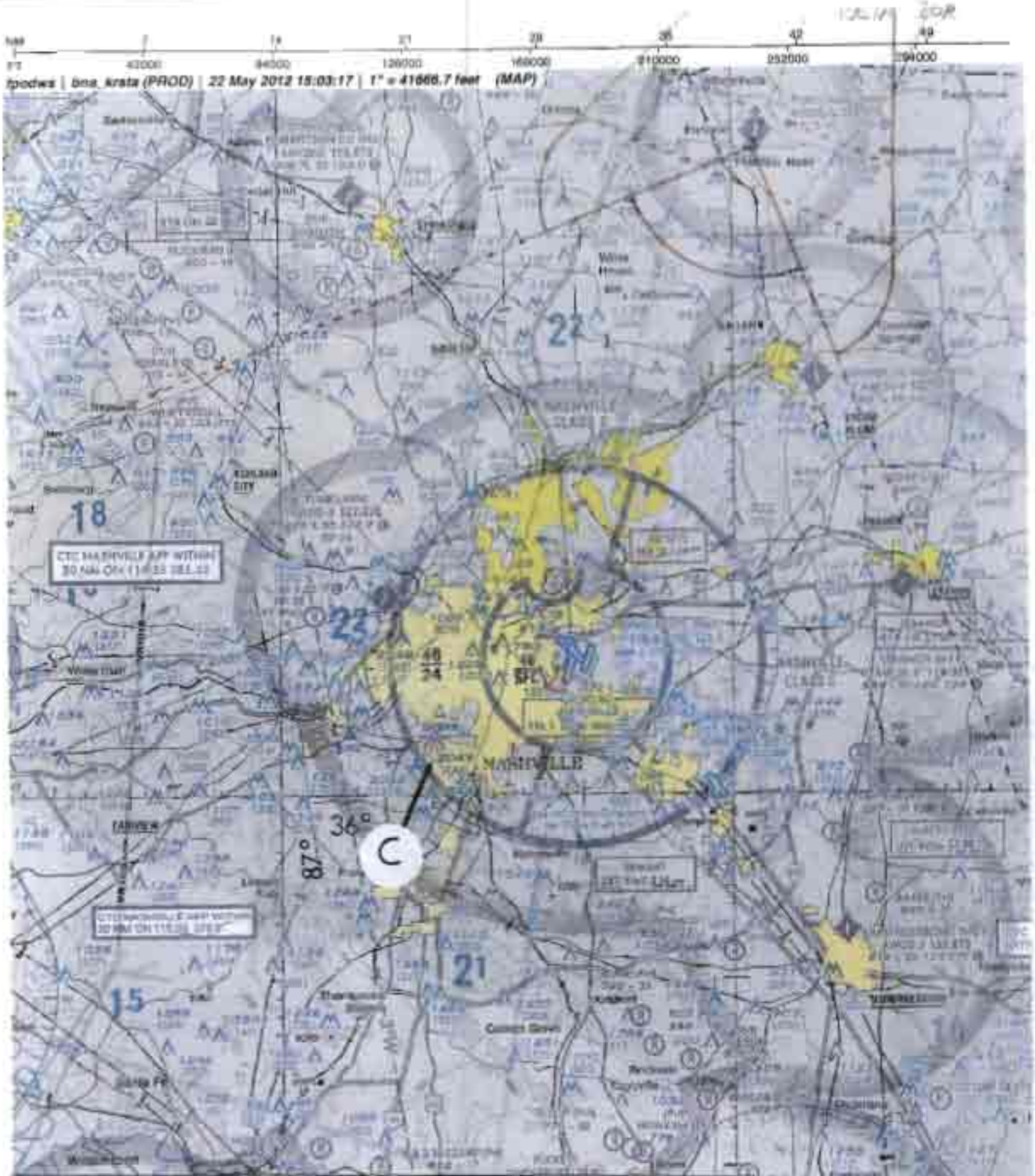


Airport ID:	KBNA				
Apt Name:	NASHVILLE INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City:	NASHVILL	C	RWY 20C PEN	TOWER	3049
State:	TENNESSEE				
Proc ID:	KRSTA (RNAV)				
Amdt #:	ONE				
Scale:	1: 500,000				



Airport ID:	KBNA
Apt Name:	NASHVILLE INTL
City:	NASHVILL
State:	TENNESSEE
Proc ID:	KRSTA (RNAV)
Amdt #:	ONE
Scale:	1: 500,000

No.	SEGMENT	OBSTRUCTION	ELEV
C	RWY 20L PEN	TOWER	2049



Airport ID:	KBNA				
Apt Name:	NASHVILLE INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City:	NASHVILL	C	RWY 20R PEN	TOWER	2049
State:	TENNESSEE				
Proc ID:	KRSTA (RNAV)				
Amdt #:	ONE				
Scale:	1: 500,000				

KRSTA 31

NM 7 14 21 28 35 42 49

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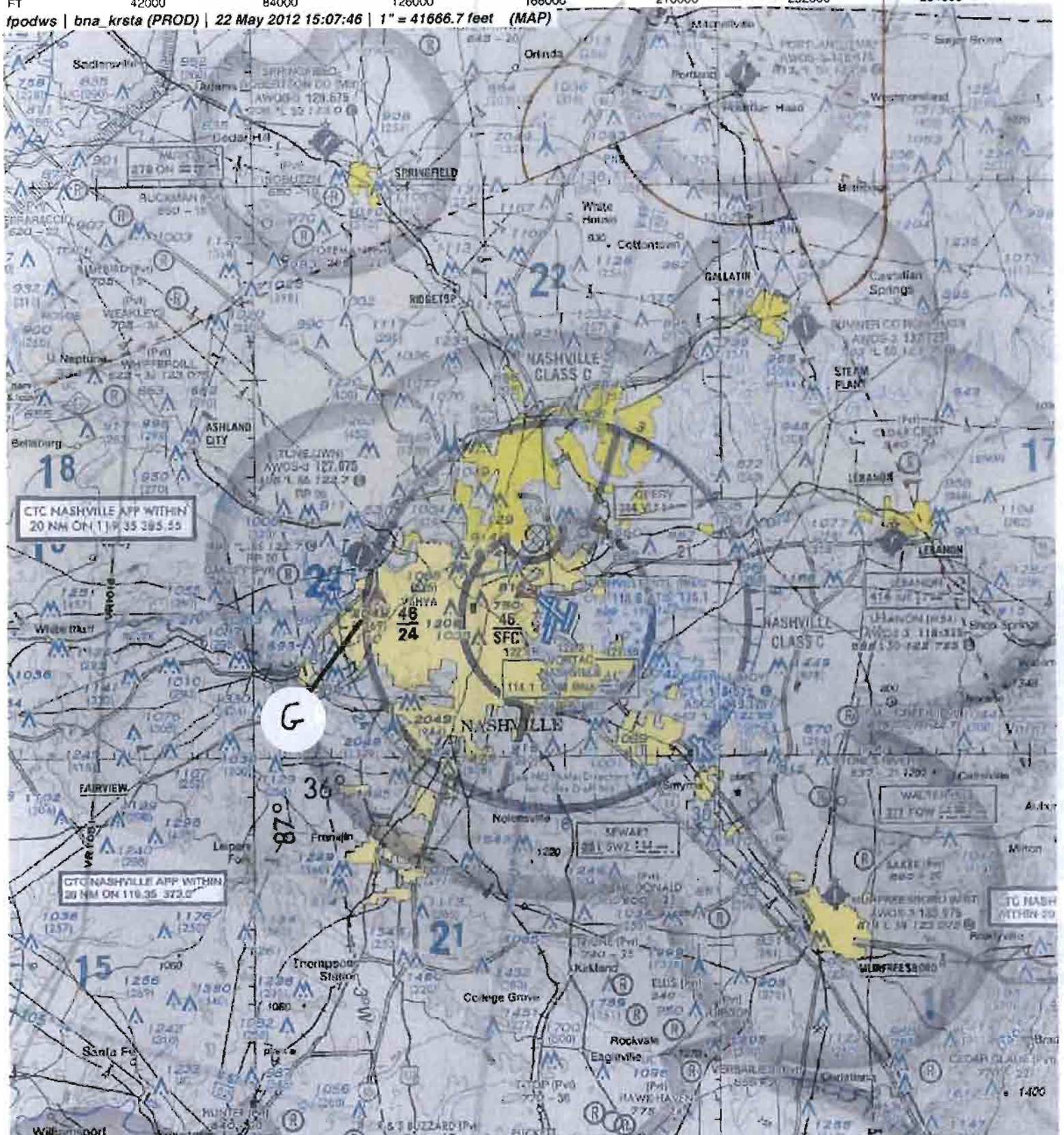
fpodws | bna_krsta (PROD) | 22 May 2012 15:07:46 | 1" = 41666.7 feet (MAP)



Airport ID:	KBNA				
Apt Name:	NASHVILLE INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City:	NASHVILL	G	RWY 31 PEN	ANT	2049
State:	TENNESSEE				
Proc ID:	KRSTA (RNAV)				
Amdt #:	ONE				
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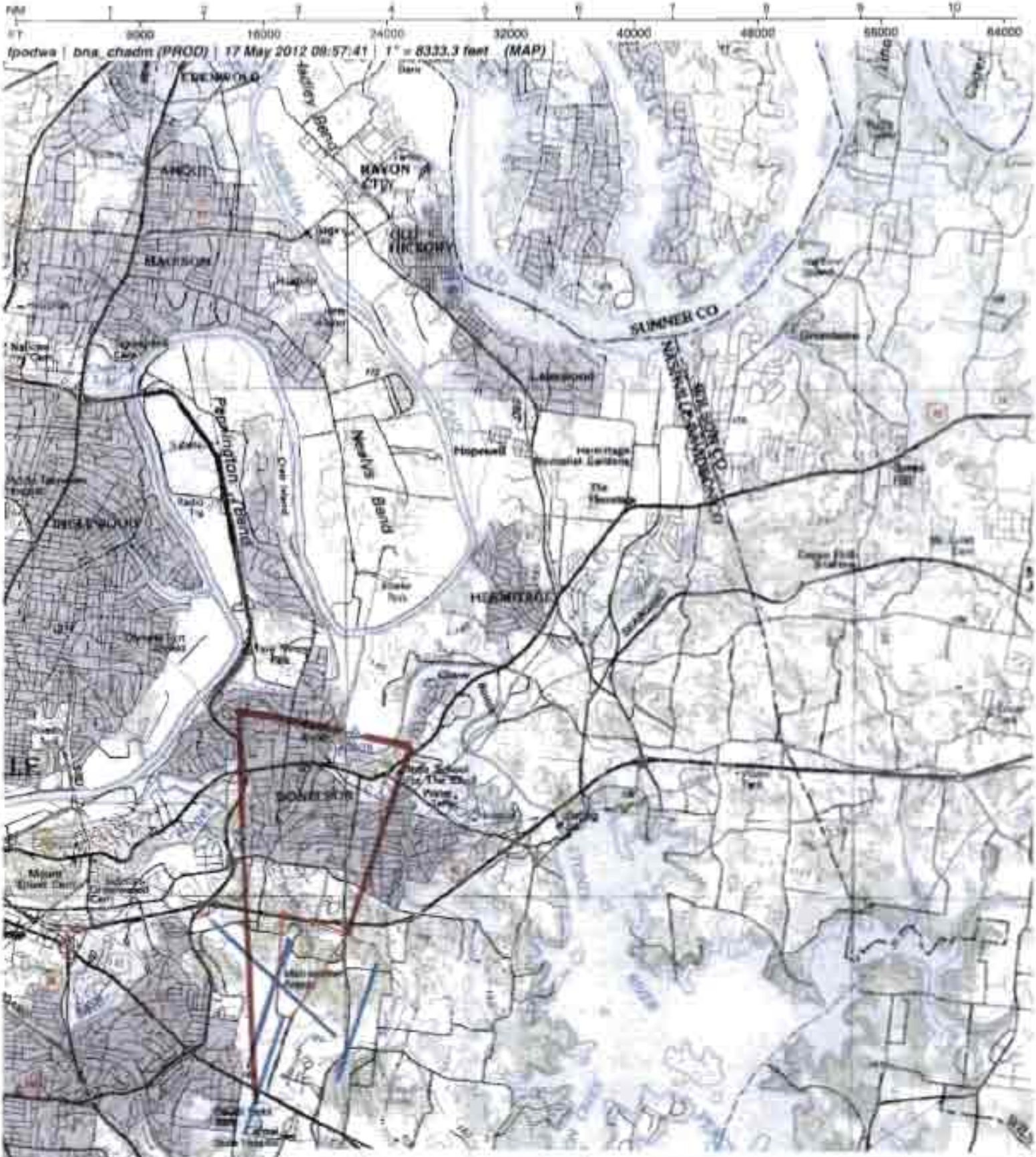
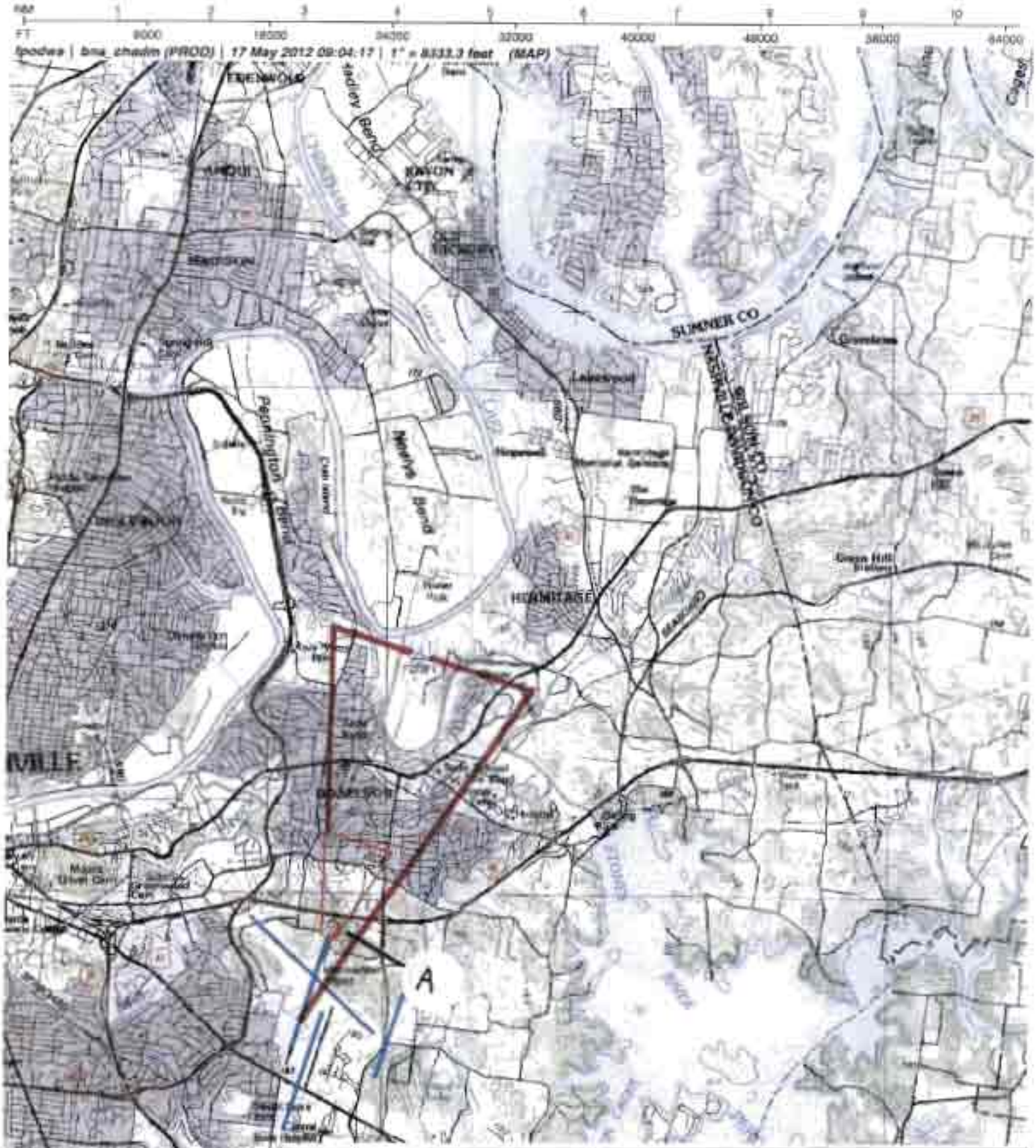
KRSTA 2C



Airport ID:	KBNA
Apt Name:	NASHVILLE INTL
City:	NASHVILL
State:	TENNESSEE
Proc ID:	KRSTA (RNAV)
Amdt #:	ONE
Scale:	1: 180,000

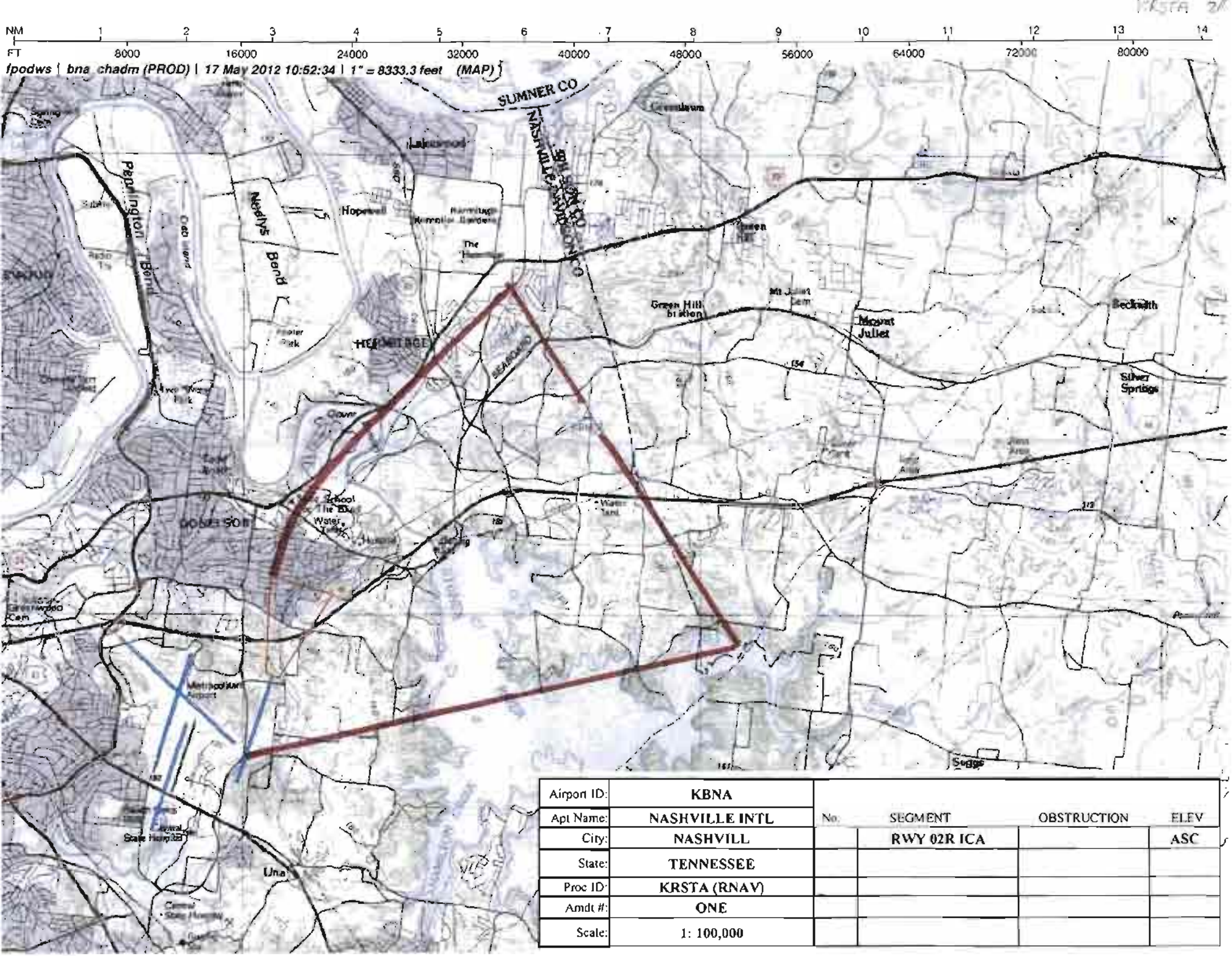
No	SEGMENT	OBSTRUCTION	ELEV
	RWY 02C ICA		ASC

KRSTA 2L

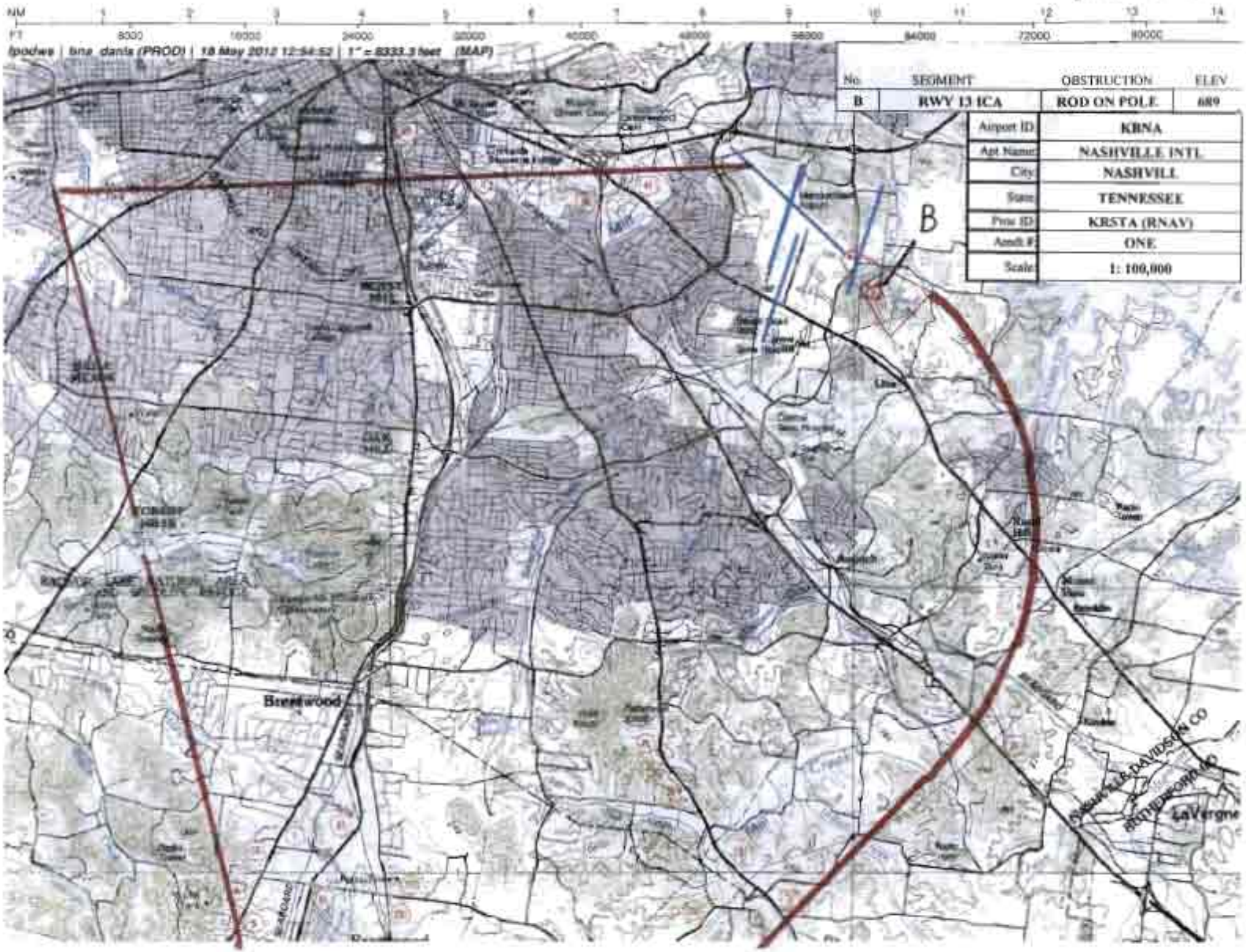


Airport ID:	KBNA
Apt Name:	NASHVILLE INTL
City:	NASHVILL
State:	TENNESSEE
Proc ID:	KRSTA (RNAV)
Amdt #:	ONE
Scale:	1: 100,000

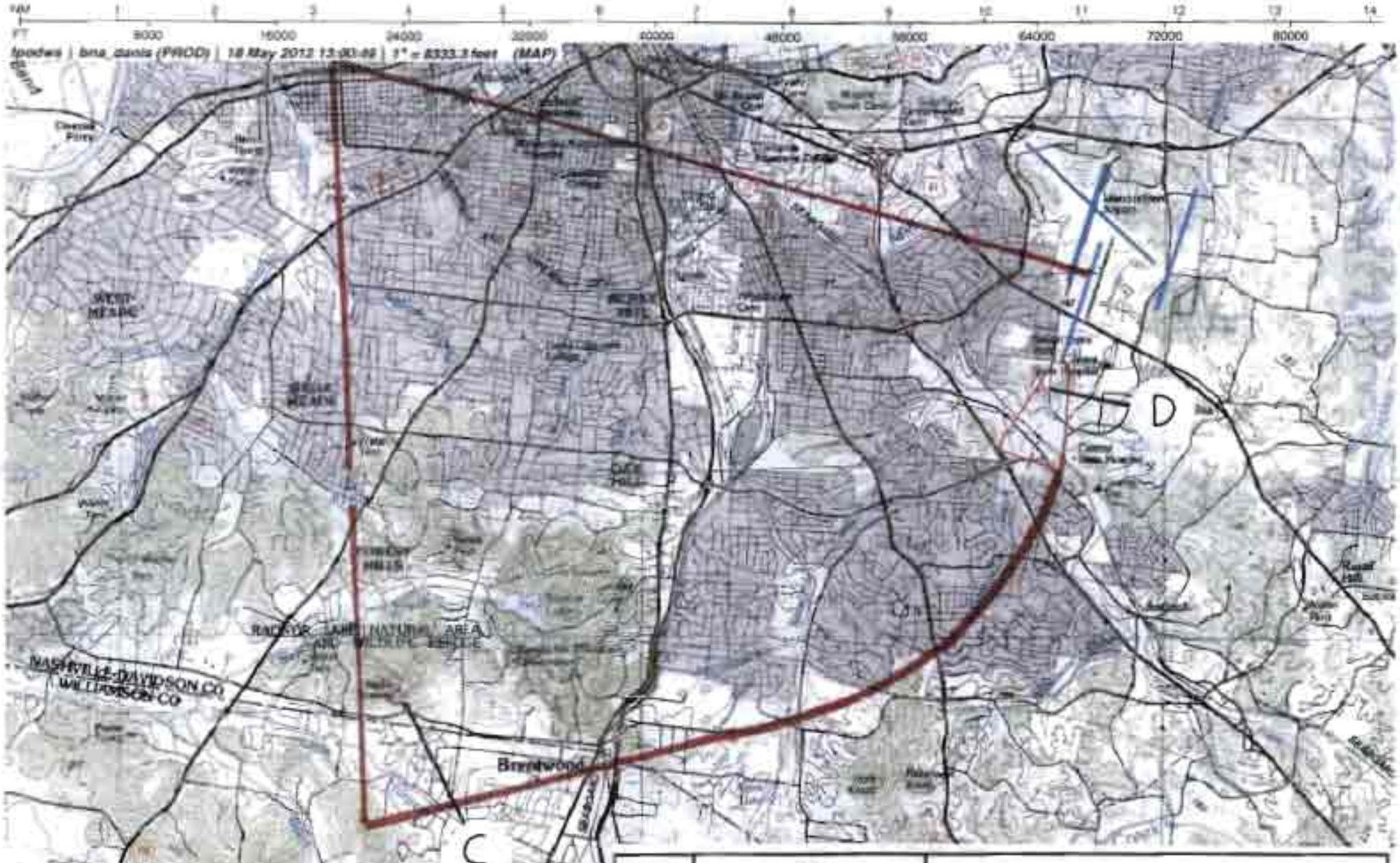
No.	SEGMENT	OBSTRUCTION	ELEV
A	R02L ICA	TREE	570



Airport ID:	KBNA				
Apt Name:	NASHVILLE INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City:	NASHVILL		RWY 02R ICA		ASC
State:	TENNESSEE				
Proc ID:	KRSTA (RNAV)				
Amdt #:	ONE				
Scale:	1: 100,000				


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
tpodws | bna_dants (PROD) | 18 May 2012 12:54:52 | 1" = 8333.3 feet (MAP)
No. SEGMENT OBSTRUCTION ELEV
B RWY 13 ICA ROD ON POLE 689
Airport ID KBNA
Apt Name NASHVILLE INTL
City NASHVILLE
State TENNESSEE
Proc ID KRSTA (RNAV)
Amdt # ONE
Scale 1: 100,000
B
Brentwood
LaVergne

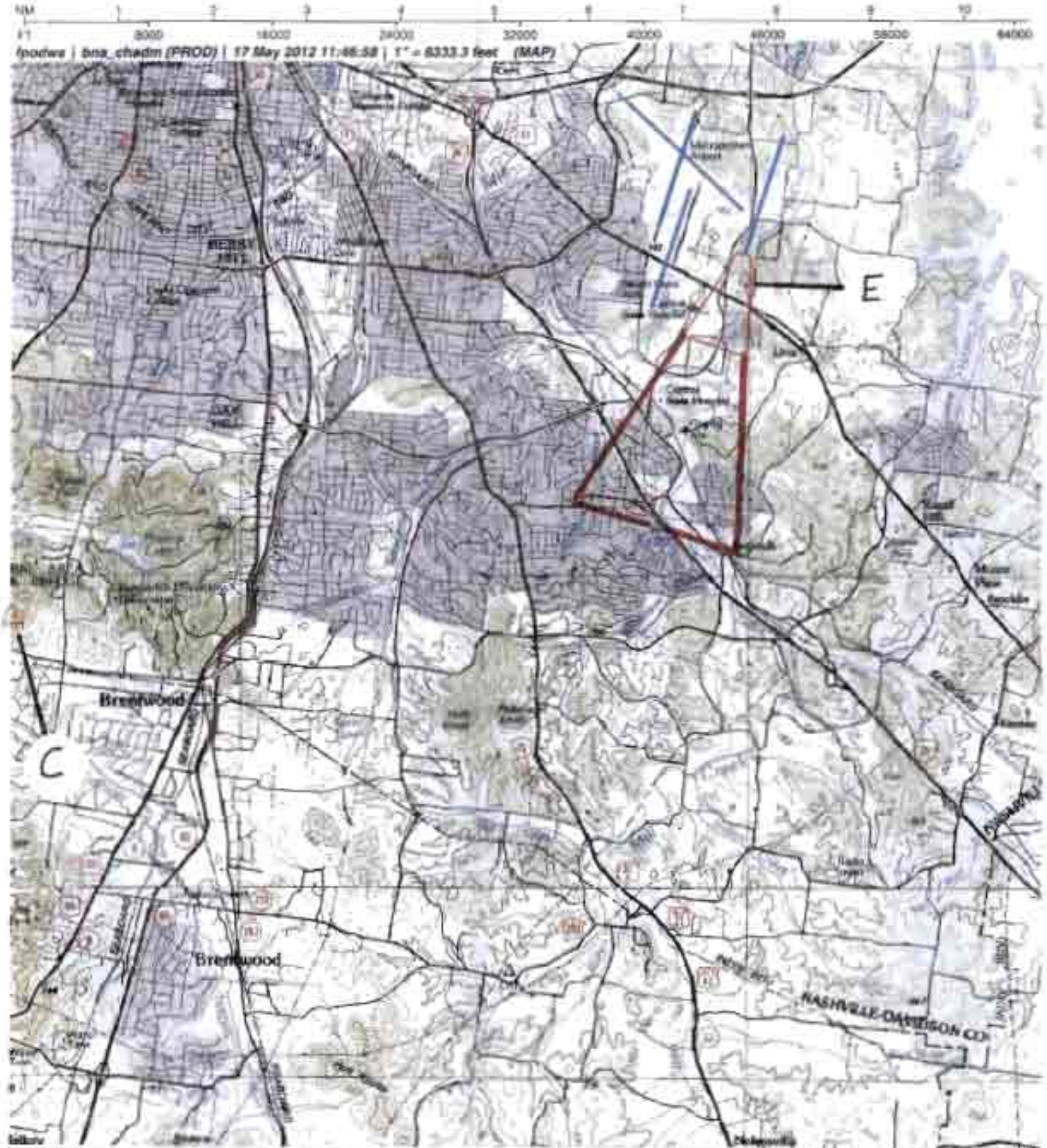
KRSTA_DAC



Airport ID	KBNA
Apt Name	NASHVILLE INTL
City	NASHVILL
State	TENNESSEE
Proc ID	KRSTA (RNAV)
Amdt #	ONE
Scale	1: 100,000

No.	SEGMENT	OBSTRUCTION	ELEV
D	RWY 20C ICA	TREE	623
C	RWY 20C PEN	TOWER	2049

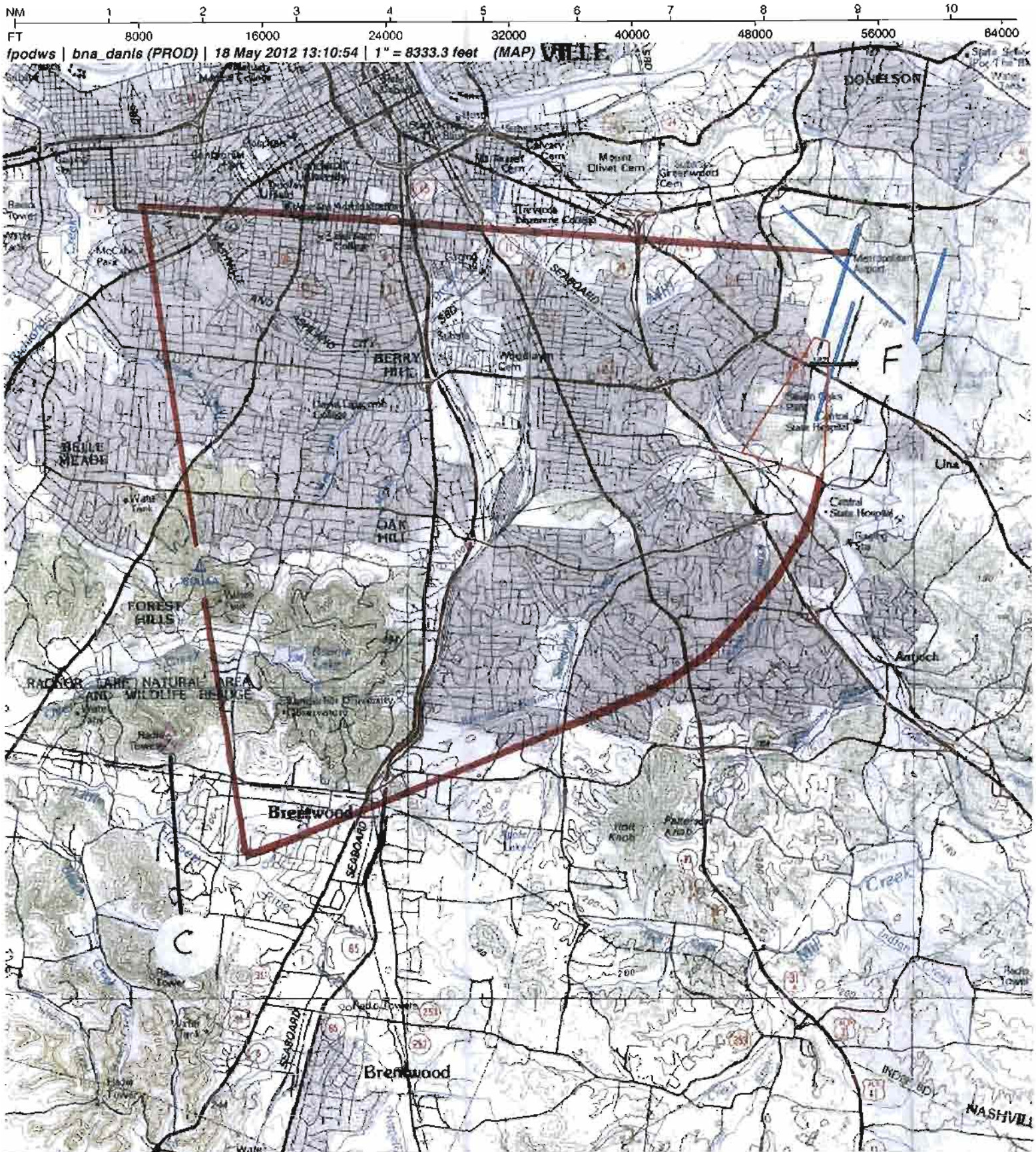
KRSTA DAL



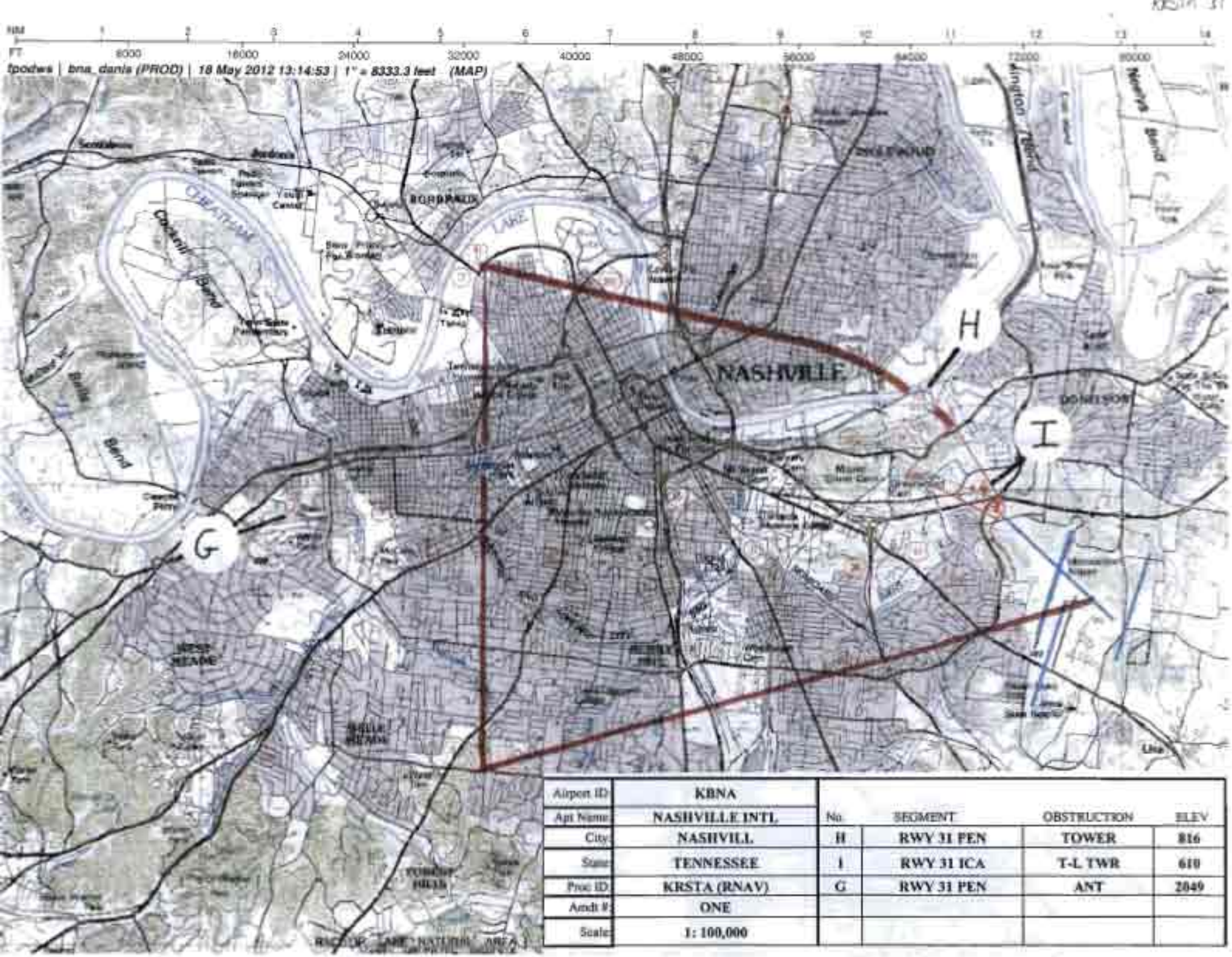
Airport ID:	KBNA
Apt Name:	NASHVILLE INTL
City:	NASHVILL
State:	TENNESSEE
Proc ID:	KRSTA (RNAV)
Amdt #:	ONE
Scale:	1: 100,000

No	SEGMENT	OBSTRUCTION	ELEV
E	RWY 20L ICA	TREE	639
C	RWY 20L PEN	TOWER	2049

KRSTA 20R



Airport ID:	KBNA				
Apt Name:	NASHVILLE INTL	No.	SEGMENT	OBSTRUCTION	ELEV
City:	NASHVILL	F	RWY 20R ICA	BLDG	680
State:	TENNESSEE	C	RWY 20R PEN	TOWER	2049
Proc ID:	KRSTA (RNAV)				
Amdt #:	ONE				
Scale:	1: 100,000				



Airport ID:	KBNA
Apt Name:	NASHVILLE INTL
City:	NASHVILL
State:	TENNESSEE
Proc ID:	KRSTA (RNAV)
Amdt #:	ONE
Scale:	1: 100,000

No.	SEGMENT	OBSTRUCTION	ELEV
H	RWY 31 PEN	TOWER	816
I	RWY 31 ICA	T-L TWR	618
G	RWY 31 PEN	ANT	2049

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
KRSTA (RNAV)	ONE	KRSTA1.KRSTA	NONE		

TYPE: RNAV SID

DP ROUTE DESCRIPTION:

TAKEOFF RWY 02C: CLIMB HEADING 020.98 TO 1100, THEN DIRECT JOOON, THEN ON HEADING 015.00 THENCE...
TAKEOFF RWY 02L: CLIMB HEADING 020.65 TO 1100, THEN DIRECT FOOFY, THEN ON HEADING 020.65 THENCE...
TAKEOFF RWY 02R: CLIMB HEADING 020.99 TO 1100, THEN RIGHT TURN DIRECT KDNCE, THEN ON HEADING 055.00 THENCE...
TAKEOFF RWY 13: CLIMB HEADING 136.30 TO 1100, THEN RIGHT TURN DIRECT KLSTR, THEN ON HEADING 260.00 THENCE...
TAKEOFF RWY 20C: CLIMB HEADING 200.99 TO 1100, THEN RIGHT TURN DIRECT MIJOM, THEN ON HEADING 275.00 THENCE...
TAKEOFF RWY 20L: CLIMB HEADING 201.00 TO 1100, THEN DIRECT RADNR, THEN ON HEADING 200.99 THENCE...
TAKEOFF RWY 20R: CLIMB HEADING 200.65 TO 1300, THEN RIGHT TURN DIRECT BOGAA, THEN ON HEADING 260.00 THENCE...
TAKEOFF RWY 31: CLIMB HEADING 316.32 TO 1100, THEN LEFT TURN DIRECT YAHYA, THEN ON HEADING 280.00 THENCE...

...EXPECT RADAR VECTORS TO CERAH, THEN ON TRACK 025.40 TO KRSTA (MEA 7900/MOCA 3100), MAINTAIN 4000. EXPECT CLEARANCE TO FILED ALTITUDE WITHIN 5 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
OLSIE	KRSTA1.OLSIE	KRSTA	OLSIE	024.74	33.15	14600	2500	

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTE: TRANSPONDER CODE WILL BE ISSUED VIA PDC OR NASHVILLE CLEARANCE DELIVERY.
NOTE: IF UNABLE TO ACCEPT CLIMB RATES, ADVISE ATC ON INITIAL CONTACT.
NOTE: RNAV-1.
NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: RADAR REQUIRED.

TAKEOFF MINIMUMS:
RWY 02C, 02L, 02R, 13, 20L, 31, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1100.
RWY 20C, 20R, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 1300.

TAKEOFF OBSTACLES NOTES:

RWY 02L, TREES BEGINNING 203 FT FROM DER, 489 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/576 FT MSL.
RWY 13, BLAST FENCE OBSTRUCTION LIGHT 335 FT FROM DER, 64 FT LEFT OF CENTERLINE, 6 FT AGL/595 FT MSL. TREES BEGINNING 2852 FT FROM DER, 28 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/685 FT MSL. POLE 3761 FT FROM DER, 726 FT RIGHT OF CENTERLINE, 60 FT AGL/689 FT MSL.
RWY 20C, TREES BEGINNING 2089 FT FROM DER, 934 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/623 FT MSL.
RWY 20L, TREES BEGINNING 1844 FT FROM DER, 720 LEFT OF CENTERLINE, UP TO 60 FT AGL/639 FT MSL.
RWY 20R, FLAGPOLE 1298 FT FROM DER, 777 FT RIGHT OF CENTERLINE, 37 FT AGL/636 FT MSL. BLDG 2183 FT FROM DER, 1083 FT RIGHT OF CENTERLINE, 91 FT AGL/680 FT MSL.

GRAPHIC DEPARTURE PROCEDURE (DP)

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KRSTA (RNAV)	ONE	KRSTA1.KRSTA	NONE		

RWY 31, GROUND 2 FT FROM DER, 498 FT LEFT OF CENTERLINE, 541 FT MSL. LOC OBSTRUCTION LIGHT 303 FT FROM DER, ON CENTERLINE, 48 FT AGL/547 FT MSL. BLAST FENCE OBSTRUCTION LIGHT 382 FT FROM DER, 50 FT LEFT OF CENTERLINE, 30 FT AGL/569 FT MSL. TREES BEGINNING 789 FT FROM DER, 331 FT RIGHT OF CENTERLINE, UP TO 60 FT AGL/602 FT MSL. POLE 1012 FT FROM DER, 429 FT LEFT OF CENTERLINE, 29 FT AGL/578 FT MSL. TRANSMISSION TOWER 1882 FT FROM DER, 219 FT RIGHT OF CENTERLINE, 61 FT AGL/610 FT MSL. POLE 2037 FT FROM DER, 422 FT RIGHT OF CENTERLINE, 47 FT AGL/596 FT MSL. TRANSMISSION TOWER 2778 FT FROM DER, 83 FT LEFT OF CENTERLINE, 91 FT AGL/630 FT MSL.

CONTROLLING OBSTACLES:

RWY 31, 816 FT MSL TOWER (47-000499) 360949.00N/0864254.00W.

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 20C, RWY 20L, RWY 20R – 2049 FT MSL TOWER (47-002263) 360250.42N/0864948.93W. RWY 31 – 2049 FT MSL ANT (KJWNT0151) 360827.45N/0865156.48W,

LOST COMMUNICATIONS PROCEDURES:

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KBNA 3W EPOCH YEAR: 2010.
DME/DME ASSESSMENT: SAT (RNP 2.0).

PILOT NAVIGATION AREA:
7NM ARC CENTERED ON CERAH (IF), CW
FROM: POINT A (BEARING 340.40 TO CERAH)
TO: POINT B (BEARING 070.40 TO CERAH)
MINIMUM ALTITUDE - 6000

AIRPORTS SERVED:

NASHVILLE INTL – NASHVILLE, TN.

COMMUNICATIONS:

ATIS CLEARANCE DELIVERY, GROUND CONTROL, TOWER, DEPARTURE CONTROL.

FIXES AND/OR NAVAIDS:

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
KRSTA (RNAV)	ONE	KRSTA1.KRSTA	NONE		

REMARKS:

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:
ROUTINE

DEVELOPED BY:
DAVID SAUER AJV-352 5/22/12

APPROVED BY:
DARRYEL ADAMS AJV-352

COORDINATED WITH:
ALPA, AOPA, ATA, NBAA, ZME, ZID, BNA ATCT, BNA APP CON, BNA AMGR.

CHANGES:

REASONS:

8/3/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 5/22/12.
1. CHANGED DP ROUTE DESCRIPTION ALTITUDES FROM "...TURBOJETS MAINTAIN 4000, PROPELLER AIRCRAFT MAINTAIN 3000" TO "...TURBOJETS MAINTAIN 5000, PROPELLER AIRCRAFT MAINTAIN 4000"

8/28/12: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 5/22/12.
1. CHANGED DP ROUTE DESCRIPTION ALTITUDES FROM "...TURBOJETS MAINTAIN 5000, PROPELLER AIRCRAFT MAINTAIN 4000" TO "MAINTAIN 4000".

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KRSTA RNAV	ONE	KRSTA1.KRSTA	NONE		

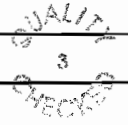
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW02C (AER)	360611.99N/0864116.66W	N	-	-	-	-			
1100 MSL	-	-	-	VA	017.98	-			CG 500 FT/NM TO 1100
JOOON	361030.30N/0863950.22W	Y	FO	DF	-	-			
	-	-	-	VM	012.00	-			
CERAH	363450.35N/0862825.33W	Y	FB	DF	-	-			
KRSTA	364337.19N/0862355.49W	Y	FB	TF	022.40	9.49			
RW02L (AER)	360703.64N/0864111.31W	N	-	-	-	-			
1100 MSL	-	-	-	VA	017.65	-			CG 500 FT/NM TO 1100
FOOFY	361120.01N/0863930.71W	Y	FO	DF	-	-			
	-	-	-	VM	017.65	-			
CERAH	363450.35N/0862825.33W	Y	FB	DF	-	-			
KRSTA	364337.19N/0862355.49W	Y	FB	TF	022.40	9.49			
RW02R (AER)	360645.77N/0864003.52W	N	-	-	-	-			
1100 MSL	-	-	-	VA	017.99	-			CG 500 FT/NM TO 1100
KDNCE	361107.30N/0863455.24W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	052.00	-			
CERAH	363450.35N/0862825.33W	Y	FB	DF	-	-			
KRSTA	364337.19N/0862355.49W	Y	FB	TF	022.40	9.49			

QUALITY 3 CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KRSTA RNAV	ONE	KRSTA1.KRSTA			

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW13 (AER)*	360823.16N/0864136.17W*	N	-	-	-	-			*DISPL THLD (801 FT)
1100 MSL	-	-	-	VA	133.30	-			CG 500 FT/NM TO 1100
KLSTR	360401.80N/0865016.36W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	257.00	-			
CERAH	363450.35N/0862825.33W	Y	FB	DF	-	-			
KRSTA	364337.19N/0862355.49W	Y	FB	TF	022.40	9.49			
RW20C (AER)	360727.24N/0864046.55W	N	-	-	-	-			
1100 MSL	-	-	-	VA	197.99	-			CG 500 FT/NM TO 1300
MIJOM	360456.58N/0865023.82W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	272.00	-			
CERAH	363450.35N/0862825.33W	Y	FB	DF	-	-			
KRSTA	364337.19N/0862355.49W	Y	FB	TF	022.40	9.49			
RW20L (AER)	360801.01N/0863933.40W	N	-	-	-	-			
1100 MSL	-	-	-	VA	198.00	-			CG 500 FT/NM TO 1100
RADNR	360353.17N/0864112.54W	Y	FO	DF	-	-			
	-	-	-	VM	197.99	-			
CERAH	363450.35N/0862825.33W	Y	FB	DF	-	-			
KRSTA	364337.19N/0862355.49W	Y	FB	TF	022.40	9.49			



DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KRSTA RNAV	ONE	KRSTA1.KRSTA			

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW20R (AER)	360816.23N/0864042.84W	N	-	-	-	-			
1300 MSL	-	-	-	VA	197.65	-			CG 500 FT/NM TO 1300
BOGAA	360440.70N/0864923.38W	Y	FO	DF	-	-			RIGHT TURN
	-	-	-	VM	257.00	-			
CERAH	363450.35N/0862825.33W	Y	FB	DF	-	-			
KRSTA	364337.19N/0862355.49W	Y	FB	TF	022.40	9.49			
RW31 (AER)*	360718.81N/0864012.01W*	N	-	-	-	-			*DISPL THLD (741 FT)
1100 MSL	-	-	-	VA	313.32	-			CG 500 FT/NM TO 1100
YAHYA	360910.44N/0864911.86W	Y	FO	DF	-	-			LEFT TURN
	-	-	-	VM	277.00	-			
CERAH	363450.35N/0862825.33W	Y	FB	DF	-	-			
KRSTA	364337.19N/0862355.49W	Y	FB	TF	022.40	9.49			
KRSTA	364337.19N/0862355.49W	Y	-	IF	-	-			KRSTA1.OLSIE
OLSIE	371426.35N/0860832.69W	Y	FB	TF	021.74	33.15			

QUALITY 3 CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KRSTA RNAV	ONE	KRSTA1.KRSTA	NONE		

ARINC PACKET - 424-18 - SID

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                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP       12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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         SUSAEAENRT   BOGAA K70    W     N36044070W086492338                    W0033     NAR          BOGAA
         SUSAEAENRT   CERAH K70    W     N36345035W086282533                    W0037     NAR          CERAH
         SUSAEAENRT   FOOFY K70    W     N36112001W086393071                    W0035     NAR          FOOFY
         SUSAEAENRT   JOOON K70    W     N36103030W086395022                    W0035     NAR          JOOON
         SUSAEAENRT   KDNCE K70    W     N36110730W086345524                    W0035     NAR          KDNCE
         SUSAEAENRT   KLSTR K70    W     N36040180W086501636                    W0033     NAR          KLSTR
         SUSAEAENRT   KRSTA K50    W     N36433719W086235549                    W0037     NAR          KRSTA
         SUSAEAENRT   MIJOM K70    W     N36045658W086502382                    W0033     NAR          MIJOM
         SUSAEAENRT   OLSIE K50    W   L N37142635W086083269                    W0040     NAR          OLSIE
         SUSAEAENRT   RADNR K70    W     N36035317W086411254                    W0034     NAR          RADNR
         SUSAEAENRT   YAHYA K70    W     N36091044W086491186                    W0033     NAR          YAHYA

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
         ------------------------------------------------------------------------------------------------------------------------------
         SUSAP KBNAK7ABNA     0     110YHN36072810W086404150W003000599          1800018000C    MNAR    NASHVILLE INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
         ------------------------------------------------------------------------------------------------------------------------------
         SUSAP KBNAK7DKRSTA14RW02C 010         0       VA                     0210       + 01100     18000
         SUSAP KBNAK7DKRSTA14RW02C 020JOOONK7EA0EY   010DF
         SUSAP KBNAK7DKRSTA14RW02C 030         0       VM                     0150
         SUSAP KBNAK7DKRSTA14RW02C 040CERAHK7EA0E    010DF
         SUSAP KBNAK7DKRSTA14RW02C 050KRSTAK5EA0EE   010TF                  02540095
         SUSAP KBNAK7DKRSTA14RW02L 010         0       VA                     0207       + 01100     18000
         SUSAP KBNAK7DKRSTA14RW02L 020FOOFYK7EA0EY   010DF
         SUSAP KBNAK7DKRSTA14RW02L 030         0       VM                     0207
         SUSAP KBNAK7DKRSTA14RW02L 040CERAHK7EA0E    010DF
         SUSAP KBNAK7DKRSTA14RW02L 050KRSTAK5EA0EE   010TF                  02540095
         SUSAP KBNAK7DKRSTA14RW02R 010         0       VA                     0210       + 01100     18000
         SUSAP KBNAK7DKRSTA14RW02R 020KDNCEK7EA0EY   010DF
         SUSAP KBNAK7DKRSTA14RW02R 030         0       VM                     0550
         SUSAP KBNAK7DKRSTA14RW02R 040CERAHK7EA0E    010DF
         SUSAP KBNAK7DKRSTA14RW02R 050KRSTAK5EA0EE   010TF                  02540095
         SUSAP KBNAK7DKRSTA14RW13  010         0       VA                     1363       + 01100     18000
         SUSAP KBNAK7DKRSTA14RW13  020KLSTRK7EA0EY   R010DF
         SUSAP KBNAK7DKRSTA14RW13  030         0       VM                     2600
         SUSAP KBNAK7DKRSTA14RW13  040CERAHK7EA0E    010DF
         SUSAP KBNAK7DKRSTA14RW13  050KRSTAK5EA0EE   010TF                  02540095
         SUSAP KBNAK7DKRSTA14RW20C 010         0       VA                     2010       + 01100     18000
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DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KRSTA RNAV	ONE	KRSTA1.KRSTA	NONE		

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SUSAP KBNAK7DKRSTA14RW20C 020MIJOMK7EA0EY   010DF
SUSAP KBNAK7DKRSTA14RW20C 030         0       VM                    2750
SUSAP KBNAK7DKRSTA14RW20C 040CERAHK7EA0E    010DF
SUSAP KBNAK7DKRSTA14RW20C 050KRSTAK5EA0EE   010TF                   02540095
SUSAP KBNAK7DKRSTA14RW20L 010         0       VA                    2010        + 01100     18000
SUSAP KBNAK7DKRSTA14RW20L 020RADNRK7EA0EY   010DF
SUSAP KBNAK7DKRSTA14RW20L 030         0       VM                    2010
SUSAP KBNAK7DKRSTA14RW20L 040CERAHK7EA0E    010DF
SUSAP KBNAK7DKRSTA14RW20L 050KRSTAK5EA0EE   010TF                   02540095
SUSAP KBNAK7DKRSTA14RW20R 010         0       VA                    2007        + 01300     18000
SUSAP KBNAK7DKRSTA14RW20R 020BOGAAK7EA0EY   010DF
SUSAP KBNAK7DKRSTA14RW20R 030         0       VM                    2600
SUSAP KBNAK7DKRSTA14RW20R 040CERAHK7EA0E    010DF
SUSAP KBNAK7DKRSTA14RW20R 050KRSTAK5EA0EE   010TF                   02540095
SUSAP KBNAK7DKRSTA14RW31  010         0       VA                    3163        + 01100     18000
SUSAP KBNAK7DKRSTA14RW31  020YAHYAK7EA0EY   010DF
SUSAP KBNAK7DKRSTA14RW31  030         0       VM                    2800
SUSAP KBNAK7DKRSTA14RW31  040CERAHK7EA0E    010DF
SUSAP KBNAK7DKRSTA14RW31  050KRSTAK5EA0EE   010TF                   02540095
SUSAP KBNAK7DKRSTA16OLSIE 010KRSTAK5EA0E      IF                                            18000
SUSAP KBNAK7DKRSTA16OLSIE 020OLSIEK5EA0EE   010TF                   02470332

                1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------------------------
SUSAP KBNAK7GRW02C   0080010210 N36061199W086411666+0000    +014430056900006015OIIEZN1
SUSAP KBNAK7GRW02L   0077030207 N36070364W086411131-0600    +015320059900005515OIIBNA3
SUSAP KBNAK7GRW02R   0080000210 N36064577W086400352-0600    +015060059000005915OIIUQU3
SUSAP KBNAK7GRW13    0110301363 N36082316W086413617+0400    +01364005430801551 50R
SUSAP KBNAK7GRW20C   0080012010 N36072724W086404655+0000    +01451005720000501 50R
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SUSAP KBNAK7GRW20R   0077032007 N36081623W086404284+0600    +014010055500005915OIIVIY1
SUSAP KBNAK7GRW31    0110303163 N36071881W086401201-0400    +014680057707415215OIIPNO1
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DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KRSTA RNAV	ONE	KRSTA1.KRSTA	NONE		

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW02C		010		VA		FB		021.0()		AA 01100	
	RW02C	JOOON	020		DF		FO	1.0				
	RW02C		030		VM		FB		015.0()			
	RW02C	CERAH	040		DF		FB	1.0				
	RW02C	KRSTA	050		TF		FB	1.0	025.4()	009.5		
	RW02L		010		VA		FB		020.7()		AA 01100	
	RW02L	FOOFY	020		DF		FO	1.0				
	RW02L		030		VM		FB		020.7()			
	RW02L	CERAH	040		DF		FB	1.0				
	RW02L	KRSTA	050		TF		FB	1.0	025.4()	009.5		
	RW02R		010		VA		FB		021.0()		AA 01100	
	RW02R	KDNCE	020		DF		FO	1.0				
	RW02R		030		VM		FB		055.0()			
	RW02R	CERAH	040		DF		FB	1.0				
	RW02R	KRSTA	050		TF		FB	1.0	025.4()	009.5		
	RW13		010		VA		FB		136.3()		AA 01100	
	RW13	KLSTR	020		DF	R	FO	1.0				
	RW13		030		VM		FB		260.0()			
	RW13	CERAH	040		DF		FB	1.0				
	RW13	KRSTA	050		TF		FB	1.0	025.4()	009.5		
	RW20C		010		VA		FB		201.0()		AA 01100	
	RW20C	MIJOM	020		DF		FO	1.0				
	RW20C		030		VM		FB		275.0()			
	RW20C	CERAH	040		DF		FB	1.0				
	RW20C	KRSTA	050		TF		FB	1.0	025.4()	009.5		
	RW20L		010		VA		FB		201.0()		AA 01100	
	RW20L	RADNR	020		DF		FO	1.0				
	RW20L		030		VM		FB		201.0()			
	RW20L	CERAH	040		DF		FB	1.0				
	RW20L	KRSTA	050		TF		FB	1.0	025.4()	009.5		
	RW20R		010		VA		FB		200.7()		AA 01300	
	RW20R	BOGAA	020		DF		FO	1.0				
	RW20R		030		VM		FB		260.0()			
	RW20R	CERAH	040		DF		FB	1.0				
	RW20R	KRSTA	050		TF		FB	1.0	025.4()	009.5		
	RW31		010		VA		FB		316.3()		AA 01100	
	RW31	YAHYA	020		DF		FO	1.0				
	RW31		030		VM		FB		280.0()			
	RW31	CERAH	040		DF		FB	1.0				
	RW31	KRSTA	050		TF		FB	1.0	025.4()	009.5		
	OLSIE	KRSTA	010		IF		FB					
	OLSIE	OLSIE	020		TF		FB	1.0	024.7()	033.2		

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
KRSTA RNAV	ONE	KRSTA1.KRSTA	NONE		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
BOGAA	N360440.70	W0864923.38	N3604.678	W08649.390
CERAH	N363450.35	W0862825.33	N3634.839	W08628.422
FOOFY	N361120.01	W0863930.71	N3611.334	W08639.512
JOOON	N361030.30	W0863950.22	N3610.505	W08639.837
KDNCE	N361107.30	W0863455.24	N3611.122	W08634.921
KLSTR	N360401.80	W0865016.36	N3604.030	W08650.273
KRSTA	N364337.19	W0862355.49	N3643.620	W08623.925
MIJOM	N360456.58	W0865023.82	N3604.943	W08650.397
OLSIE	N371426.35	W0860832.69	N3714.439	W08608.545
RADNR	N360353.17	W0864112.54	N3603.886	W08641.209
YAHYA	N360910.44	W0864911.86	N3609.174	W08649.198
RW02C	N360611.99	W0864116.66	N3606.200	W08641.278
RW02L	N360703.64	W0864111.31	N3607.061	W08641.189
RW02R	N360645.77	W0864003.52	N3606.763	W08640.059
RW13	N360823.16	W0864136.17	N3608.386	W08641.603
RW20C	N360727.24	W0864046.55	N3607.454	W08640.776
RW20L	N360801.01	W0863933.40	N3608.017	W08639.557
RW20R	N360816.23	W0864042.84	N3608.271	W08640.714
RW31	N360718.81	W0864012.01	N3607.314	W08640.200

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW02C	00569	60
RW02L	00599	55
RW02R	00590	59
RW13	00543	55
RW20C	00572	50
RW20L	00540	47
RW20R	00555	59
RW31	00577	52

RADIO FIX AND HOLDING DATA RECORD

NAME: BOGAA **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360440.70N/0864923.38W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: CERAH **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 363450.35N/0862825.33W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED 3

RADIO FIX AND HOLDING DATA RECORD

NAME: FOOFY **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361120.01N/0863930.71W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHADM (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	EVVAN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	FLAME (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PREDS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TAZMO (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TIPPN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/11/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY CHECKED 3

RADIO FIX AND HOLDING DATA RECORD

NAME: JOOON **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361030.30N/0863950.22W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHADM (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	EVVAN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	FLAME (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PREDS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TAZMO (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TIPPN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/11/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: KDNCE **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361107.30N/0863455.24W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHADM (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	EVVAN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	FLAME (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PREDS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TAZMO (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TIPPN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/11/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: KLSTR **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360401.80N/0865016.36W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: KRSTA **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 364337.19N/0862355.49W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: MIJOM **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360456.58N/0865023.82W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: OLSIE **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 371426.35N/0860832.69W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: RADNR **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360353.17N/0864112.54W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CHADM (RNAV)			KBNA	NASHVILLE	TN (US)
DP	EVVAN (RNAV)			KBNA	NASHVILLE	TN (US)
DP	FLAME (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PREDS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TAZMO (RNAV)			KBNA	NASHVILLE	TN (US)
DP	TIPPN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: YAHYA **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360910.44N/0864911.86W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
DP	DRURY (RNAV)			KBNA	NASHVILLE	TN (US)
DP	GDOGG (RNAV)			KBNA	NASHVILLE	TN (US)
DP	HGGRD (RNAV)			KBNA	NASHVILLE	TN (US)
DP	KRSTA (RNAV)			KBNA	NASHVILLE	TN (US)
DP	PARDN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-352 **NAME:** DAVID SAUER

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID PNA CERAH OLSIE 20120329
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	3/29/2012 3:05:47 PM
Input File:	KBNA KRSTA1.SID.PNA
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓
DME/DME	✓
Radars	?
Comms	?
TERPS	?

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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
CERAH	WP	N 36° 34' 50.35" W 86° 28' 25.33"	6000.0	VNAV	180.0	Fly Over	TF
LPNA	WP	N 36° 32' 8.78" W 86° 36' 26.64"	6000.0	VNAV	180.0	Fly By	TF
M1PNA	WP	N 36° 29' 16.34" W 86° 33' 42.02"	6000.0	VNAV	180.0	Fly By	TF
M2PNA	WP	N 36° 27' 53.32" W 86° 29' 32.82"	6000.0	VNAV	180.0	Fly By	TF
RPNA	WP	N 36° 28' 21.89" W 86° 25' 5.61"	6000.0	VNAV	180.0	Fly By	TF
CERAH1	WP	N 36° 34' 50.35" W 86° 28' 25.33"	6000.0	VNAV	180.0	Fly By	TF
KRSTA	WP	N 36° 43' 37.19" W 86° 23' 55.49"	7897.3	VNAV	180.0	Fly By	TF
WP1494	WP	N 37° 14' 26.35" W 86° 8' 32.69"	14528.2	VNAV	210.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival/Approach
Aircraft Category: Cat D
Climb Gradient: *None assigned*
Ground Speeds:

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

Entire track is fly-able

DME/DME

Return To Summary

Settings:

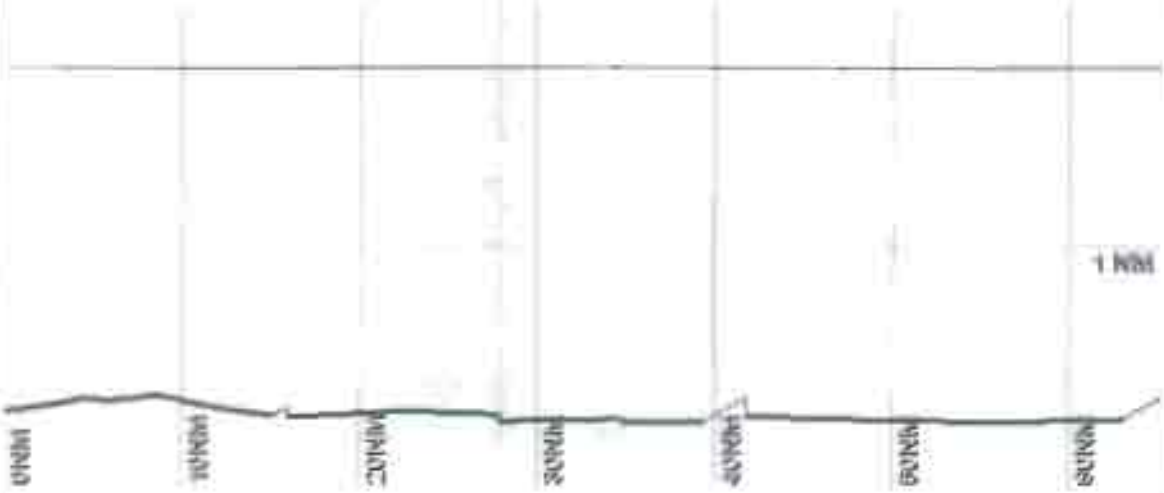
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME , VORTAC , 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

Total Number of DMEs Used: 6

Maximum DME Error: 0.389 NM

No Critical DMEs were found.

Available DMEs: CCT, BNA, BWG, GHM, EWO, IIU



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L + ESV	User	NO	1.687	Enabled	91.5 %	91.5 %
2	BNA	N 36° 8' 13.06" W 86° 41' 5.18"	H	Database	NO	0.572	Enabled	35.3 %	35.3 %
3	BWG	N 36° 55' 43.47" W 86° 26' 36.36"	H	Database	NO	0.464	Enabled	6.2 %	6.2 %
4	GHM	N 35° 50' 2.12" W 87° 27' 6.35"	L + ESV	User	NO	0.389	Enabled	10.6 %	10.6 %
5	EWO	N 37° 37' 54.52" W 85° 40' 33.18"	L + ESV	User	NO	0.575	Enabled	7.0 %	7.0 %
6	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H + ESV	User	NO	0.590	Enabled	32.4 %	32.5 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	CCT	BNA	BWG			
5.1	CCT	BNA	BWG			
8.9	CCT	BNA	BWG			
12.5	CCT	BNA	BWG			
14.8	CCT	BNA	BWG			
21.9	CCT	BNA	BWG	GHM		
32.0	CCT	IIU	BWG	GHM	EWO	BNA

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 28' 12.11" W 86° 26' 57.87"	N 36° 28' 36.74" W 86° 26' 14.36"	0.7
	VOR: BNA	Available from N 36° 28' 12.11" W 86° 26' 57.87" to N 36° 28' 36.74" W 86° 26' 14.36"	
	VOR: BWG	Available from N 36° 28' 12.11" W 86° 26' 57.87" to N 36° 28' 36.74" W 86° 26' 14.36"	
2	N 36° 50' 22.08" W 86° 20' 34.35"	N 36° 52' 38.47" W 86° 19' 26.58"	2.4
	VOR: BWG	Available from N 36° 50' 22.08" W 86° 20' 34.35" to N 36° 52' 38.47" W 86° 19' 26.58"	
3	N 37° 12' 22.02" W 86° 9' 35.18"	N 37° 14' 25.89" W 86° 8' 32.92"	2.2
	VOR: BWG	Available from N 37° 12' 22.02" W 86° 9' 35.18" to N 37° 14' 25.89" W 86° 8' 32.92"	
	VOR: EWO	Available from N 37° 12' 22.02" W 86° 9' 35.18" to N 37° 14' 25.89" W 86° 8' 32.92"	
	VOR: MYS	Available from N 37° 13' 54.53" W 86° 8' 48.50" to N 37° 14' 25.89" W 86° 8' 32.92"	

DME/DME (Continued.)

Return To Summary

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L	450.0	109.80	CCT	Used
		ESV: Bearing [True]: 96.0° to 155.0° Bearing [Mag]: 97.0° to 156.0°			Arc Distance: Out to 72.0 NM Altitude: 5800.0 to 14000.0 Ft.		
2	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	720.0	114.80	IIU	Used
		ESV: Bearing [True]: 199.0° to 212.0° Bearing [Mag]: 198.0° to 211.0°			Arc Distance: Out to 82.0 NM Altitude: 8000.0 to 16000.0 Ft.		
3	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	960.0	110.80	EWO	Used
		ESV: Bearing [True]: 207.0° to 218.0° Bearing [Mag]: 206.0° to 217.0°			Arc Distance: Out to 67.0 NM Altitude: 8000.0 to 24000.0 Ft.		
4	GHM	N 35° 50' 2.12" W 87° 27' 6.35"	L	774.7	111.60	GHM	Used
		ESV: Bearing [True]: 39.0° to 48.0° Bearing [Mag]: 36.0° to 45.0°			Arc Distance: Out to 78.0 NM Altitude: 7000.0 to 24000.0 Ft.		

Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID ALL RWYS FIRST WP 20120404
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	4/4/2012 1:05:57 PM
Input File:	KBNA KRSTA1 SID RW20
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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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW20R(...	WP	N 36° 8' 16.23" W 86° 40' 42.84"	555.4	VNAV	0.0	Fly Over	TF
RW02L(...	WP	N 36° 7' 3.64" W 86° 41' 11.31"	633.5	VNAV	130.0	Fly Over	VA
GH20R	WP	N 36° 5' 43.31" W 86° 41' 42.80"	1300.0	VNAV	145.0	Fly Over	DF
BOGAA	WP	N 36° 4' 40.70" W 86° 49' 23.38"	2561.7	VNAV	180.0	Fly Over	DF

Climb Gradient: 500.0 Ft/NM up to 1300.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KBNA
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1300.0 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 -25.32 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AFR and DER or within 2/3 NM of DER.

DME/DME

Return To Summary

Settings:

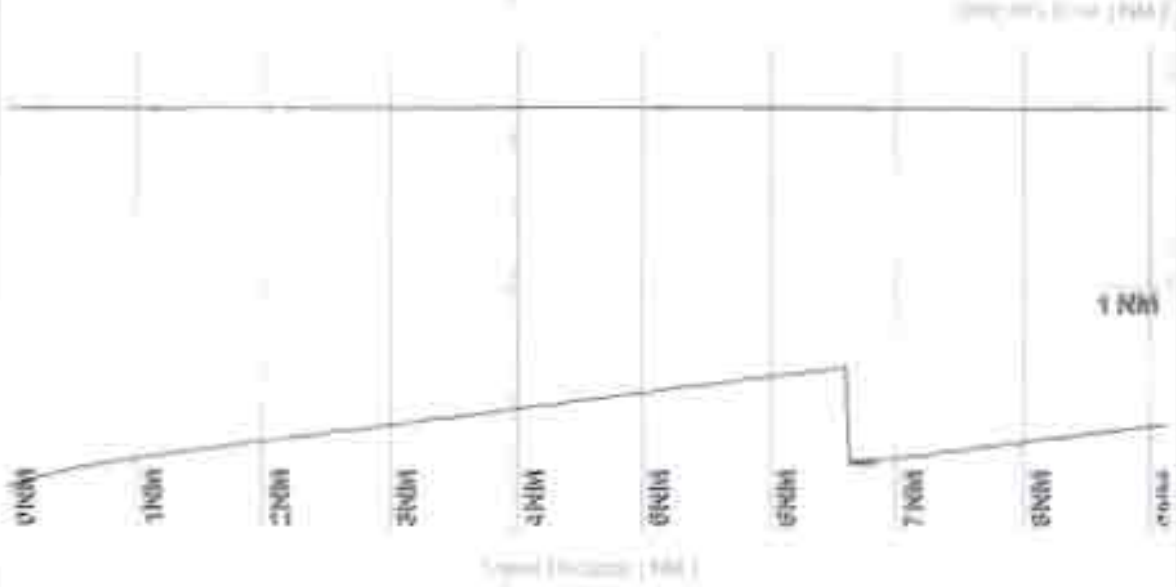
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 2562 Ft

Total Number of DMEs Used: 2

Maximum DME Error: 0.669 NM

No Critical DMEs were found

Available DMEs: BNA, SYI, GHM



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BNA	N 36° 8' 13.06" W 86° 41' 5.18"	H	Database	NO	0.838	Enabled	2.0 %	2.2 %
2	SYI	N 35° 33' 43.12" W 86° 26' 20.95"	L	Database	NO	0.838	Enabled	2.0 %	2.2 %

Flight Check DME Selection

Distance [NM]	Selected DMEs			Alternate
0.0				
1.3				
2.7	BNA	SYI	GHM	

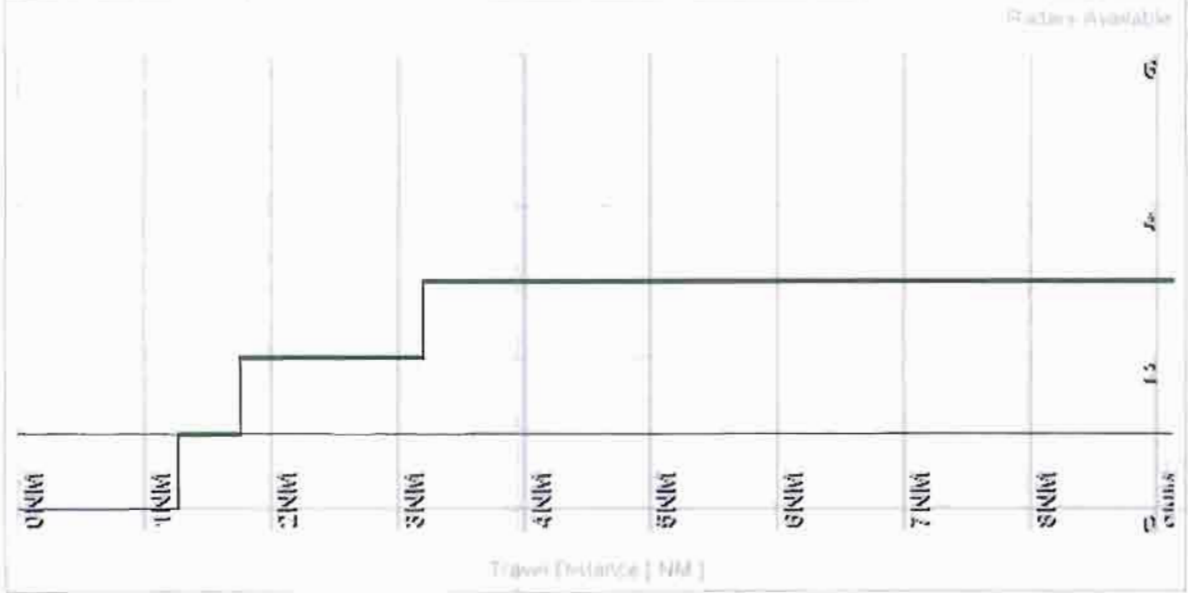
Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 8' 16.23" W 86° 40' 42.84"	N 36° 4' 57.24" W 86° 46' 16.63"	6.6
	VOR: BNA	Available from N 36° 8' 16.23" W 86° 40' 42.84" to N 36° 4' 57.24" W 86° 46' 16.63"	
	VOR: SYI	Available from N 36° 8' 16.23" W 86° 40' 42.84" to N 36° 4' 57.24" W 86° 46' 16.63"	
	VOR: GHM	Available from N 36° 5' 38.53" W 86° 41' 44.86" to N 36° 4' 57.24" W 86° 46' 16.63"	
2	N 36° 4' 55.73" W 86° 46' 33.80"	N 36° 4' 40.72" W 86° 49' 23.11"	2.3
	VOR: BNA	Available from N 36° 4' 55.73" W 86° 46' 33.80" to N 36° 4' 40.72" W 86° 49' 23.11"	
	VOR: GHM	Available from N 36° 4' 55.73" W 86° 46' 33.80" to N 36° 4' 40.72" W 86° 49' 23.11"	
	VOR: SYI	Available from N 36° 4' 55.73" W 86° 46' 33.80" to N 36° 4' 40.72" W 86° 49' 23.11"	

Radar Analysis

Return To Summary

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



Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID ALL RWYS FIRST WP 20120404
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	4/4/2012 1:07:19 PM
Input File:	KBNA KRSTA1 SID RW02...
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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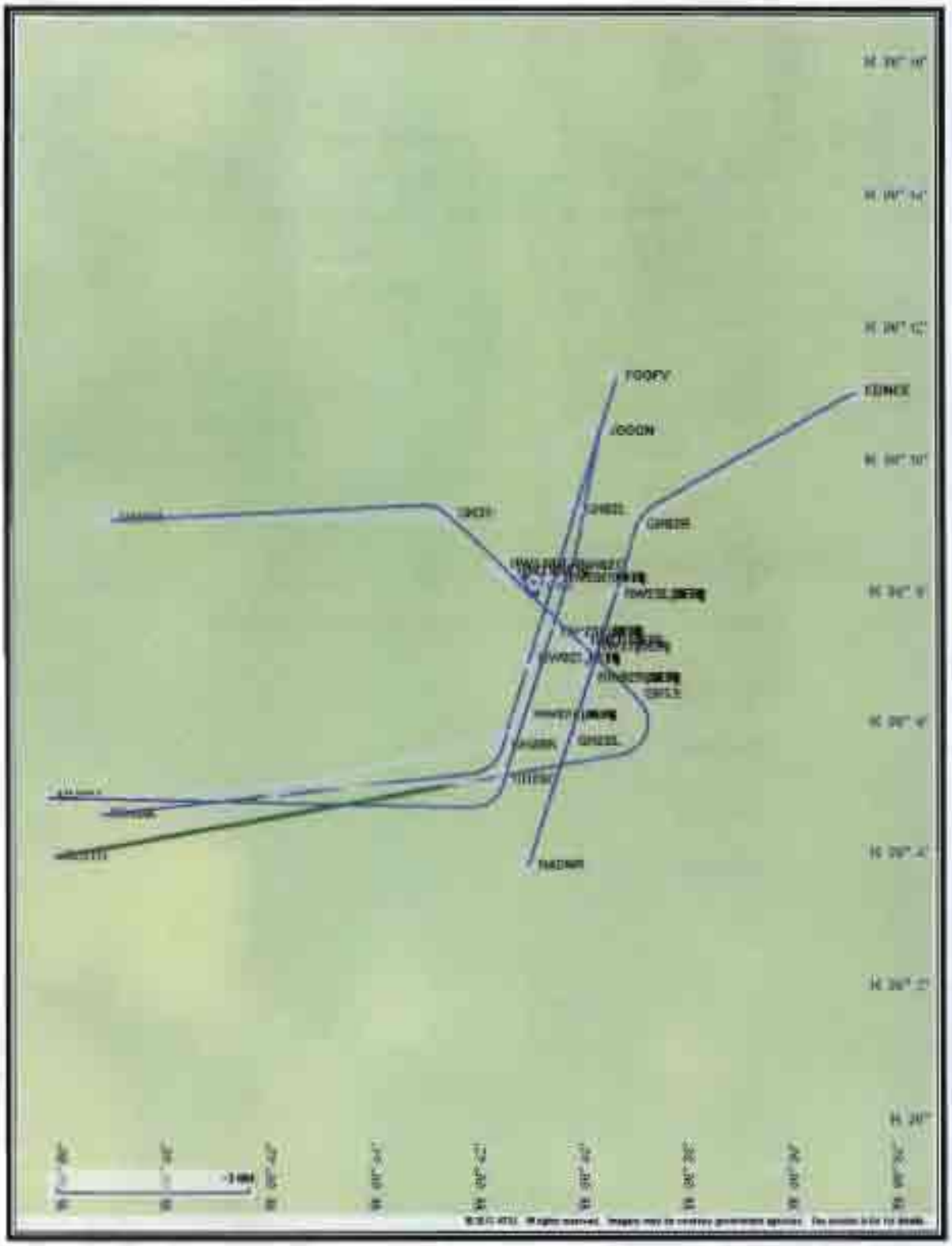

FOOFV
JOOON
KDNCE
GHBSL
GHBSR
GHSSL
NADNR

Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW02R(...	WP	N 36° 6' 45.77" W 86° 40' 3.52"	589.7	VNAV	0.0	Fly Over	TF
RW20L(...	WP	N 36° 8' 1.01" W 86° 39' 33.40"	574.9	VNAV	130.0	Fly Over	VA
GH02R	WP	N 36° 9' 5.03" W 86° 39' 7.77"	1100.0	VNAV	145.0	Fly Over	DF
KDNCE	WP	N 36° 11' 7.30" W 86° 34' 55.24"	1893.8	VNAV	180.0	Fly Over	DF

Climb Gradient: 500.0 Ft/NM up to 1100.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KBNA
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1100.0 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 -34.40 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

Total Number of DMEs Used: 0

Maximum DME Error Could not be Derived with < 2 DMEs

No Critical DMEs were found

Available DMEs: BNA

DME/DME (Continued.)

Return To Summary

Flight Check DME Selection

Distance [NM]	Selected DMEs	Alternate
0.0		
1.3		
2.4	BNA	

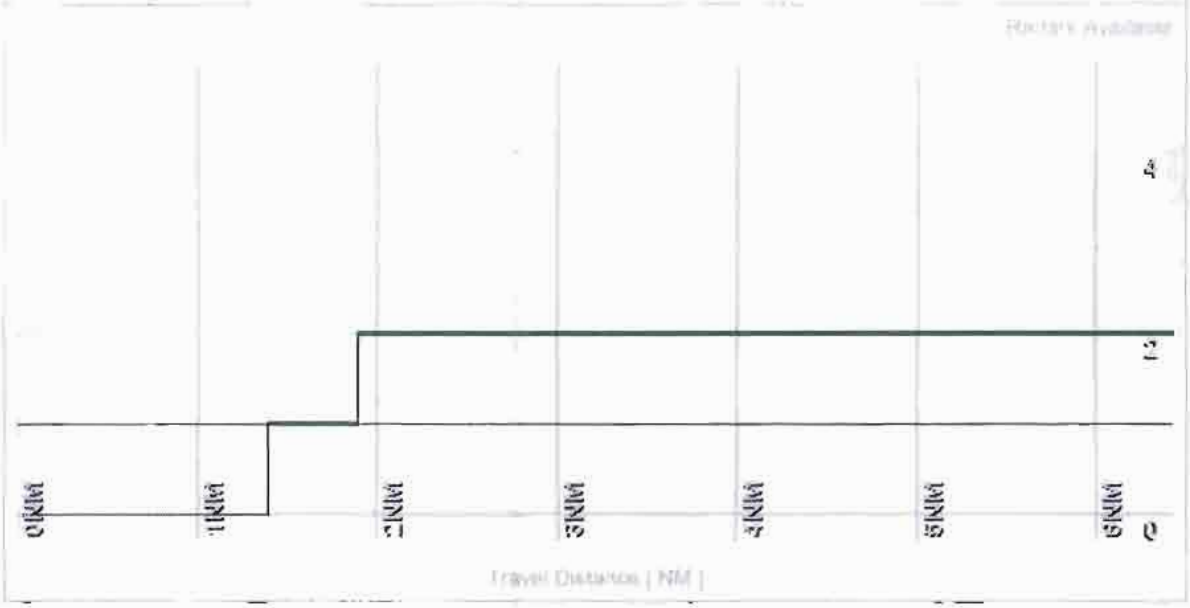
Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 6' 45.77" W 86° 40' 3.52"	N 36° 11' 6.75" W 86° 34' 56.50"	8.4
	VOR: BNA	Available from N 36° 6' 45.77" W 86° 40' 3.52" to N 36° 11' 6.75" W 86° 34' 56.50"	
	VOR: SYI	Available from N 36° 6' 45.77" W 86° 40' 3.52" to N 36° 11' 6.75" W 86° 34' 56.50"	

Radar Analysis

Return To Summary

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



Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID PNA GRID EVALUATION 20123021
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	3/21/2012 8:43:16 AM
Input File:	Grid Area Assessment
Databases:	AVNIS Data: 08/26/2011
	NFD Data: 07/02/2009
	DTED® (MAX) Data: 2002

Results Summary:

Grid ✔ DME/DME Grid Analysis

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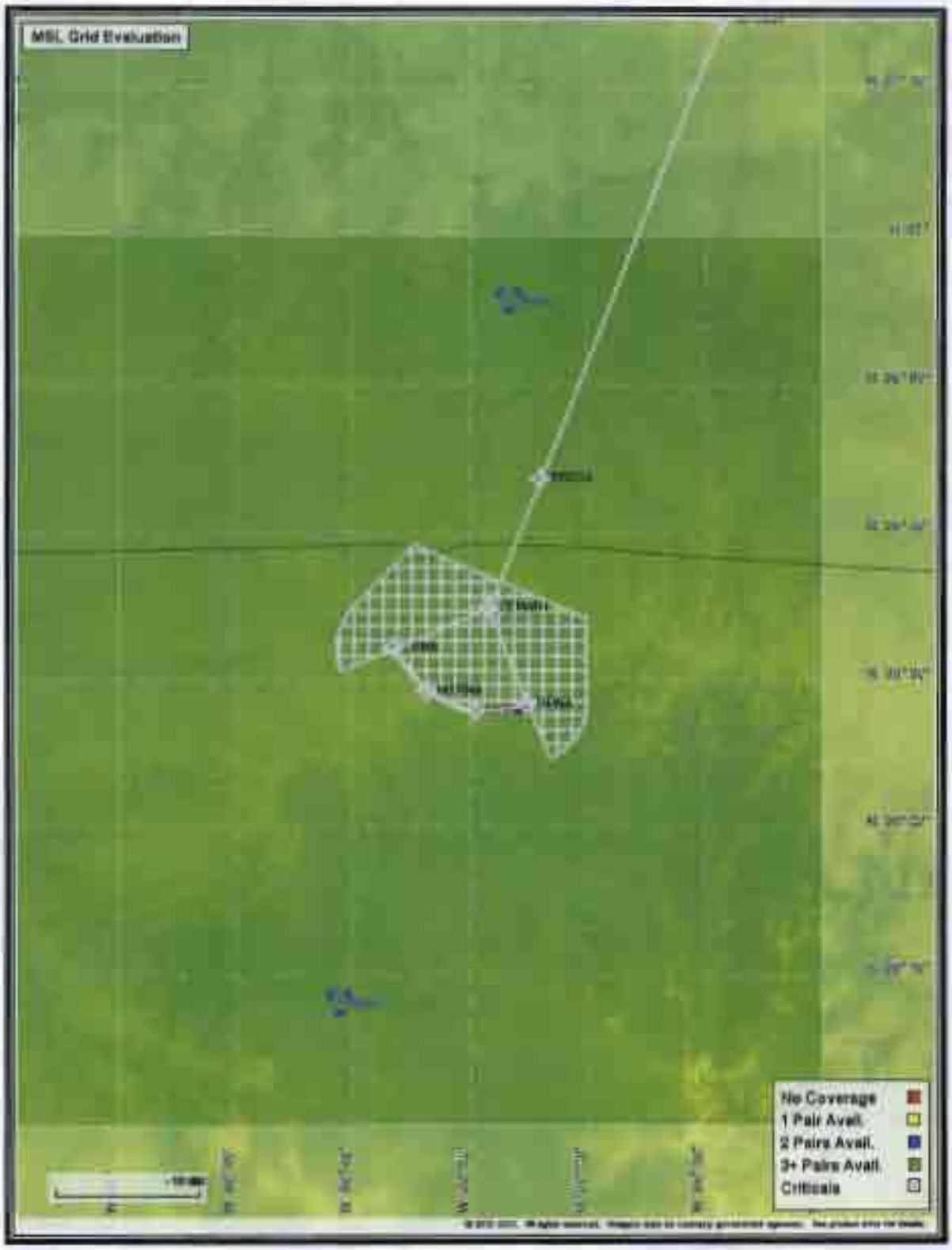

MSL Grid Evaluation
No Coverage
1 Pair Avail.
2 Pairs Avail.
3+ Pairs Avail.
Critical

DME/DME Grid Analysis

Return To Summary

Coverage Exists

Settings:

Polygon Grid Definition:

1	Lat: N 36° 32' 8.84" Lon: W 86° 36' 26.68"	21	Lat: N 36° 25' 41.13" Lon: W 86° 21' 24.53"
2	Lat: N 36° 30' 36.62" Lon: W 86° 41' 1.64"	22	Lat: N 36° 25' 20.56" Lon: W 86° 21' 50.43"
3	Lat: N 36° 31' 4.35" Lon: W 86° 41' 13.53"	23	Lat: N 36° 25' 2.69" Lon: W 86° 22' 19.23"
4	Lat: N 36° 31' 33.04" Lon: W 86° 41' 21.14"	24	Lat: N 36° 24' 47.79" Lon: W 86° 22' 50.50"
5	Lat: N 36° 32' 2.27" Lon: W 86° 41' 24.37"	25	Lat: N 36° 24' 39.88" Lon: W 86° 23' 11.70"
6	Lat: N 36° 32' 31.60" Lon: W 86° 41' 23.16"	26	Lat: N 36° 28' 21.87" Lon: W 86° 25' 5.69"
7	Lat: N 36° 33' 0.59" Lon: W 86° 41' 17.53"	27	Lat: N 36° 28' 21.87" Lon: W 86° 25' 5.69"
8	Lat: N 36° 33' 28.81" Lon: W 86° 41' 7.56"	28	Lat: N 36° 28' 5.14" Lon: W 86° 26' 5.80"
9	Lat: N 36° 33' 55.83" Lon: W 86° 40' 53.40"	29	Lat: N 36° 27' 54.44" Lon: W 86° 27' 7.98"
10	Lat: N 36° 34' 21.27" Lon: W 86° 40' 35.26"	30	Lat: N 36° 27' 49.93" Lon: W 86° 28' 11.31"
11	Lat: N 36° 34' 44.73" Lon: W 86° 40' 13.40"	31	Lat: N 36° 27' 51.68" Lon: W 86° 29' 14.85"
12	Lat: N 36° 34' 58.60" Lon: W 86° 39' 57.54"	32	Lat: N 36° 27' 59.57" Lon: W 86° 30' 17.65"
13	Lat: N 36° 39' 7.64" Lon: W 86° 34' 49.38"	33	Lat: N 36° 28' 13.76" Lon: W 86° 31' 18.79"
14	Lat: N 36° 34' 15.03" Lon: W 86° 20' 8.86"	34	Lat: N 36° 28' 33.76" Lon: W 86° 32' 17.35"
15	Lat: N 36° 28' 21.94" Lon: W 86° 20' 8.12"	35	Lat: N 36° 28' 59.37" Lon: W 86° 33' 12.46"
16	Lat: N 36° 27' 52.65" Lon: W 86° 20' 10.34"	36	Lat: N 36° 29' 30.21" Lon: W 86° 34' 3.31"
17	Lat: N 36° 27' 23.80" Lon: W 86° 20' 16.97"	37	Lat: N 36° 30' 5.81" Lon: W 86° 34' 49.14"

DME/DME Grid Analysis (Continued.)

Return To Summary

Coverage Exists

Settings:

Polygon Grid Definition:

18	Lat: N 36° 26' 55.82" Lon: W 86° 20' 27.89"	**38**	Lat: N 36° 30' 45.66" Lon: W 86° 35' 29.27"
19	Lat: N 36° 26' 29.12" Lon: W 86° 20' 42.96"	**39**	Lat: N 36° 31' 29.15" Lon: W 86° 36' 3.09"
20	Lat: N 36° 26' 4.10" Lon: W 86° 21' 1.93"	**40**	Lat: N 36° 32' 8.64" Lon: W 86° 36' 26.67"

Lat Step: 1 NM
Lon Step: 1 NM
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Co-Frequencies: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: VOR/DME and VORTAC
DME Include Angles: 30 to 150
DoD Facilities: Not included
Foreign Facilities: Not included
Low & Terminal DMEs: Included
Maximum Possible ESVs Used
Altitude: 6000.0 Ft. MSL
PNA Import from RDVA-Pro: KBNA PNA CERAH KRSTA

DME/DME Grid Analysis (Continued.)

Return To Summary

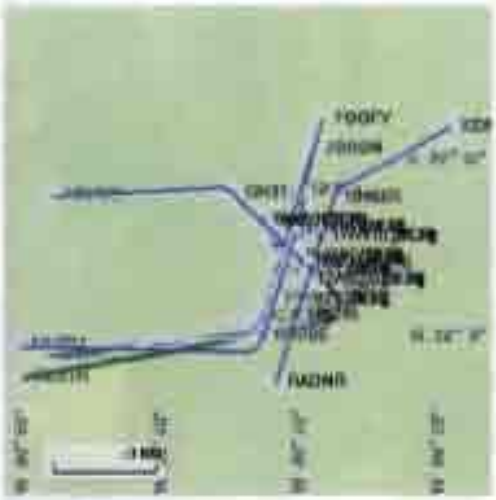
Maximum Gap: 0.0 NM

Maximum Critical Gap: 0.0 NM

AGL Altitudes	
Min Cell Altitude	4,986.2 Ft.
Max Cell Altitude	5,402.9 Ft.
Mean Cell Altitude	5,149.6 Ft.
Std. Dev. Cell Altitude	86.8 Ft.

Statistics based only on passing cells

Most Used DMEs: LVT (166), HCH (166), GHM (166), EWO (166), CKV (166), CCT (166), BWG (166), BNA (166), SYI (86), and RQZ (18).



Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID ALL RWYS FIRST WP 20120404
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	4/4/2012 1:06:50 PM
Input File:	KBNA KRSTA1.SID RW02
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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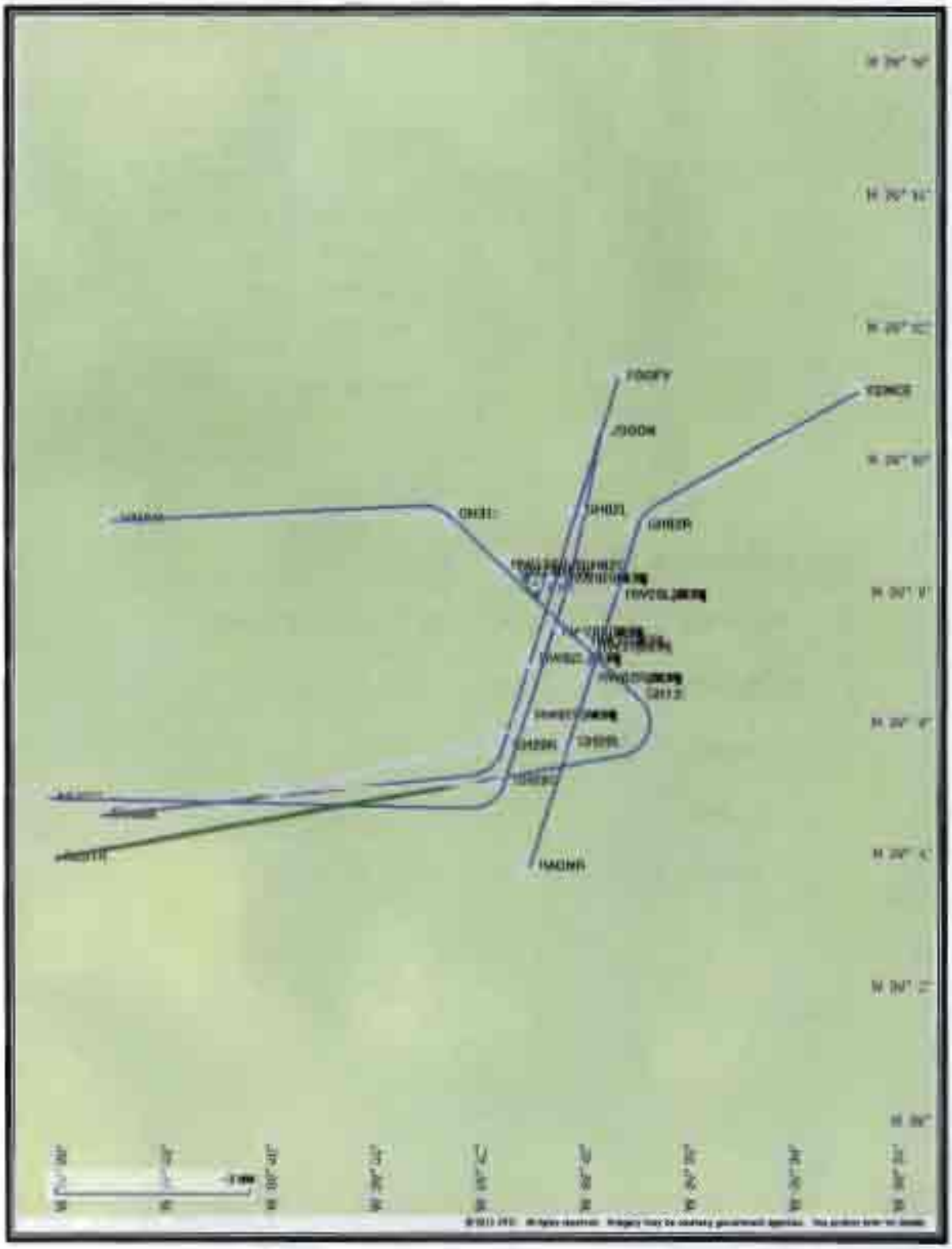


Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW02L(...	WP	N 36° 7' 3.64" W 86° 41' 11.31"	596.5	VNAV	0.0	Fly Over	TF
RW20R(...	WP	N 36° 8' 16.23" W 86° 40' 42.84"	590.4	VNAV	130.0	Fly Over	VA
GH02L	WP	N 36° 9' 18.59" W 86° 40' 18.36"	1100.0	VNAV	145.0	Fly Over	DF
FOOFY	WP	N 36° 11' 20.01" W 86° 39' 30.71"	1524.1	VNAV	180.0	Fly Over	DF

Climb Gradient: 500.0 Ft/NM up to 1100.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KBNA
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1100.0 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 -16.06 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

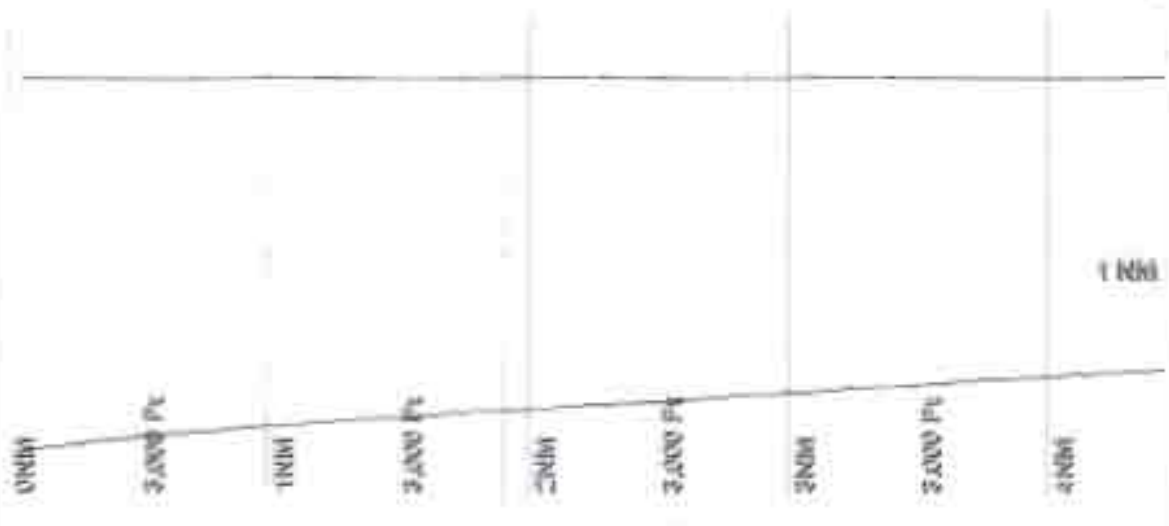
Settings:

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

Total Number of DMEs Used: 0

Maximum DME Error Could not be Derived with < 2 DMEs

No Critical DMEs were found



DME/DME (Continued.)

Return To Summary

Flight Check DME Selection

Distance [NM]	Selected DMEs	Alternate
0.0		
1.3		
2.3		

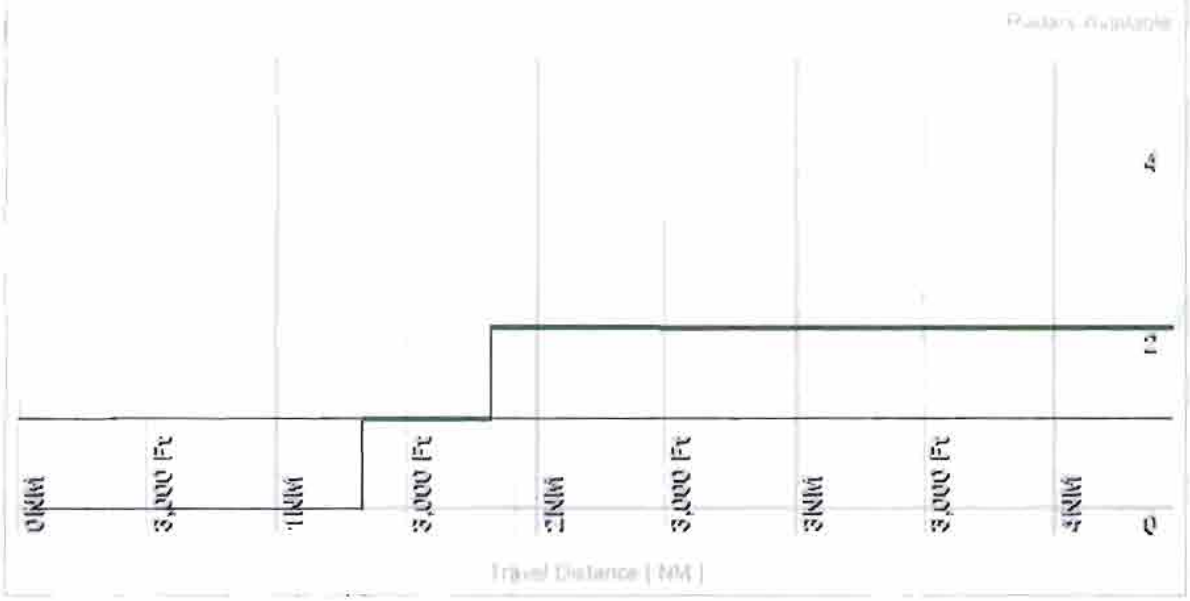
Inertial Drift Segments

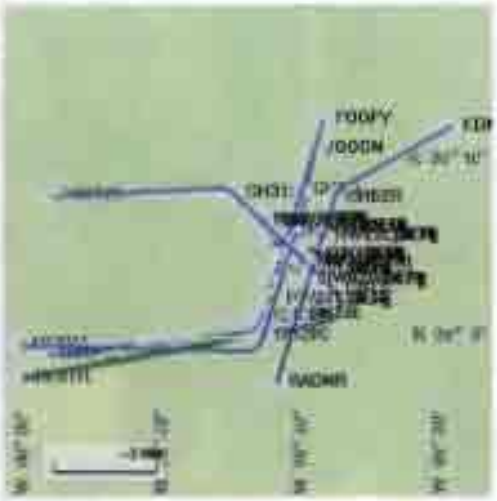
#	Start Location	End Location	Length [NM]
1	N 36° 7' 3.64" W 86° 41' 11.31"	N 36° 11' 18.73" W 86° 39' 31.21"	4.5
	VOR: BNA	Available from N 36° 7' 3.64" W 86° 41' 11.31" to N 36° 11' 18.73" W 86° 39' 31.21"	
	VOR: SYI	Available from N 36° 7' 3.64" W 86° 41' 11.31" to N 36° 11' 18.73" W 86° 39' 31.21"	

Radar Analysis

Return To Summary

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





Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID ALL RWYS FIRST WP 20120404
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	4/4/2012 1:07:46 PM
Input File:	KBNA KRSTA1.SID RW13
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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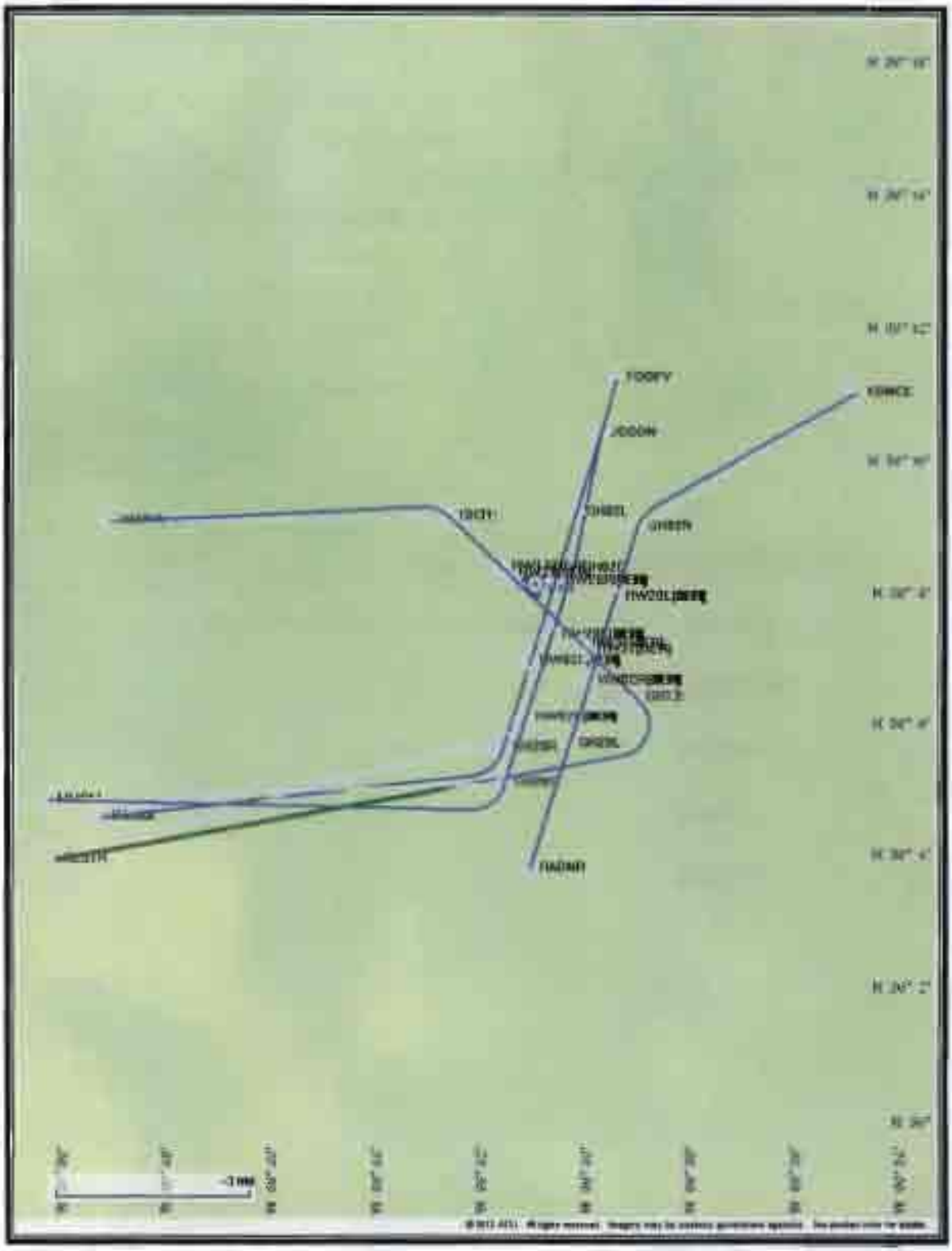

FOOFV
JOOON
KBNCE
RADNR

Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW13(A..	WP	N 36° 8' 23.16" W 86° 41' 36.17"	535.8	VNAV	0.0	Fly Over	TF
RW31(D..	WP	N 36° 7' 13.79" W 86° 40' 5.44"	617.2	VNAV	130.0	Fly Over	VA
GH13:	WP	N 36° 6' 31.09" W 86° 39' 9.65"	1100.0	VNAV	145.0	Fly Over	DF
KLSTR	WP	N 36° 4' 1.80" W 86° 50' 16.36"	2968.5	VNAV	180.0	Fly Over	DF

Climb Gradient: 500.0 Ft/NM up to 1100.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KBNA
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1100.0 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 -55.12 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2.0 NM of DER.

DME/DME

Return To Summary

Settings:

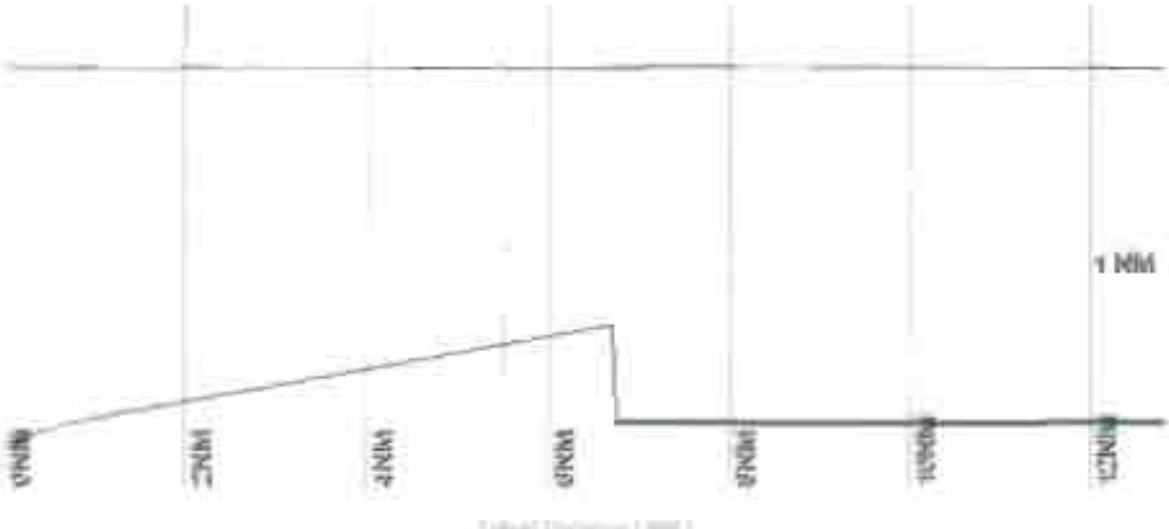
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 2969 Ft

Total Number of DMEs Used: 3

Maximum DME Error: 0.676 NM

No Critical DMEs were found.

Available DMEs: SYI, GHM, BNA



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	GHM	N 35° 50' 2.12" W 87° 27' 6.35"	L	Database	NO	0.732	Enabled	29.3 %	31.3 %
2	SYI	N 35° 33' 43.12" W 86° 26' 20.95"	L	Database	NO	0.880	Enabled	43.4 %	47.5 %
3	BNA	N 36° 8' 13.06" W 86° 41' 5.18"	H	Database	NO	0.678	Enabled	14.1 %	16.2 %

Flight Check DME Selection

Distance [NM]	Selected DMEs			Alternate
0.0				
1.7				
2.7	GHM	SYI	BNA	

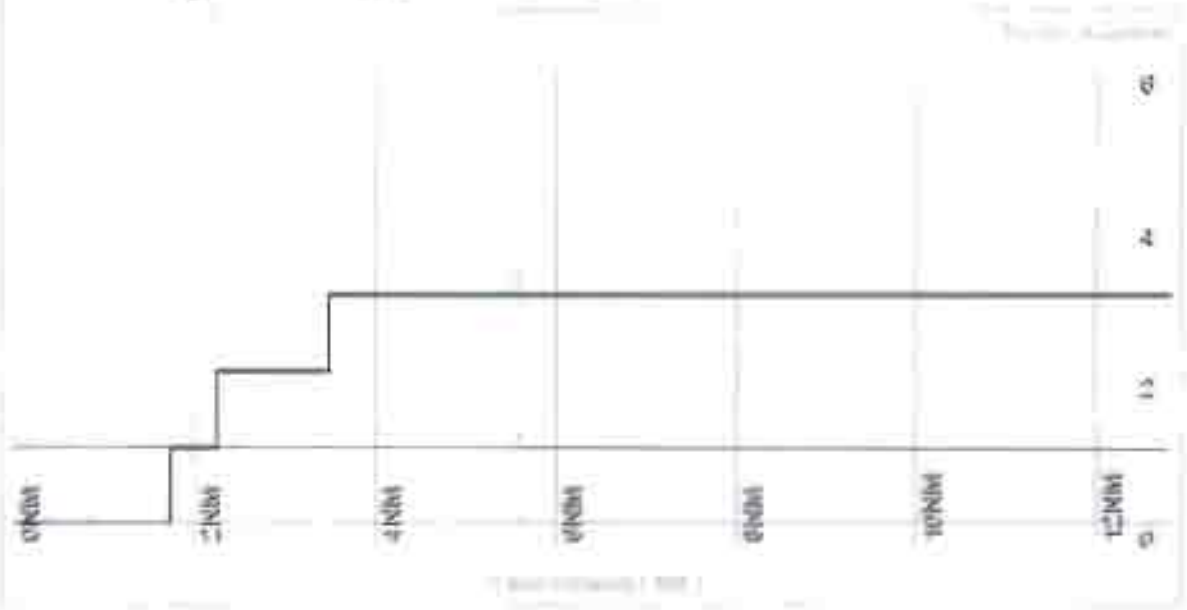
Inertial Drift Segments

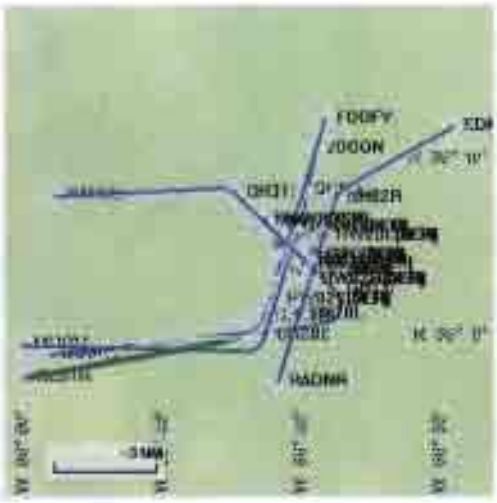
#	Start Location	End Location	Length [NM]
1	N 36° 8' 23.16" W 86° 41' 36.17"	N 36° 5' 6.37" W 86° 42' 51.13"	6.7
	VOR: BNA	Available from N 36° 8' 23.16" W 86° 41' 36.17" to N 36° 5' 6.37" W 86° 42' 51.13"	
	VOR: SYI	Available from N 36° 8' 23.16" W 86° 41' 36.17" to N 36° 5' 6.37" W 86° 42' 51.13"	
	VOR: GHM	Available from N 36° 5' 17.59" W 86° 41' 33.39" to N 36° 5' 6.37" W 86° 42' 51.13"	

Radar Analysis

Return To Summary

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





Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID ALL RWYS FIRST WP 20120404
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	4/4/2012 1:06:23 PM
Input File:	KBNA KRSTA1 SID RW02...
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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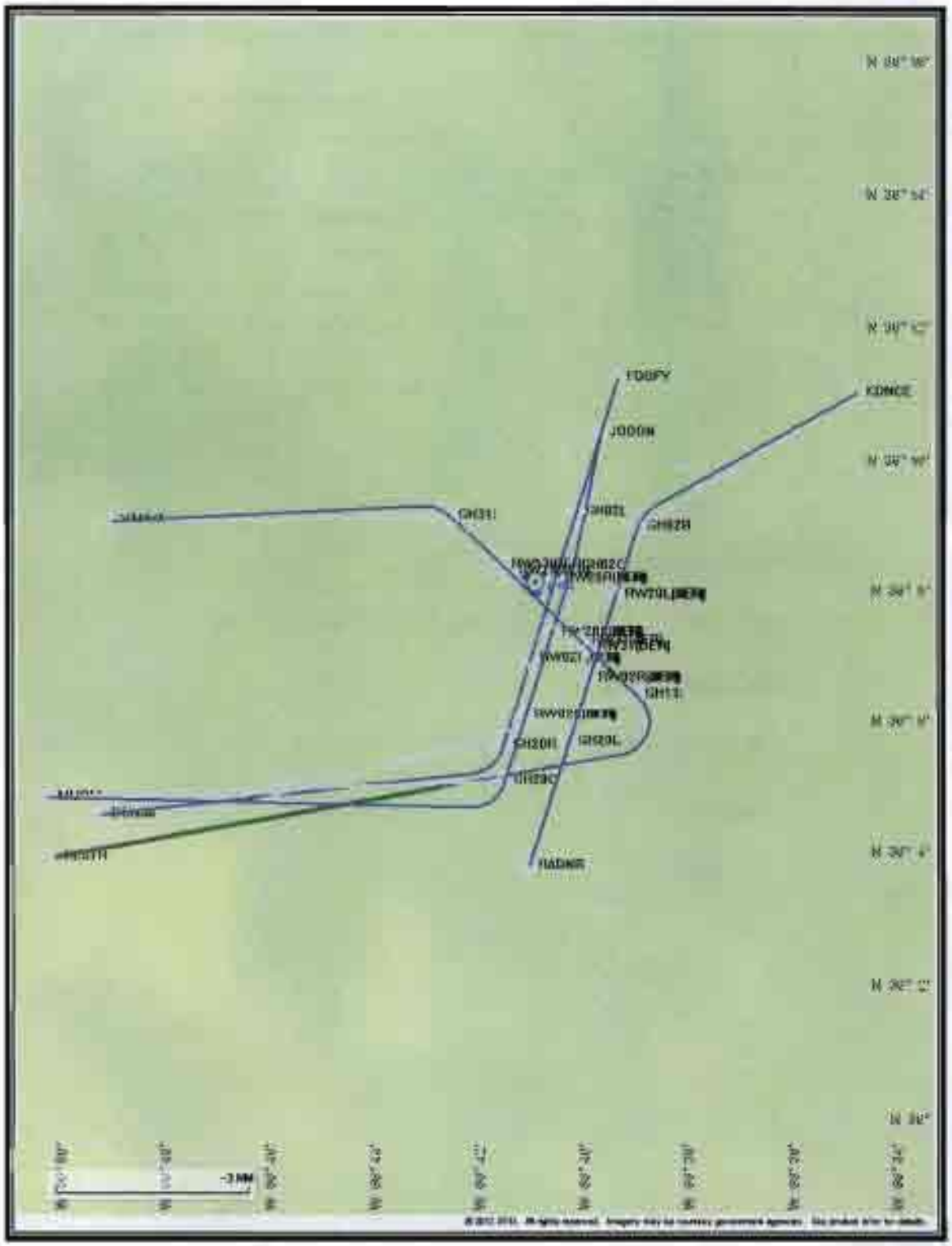

FDOPY
KDNCE
JODON
GH31
GH02L
GH02R
RW20L
RW02L
GH13
GH20R
GH20L
GH20C
RADNR
-3 NM

Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW02C(...	WP	N 36° 6' 11.99" W 86° 41' 16.66"	569.0	VNAV	0.0	Fly Over	TF
RW20C(...	WP	N 36° 7' 27.24" W 86° 40' 46.55"	606.8	VNAV	130.0	Fly Over	VA
GH02C	WP	N 36° 8' 27.61" W 86° 40' 22.38"	1100.0	VNAV	145.0	Fly Over	DF
JOOON	WP	N 36° 10' 30.30" W 86° 39' 50.22"	1517.5	VNAV	180.0	Fly Over	DF

Climb Gradient: 500.0 Ft/NM up to 1100.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KBNA
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1100.0 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 -43.35 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

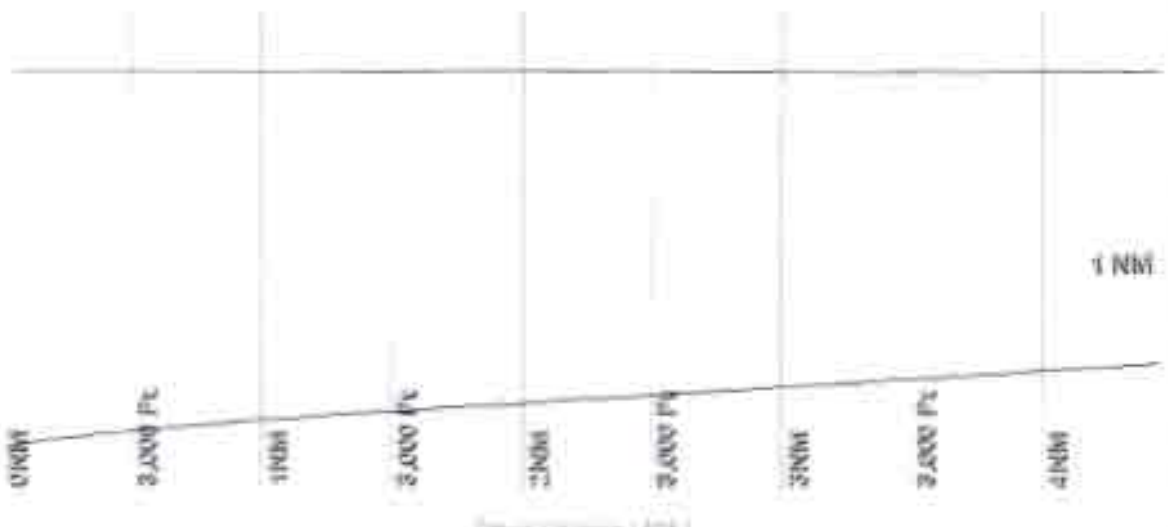
Settings:

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

Total Number of DMEs Used: 0

Maximum DME Error Could not be Derived with < 2 DMEs.

No Critical DMEs were found.



DME/DME (Continued.)

Return To Summary

Flight Check DME Selection

Distance [NM]	Selected DMEs	Alternate
0.0		
1.3		
2.4		

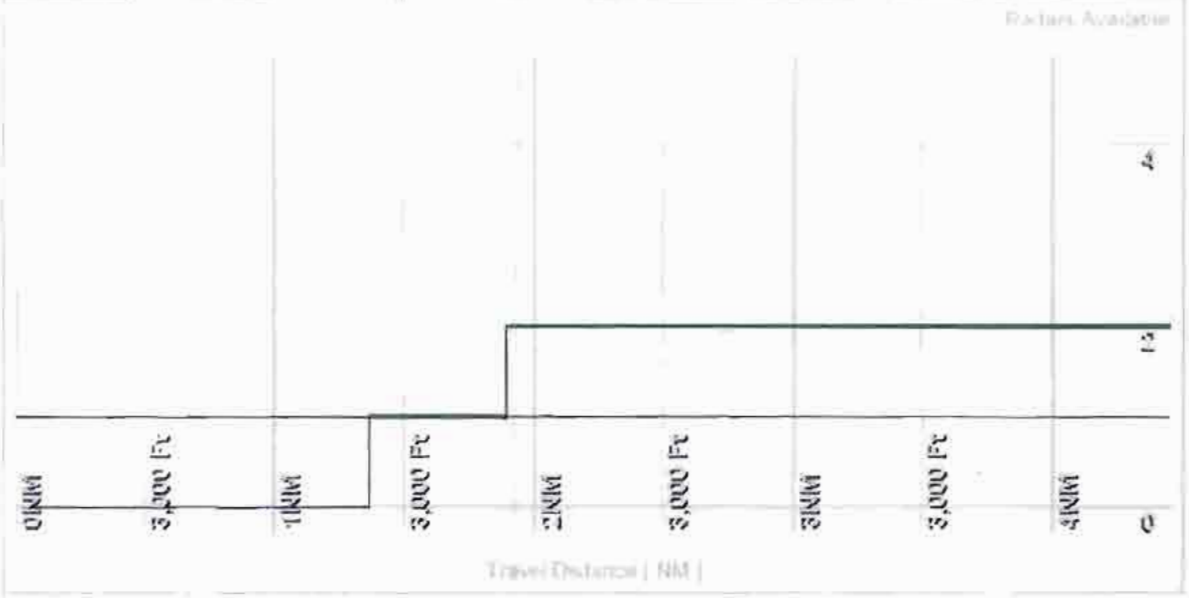
Inertial Drift Segments

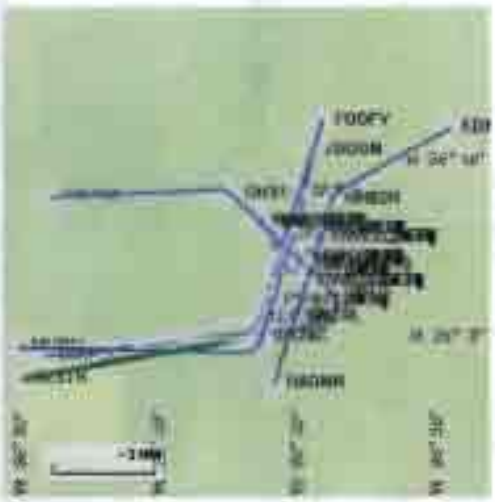
#	Start Location	End Location	Length [NM]
1	N 36° 6' 11.99" W 86° 41' 16.66"	N 36° 10' 29.93" W 86° 39' 50.31"	4.5
	VOR: BNA	Available from N 36° 6' 11.99" W 86° 41' 16.66" to N 36° 10' 29.93" W 86° 39' 50.31"	
	VOR: SYI	Available from N 36° 6' 11.99" W 86° 41' 16.66" to N 36° 10' 29.93" W 86° 39' 50.31"	

Radar Analysis

Return To Summary

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





Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID ALL RWYS FIRST WP 20120404
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	4/4/2012 1:08:16 PM
Input File:	KBNA KRSTA1 SID RW20...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2008
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓ **Please Check Flyability Results**
DME/DME	✓
Radars	✓
Comms	?
TERPS	?

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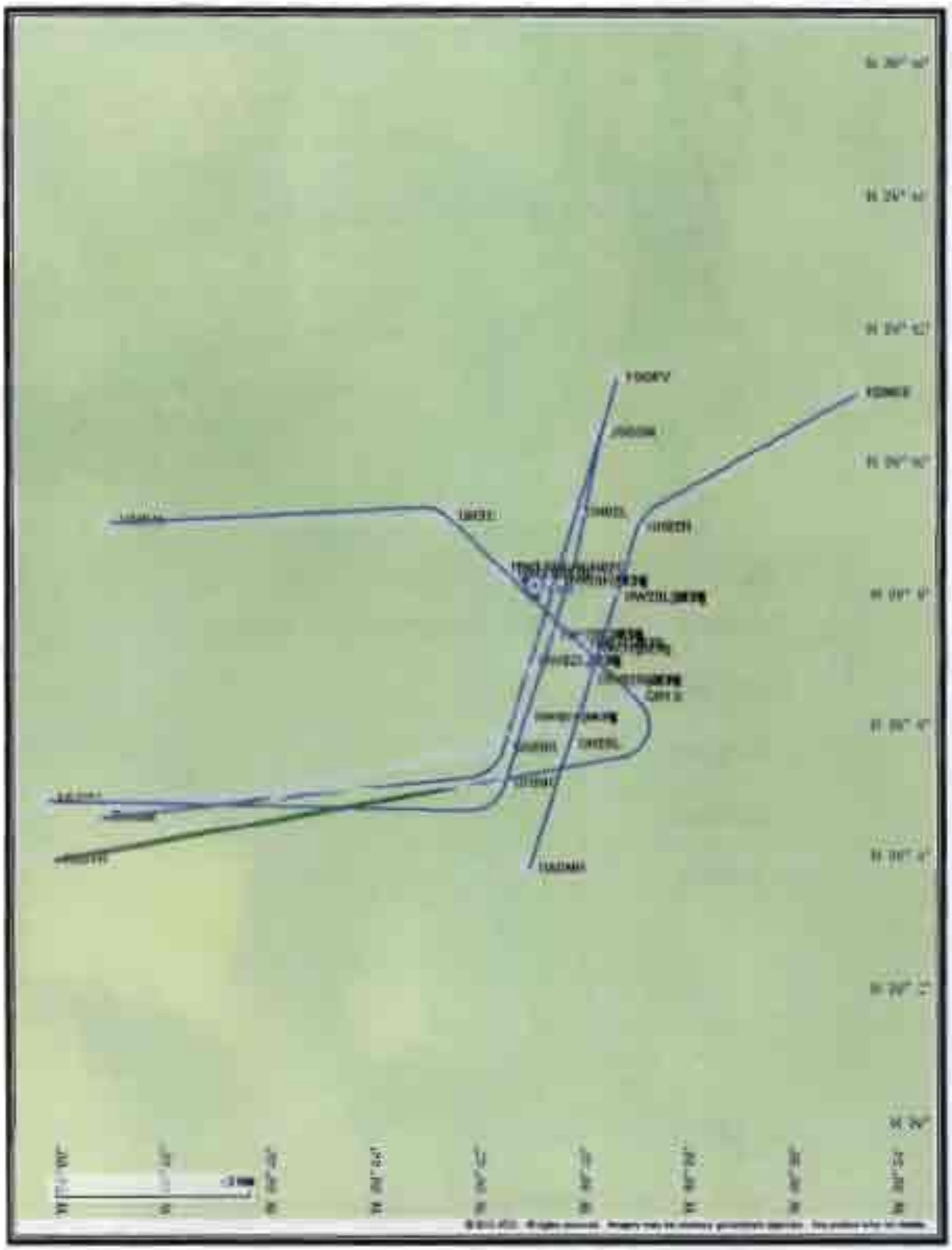


Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW20C(...	WP	N 36° 7' 27.24" W 86° 40' 46.55"	571.8	VNAV	0.0	Fly Over	TF
RW02C(...	WP	N 36° 6' 11.99" W 86° 41' 16.66"	604.0	VNAV	130.0	Fly Over	VA
GH20C	WP	N 36° 5' 11.30" W 86° 41' 40.93"	1100.0	VNAV	145.0	Fly Over	DF
MIJOM	WP	N 36° 4' 56.58" W 86° 50' 23.82"	2513.6	VNAV	180.0	Fly Over	DF

Climb Gradient: 500.0 Ft/NM up to 1100.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KBNA
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1100.0 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 -39.02 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

Total Number of DMEs Used: 0

Maximum DME Error Could not be Derived with < 2 DMEs.

No Critical DMEs were found

Available DMEs: BNA, GHM

DME/DME (Continued.)

Return To Summary

Flight Check DME Selection

Distance [NM]	Selected DMEs		Alternate
0.0			
1.3			
2.4	BNA	GHM	

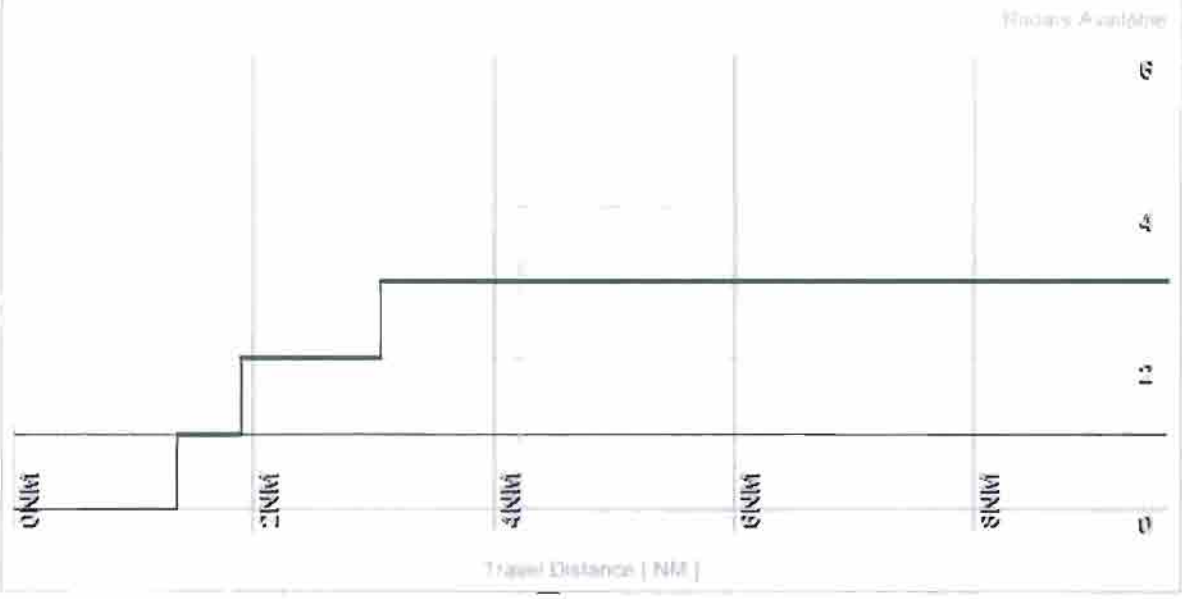
Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 7' 27.24" W 86° 40' 46.55"	N 36° 4' 56.56" W 86° 50' 22.92"	9.6
	VOR: BNA	Available from N 36° 7' 27.24" W 86° 40' 46.55" to N 36° 4' 56.56" W 86° 50' 22.92"	
	VOR: SYI	Available from N 36° 7' 27.24" W 86° 40' 46.55" to N 36° 4' 56.56" W 86° 50' 22.92"	
	VOR: GHM	Available from N 36° 5' 22.19" W 86° 41' 36.56" to N 36° 4' 56.56" W 86° 50' 22.92"	

Radar Analysis

Return To Summary

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



Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID ALL RWYS FIRST WP 20120404
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	4/4/2012 1:08:44 PM
Input File:	KBNA KRSTA1 SID RW20...
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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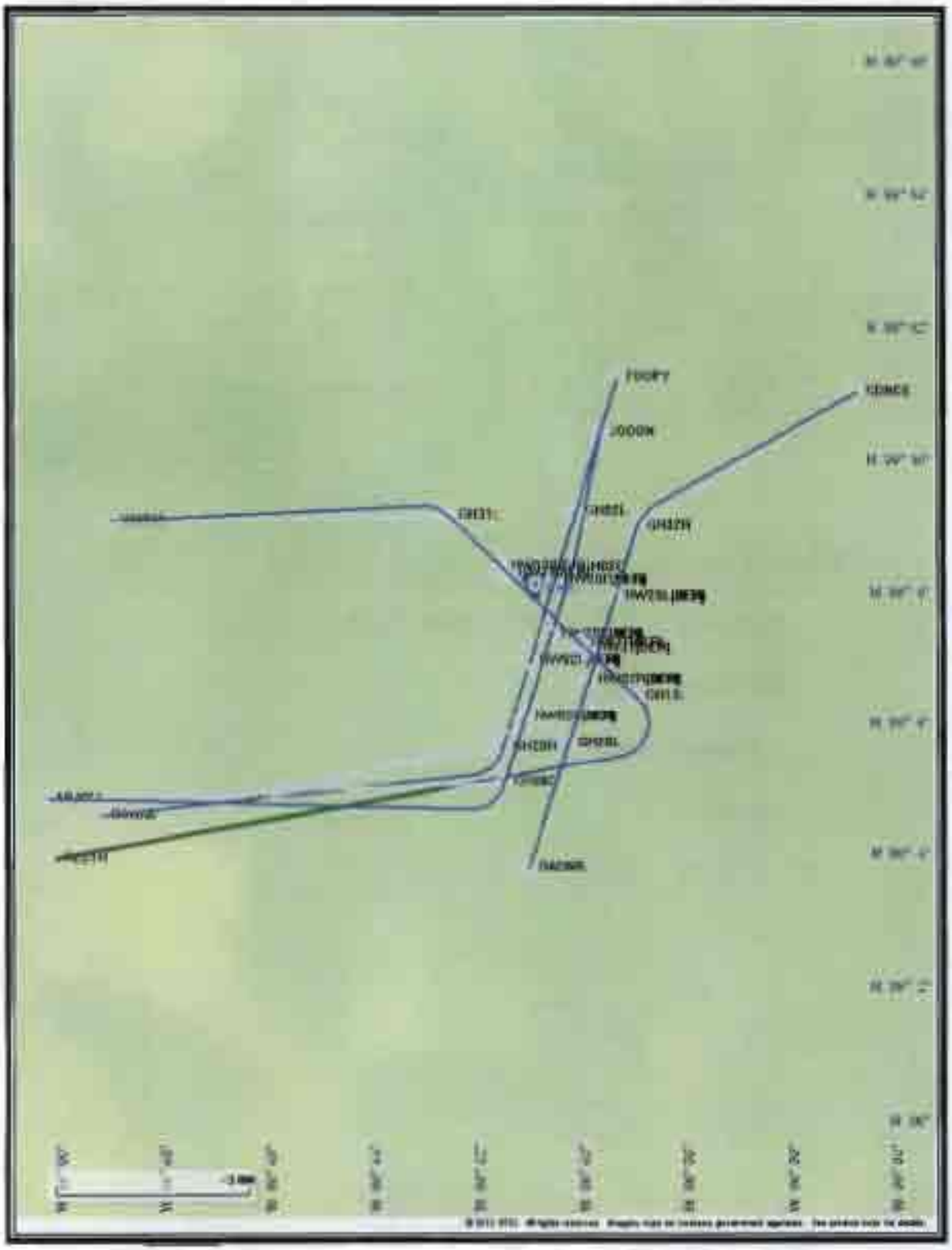


Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW20L(..	WP	N 36° 6' 1.01" W 86° 39' 33.40"	539.9	VNAV	0.0	Fly Over	TF
RW02R(..	WP	N 36° 6' 45.77" W 86° 40' 3.52"	624.7	VNAV	130.0	Fly Over	VA
GH20L	WP	N 36° 5' 47.44" W 86° 40' 26.85"	1100.0	VNAV	145.0	Fly Over	DF
RADNR	WP	N 36° 3' 53.17" W 86° 41' 12.54"	1499.9	VNAV	180.0	Fly Over	DF

Climb Gradient: 500.0 Ft/NM up to 1100.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KBNA
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1100.0 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 -60.22 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:

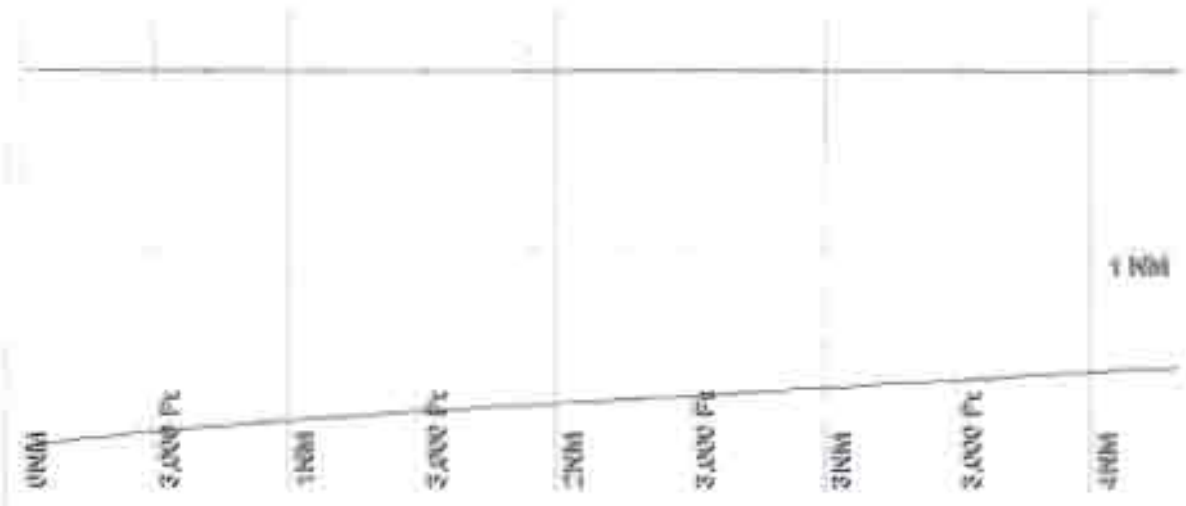
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.165 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: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

Total Number of DMEs Used: 0

Maximum DME Error Could not be Derived with < 2 DMEs.

No Critical DMEs were found

Available DMEs: BNA



DME/DME (Continued.)

Return To Summary

Flight Check DME Selection

Distance [NM]	Selected DMEs	Alternate
0.0		
1.3		
2.3	BNA	

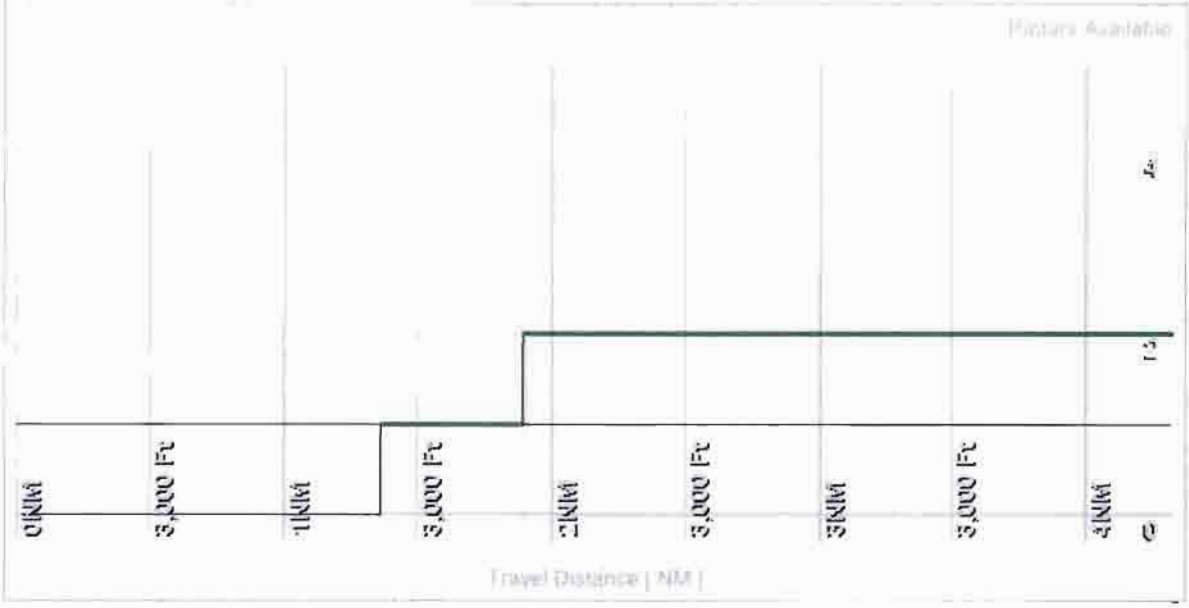
Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 8' 1.01" W 86° 39' 33.40"	N 36° 3' 54.05" W 86° 41' 12.19"	4.3
	VOR: BNA	Available from N 36° 8' 1.01" W 86° 39' 33.40" to N 36° 3' 54.05" W 86° 41' 12.19"	
	VOR: SYI	Available from N 36° 8' 1.01" W 86° 39' 33.40" to N 36° 3' 54.05" W 86° 41' 12.19"	
	VOR: GHM	Available from N 36° 4' 15.03" W 86° 41' 3.81" to N 36° 3' 54.05" W 86° 41' 12.19"	

Radar Analysis

Return To Summary

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



Name:	Dennis Osterhage
Project Name:	KBNA KRSTA1 SID ALL RWYS FIRST WP 20120404
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	4/4/2012 1:09:14 PM
Input File:	KBNA KRSTA1 SID RW31
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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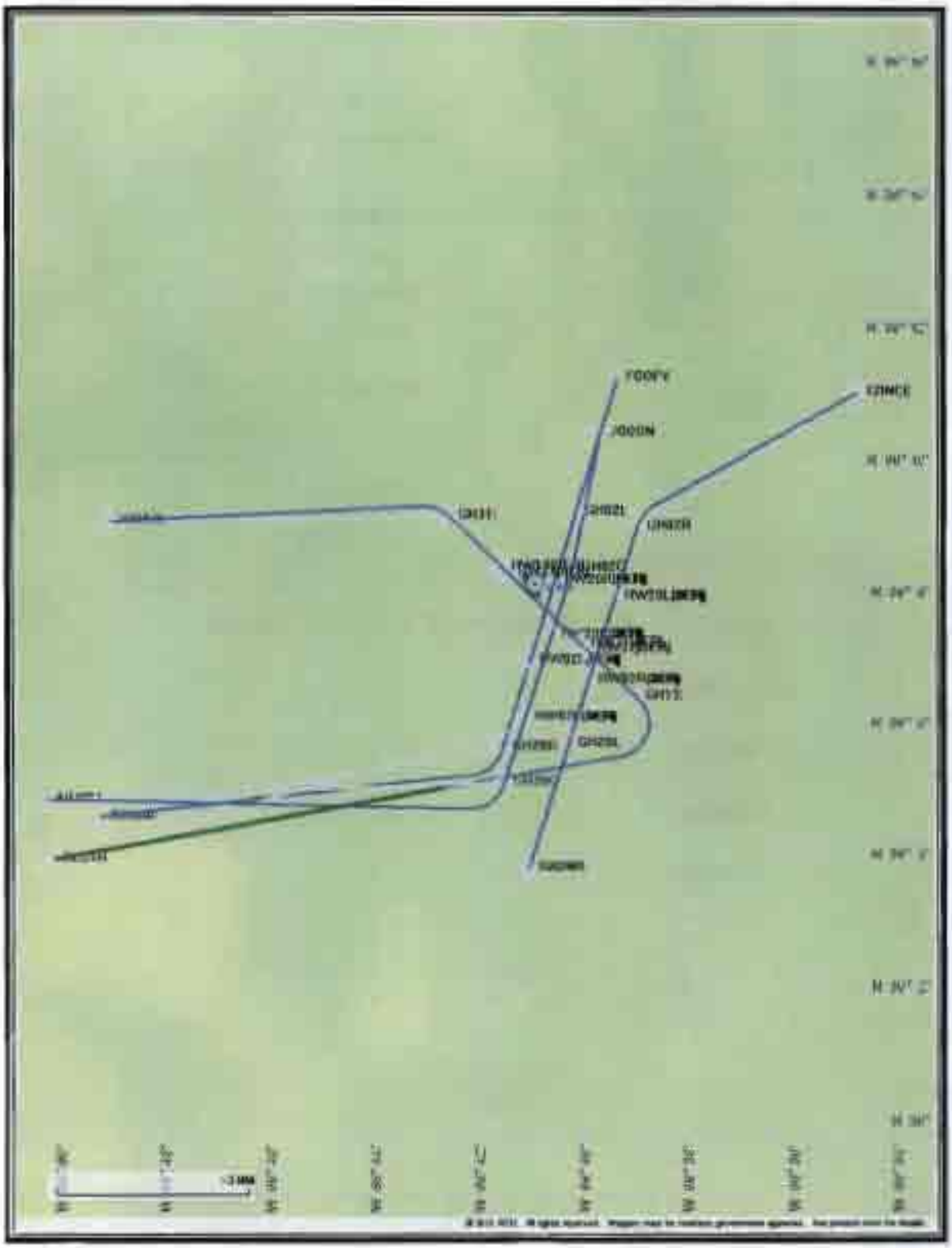

FOOPY
JOOON
GH31
GH32L
GH32R
GH31
GH29L

Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW31(A...	WP	N 36° 7' 18.81" W 86° 40' 12.01"	582.2	VNAV	0.0	Fly Over	TF
RW13(D...	WP	N 36° 8' 28.60" W 86° 41' 43.28"	570.8	VNAV	130.0	Fly Over	VA
GH31:	WP	N 36° 9' 15.09" W 86° 42' 44.12"	1100.0	VNAV	145.0	Fly Over	DF
YAHYA	WP	N 36° 9' 10.44" W 86° 49' 11.86"	2146.8	VNAV	180.0	Fly Over	DF

Climb Gradient: 500.0 Ft/NM up to 1100.0 Ft MSL

Flyability

Return To Summary

Settings:

Flight Type: Departure
Selected Airport: KBNA
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 1100.0 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 -23.28 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

Total Number of DMEs Used: 0

Maximum DME Error Could not be Derived with < 2 DMEs

No Critical DMEs were found

Available DMEs: BNA

DME/DME (Continued.)

Return To Summary

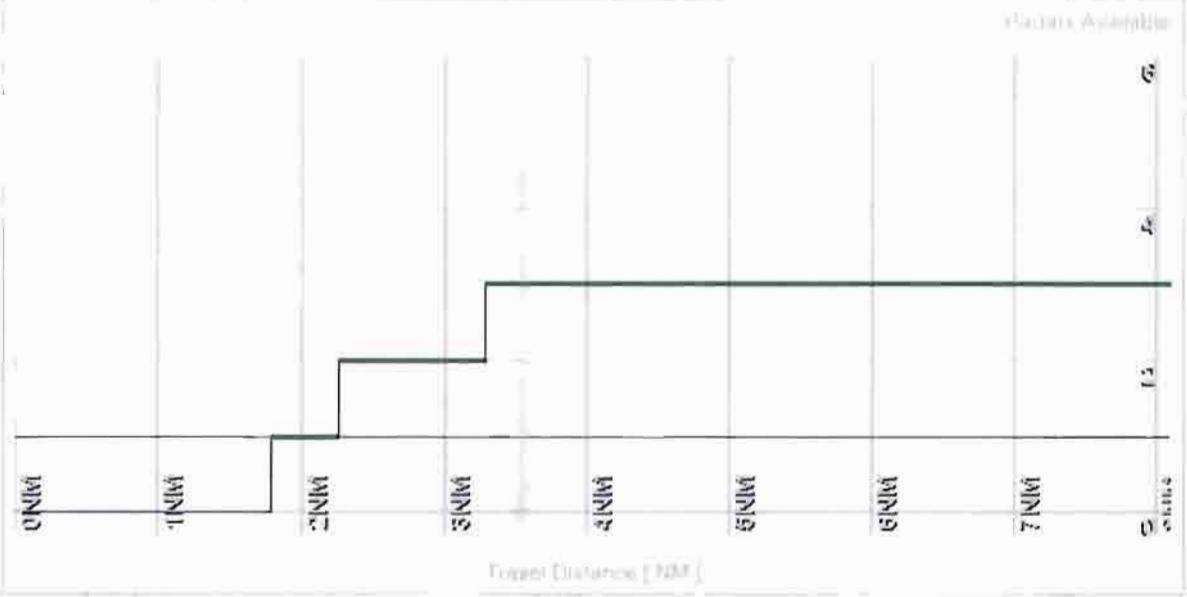
Flight Check DME Selection

Distance [NM]	Selected DMEs	Alternate
0.0		
1.7		
2.8	BNA	

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 7' 18.61" W 86° 40' 12.01"	N 36° 9' 10.47" W 86° 49' 11.12"	8.1
	VOR: BNA	Available from N 36° 7' 18.61" W 86° 40' 12.01" to N 36° 9' 10.47" W 86° 49' 11.12"	
	VOR: SYI	Available from N 36° 7' 18.61" W 86° 40' 12.01" to N 36° 9' 10.47" W 86° 49' 11.12"	
	VOR: GHM	Available from N 36° 9' 22.67" W 86° 43' 57.83" to N 36° 9' 10.47" W 86° 49' 11.12"	

Radar Analysis

Return To Summary

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