Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: STAR	Date Open: 09/21/2010	Task #: 2010092125714101001	Request #: 20100921257141
Procedure: STAR SWFFT (RNAV) ONE NASHVILLE TN KBNA		Airport ID: KBNA	Airport: NASHVILLE INTL		Reimbursable #:
City: NASHVILLE	ST: TN	GPS #:		Estimated Chart Date: 11/15/2012	FICO #:
Fac ID:	Fac. Type: Proc-D	Specialist: CHRISTOPHER COX			

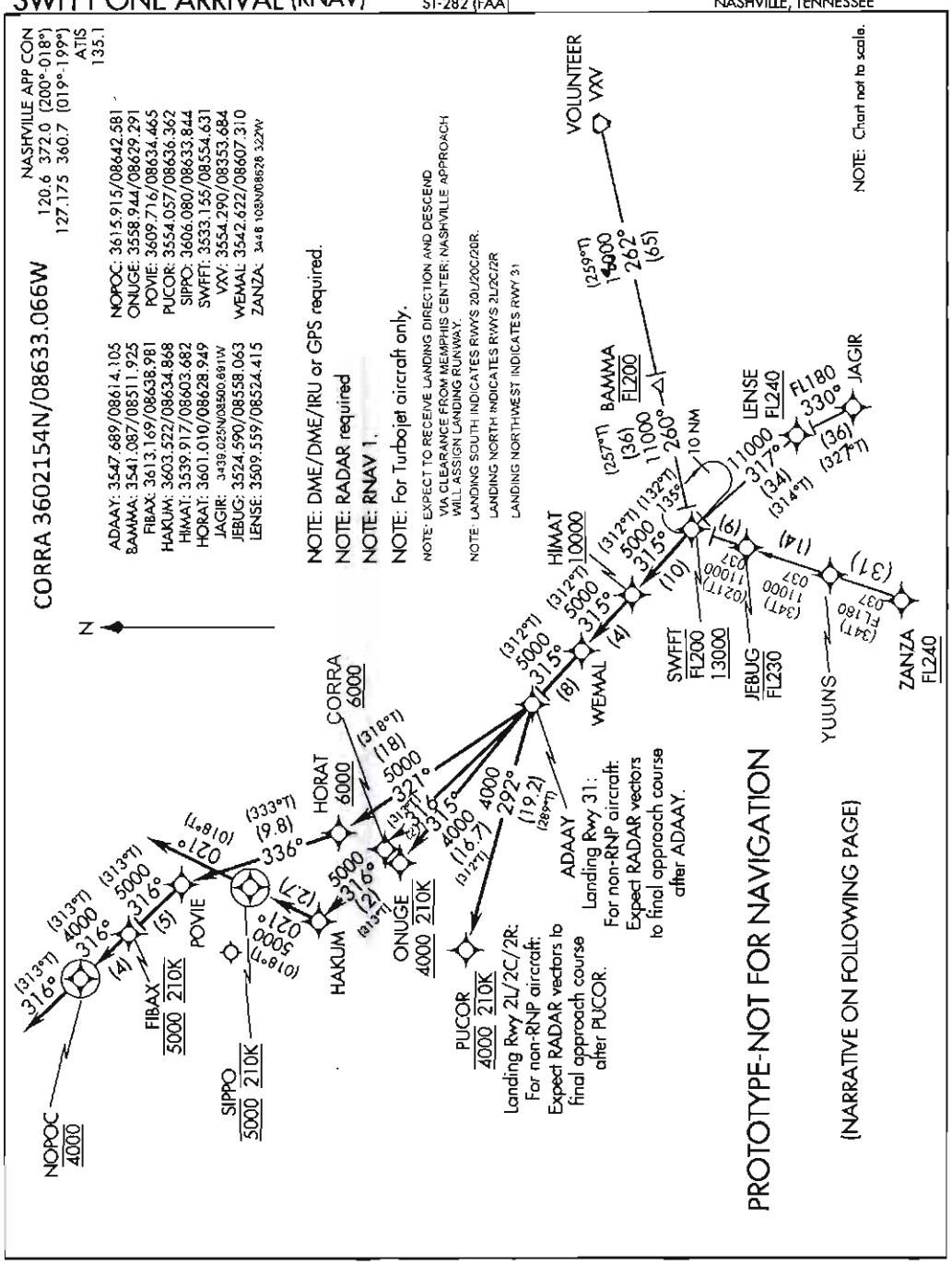
P2 DME / DME

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	05/04/2012	08/06/2012	MARLON ROBINSON	ESV REQUEST INCLUDED
QA:	08/06/2012	08/16/2012	STEVEN SZUKALA	
Liaison:	08/16/2012		K. Spurlin	P2 - ESV - DME/DME

Procedure Comments: ENROUTE **Remark Type:** INFORMATION PKG 4 of 4

DENVER, CO DENVER INTERNATIONAL (KDEN) STAR SWFFT (RNAV) ONE ENROUTE-YES FC BY 9/18/12 PUB 11/15/12
ESV(S): HCH, GQO (2), BNA, GHM, VXV, DCU, HRS, BWG
ATTACHED FORMS: 7100-3, 7100-4
8260-2(S): ADAAY ORIG, BAMMA INT REV 2 (MULTIPLE), CORRA ORIG, FIBAX ORIG, HAKUM ORIG, HIMAT ORIG, HORAT ORIG, JAGIR ORIG, JEBUG ORIG, LENSE ORIG, NOPOC ORIG, ONUGE INT REV 2, POVIE ORIG, PUCOR ORIG, SIPPO ORIG, SWFFT ORIG, VOLUNTEER VORTAC REV 8 (MULTIPLE), WEMAL ORIG, YUUNS ORIG, ZANZA ORIG
CONTACT: DON SMITH/MARLON ROBINSON-AJV-352 LEADS, 405.954.1036/405.954.3636.


CORRA 3602154N/08633.066W
NASHVILLE APP CON
120.6 372.0 (200°-018°)
127.175 360.7 (019°-199°)
ATIS
135.1
ADAAY: 3547.689/08614.105
BAMMA: 3541.087/08511.925
FIBAX: 3613.169/08638.981
HAKUM: 3603.522/08634.868
HIMAT: 3539.917/08603.682
HORAT: 3601.010/08628.949
JAGIR: 3439.025N/08500.691W
JEBUG: 3524.590/08558.063
LENSE: 3509.559/08524.415
NOPOC: 3615.915/08642.581
ONUGE: 3558.944/08629.291
POVIE: 3609.716/08634.465
PUCOR: 3554.057/08636.362
SIPPO: 3606.080/08633.844
SWFFT: 3533.155/08554.631
VXV: 3554.290/08353.684
WEMAL: 3542.622/08607.310
ZANZA: 3448.108N/08628.322W
NOTE: DME/DME/IRU or GPS required.
NOTE: RADAR required
NOTE: RNAV 1.
NOTE: For Turbojet aircraft only.
NOTE: EXPECT TO RECEIVE LANDING DIRECTION AND DESCEND VIA CLEARANCE FROM MEMPHIS CENTER; NASHVILLE APPROACH WILL ASSIGN LANDING RUNWAY
NOTE: LANDING SOUTH INDICATES RWYS 20L/20C/20R.
LANDING NORTH INDICATES RWYS 2L/2C/2R
LANDING NORTHWEST INDICATES RWY 31
NOTE: Chart not to scale.
N
NOPOC 4000
FIBAX 5000 210K
SIPPO 5000 210K
POVIE
HAKUM
ONUGE 4000 210K
HORAT 6000
CORRA 6000
PUCOR 4000 210K
Landing Rwy 2L/2C/2R: For non-RNP aircraft: Expect RADAR vectors to final approach course after PUCOR.
ADAAY
Landing Rwy 31: For non-RNP aircraft: Expect RADAR vectors to final approach course after ADAAY.
WEMAL
HIMAT 10000
SWFFT FL200 13000
JEBUG FL230
YUUNS
ZANZA FL240
BAMMA FL200
LENSE FL240
FL180
JAGIR
VOLUNTEER VXV
PROTOTYPE-NOT FOR NAVIGATION
(NARRATIVE ON FOLLOWING PAGE)

ARRIVAL ROUTE DESCRIPTION

JAGIR TRANSITION (JAGIR.SWFFT1)
VOLUNTEER TRANSITION (VXV.SWFFT1)
ZANZA TRANSITION (ZANZA.SWFFT1)

From over SWFFT on track 315° to HIMAT, cross HIMAT at/above 10000, then on track 315° to WEMAL, then on track 315° to ADAAY, then on assigned runway transition.

Landing Rwy 2L/2C/2R: From over ADAAY on track 292° to PUCOR, cross PUCOR at 4000. Expect RNAV (RNP) approach.

Landing Rwy 20L/20C/20R: From over ADAAY on track 316° to CORRA, cross CORRA at/above 6000, then on track 316° to HAKUM, then on track 021° to SIPPO, then on track 021. Expect radar vectors to final approach course.

Landing Rwy 13: From over ADAAY on track 321° to HORAT, cross HORAT at/above 6000, then on track 336° to POVIE, then on track 316° to FIBAX, cross FIBAX at 5000, then on track 316° to NOPOC, cross NOPOC at 4000, then on track 316°. Expect radar vectors to final approach course.

Landing Rwy 31: From over ADAAY 315° track to ONUGE, cross ONUGE at/above 4000. Expect RNAV (RNP) approach.

PROTOTYPE-NOT FOR NAVIGATION

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : BOWLING GREEN	City : BOWLING GREEN	Ident : BWG	State : KY
Type/Class : TACR	Frequency : M1213	Reference No.: 12041722	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 704282-037	190	220	65	40	160

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 04/11/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-037	190	220	65	40	160	APPROVE

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

Signature: Cassella Charles	Routing Symbol:	Date: 04/11/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-037	190	220	65	40	160	APPROVE

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

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 04/11/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-037	190	220				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : CHOO CHOO	City : CHATTANOOGA	Ident : GQO	State : GA
Type/Class : TACR	Frequency : M1192	Reference No.: 12031338	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 110610-022	322	29	56	100	170

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/29/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 110610-022	322	29	56	100	170	APPROVE

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

Signature: Cassella Charles	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 110610-022	322	29	56	100	170	APPROVE

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

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/29/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 110610-022	322	29				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : VOLUNTEER	City : KNOXVILLE	Ident : VXV	State : TN
Type/Class : TACR	Frequency : M1198	Reference No.: 12031339	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 755466-033	253	266	85	100	175

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/29/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755466-033	253	266	85	100	175	APPROVE

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

Signature: Cassella Charles	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755466-033	253	266	85	100	175	APPROVE

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

Signature: Hughes Dennis	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755466-033	253	266				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : HARRIS	City : HARRIS	Ident : HRS	State : GA
Type/Class : TACR	Frequency : M996	Reference No.: 12074360	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 840974-018	318	5	67	100	140

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 07/11/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 840974-018	318	5	67	100	140	APPROVE

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

Signature: Cassella Charles	Routing Symbol:	Date: 07/11/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 840974-018	318	5	67	100	140	APPROVE

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

Signature: Hughes Dennis	Routing Symbol:	Date: 07/11/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 840974-018	318	5				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : DECATUR	City : DECATUR	Ident : DCU	State : AL
Type/Class : DME	Frequency : M1162	Reference No.: 12031341	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 032268-007	43	61	76	100	240

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/29/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 032268-007	43	61	76	100	240	APPROVE

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

Signature: Cassella Charles	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 032268-007	43	61	76	100	240	APPROVE

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

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/29/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 032268-007	43	61				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office	Airspace Docket Number	Request Type: Establish	
Facility Data			
Chart Name: CHOO CHOO	City: CHATTANOOGA	Ident: GQO	State: GA
Type/Class: TACR	Frequency: M1192	Reference No.: 12031340	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 110610-023	256	317	71	100	165

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/29/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 110610-023	256	317	71	100	165	APPROVE

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

Signature: Cassella Charles	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 110610-023	256	317	71	100	165	APPROVE

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

Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 03/29/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 110610-023	256	317				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : HINCH MOUNTAIN	City : HINCH MOUNTAIN	Ident : HCH	State : TN
Type/Class : TACR	Frequency : M1210	Reference No.: 12031334	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 700766-036	213	257	52	100	240

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/29/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 700766-036	213	257	52	100	240	APPROVE

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

Signature: Cassella Charles	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 700766-036	213	257	52	100	240	APPROVE

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

Signature: Hughes Dennis	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 700766-036	213	257				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : GRAHAM	City : CENTERVILLE	Ident : GHM	State : TN
Type/Class : TACR	Frequency : M1014	Reference No.: 12041960	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 755483-013	49	106	65	40	200

Requirement: ESTABLISH ESV FOR KBNA CHSNE RNAV STAR

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 04/20/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-013	49	106	65	40	200	APPROVE

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

Signature: Cassella Charles	Routing Symbol:	Date: 04/23/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-013	49	106	65	40	200	APPROVE

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

Signature: Hughes Dennis	Routing Symbol:	Date: 04/24/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-013	49	106				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:

ESV Details

Originating Office	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : NASHVILLE	City : NASHVILLE	Ident : BNA	State : TN
Type/Class : TACR	Frequency : M1175	Reference No. 12031337	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 698156-043	112	140	80	100	165

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/29/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698156-043	112	140	80	100	165	APPROVE

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

Signature: Cassella Charles	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698156-043	112	140	80	100	165	APPROVE

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

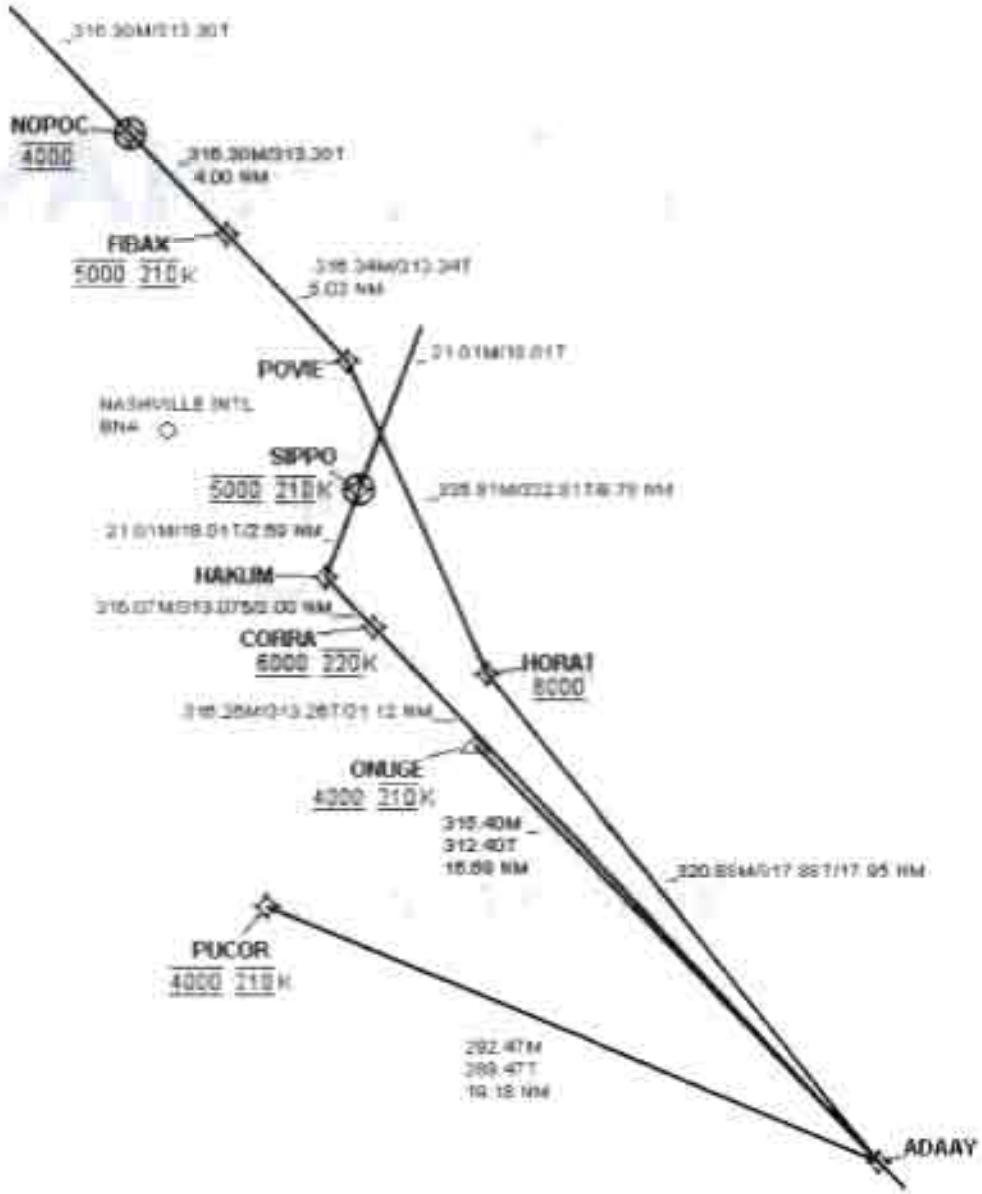
Signature: Hughes Dennis	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698156-043	112	140				

Requirement/Remarks:

Signature:	Routing Symbol:	Date:



SWFFT RNAV

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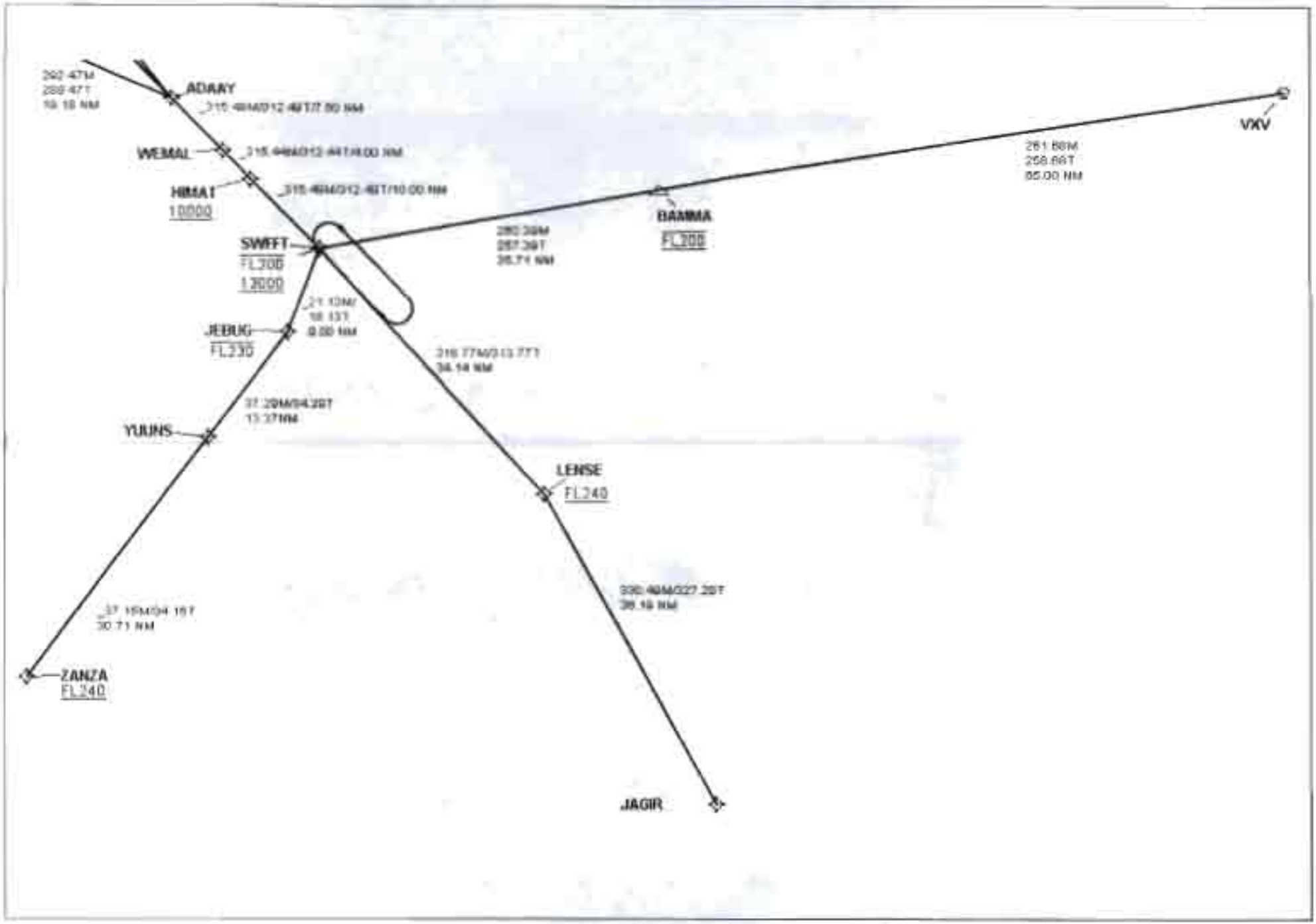

SWFFT RNAV

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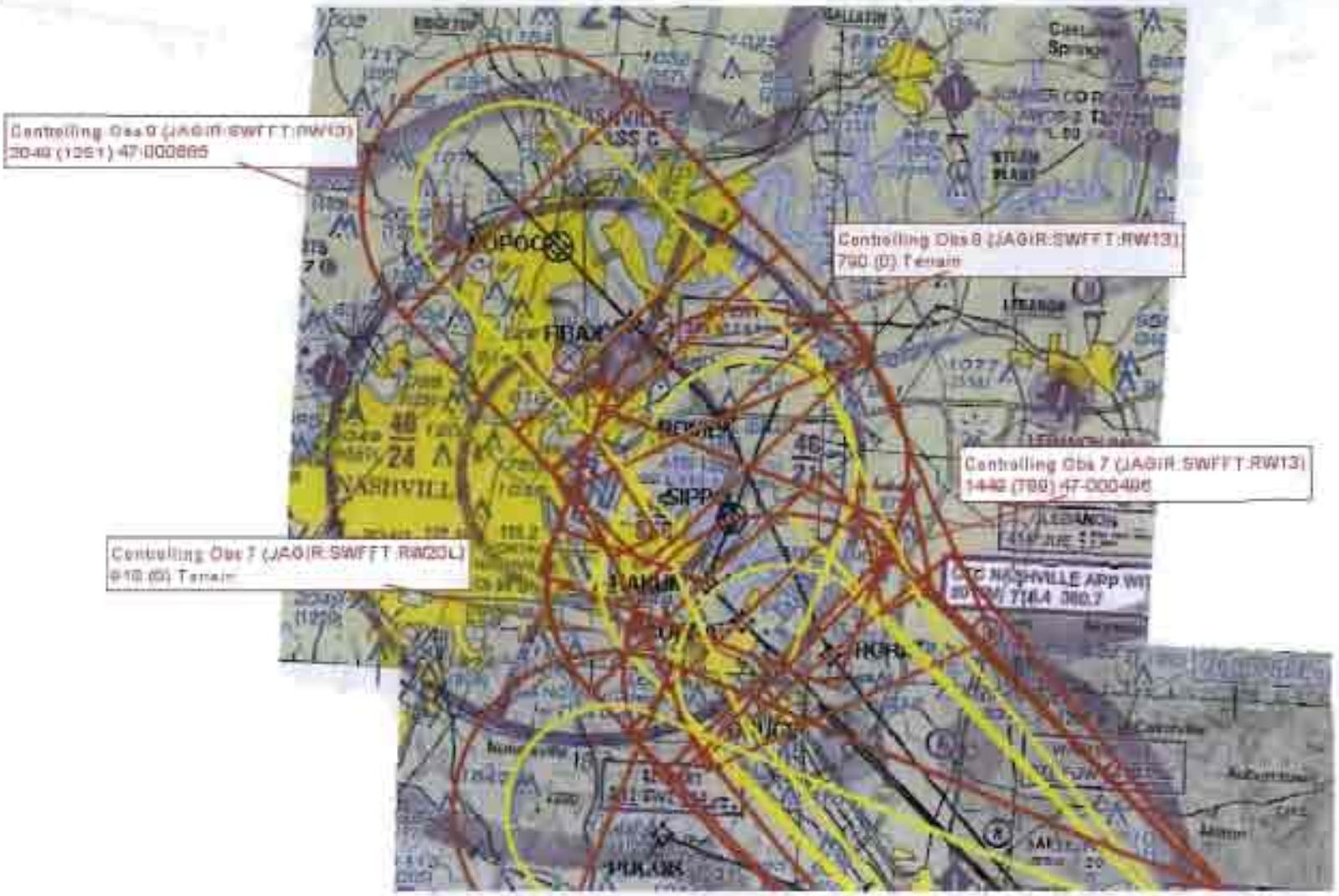

SWFFT RNAV

Created : Wed Aug 01 12:32:13 EDT 2012 TARGETS 4.8 (April 5, 2012)

SWFFT RNAV

Created : Wed Aug 01 12:32:13 EDT 2012 TARGETS 4.8 (April 5, 2012)

SWFFT RNAV

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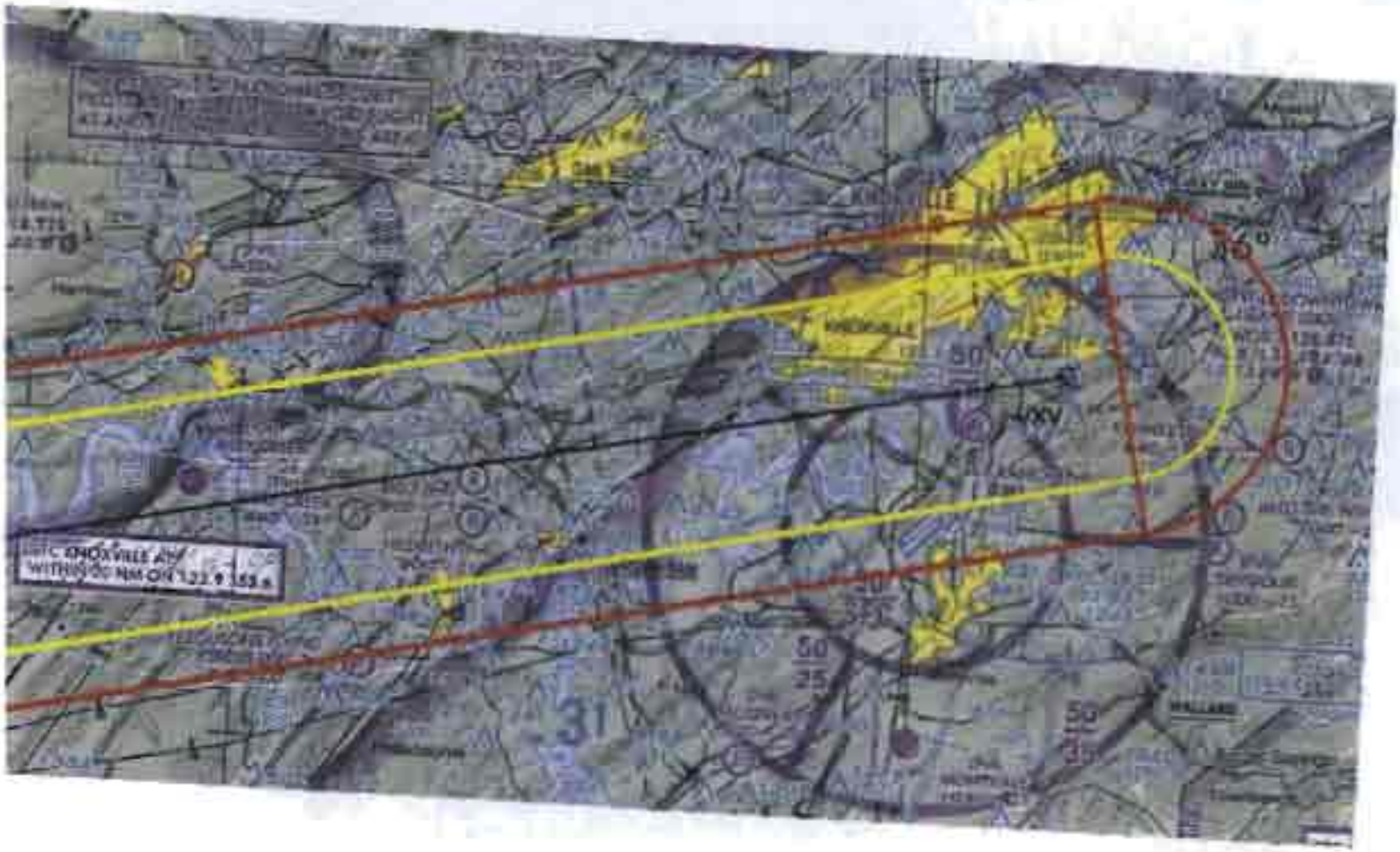


SWFFT RNAV

Created : Wed Aug 01 12:32:13 EDT 2012 TARGETS 4.8 (April 5, 2012)

SWFFT RNAV

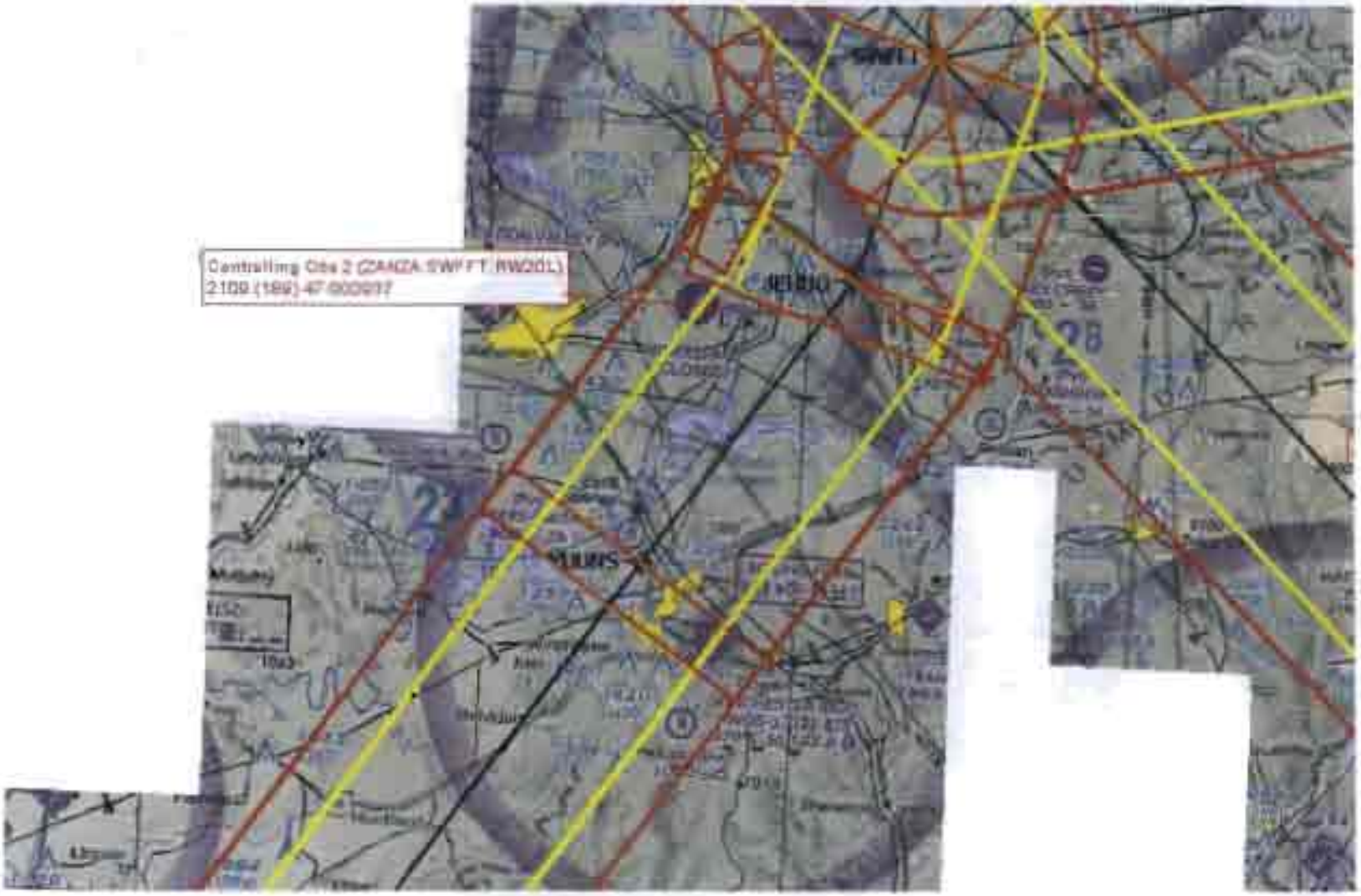
Created : Wed Aug 01 12:32:14 EDT 2012 TARGETS 4.8 (April 5, 2012)

SWFFT RNAV

Created : Wed Aug 01 12:32:14 EDT 2012 TARGETS 4.8 (April 5, 2012)

SWFFT RNAV

Created : Wed Aug 01 12:32:14 EDT 2012 TARGETS 4.8 (April 5, 2012)



SWFFT RNAV

Created : Wed Aug 01 12:32:14 EDT 2012 TARGETS 4.8 (April 5, 2012)

SWFFT RNAV

Created : Wed Aug 01 12:32:14 EDT 2012 TARGETS 4.8 (April 5, 2012)

US Department of Transportation
Federal Aviation Administration

STAR - Standard Terminal Arrival

1. Bearings, headings, courses and radials are listed to the nearest hundredth (e.g. 360.00)
2. Distances are in nautical miles to nearest hundredth (e.g. 00.00)
3. Altitudes are minimum altitudes unless otherwise indicated

(1) Transition Routes

(a) Transition Name	(b) Transition Computer Codes	(c) From RNAV WP / FIX / NAVAID	(d) To RNAV WP / FIX / NAVAID	(e) Mag Course / Distance	(f) MEA	(g) MOCA	(h) MAA	(i) Crossing Altitudes / Fixes
JAGIR	JAGIR.SWFFT1	***JAGIR***	***LENSE***	330.49/36.19	FL180			AT/ABOVE FL240
		LENSE	***SWFFT***	316.77/34.14	11000			AT/ABOVE 13000, AT/BELOW FL200
VOLUNTEER	VXV.SWFFT1	VXV VORTAC	BAMMA	261.68/65.00	FL180			AT FL200
		BAMMA	***SWFFT***	260.39/35.71	11000			AT/ABOVE 13000, AT/BELOW FL200
ZANZA	ZANZA.SWFFT1	***ZANZA***	***YUUNS***	037.15/30.71	FL180			
		YUUNS	***JEBUG***	037.29/13.37	11000			AT/BELOW FL230
		JEBUG	***SWFFT***	021.13/09.00	11000			AT/ABOVE 13000, AT/BELOW FL200

(2) Arrival Route Description: FROM OVER SWFFT ON TRACK 315.49/10.00 NM TO HIMAT, CROSS HIMAT AT/ABOVE 10000 (MEA 5000), THEN ON TRACK 315.44/4.00 NM TO WEMAL (MEA 5000), THEN ON TRACK 315.49/7.50 NM TO ADAAY (MEA 5000), THEN ON ASSIGNED RUNWAY TRANSITION.

LANDING RWY 2L/2C/2R: FROM OVER ADAAY ON TRACK 292.47/19.18 NM TO PUCOR, CROSS PUCOR AT 4000 (MEA 4000). EXPECT RNAV (RNP) APPROACH.

LANDING RWY 20L/20C/20R: FROM OVER ADAAY ON TRACK 316.26/21.12 NM TO CORRA, CROSS CORRA AT/ABOVE 6000 (MEA 5000), THEN ON TRACK 316.07/2.00
Continued on block 16...

(3) Procedural Data Notes: CHART NOTES: DME/DME/IRU OR GPS REQUIRED. RADAR REQUIRED. RNAV 1. FOR TURBOJET AIRCRAFT ONLY. EXPECT TO RECEIVE LANDING DIRECTION AND DESCEND VIA CLEARANCE FROM MEMPHIS CENTER; NASHVILLE APPROACH WILL ASSIGN LANDING RUNWAY. LANDING SOUTH INDICATES RWYS 20L/20C/20R. LANDING NORTH INDICATES RWYS 2L/2C/2R. LANDING NORTHWEST INDICATES RWY 31.

CROSS LENSE AT/ABOVE FL240. CROSS ZANZA AT/ABOVE FL240. CROSS JEBUG AT/BELOW FL230. CROSS BAMMA AT FL200. CROSS SWFFT AT/ABOVE 13000 AT/BELOW FL200. CROSS HIMAT AT/ABOVE 10000. CROSS CORRA AT/ABOVE 6000 AT 220 KTS. CROSS HORAT AT/ABOVE 6000. CROSS FIBAX AT 5000 AT 210 KTS. CROSS SIPPO AT 5000 AT 210 KTS. CROSS ONUGE AT/ABOVE 4000 AT 210 KTS. CROSS PUCOR AT 4000 AT 210 KTS. CROSS NOPOC AT 4000.
Continued on block 16...

(4) Fixes and/or Holding Patterns: CHART HOLDING AT SWFFT: HOLD SW, RT, 315.49 INBOUND, 10 NM LEGS.

(5) Communications: APP CON. ATIS.

QUALITY 3 CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

(12) Airports Served	
Airport Name NASHVILLE INTL	City/State NASHVILLE, TN
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State

(13) Lost Communications Procedure:

(14) Remarks:

(15) Additional Flight Data: REFERENCE MAG VAR: KBNA 03W/2010.
DME/DME ASSESSMENT: SAT (RNP 2.0).

QUALITY CHECKED 3

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

(16) Continuation:

(2) Arrival Route Description:
NM TO HAKUM (MEA 5000), THEN ON TRACK 021.01/2.69 NM TO SIPPO, CROSS SIPPO AT 5000 (MEA 5000), THEN ON TRACK 021.01. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 13: FROM OVER ADAAY ON TRACK 320.88/17.95 NM TO HORAT, CROSS HORAT AT/ABOVE 6000 (MEA 5000), THEN ON TRACK 335.81/9.78 NM TO POVIE, THEN ON TRACK 316.34/5.03 NM TO FIBAX, CROSS FIBAX AT 5000 (MEA 5000), THEN ON TRACK 316.30/4.00 TRACK TO NOPOC, CROSS NOPOC AT 4000 (MEA 4000), THEN ON TRACK 316.30. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 31: FROM OVER ADAAY 315.40/16.69 TRACK TO ONUGE, CROSS ONUGE AT/ABOVE 4000 (MEA 4000). EXPECT RNAV (RNP) APPROACH.

(3) Procedural Data Notes:

LANDING RWY 2L/2C/2R: FOR NON-RNP AIRCRAFT: EXPECT RADAR VECTORS TO FINAL APPROACH COURSE AFTER PUCOR.
LANDING RWY 31: FOR NON-RNP AIRCRAFT EXPECT RADAR VECTORS TO FINAL APPROACH COURSE AFTER ADAAY.

(17) Changes: ORIGINAL.

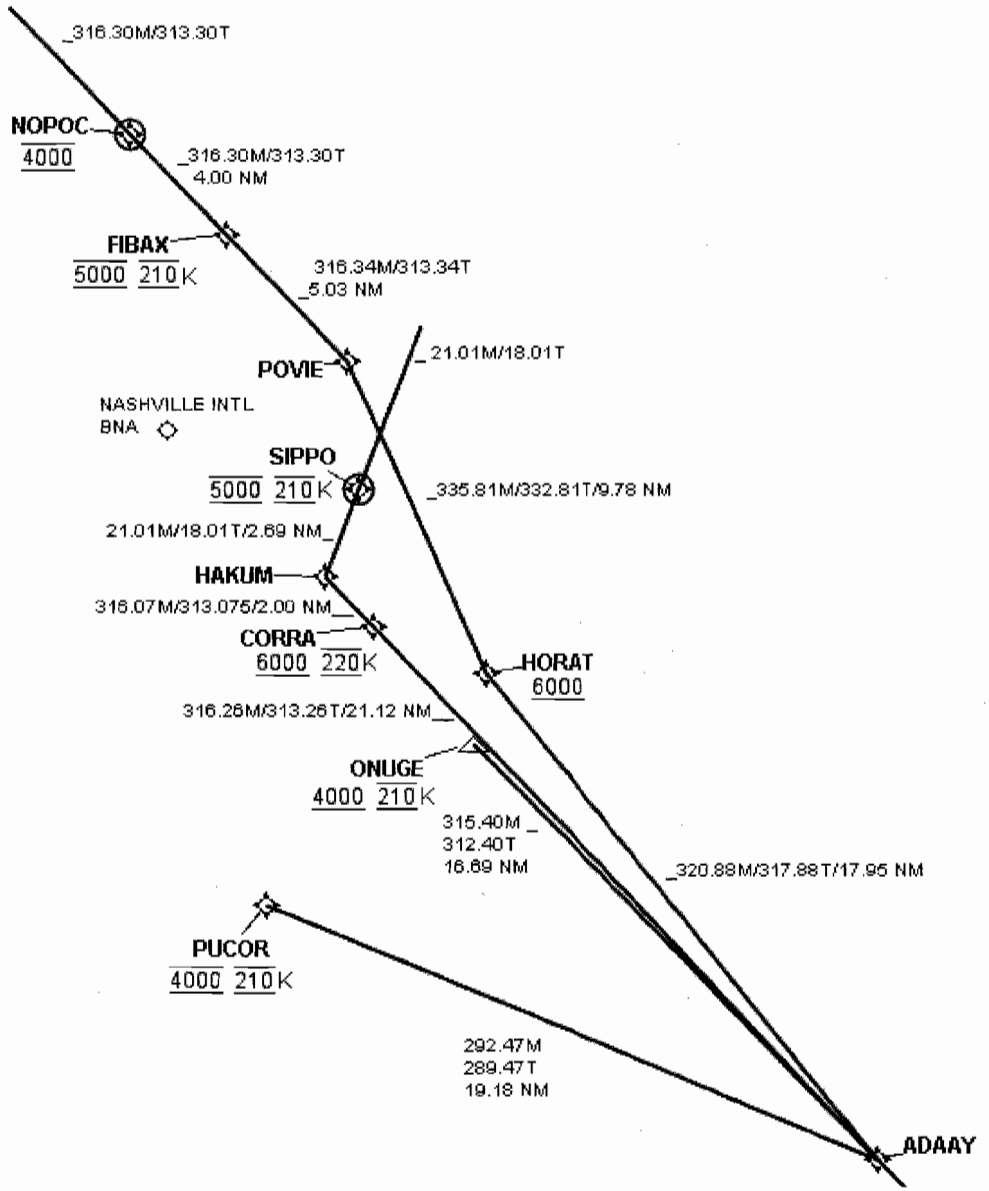
(18) Reasons for Changes: REQUESTED BY ATC.

	Name (Typed and Signed), Title and Organization		DATE
Developed By	RUSSELL BEATSE, AIRSPACE AND PROCEDURES SPECIALIST, MEMPHIS ARTCC		26 APR 2012
Approved	**AJV-352**	DARRYEL ADAMS, MANAGER	
	Reg. ATD		

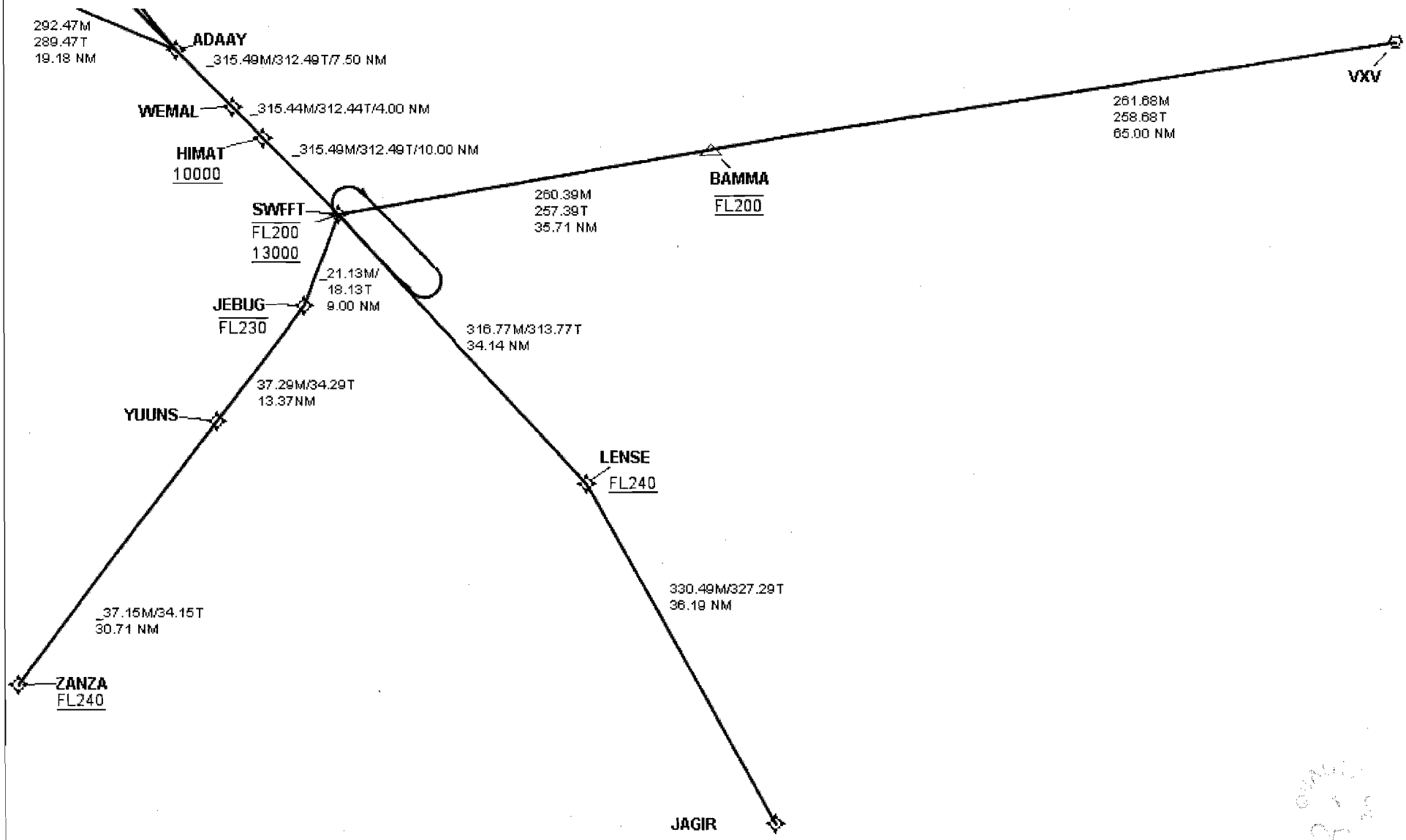
QUALITY CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

(19) Graphic Depiction (1 of 2)



(19) Graphic Depiction (2 of 2)



US Department of Transportation
Federal Aviation Administration

RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
En Route Transition									
JAGIR	343901.51N / 0850041.48W	Y		IF					JAGIR.SWFFT1
LENSE	350933.55N / 0852424.89W	Y	FB	TF	327.49	36.19	+FL240		
SWFFT	353309.32N / 0855437.84W	Y	FB	TF	313.77	34.14	+13000, -FL200		
En Route Transition									
VXV VORTAC	355417.42N / 0835341.02W	Y		IF					VXV.SWFFT1
BAMMA	354105.22N / 0851155.47W	Y	FB	TF	258.68	65.00	FL200		
SWFFT	353309.32N / 0855437.84W	Y	FB	TF	257.39	35.71	+13000, -FL200		
En Route Transition									
ZANZA	344806.45N / 0862819.33W	Y		IF			+FL240		ZANZA.SWFFT1
YUUNS	351331.79N / 0860716.71W	Y	FB	TF	034.15	30.71			
JEBUG	352435.39N / 0855803.78W	Y	FB	TF	034.29	13.37	-FL230		
SWFFT	353309.32N / 0855437.84W	Y	FB	TF	018.13	09.00	+13000, -FL200		

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

QUALITY CHECK 3

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Federal Aviation Administration

RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
Common Route									
SWFFT	353309.32N / 0855437.84W	Y		IF			+13000, -FL200		
HIMAT	353954.99N / 0860340.90W	Y	FB	TF	312.49	10.00	+10000		
WEMAL	354237.31N / 0860718.62W	Y	FB	TF	312.44	04.00			
ADAAY	354741.34N / 0861406.30W	Y	FB	TF	312.49	07.50			
Runway Transition									
ADAAY	354741.34N / 0861406.30W	Y		IF					
PUCOR	355403.41N / 0863621.72W	Y	FB	TF	289.47	19.18	4000	210K	
KBNA:RW02C									
Runway Transition									
ADAAY	354741.34N / 0861406.30W	Y		IF					
PUCOR	355403.41N / 0863621.72W	Y	FB	TF	289.47	19.18	4000	210K	
KBNA:RW02L									

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

QUALITY CHECKED 3

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Federal Aviation Administration

RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
Runway Transition									
ADAAY	354741.34N / 0861406.30W	Y		IF					
PUCOR	355403.41N / 0863621.72W	Y	FB	TF	289.47	19.18	4000	210K	
KBNA:RW02R									
Runway Transition									
ADAAY	354741.34N / 0861406.30W	Y		IF					
HORAT	360100.61N / 0862856.93W	Y	FB	TF	317.88	17.95	+6000		
POVIE	360942.96N / 0863427.87W	Y	FB	TF	332.81	09.78			
FIBAX	361310.11N / 0863858.88W	Y	FB	TF	313.34	05.03	5000	210K	
NOPOC	361554.88N / 0864234.88W	Y	FO	TF	313.30	04.00	4000		
KBNA:RW13				FM	313.30				
Runway Transition									
ADAAY	354741.34N / 0861406.30W	Y		IF					
CORRA	360209.26N / 0863303.97W	Y	FB	TF	313.26	21.12	+6000	220K	

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

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RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
HAKUM	360331.32N / 0863452.09W	Y	FB	TF	313.07	02.00			
SIPPO	360604.77N / 0863350.61W	Y	FO	TF	018.01	02.69	5000	210K	
KBNA:RW20C				FM	018.01				
Runway Transition									
ADAAY	354741.34N / 0861406.30W	Y		IF					
CORRA	360209.26N / 0863303.97W	Y	FB	TF	313.26	21.12	+6000	220K	
HAKUM	360331.32N / 0863452.09W	Y	FB	TF	313.07	02.00			
SIPPO	360604.77N / 0863350.61W	Y	FO	TF	018.01	02.69	5000	210K	
KBNA:RW20L				FM	018.01				
Runway Transition									
ADAAY	354741.34N / 0861406.30W	Y		IF					
CORRA	360209.26N / 0863303.97W	Y	FB	TF	313.26	21.12	+6000	220K	
HAKUM	360331.32N / 0863452.09W	Y	FB	TF	313.07	02.00			
SIPPO	360604.77N / 0863350.61W	Y	FO	TF	018.01	02.69	5000	210K	

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

QUALITY CHECKED 3

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Federal Aviation Administration

RNAV STAR (Data Record)

KBNA:RW20R				FM	018.01				
Runway Transition									
ADAAY	354741.34N / 0861406.30W	Y		IF					
ONUGE	355856.62N / 0862917.44W	Y	FB	TF	312.40	16.69	+4000	210K	
KBNA:RW31									

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

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US Department of Transportation
Federal Aviation Administration

STAR (Data Record)

ARINC PACKET - 424-18 - STAR

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NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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        SUSAD        VXV   K7011640VTHA N35541742W083534102    N35541742W083534102W0030012902     NARVOLUNTEER

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WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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        SUSAEAENRT   ADAAY K70    W     N35474134W086140630                     W0037     NAR           ADAAY
        SUSAEAENRT   BAMMA K70    C   H N35410522W085115547                     W0045     NAR           BAMMA
        SUSAEAENRT   CORRA K70    W     N36020926W086330397                     W0035     NAR           CORRA
        SUSAEAENRT   FIBAX K70    W     N36131011W086385888                     W0035     NAR           FIBAX
        SUSAEAENRT   HAKUM K70    W     N36033132W086345209                     W0035     NAR           HAKUM
        SUSAEAENRT   HIMAT K70    W     N35395499W086034090                     W0038     NAR           HIMAT
        SUSAEAENRT   HORAT K70    W     N36010061W086285693                     W0036     NAR           HORAT
        SUSAEAENRT   JAGIR K70    W   B N34390151W085004148                     W0044     NAR           JAGIR
        SUSAEAENRT   JEBUG K70    W     N35243539W085580378                     W0039     NAR           JEBUG
        SUSAEAENRT   LENSE K70    W     N35093355W085242489                     W0042     NAR           LENSE
        SUSAEAENRT   NOPOC K70    W     N36155488W086423488                     W0034     NAR           NOPOC
        SUSAEAENRT   ONUGE K70    C     N35585662W086291744                     W0036     NAR           ONUGE
        SUSAEAENRT   POVIE K70    W     N36094296W086342787                     W0035     NAR           POVIE
        SUSAEAENRT   PUCOR K70    W     N35540341W086362172                     W0035     NAR           PUCOR
        SUSAEAENRT   SIPPO K70    W     N36060477W086335061                     W0035     NAR           SIPPO
        SUSAEAENRT   SWFFT K70    W     N35330932W085543784                     W0039     NAR           SWFFT
        SUSAEAENRT   WEMAL K70    W     N35423731W086071862                     W0038     NAR           WEMAL
        SUSAEAENRT   YUUNS K70    W     N35133179W086071671                     W0037     NAR           YUUNS
        SUSAEAENRT   ZANZA K70    W   B N34480645W086281933                     W0034     NAR           ZANZA

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        SUSAP KBNAK7ABNA     0     110YHN36072810W086404150W003000599         1800018000C    MNAR    NASHVILLE INTL

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SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
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        SUSAP KBNAK7ESWFFT14JAGIR 020LENSEK7EA0E    010TF                    33050362    + FL240
        SUSAP KBNAK7ESWFFT14JAGIR 030SWFFTK7EA0EE H 010TF                    31680341    B FL20013000
        SUSAP KBNAK7ESWFFT14VXV   010VXV  K7D 0V       IF                                                  18000
```

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

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SUSAP KBNAK7ESWFFT14VXV   020BAMMAK7EA0E    010TF                    26170650      FL200
SUSAP KBNAK7ESWFFT14VXV   030SWFFTK7EA0EE H 010TF                    26040357    B FL20013000
SUSAP KBNAK7ESWFFT14ZANZA 010ZANZAK7EA0E      IF                                + FL240     18000
SUSAP KBNAK7ESWFFT14ZANZA 020YUUNSK7EA0E    010TF                    03720307
SUSAP KBNAK7ESWFFT14ZANZA 030JEBUGK7EA0E    010TF                    03730134    - FL230
SUSAP KBNAK7ESWFFT14ZANZA 040SWFFTK7EA0EE H 010TF                    02110090    B FL20013000
SUSAP KBNAK7ESWFFT15      010SWFFTK7EA0E  H    IF                              B FL2001300018000
SUSAP KBNAK7ESWFFT15      020HIMATK7EA0E    010TF                    31550100    + 10000
SUSAP KBNAK7ESWFFT15      030WEMALK7EA0E    010TF                    31540040
SUSAP KBNAK7ESWFFT15      040ADAAYK7EA0EE   010TF                    31550075
SUSAP KBNAK7ESWFFT16RW02B 010ADAAYK7EA0E      IF                                                18000
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SUSAP KBNAK7ESWFFT16RW13  010ADAAYK7EA0E      IF                                                18000
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SUSAP KBNAK7ESWFFT16RW13  030POVIEK7EA0E    010TF                    33580098
SUSAP KBNAK7ESWFFT16RW13  040FIBAXK7EA0E    010TF                    31630050      05000          210
SUSAP KBNAK7ESWFFT16RW13  050NOPOCK7EA0EY   010TF                    31630040      04000
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SUSAP KBNAK7ESWFFT16RW20B 050SIPPOK7EA0EE      FM VXV K7      279013050210    D
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```
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RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
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        SUSAP KBNAK7GRW02L   0077030207 N36070364W086411131-0600    +015320059900005515 0IIBNA3
        SUSAP KBNAK7GRW02R   0080000210 N36064577W086400352-0600    +015060059000005915 0IIUQU3
        SUSAP KBNAK7GRW13    0110301363 N36082316W086413617+0400    +013640054308015515 0R
        SUSAP KBNAK7GRW20C   0080012010 N36072724W086404655+0000    +014510057200005015 0R
        SUSAP KBNAK7GRW20L   0080002010 N36080101W086393340+0600    +013530054000004715 0IISSX1
        SUSAP KBNAK7GRW20R   0077032007 N36081623W086404284+0600    +014010055500005915 0IIVIY1
        SUSAP KBNAK7GRW31    0110303163 N36071881W086401201-0400    +014680057707415215 0IIPNO1
```

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

US Department of Transportation
Federal Aviation Administration

STAR (Data Record)

ARINC SUMMARY - 424-18 - STAR

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	JAGIR	JAGIR	010		IF		FB					
	JAGIR	LENSE	020		TF		FB	1.0	330.5()	036.2	AA FL240	
	JAGIR	SWFFT	030		TF		FB	1.0	316.8()	034.1	BT FL20013000	
	VXV	VXV	010		IF		FB					
	VXV	BAMMA	020		TF		FB	1.0	261.7()	065.0	AT FL200	
	VXV	SWFFT	030		TF		FB	1.0	260.4()	035.7	BT FL20013000	
	ZANZA	ZANZA	010		IF		FB				AA FL240	
	ZANZA	YUUNS	020		TF		FB	1.0	037.2()	030.7		
	ZANZA	JEBUG	030		TF		FB	1.0	037.3()	013.4	AB FL230	
	ZANZA	SWFFT	040		TF		FB	1.0	021.1()	009.0	BT FL20013000	
		SWFFT	010		IF		FB				BT FL20013000	
		HIMAT	020		TF		FB	1.0	315.5()	010.0	AA 10000	
		WEMAL	030		TF		FB	1.0	315.4()	004.0		
		ADAAY	040		TF		FB	1.0	315.5()	007.5		
	RW02B	ADAAY	010		IF		FB					
	RW02B	PUCOR	020		TF		FB	1.0	292.5()	019.2	AT 04000	AT 210
	RW13	ADAAY	010		IF		FB					
	RW13	HORAT	020		TF		FB	1.0	320.9()	018.0	AA 06000	
	RW13	POVIE	030		TF		FB	1.0	335.8()	009.8		
	RW13	FIBAX	040		TF		FB	1.0	316.3()	005.0	AT 05000	AT 210
	RW13	NOPOC	050		TF		FO	1.0	316.3()	004.0	AT 04000	
	RW13	NOPOC	060		FM		FB		316.3()			
	RW20B	ADAAY	010		IF		FB					
	RW20B	CORRA	020		TF		FB	1.0	316.3()	021.1	AA 06000	AT 220
	RW20B	HAKUM	030		TF		FB	1.0	316.1()	002.0		
	RW20B	SIPPO	040		TF		FO	1.0	021.0()	002.7	AT 05000	AT 210
	RW20B	SIPPO	050		FM		FB		021.0()			
	RW31	ADAAY	010		IF		FB					
	RW31	ONUGE	020		TF		FB	1.0	315.4()	016.7	AA 04000	AT 210

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	VXV	N355417.42	W0835341.02	N3554.290	W08353.684
	ADAAY	N354741.34	W0861406.30	N3547.689	W08614.105
	BAMMA	N354105.22	W0851155.47	N3541.087	W08511.925
	CORRA	N360209.26	W0863303.97	N3602.154	W08633.066
	FIBAX	N361310.11	W0863858.88	N3613.169	W08638.981
	HAKUM	N360331.32	W0863452.09	N3603.522	W08634.868

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

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HIMAT	N353954.99	W0860340.90	N3539.917	W08603.682
HORAT	N360100.61	W0862856.93	N3601.010	W08628.949
JAGIR	N343901.51	W0850041.48	N3439.025	W08500.691
JEBUG	N352435.39	W0855803.78	N3524.590	W08558.063
LENSE	N350933.55	W0852424.89	N3509.559	W08524.415
NOPOC	N361554.88	W0864234.88	N3615.915	W08642.581
ONUGE	N355856.62	W0862917.44	N3558.944	W08629.291
POVIE	N360942.96	W0863427.87	N3609.716	W08634.465
PUCOR	N355403.41	W0863621.72	N3554.057	W08636.362
SIPPO	N360604.77	W0863350.61	N3606.080	W08633.844
SWFFT	N353309.32	W0855437.84	N3533.155	W08554.631
WEMAL	N354237.31	W0860718.62	N3542.622	W08607.310
YUUNS	N351331.79	W0860716.71	N3513.530	W08607.279
ZANZA	N344806.45	W0862819.33	N3448.108	W08628.322
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

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
SWFFT RNAV	ONE	SWFFT.SWFFT1	NONE		

RADIO FIX AND HOLDING DATA RECORD

NAME: ADAAY **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 354741.34N/0861406.30W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

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

QUALITY 3 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BAMMA **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 354105.22N/0851155.47W **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	VOLUNTEER	VXV	VORTAC	H	261.68	258.68	65.00	65.00		10000	24000
2	CHOO CHOO	GQO	VORTAC	H	356.07	357.07		43.40		10000	24000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
VXV	VORTAC	R-262	65	10000	15800
GQO	VORTAC	R-356	44	10000	15600

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

REMARKS:
VOLUNTEER (FAC 1) AND CHOO CHOO (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	VOLLS	1, 2		KMBT	MURFREESBORO	TN (US)
STAR	SWFTT (RNAV)			KBNA	NASHVILLE	TN (US)
STAR	VOLLS	1, 2		KBNA	NASHVILLE	TN (US)
STAR	VOLLS	1, 2		KJWN	NASHVILLE	TN (US)
STAR	VOLLS	1, 2		KMQY	SMYRNA	TN (US)

REQUIRED CHARTING: STAR, CONTROLLER, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
1. ADDED DIST FROM FAC TO FAC 1 AND 2.
2. POPULATED ESV DATA.
3. UPDATED FIX USE.

DEVELOPED BY: **DATE:** 05/23/2012 **OFFICE:** AJV-352 **NAME:** PETER GUIMOND

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZTL
ATC FACILITY:
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: CORRA **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360209.26N/0863303.97W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 08/01/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

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

QUALITY 3 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: FIBAX **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361310.11N/0863858.88W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	PASLY (RNAV)			KBNA	NASHVILLE	TN (US)
STAR	SWFFT (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: HAKUM **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360331.32N/0863452.09W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: HIMAT **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 353954.99N/0860340.90W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: HORAT **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360100.61N/0862856.93W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: JAGIR **STATE:** GA **COUNTRY:** US

LATITUDE/LONGITUDE: 343901.51N/0850041.48W **TYPE:** WP

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

FIX USE:

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

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

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

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

QUALITY 3 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: JEBUG **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 352435.39N/0855803.78W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: LENSE **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 350933.55N/0852424.89W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: NOPOC **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361554.88N/0864234.88W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	PASLY (RNAV)			KBNA	NASHVILLE	TN (US)
STAR	SWFFT (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: ONUGE **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 355856.62N/0862917.44W **TYPE:** WP, RADAR, 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	NASHVILLE	I-PNO	LOC		136.32	133.32		13.91		3000	5000
2	NASHVILLE	BNA	VORTAC	H	136.02	134.02	13.31	13.31		3000	17500
3	SHELBYVILLE	SYI	VOR/DME	L	355.59	354.59		25.30		3000	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	BNA	VORTAC	136.02	316.02	R	1		3000	14000	5	11
2	SE		WP	136.43	316.43	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	355700.00N/0861815.00W	1136	4E
2	200	AAO	355700.00N/0861815.00W	1136	4E

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
NASHVILLE (FAC 1) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 31	1, 2, 3	1	KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) RWY 13		2	KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) Y RWY 31		2	KBNA	NASHVILLE	TN (US)
IAP	RNAV (RNP) Z RWY 31			KBNA	NASHVILLE	TN (US)
STAR	SWFFT (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
UPDATED CHART PUB TO INCLUDE STAR
UPDATED FIX USE

DEVELOPED BY: **DATE:** 06/19/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: POVIE **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360942.96N/0863427.87W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	PASLY (RNAV)			KBNA	NASHVILLE	TN (US)
STAR	SWFFT (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: PUCOR **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 355403.41N/0863621.72W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 2C			KBNA	NASHVILLE	TN (US)
IAP	RNAV (RNP) Z RWY 2L			KBNA	NASHVILLE	TN (US)
IAP	RNAV (RNP) Z RWY 2R			KBNA	NASHVILLE	TN (US)
STAR	SWFFT (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 06/28/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: SIPPO **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360604.77N/0863350.61W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 20L			KBNA	NASHVILLE	TN (US)
IAP	RNAV (RNP) Z RWY 20R			KBNA	NASHVILLE	TN (US)
STAR	SWFFT (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 06/22/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

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

RADIO FIX AND HOLDING DATA RECORD

NAME: SWFFT **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 353309.32N/0855437.84W **TYPE:** WP

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

HOLDING: **HOLDING TYPE OF ACTION:** ESTABLISH

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		WP	135.49	315.49	R		10	13000	20000	15	15

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (47-000301)	352100.28N/0854219.26W	2320	2D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	SWFFT (RNAV)		1	KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: VOLUNTEER VORTAC **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 355417.42N/0835341.02W **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	DIST FROM FAC FEET	MRA	MAA
1	VOLUNTEER	VXV	VORTAC	H							45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
VXV	VORTAC	R-173	55	90	14500

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	NE	VXV	VORTAC	053.00	233.00	L	1-1 1/2	-	4000	36000	4	25
2	NE		WP	053.00	233.00	L		5	4000	14000	5	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	355441.65N/0834603.68W	1739	2C
1	310	TOWER (47-002285)	360012.82N/0835634.04W	2849	2C
2	200	AAO	355441.65N/0834603.68W	1739	2C
2	310	TOWER (47-002285)	360012.82N/0835634.04W	2849	2C

REASON FOR NONSTANDARD HOLDING:
PAT 1 AIR TRAFFIC REQUEST
PAT 2 AIR TRAFFIC REQUEST

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
2	RNAV (GPS) RWY 5L	KTYS	KNOXVILLE	TN (US)
2	RNAV (GPS) RWY 5R	KTYS	KNOXVILLE	TN (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	CADIT (RNAV)			KATL	ATLANTA	GA (US)
DP	COKEM (RNAV)			KATL	ATLANTA	GA (US)
DP	NUGGT (RNAV)			KATL	ATLANTA	GA (US)
DP	SUMMT (RNAV)			KATL	ATLANTA	GA (US)
DP	FEDRA (RNAV)			KSDF	LOUISVILLE	KY (US)
DP	ASHEVILLE			KAVL	ASHEVILLE	NC (US)
DP	BOBCAT			KCLT	CHARLOTTE	NC (US)
DP	ZAVER (RNAV)			KCLT	CHARLOTTE	NC (US)
DP	BOBCAT			KJQF	CONCORD	NC (US)
DP	BOBCAT			KAKH	GASTONIA	NC (US)
DP	HICKORY			KHKY	HICKORY	NC (US)
DP	BOBCAT			KEQY	MONROE	NC (US)
DP	BOBCAT			KUZA	ROCK HILL	SC (US)
DP	CHATTANOOGA			KCHA	CHATTANOOGA	TN (US)
DP	TAKE-OFF MINIMUMS			KJAU	JACKSBORO	TN (US)
DP	KNOXVILLE			KTYS	KNOXVILLE	TN (US)
DP	TITAN (OBSTACLE)			KBNA	NASHVILLE	TN (US)
DP	TAKE-OFF MINIMUMS			KGKT	SEVIERVILLE	TN (US)
EN ROUTE	J22					(US)
EN ROUTE	J43					(US)
EN ROUTE	J46					(US)
EN ROUTE	J91					(US)
EN ROUTE	J99					(US)
EN ROUTE	V115					(US)
EN ROUTE	V136					(US)
EN ROUTE	V16					(US)
EN ROUTE	V185					(US)
EN ROUTE	V267					(US)
EN ROUTE	V384					(US)
EN ROUTE	V466					(US)
EN ROUTE	V519					(US)
EN ROUTE	V97					(US)
IAP	LOC RWY 26			KDKX	KNOXVILLE	TN (US)

IAP	VOR/DME-B		KDKX	KNOXVILLE	TN (US)
IAP	ILS OR LOC RWY 23R		KTYS	KNOXVILLE	TN (US)
IAP	ILS OR LOC RWY 5L	1	KTYS	KNOXVILLE	TN (US)
IAP	ILS RWY 23R (CAT II)		KTYS	KNOXVILLE	TN (US)
IAP	RNAV (GPS) RWY 5L	2	KTYS	KNOXVILLE	TN (US)
IAP	RNAV (GPS) RWY 5R	2	KTYS	KNOXVILLE	TN (US)
IAP	VOR RWY 23L		KTYS	KNOXVILLE	TN (US)
IAP	VOR RWY 23R		KTYS	KNOXVILLE	TN (US)
IAP	RNAV (GPS) RWY 23		KMNV	MADISONVILLE	TN (US)
IAP	NDB RWY 5		KMOR	MORRISTOWN	TN (US)
IAP	SDF RWY 5		KMOR	MORRISTOWN	TN (US)
IAP	RNAV (GPS) RWY 10		KGKT	SEVIERVILLE	TN (US)
IAP	VOR/DME RWY 10		KGKT	SEVIERVILLE	TN (US)
STAR	WHINZ		KATL	ATLANTA	GA (US)
STAR	AWSON		KPDK	ATLANTA	GA (US)
STAR	HARDU		KCVG	COVINGTON	KY (US)
STAR	JAKIE (RNAV)		KCVG	COVINGTON	KY (US)
STAR	DARBY		KLOU	LOUISVILLE	KY (US)
STAR	DARBY		KSDF	LOUISVILLE	KY (US)
STAR	JOHNS (RNAV)		KCLT	CHARLOTTE	NC (US)
STAR	SHINE		KCLT	CHARLOTTE	NC (US)
STAR	UNMAN (RNAV)		KGYH	GREENVILLE	SC (US)
STAR	UNMAN (RNAV)		KGSP	GREER	SC (US)
STAR	VOLLS		KMBT	MURFREESBORO	TN (US)
STAR	SWFFT (RNAV)		KBNA	NASHVILLE	TN (US)
STAR	VOLLS		KBNA	NASHVILLE	TN (US)
STAR	VOLLS		KJWN	NASHVILLE	TN (US)
STAR	VOLLS		KMQY	SMYRNA	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
ADDED ESV INFORMATION.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 05/16/2012 **OFFICE:** AJV-352 **NAME:** FRANK JACKSON

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZTL
ATC FACILITY: TYS APP CON
OTHER: NGB/ANG/C4AT

RADIO FIX AND HOLDING DATA RECORD

NAME: WEMAL **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 354237.31N/0860718.62W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: YUUNS **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 351331.79N/0860716.71W **TYPE:** WP

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

FIX USE:

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

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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: ZANZA **STATE:** AL **COUNTRY:** US

LATITUDE/LONGITUDE: 344806.45N/0862819.33W **TYPE:** WP

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

FIX USE:

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

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

COMPULSORY REPORTING POINT: NO

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

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

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

QUALITY 3 CHECKED

Name:	Dennis Osterhage
Project Name:	KBNA RNAV STARS
Output File:	KBNA SWFFT1 STAR ZANZA ONUGE 20120806_1517
Procedure Name:	KBNA SWFFT1
Software:	RNAV-Pro™
Version:	2.36
Date/Time:	8/6/2012 3:17:33 PM
Input File:	KBNA SWFFT1 STAR ZANZA ONUGE 20120806_1452.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

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

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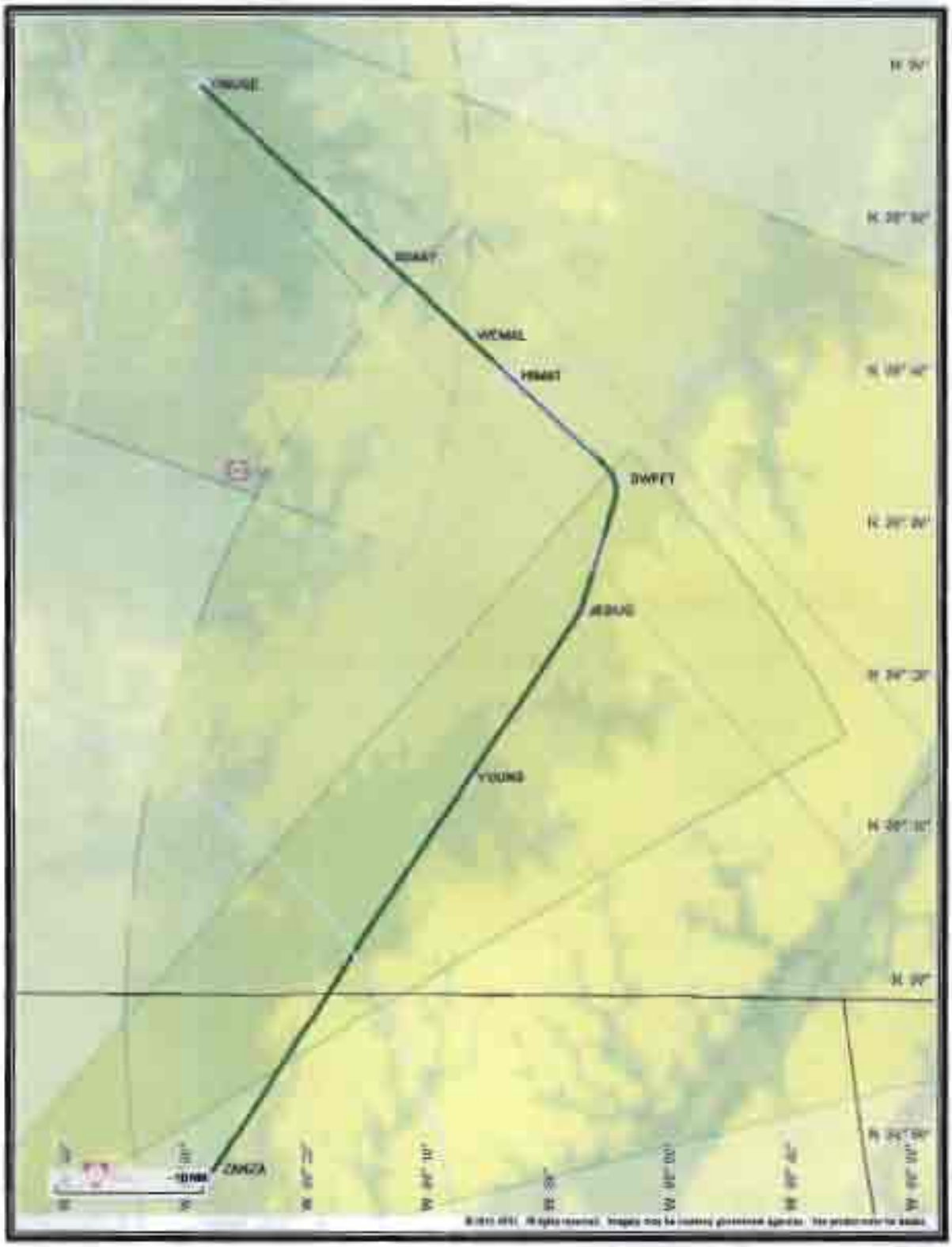
ONUGE
SWFFT
YOUNG
ZANZA

Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
ZANZA	WP	N 34° 48' 6.45" W 86° 28' 19.33"	18000.0	Step	240.0	Fly By	TF
YUUNS	WP	N 35° 13' 31.79" W 86° 7' 16.71"	18000.0	Step	240.0	Fly By	TF
JEBUG	WP	N 35° 24' 35.39" W 85° 58' 3.78"	11000.0	Step	210.0	Fly By	TF
SWFFT	WP	N 35° 33' 9.32" W 85° 54' 37.84"	11000.0	Step	210.0	Fly By	TF
HIMAT	WP	N 35° 39' 54.99" W 86° 3' 40.90"	5000.0	Step	180.0	Fly By	TF
WEMAL	WP	N 35° 42' 37.31" W 86° 7' 18.62"	5000.0	Step	180.0	Fly By	TF
ADAAY	WP	N 35° 47' 41.34" W 86° 14' 6.30"	5000.0	Step	180.0	Fly By	TF
ONUGE	WP	N 35° 58' 56.62" W 86° 29' 17.44"	4000.0	Step	210.0	Fly Over	TF

Flyability

Return To Summary

Settings:

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

Table

200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Aircraft ALTITUDE at Fly-By WP JEBUG too high.

Aircraft ALTITUDE at Fly-By WP HIMAT too high.

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: 0.779 NM

No Critical DMEs were found

Available DMEs: BNA, GQO, DCU, RMG, VUZ, SYI, GHM

DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H + ESV	User	NO	1.105	Enabled	42.7 %	40.9 %
2	GQO	N 34° 57' 40.54" W 85° 9' 12.14" E 1	H + ESV	User	NO	0.779	Enabled	22.4 %	25.0 %
3	SYI	N 35° 33' 43.12" W 86° 26' 20.95" W 1	L	Database	NO	1.181	Enabled	48.2 %	46.5 %
4	DCU	N 34° 38' 53.94" W 86° 56' 22.29" W 1	L + ESV	User	NO	0.927	Enabled	30.6 %	33.6 %
5	RMG	N 34° 9' 45.22" W 85° 7' 9.83" E 1	H	Database	NO	0.779	Enabled	14.5 %	16.6 %
6	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L + ESV	User	NO	0.779	Enabled	10.5 %	9.3 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	GQO	BNA	RMG	VUZ	DCU	
10.1	GQO	BNA	RMG	SYI	DCU	VUZ
30.7	GQO	BNA	RMG	SYI	DCU	
43.5	GQO	BNA	DCU	SYI		
51.6	GQO	BNA	SYI			
62.8	SYI	BNA				
66.8	SYI	BNA	GHM			
74.3	SYI	BNA	GHM			

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 35° 27' 11.57" W 85° 57' 0.96"	N 35° 29' 36.26" W 85° 56' 3.10"	2.5
	VOR: SYI	Available from N 35° 27' 11.57" W 85° 57' 0.96" to N 35° 29' 36.26" W 85° 56' 3.10"	
	VOR: UXM	Available from N 35° 27' 11.57" W 85° 57' 0.96" to N 35° 29' 36.26" W 85° 56' 3.10"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 35° 34' 37.71" W 85° 56' 35.05"	N 35° 41' 4.78" W 86° 5' 14.54"	9.6
	VOR: SYI	Available from N 35° 34' 37.71" W 85° 56' 35.05" to N 35° 41' 4.78" W 86° 5' 14.54"	
	VOR: UXM	Available from N 35° 34' 37.71" W 85° 56' 35.05" to N 35° 41' 4.78" W 86° 5' 14.54"	
	VOR: BNA	Available from N 35° 40' 55.77" W 86° 5' 2.46" to N 35° 41' 4.78" W 86° 5' 14.54"	
3	N 35° 55' 33.55" W 86° 24' 42.65"	N 35° 55' 56.01" W 86° 25' 13.01"	0.6
	VOR: BNA	Available from N 35° 55' 33.55" W 86° 24' 42.65" to N 35° 55' 56.01" W 86° 25' 13.01"	
	VOR: SYI	Available from N 35° 55' 33.55" W 86° 24' 42.65" to N 35° 55' 56.01" W 86° 25' 13.01"	
	VOR: UXM	Available from N 35° 55' 33.55" W 86° 24' 42.65" to N 35° 55' 56.01" W 86° 25' 13.01"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L	774.7	111.60	GHM	Used
		ESV: Bearing [True]: 52.0° to 109.0° Bearing [Mag]: 49.0° to 106.0°			Arc Distance: Out to 65.0 NM Altitude: 4000.0 to 20000.0 Ft.		
2	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H	565.8	114.10	BNA	Used
		ESV: Bearing [True]: 110.0° to 138.0° Bearing [Mag]: 112.0° to 140.0°			Arc Distance: Out to 80.0 NM Altitude: 10000.0 to 16500.0 Ft.		
3	GQO	N 34° 57' 40.54" W 85° 9' 12.14" E 1	H	1014.5	115.80	GQO	Used
		ESV: Bearing [True]: 257.0° to 318.0° Bearing [Mag]: 256.0° to 317.0°			Arc Distance: Out to 71.0 NM Altitude: 10000.0 to 16500.0 Ft.		
4	DCU	N 34° 38' 53.94" W 86° 56' 22.29" W 1	L	590.1	112.80	DCU	Used
		ESV: Bearing [True]: 42.0° to 60.0° Bearing [Mag]: 43.0° to 61.0°			Arc Distance: Out to 76.0 NM Altitude: 10000.0 to 24000.0 Ft.		

Name:	Dennis Osterhage
Project Name:	KBNA RNAV STARS
Output File:	KBNA SWFFT1 STAR JAGIR PUCOR 20120620_1658
Procedure Name:	KBNA SWFFT1
Software:	RNAV-Pro™
Version:	2.36
Date/Time:	6/20/2012 4:58:09 PM
Input File:	KBNA SWFFT1 STAR JAGIR PUCOR 20120620_1658.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

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

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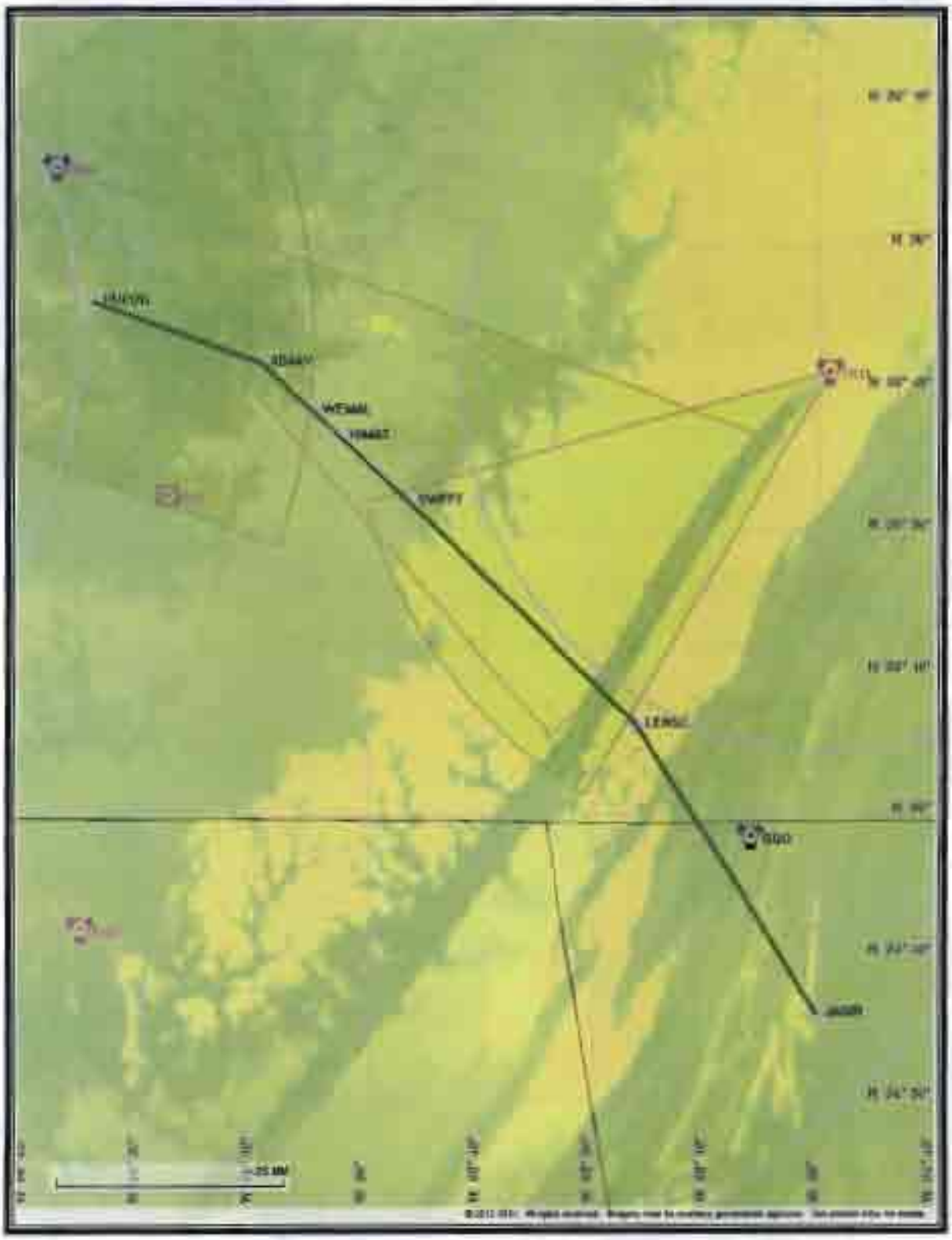

SWFFT
LENGL
GGO
JAGIR
25 NM

Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
JAGIR	WP	N 34° 39' 1.51" W 85° 0' 41.48"	18000.0	Step	240.0	Fly By	TF
LENSE	WP	N 35° 9' 33.55" W 85° 24' 24.89"	18000.0	Step	240.0	Fly By	TF
SWFFT	WP	N 35° 33' 9.32" W 85° 54' 37.84"	11000.0	Step	210.0	Fly By	TF
HIMAT	WP	N 35° 39' 54.99" W 86° 3' 40.90"	5000.0	Step	180.0	Fly By	TF
WEMAL	WP	N 35° 42' 37.31" W 86° 7' 18.62"	5000.0	Step	180.0	Fly By	TF
ADAAY	WP	N 35° 47' 41.34" W 86° 14' 6.30"	5000.0	Step	180.0	Fly By	TF
PUCOR	WP	N 35° 54' 3.41" W 86° 36' 21.72"	4000.0	Step	210.0	Fly Over	TF

Flyability

Return To Summary

Settings:

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

Table:

200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Aircraft ALTITUDE at Fly-By WP HIMAT too high.

DME/DME

Return To Summary

Settings:

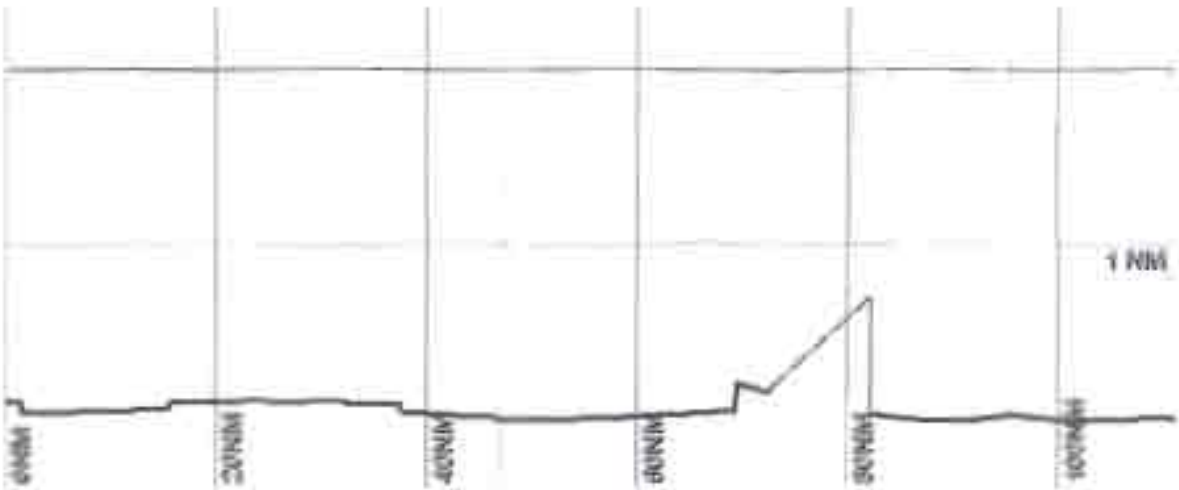
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 10

Maximum DME Error: 0.788 NM

No Critical DMEs were found.

Available DMEs: ATL, GQO, LGC, ODF, RMG, VXV, BNA, HCH, SYI, GHM



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	LGC	N 33° 2' 56.83" W 86° 12' 22.40" E 1	H	Database	NO	0.788	Enabled	1.1 %	1.2 %
2	ODF	N 34° 41' 45.14" W 83° 17' 51.58" E 0	H	Database	NO	0.788	Enabled	12.4 %	14.0 %
3	RMG	N 34° 9' 45.22" W 85° 7' 9.83" E 1	H	Database	NO	0.788	Enabled	8.8 %	10.0 %
4	GQO	N 34° 57' 40.54" W 85° 9' 12.14" E 1	H	Database	NO	0.788	Enabled	12.8 %	13.6 %
5	ATL	N 33° 37' 42.88" W 84° 26' 8.26" W 0	H	Database	NO	0.788	Enabled	8.3 %	9.4 %
6	VXV	N 35° 54' 17.42" W 83° 53' 41.02" W 3	H	Database	NO	0.788	Enabled	17.3 %	19.6 %
7	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H + ESV	User	NO	1.429	Enabled	44.1 %	44.0 %
8	HCH	N 35° 46' 51.66" W 84° 58' 42.43" W 2	L + ESV	User	NO	1.053	Enabled	27.5 %	28.8 %
9	SYI	N 35° 33' 43.12" W 86° 26' 20.95" W 1	L	Database	NO	1.049	Enabled	31.3 %	27.5 %
10	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L + ESV	User	NO	0.819	Enabled	16.2 %	14.1 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	ODF	RMG	LGC	VXV	ATL	GQO
10.1	ODF	RMG	GQO	VXV	ATL	
22.4	BNA	RMG	GQO	VXV	ATL	
35.5	BNA	RMG	GQO	VXV	HCH	
55.7	BNA	SYI	GQO	HCH		
70.2	BNA	SYI				
80.3	BNA	SYI				
84.4	BNA	SYI	GHM			
91.3	BNA	SYI	GHM			

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 35° 34' 31.39" W 85° 56' 27.21"	N 35° 41' 5.42" W 86° 5' 15.38"	9.7
	VOR: SYI	Available from N 35° 34' 31.39" W 85° 56' 27.21" to N 35° 41' 5.42" W 86° 5' 15.38"	
	VOR: UXM	Available from N 35° 34' 31.39" W 85° 56' 27.21" to N 35° 41' 5.42" W 86° 5' 15.38"	
	VOR: BNA	Available from N 35° 40' 56.41" W 86° 5' 3.30" to N 35° 41' 5.42" W 86° 5' 15.38"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	HCH	N 35° 46' 51.65" W 84° 58' 42.43" W 2	L	3040.0	117.60	HCH	Used
		ESV: Bearing [True]: 211.0° to 255.0° Bearing [Mag]: 213.0° to 257.0°			Arc Distance: Out to 52.0 NM Altitude: 10000.0 to 24000.0 Ft.		
2	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H	565.8	114.10	BNA	Used
		ESV: Bearing [True]: 110.0° to 138.0° Bearing [Mag]: 112.0° to 140.0°			Arc Distance: Out to 80.0 NM Altitude: 10000.0 to 16500.0 Ft.		
3	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L	774.7	111.60	GHM	Used
		ESV: Bearing [True]: 52.0° to 109.0° Bearing [Mag]: 49.0° to 106.0°			Arc Distance: Out to 65.0 NM Altitude: 4000.0 to 20000.0 Ft.		

ESVMS Information for DME: HCH

*Radial 1: 213.0 Magnetic° *Alt Minimum: 100 '00 ft (MSL) *Distance: 52 NML

*Radial 2: 257.0 Magnetic° *Alt Maximum: 240 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: BNA

*Radial 1: 112.0 Magnetic° *Alt Minimum: 100 '00 ft (MSL) *Distance: 80 NML

*Radial 2: 140.0 Magnetic° *Alt Maximum: 165 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: GHM

*Radial 1: 049.0 Magnetic° *Alt Minimum: 040 '00 ft (MSL) *Distance: 65 NML

*Radial 2: 106.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

Name:	Dennis Osterhage
Project Name:	KBNA RNAV STARS
Output File:	KBNA SWFFT1 STAR SWFFT NOPOC 20120412_0939
Procedure Name:	KBNA SWFFT1
Software:	RNAV-Pro™
Version:	2.36
Date/Time:	4/12/2012 9:39:09 AM
Input File:	KBNA SWFFT1 STAR SWFFT NOPOC 20120412.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

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

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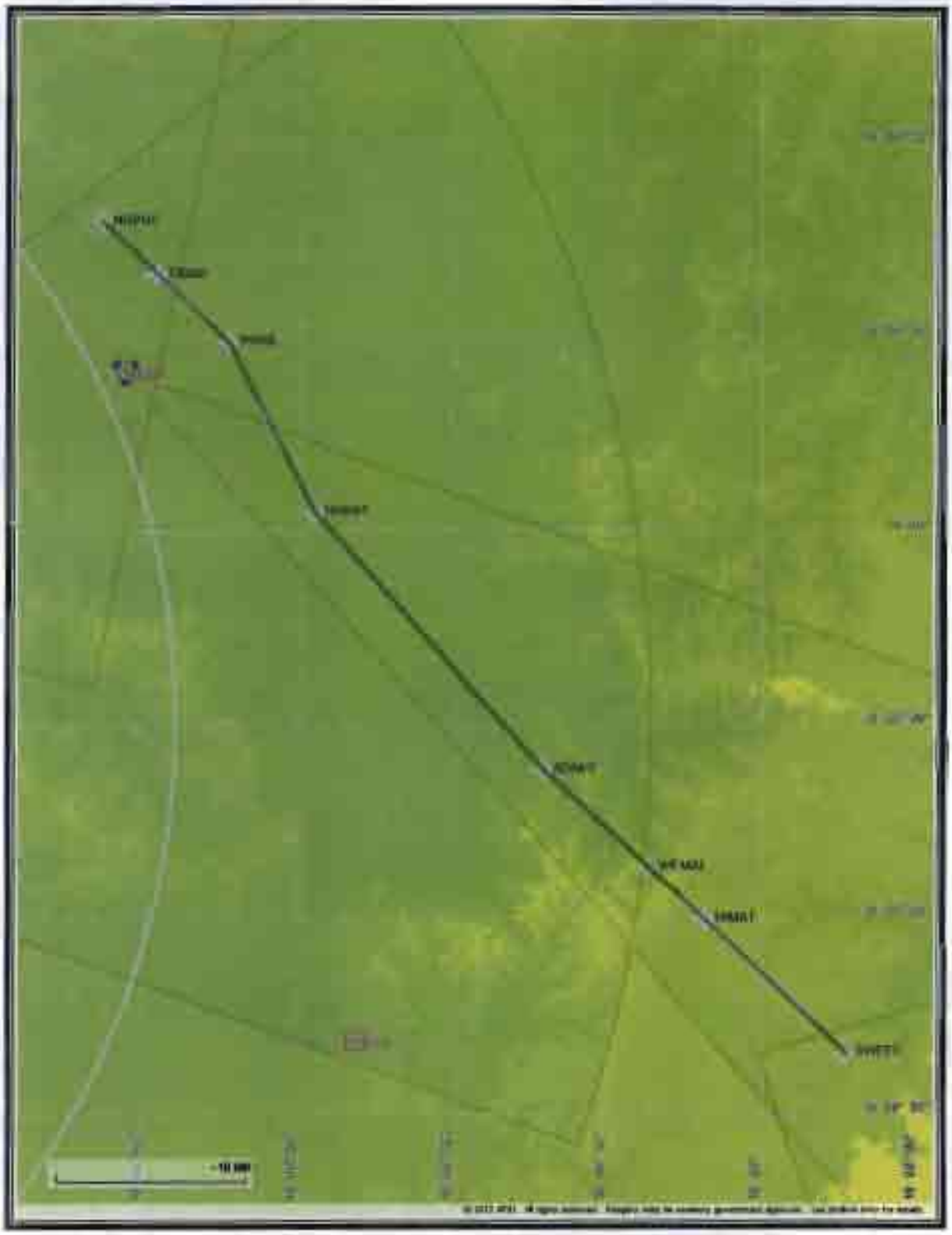


Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
SWFFT	WP	N 35° 33' 9.32" W 85° 54' 37.84"	11000.0	Step	210.0	Fly By	TF
HIMAT	WP	N 35° 39' 54.99" W 86° 3' 40.90"	5000.0	Step	180.0	Fly By	TF
WEMAL	WP	N 35° 42' 37.31" W 86° 7' 18.62"	5000.0	Step	180.0	Fly By	TF
ADAAY	WP	N 35° 47' 41.34" W 86° 14' 6.30"	5000.0	Step	180.0	Fly By	TF
HORAT	WP	N 36° 1' 0.61" W 86° 28' 56.93"	5000.0	Step	180.0	Fly By	TF
POVIE	WP	N 36° 9' 42.96" W 86° 34' 27.87"	5000.0	Step	180.0	Fly By	TF
FIBAX	WP	N 36° 13' 10.11" W 86° 38' 58.88"	5000.0	Step	210.0	Fly By	TF
NOPOC	WP	N 36° 15' 54.88" W 86° 42' 34.88"	4000.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:

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

Table:

200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Aircraft ALTITUDE at Fly-By WP HIMAT too high

DME/DME

Return To Summary

Settings:

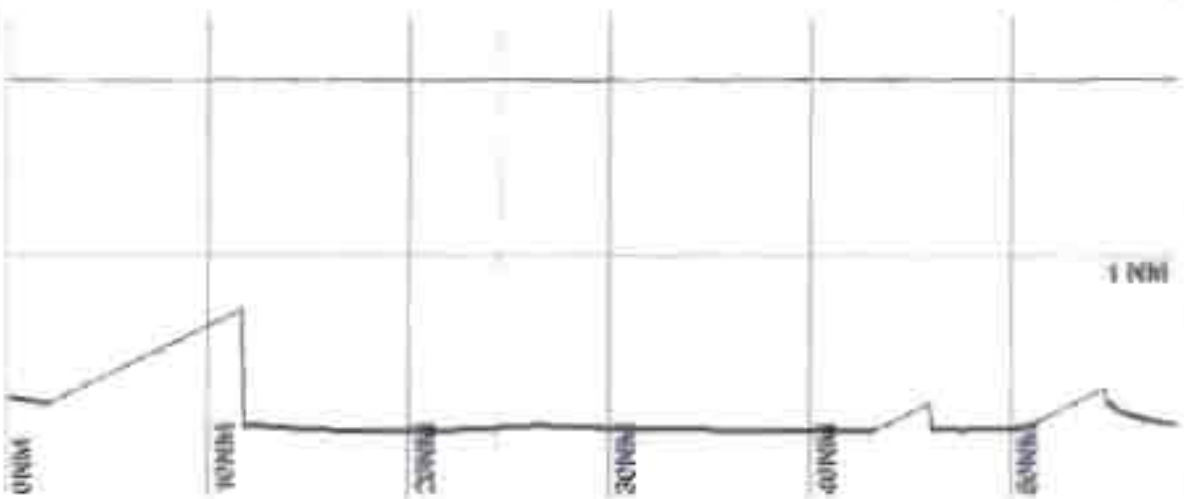
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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
Automatic ESVs: Enabled w/ limit Alt/Distance (Reduce Criticals)

Total Number of DMEs Used: 4

Maximum DME Error: 0.782 NM.

No Critical DMEs were found.

Available DMEs: BNA, SYI, GHM, BWG



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H + ESV	User	NO	1.254	Enabled	35.3 %	35.4 %
2	SYI	N 35° 33' 43.12" W 86° 26' 20.95" W 1	L	Database	NO	1.254	Enabled	65.2 %	65.2 %
3	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L + ESV	User	NO	0.782	Enabled	41.8 %	41.5 %
4	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H + ESV	User	NO	0.782	Enabled	0.6 %	0.6 %

Flight Check DME Selection

Distance [NM]	Selected DMEs				Alternate
0.0	BNA	SYI			
10.0	BNA	SYI			
14.0	BNA	SYI	GHM		
21.2	BNA	SYI	GHM		
39.0	BNA	SYI	GHM		
48.7	GHM	SYI			
54.2	GHM	BWG	BNA		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 35° 34' 38.12" W 85° 56' 33.80"	N 35° 41' 5.75" W 86° 5' 15.81"	9.6
	VOR: SYI	Available from N 35° 34' 38.12" W 85° 56' 33.80" to N 35° 41' 5.75" W 86° 5' 15.81"	
	VOR: UXM	Available from N 35° 34' 38.12" W 85° 56' 33.80" to N 35° 41' 5.75" W 86° 5' 15.81"	
	VOR: BNA	Available from N 35° 40' 56.74" W 86° 5' 3.73" to N 35° 41' 5.75" W 86° 5' 15.81"	
2	N 36° 4' 23.50" W 86° 31' 5.56"	N 36° 6' 49.00" W 86° 32' 37.65"	2.7
	VOR: BNA	Available from N 36° 4' 23.50" W 86° 31' 5.56" to N 36° 6' 49.00" W 86° 32' 37.65"	
	VOR: SYI	Available from N 36° 4' 23.50" W 86° 31' 5.56" to N 36° 6' 49.00" W 86° 32' 37.65"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
3	N 36° 10' 34.76" W 86° 35' 35.29"	N 36° 13' 26.35" W 86° 39' 20.22"	4.2
	VOR: BNA	Available from N 36° 10' 34.76" W 86° 35' 35.29" to N 36° 13' 26.35" W 86° 39' 20.22"	
	VOR: SYI	Available from N 36° 10' 34.76" W 86° 35' 35.29" to N 36° 12' 33.77" W 86° 38' 11.17"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	HCH	N 35° 46' 51.65" W 84° 58' 42.43" W 2	L	3040.0	117.60	HCH	Not Used
		ESV: Bearing [True]: 211.0° to 255.0° Bearing [Mag]: 213.0° to 257.0°			Arc Distance: Out to 52.0 NM Altitude: 10000.0 to 24000.0 Ft.		
2	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H	565.8	114.10	BNA	Used
		ESV: Bearing [True]: 110.0° to 138.0° Bearing [Mag]: 112.0° to 140.0°			Arc Distance: Out to 80.0 NM Altitude: 10000.0 to 16500.0 Ft.		
3	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H	565.0	117.90	BWG	Used
		ESV: Bearing [True]: 192.0° to 222.0° Bearing [Mag]: 190.0° to 220.0°			Arc Distance: Out to 65.0 NM Altitude: 4000.0 to 16000.0 Ft.		
4	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L	774.7	111.60	GHM	Used
		ESV: Bearing [True]: 52.0° to 109.0° Bearing [Mag]: 49.0° to 106.0°			Arc Distance: Out to 65.0 NM Altitude: 4000.0 to 20000.0 Ft.		

ESVMS Information for DME: HCH

*Radial 1: 209.0 Magnetic° *Alt Minimum: 100 '00 ft (MSL) *Distance: 52 NML

*Radial 2: 253.0 Magnetic° *Alt Maximum: 240 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: BNA

*Radial 1: 108.0 Magnetic° *Alt Minimum: 100 '00 ft (MSL) *Distance: 80 NML

*Radial 2: 136.0 Magnetic° *Alt Maximum: 165 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: BWG

*Radial 1: 190.0 Magnetic° *Alt Minimum: 040 '00 ft (MSL) *Distance: 65 NML

*Radial 2: 220.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: GHM

*Radial 1: 049.0 Magnetic° *Alt Minimum: 040 '00 ft (MSL) *Distance: 65 NML

*Radial 2: 106.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

Name:	DAVE COOK
Project Name:	KBNA SWFFT1 STAR
Output File:	KBNA SWFFT1 STAR VXV SIPPO 20120801_0903
Procedure Name:	KBNA SWFFT1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/1/2012 9:03:23 AM
Input File:	KBNA SWFFT1 STAR VXV SIPPO 20120801_0840.txt
Databases:	AVNIS Date: 02/07/2012 Obstacle Date: 08/26/2011 NFD Date: 09/30/2010 DTED® (MAX) Date: 2002

Results Summary:

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

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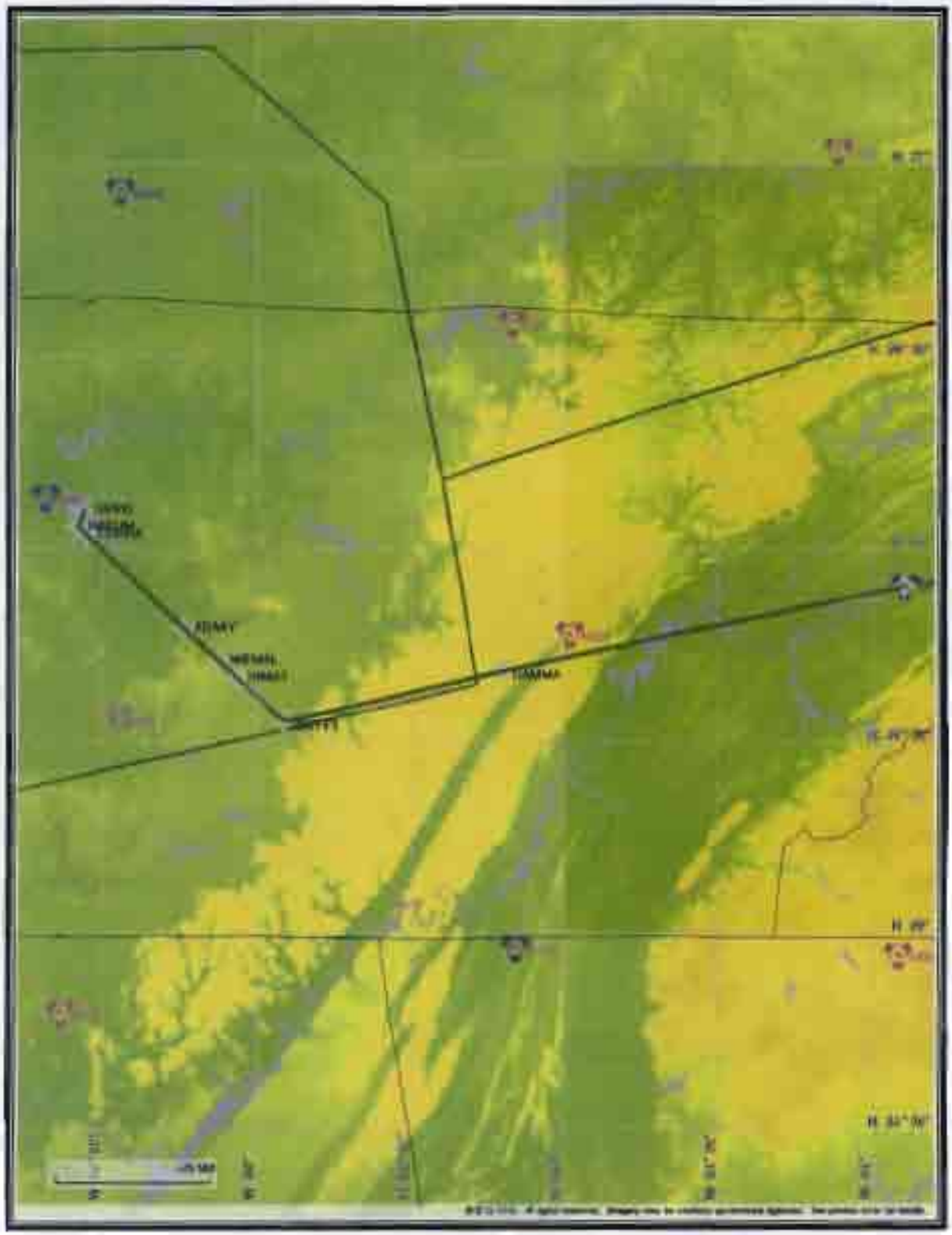

ARMY
TAMMA

Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
VXV	WP	N 35° 54' 17.42" W 83° 53' 41.02"	18000.0	Step	240.0	Fly By	TF
BAMMA	WP	N 35° 41' 5.22" W 85° 11' 55.47"	18000.0	Step	240.0	Fly By	TF
SWFFT	WP	N 35° 33' 9.32" W 85° 54' 37.84"	11000.0	Step	210.0	Fly By	TF
HIMAT	WP	N 35° 39' 54.99" W 86° 3' 40.90"	5000.0	Step	180.0	Fly By	TF
WEMAL	WP	N 35° 42' 37.31" W 86° 7' 18.62"	5000.0	Step	180.0	Fly By	TF
ADAAY	WP	N 35° 47' 41.34" W 86° 14' 6.30"	5000.0	Step	180.0	Fly By	TF
CORRA	WP	N 36° 2' 9.26" W 86° 33' 3.97"	5000.0	Step	180.0	Fly By	TF
HAKUM	WP	N 36° 3' 31.32" W 86° 34' 52.09"	5000.0	Step	180.0	Fly By	TF
SIPPO	WP	N 36° 6' 4.77" W 86° 33' 50.61"	5000.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:

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

Table:

200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**

Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Aircraft ALTITUDE at Fly-By WP HIMAT too high

DME/DME

Return To Summary

Settings:

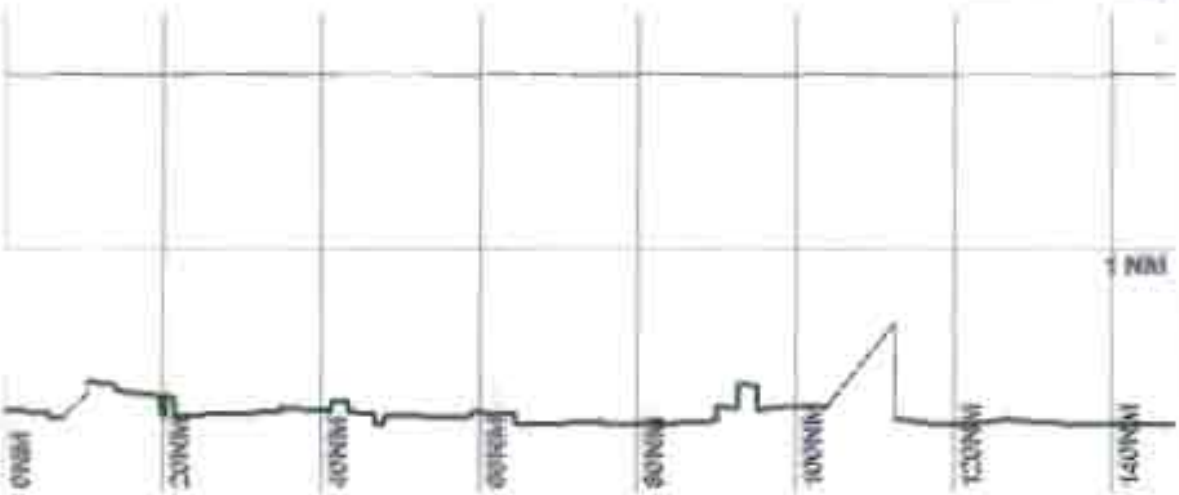
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 8

Maximum DME Error: 0.698 NM

No Critical DMEs were found

Available DMEs: GQO, ODF, RMG, VXV, HCH, BNA, BWG, SYI, GHM



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	GQO	N 34° 57' 40.54" W 86° 9' 12.14" E 1	H + ESV	User	NO	0.698	Enabled	37.6 %	40.5 %
2	ODF	N 34° 41' 46.14" W 83° 17' 51.58" E 0	H	Database	NO	0.878	Enabled	13.0 %	14.5 %
3	VXV	N 35° 54' 17.42" W 83° 53' 41.02" W 3	H + ESV	User	NO	0.698	Enabled	13.8 %	14.8 %
4	RMG	N 34° 9' 45.22" W 85° 7' 9.83" E 1	H + ESV	User	NO	0.782	Enabled	21.2 %	22.9 %
5	HCH	N 35° 46' 51.65" W 84° 58' 42.43" W 2	L	Database	NO	0.698	Enabled	20.5 %	21.9 %
6	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H + ESV	User	NO	0.931	Enabled	24.0 %	23.6 %
7	SYI	N 35° 33' 43.12" W 86° 26' 20.95" W 1	L	Database	NO	1.309	Enabled	35.5 %	31.5 %
8	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L + ESV	User	NO	0.910	Enabled	16.6 %	14.3 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	GQO	ODF	RMG	VXV	HCH	
39.4	GQO	BNA	RMG	VXV	HCH	BWG
64.9	GQO	BNA	BWG	VXV	HCH	RMG
87.1	GQO	BNA	RMG	SYI	HCH	
99.5	SYI	BNA	RMG			
110.5	SYI	BNA				
114.5	SYI	BNA	GHM			
122.0	SYI	BNA	GHM			
143.2	SYI	BNA	GHM			
144.2	SYI	BNA	GHM			

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 35° 52' 52.03" W 84° 2' 24.09"	N 35° 52' 14.22" W 84° 6' 14.06"	3.2
	VOR: VXV	Available from N 35° 52' 52.03" W 84° 2' 24.09" to N 35° 52' 14.22" W 84° 6' 14.06"	
2	N 35° 35' 15.41" W 86° 57' 27.01"	N 35° 41' 4.85" W 86° 5' 14.48"	8.6
	VOR: SYI	Available from N 35° 35' 15.41" W 86° 57' 27.01" to N 35° 41' 4.85" W 86° 5' 14.48"	
	VOR: UXM	Available from N 35° 35' 15.41" W 86° 57' 27.01" to N 35° 41' 4.85" W 86° 5' 14.48"	
	VOR: BNA	Available from N 35° 40' 55.84" W 86° 5' 2.40" to N 35° 41' 4.85" W 86° 5' 14.48"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	GHM	N 35° 50' 2.12" W 87° 27' 8.35" E 3	L	774.7	111.80	GHM	Used
		ESV: Bearing [True]: 52.0° to 109.0° Bearing [Mag]: 49.0° to 106.0°			Arc Distance: Out to 65.0 NM Altitude: 4000.0 to 20000.0 Ft.		
2	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H	565.8	114.10	BNA	Used
		ESV: Bearing [True]: 110.0° to 138.0° Bearing [Mag]: 112.0° to 140.0°			Arc Distance: Out to 80.0 NM Altitude: 10000.0 to 16500.0 Ft.		
3	GQO	N 34° 57' 40.54" W 85° 9' 12.14" E 1	H	1014.5	115.80	GQO	Used
		ESV: Bearing [True]: 323.0° to 30.0° Bearing [Mag]: 322.0° to 29.0°			Arc Distance: Out to 56.0 NM Altitude: 10000.0 to 17000.0 Ft.		
		ESV: Bearing [True]: 39.0° to 51.0° Bearing [Mag]: 38.0° to 50.0°			Arc Distance: Out to 86.0 NM Altitude: 13800.0 to 16000.0 Ft.		
4	VXV	N 35° 54' 17.42" W 83° 53' 41.02" W 3	H	1289.6	116.40	VXV	Used
		ESV: Bearing [True]: 250.0° to 263.0° Bearing [Mag]: 253.0° to 266.0°			Arc Distance: Out to 55.0 NM Altitude: 10000.0 to 17500.0 Ft.		
5	HRS	N 34° 56' 34.62" W 83° 54' 56.45" E 0	L	3680.0	109.80	HRS	Not Used
		ESV: Bearing [True]: 318.0° to 5.0° Bearing [Mag]: 318.0° to 5.0°			Arc Distance: Out to 67.0 NM Altitude: 10000.0 to 14000.0 Ft.		

DME/DME (Continued.)

Return To Summary

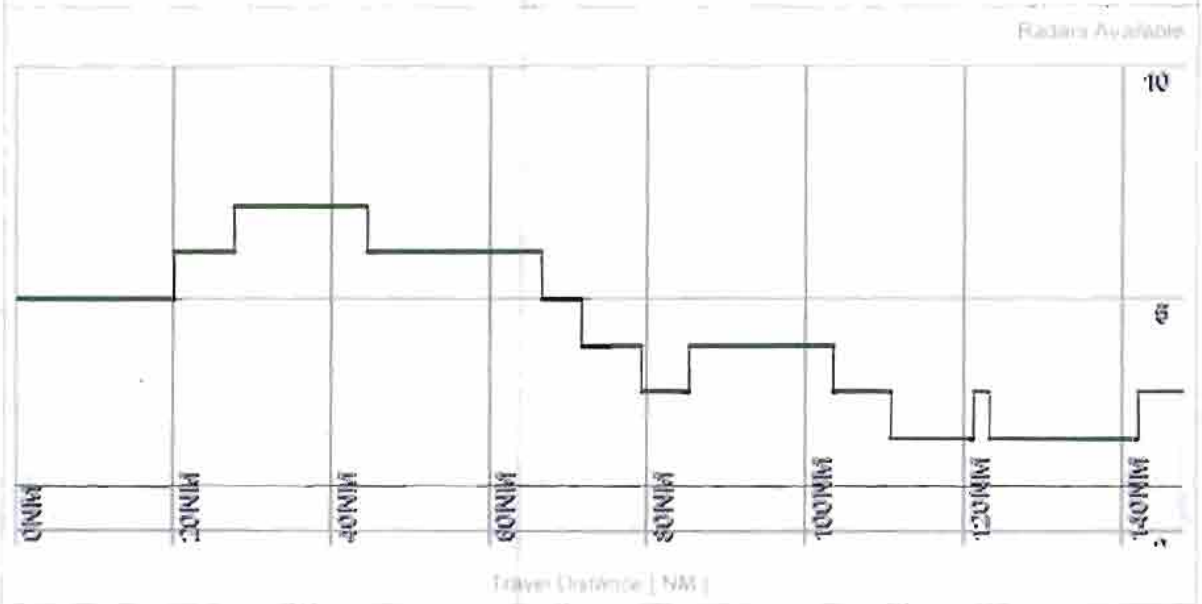
User DMEs (Continued.)

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
6	DCU	N 34° 38' 53.94" W 86° 56' 22.29" W 1	L	590.1	112.80	DCU	Not Used
		ESV: Bearing [True]: 42.0° to 60.0° Bearing [Mag]: 43.0° to 61.0°			Arc Distance: Out to 76.0 NM Altitude: 10000.0 to 24000.0 Ft.		
7	RMG	N 34° 9' 45.22" W 85° 7' 9.83" E 1	H	1149.1	115.40	RMG	Used
		ESV: Bearing [True]: 9.0° to 32.0° Bearing [Mag]: 8.0° to 31.0°			Arc Distance: Out to 123.0 NM Altitude: 14000.0 to 20000.0 Ft.		
		ESV: Bearing [True]: 301.0° to 339.0° Bearing [Mag]: 300.0° to 338.0°			Arc Distance: Out to 97.0 NM Altitude: 9400.0 to 15000.0 Ft.		
8	VUZ	N 33° 40' 12.67" W 86° 53' 59.28" E 2	H	760.0	114.40	VUZ	Not Used
		ESV: Bearing [True]: 20.0° to 32.0° Bearing [Mag]: 18.0° to 30.0°			Arc Distance: Out to 100.0 NM Altitude: 10900.0 to 20000.0 Ft.		

Radar Analysis

Return To Summary

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



ESVMS Information for DME: GHM

Radial 1: 049.0 Magnetic *Alt Minimum: 040 '00 ft (MSL) *Distance: 65 NML

Radial 2: 106.0 Magnetic *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: BNA

Radial 1: 112.0 Magnetic *Alt Minimum: 100 '00 ft (MSL) *Distance: 80 NML

Radial 2: 140.0 Magnetic *Alt Maximum: 165 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: GQO

Radial 1: 322.0 Magnetic *Alt Minimum: 100 '00 ft (MSL) *Distance: 56 NML

Radial 2: 029.0 Magnetic *Alt Maximum: 170 '00 ft (MSL)

*Requirement: USER DEFINED

Radial 1: 038.0 Magnetic *Alt Minimum: 139 '00 ft (MSL) *Distance: 86 NML

Radial 2: 050.0 Magnetic *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: VXV

Radial 1: 253.0 Magnetic *Alt Minimum: 100 '00 ft (MSL) *Distance: 85 NML

Radial 2: 266.0 Magnetic *Alt Maximum: 175 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: HRS

Radial 1: 318.0 Magnetic *Alt Minimum: 100 '00 ft (MSL) *Distance: 67 NML

Radial 2: 005.0 Magnetic *Alt Maximum: 140 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: DCU

Radial 1: 043.0 Magnetic *Alt Minimum: 100 '00 ft (MSL) *Distance: 76 NML

Radial 2: 061.0 Magnetic *Alt Maximum: 240 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: RMG

Radial 1: 008.0 Magnetic *Alt Minimum: 140 '00 ft (MSL) *Distance: 123 NML

Radial 2: 031.0 Magnetic *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

Radial 1: 300.0 Magnetic *Alt Minimum: 094 '00 ft (MSL) *Distance: 97 NML

Radial 2: 338.0 Magnetic *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: VUZ

Radial 1: 018.0 Magnetic *Alt Minimum: 109 '00 ft (MSL) *Distance: 100 NML

Radial 2: 030.0 Magnetic *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED