U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION

NDB STANDARD INSTRUMENT APPROACH PROCEDURE

FLIGHT STANDARDS SERVICE - TITLE 14 CFR PART 97.27

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

TERMINAL ROUTES

FROM	TO	COURSE AND DISTANCE	ALTITUDE
ATWUS INT/SYI 20.00 DME	ULH NDB	048.58 / 19.34	3000
KEYSE INT/SYI 14.54 DME	ULH NDB	210.89 / 9.88	3000
SYI VOR/DME (IAF)	LOYSI INT (NOPT)	090.98 / 9.55	3000
LOYSI INT (IF)	ULH NDB	181.84 / 6.01	2500

MISSED APPROACH

MAP: 4.40 MILES AFTER ULH NDB

CLIMB TO 2000 THEN CLIMBING RIGHT TURN TO 3000 VIA SYI VOR/DME R-155 TO SYI VOR/DME AND HOLD, OR AS DIRECTED BY ATC.

ALTERNATE MA: CLIMB TO 2500 THEN CLIMBING RIGHT TURN TO 3000 DIRECT ULH NDB AND HOLD.

ADDITIONAL FLIGHT DATA:

HOLD W, RT, 090.00 INBOUND.
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD N ULH NDB, LT, 181.84 INBOUND.
FAS OBST: 1319 AAO 352632N/0861348W
CHART IN PLANVIEW: ULH NDB.
ULH NDB TO RW18: 2.95/45.

1. PT R SIDE OF COURSE 001.84 OUTBOUND 3000 FT WITHIN 10 MILES OF ULH NDB (IAF)
2.
3. FAC 184.20 FAF ULH NDB DIST FAF TO MAP 4.40 THLD 4.40
4. MIN. ALT ULH NDB 2500
8. MSA FROM: ULH NDB 3400

MAG VAR: 3W EPOCH YEAR: 2005

MINIMUMS

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: N A X

CATEGORY =====>	A			B			C			D			E		
	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA	MDA	VIS	HAT/HAA
S-18	1620	1	541	1620	1	541	1620	1 3/8	541	1620	1 3/8	541			
CIRCLING	1620	1	536	1620	1	536	1620	1 5/8	536	1640	2	556			

NOTES:

CHART NOTE: CIRCLING TO RWY 36 NA AT NIGHT.
CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO CATS A,B.
CHART NOTE: VISIBILITY REDUCTION BY HELICOPTERS NA.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON SYI VOR/DME AIRWAY RADIALS 046 CW 120.
(SEE FORM 8260-10)

QUALITY CHECKED

CITY AND STATE	ELEVATION: 1084 THRE: 1079	FACILITY IDENTIFIER:	PROCEDURE NO./AMDT NO./EFFECTIVE DATE:	SUP
TULLAHOMA, TN	AIRPORT NAME: TULLAHOMA RGNL ARPT/WM NORTHERN FIELD	ULH	NDB RWY 18, AMDT 3	AMDT 2
				DATE 11/25/2004

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
[X] YES [ ] NO		ROUTINE

COORDINATED WITH:

ATA	AAT	ALPA	APA	AOPA	NBAA	OTHER (specify)
[ ]	[ ]	[X]	[ ]	[X]	[X]	[X] ZME, AMGR

FLIGHT CHECKED BY		
NAME: RUSSELL PRICE ELLIOTT	FIFO FIOG	DATE: 02/28/2012
DEVELOPED BY		
NAME: GEORGE H. TRAMMELL	FIFO AJV-352	DATE: 08/15/2011
APPROVED BY		
NAME: DARRYEL ADAMS MANAGER	FIFO AJV-352	DATE:

CHANGES:

1. ADDED INT TO ATWUS FIX DESCRIPTION.
2. REMOVED (NOPT) FROM INTERMEDIATE SEGMENT.
3. CHANGED KEYSE FEEDER COURSE FROM 210.90 TO 210.89.
4. CHANGED SYI VOR/DME INITIAL COURSE FROM 090.99 TO 090.98.
5. CHANGED S-6 MDA/HAT FROM 1540/458 TO 1620/541.
6. CHANGED S-6 CAT A/B VIS FROM 3/4 TO 1 MILE.
7. CHANGED S-6 CAT C VIS FROM 1 1/4 TO 1 3/8 MILE AND CAT D VIS FROM 1 1/2 TO 1 3/8.
8. CHANGED CIRCLING CAT A/B/C MDA/HAA FROM 1540/457 TO 1620/536.
9. CHANGED CIRCLING CAT D HAA FROM 557 TO 556.
10. ADDED CHART NOTE: CIRCLING RWY 36 NA AT NIGHT.
11. UPDATED INOPERATIVE TABLE NOTE.
12. ADDED HELICOPTER NOTE.
13. ADDED CHART NOTE: STRAIGHT-IN/CIRCLING RWY 18 PROCEDURE NA AT NIGHT.
14. ADDED CHART PLANVIEW NOTE FOR TERMINAL FEEDER ROUTES.

SEE 8260-10

REASONS:

1. CORRECTED FIX DESCRIPTION.
2. NOT NECESSARY.
3,4. NEW BUILD.
5. NEW CONTROLLING OBSTACLE.
6. 34:1 PENETRATIONS.
7,11,15. NEW CRITERIA.
8. TO MATCH STRAIGHT IN MINIMUMS.
9. NEW AIRPORT ELEVATION FROM NEW SURVEY.
10,12. 20:1 PENETRATIONS
13. VGSI NOT VERIFIED, 20:1 PENETRATIONS.
14. TURNS EXCEED 120 DEGREES.
16. IAW FAAO 8260-19D PARAGRAPH 856.G.(1).

03/14/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 8/15/2011.
1. CHANGED ALTERNATE MISSED APPROACH INBOUND COURSE FROM 182.84 TO 181.84 TO ALIGN WITH PT COURSE.

QUALITY CHECKED

Bearings, headings, courses, and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above aiport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or in feet RVR.

NOTES, (CONT.):
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT.
CHART NOTE: STRAIGHT-IN/CIRCLING RWY 18 PROCEDURE NA AT NIGHT.
CHART NOTE: WHEN USING NASHVILLE INTL ALTIMETER SETTING, INOPERATIVE TABLE DOES NOT APPLY TO CATS A,C,D.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE NASHVILLE INTL ALTIMETER SETTING AND INCREASE ALL MDA 200 FEET; INCREASE S-18 CAT C/D VISIBILITY 5/8 MILE, INCREASE CIRCLING CAT B/D VISIBILITY 1/4 MILE, AND INCREASE CIRCLING CAT C VISIBILITY 3/8 MILE.

QUALITY

CITY AND STATE	ELEVATION: 1084 THRE: 1079	FACILITY IDENTIFIER:	PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:	SUP:
TULLAHOMA, TN	AIRPORT NAME: TULLAHOMA RGNL ARPT/WM NORTHERN FIELD	ULH	NDB RWY 18, AMDT 3	AMDT: 2
				DATED: 11/25/2004

ALL AFFECTED PROCEDURES REVIEWED?	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE
☐ YES ☐ NO		

COORDINATED WITH:

ATA ☐ AAT ☐ ALPA ☐ APA ☐ AOPA ☐ NBAA ☐ OTHER (specify) ☐ _____

FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
APPROVED BY		
NAME:	FIFO	DATE:

CHANGES:

CHANGES CONT.
15. UPDATED BACKUP ALTIMETER NOTE TO ADD VISIBILITY CHANGES.
16. ADDED ALTERNATE MISSED APPROACH.

REASONS:

QUALITY CHECKED 1

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

PART - A OBSTRUCTION DATA

1. APP SEGMENT	FROM	TO	OBSTRUCTION	COORDINATES	ELEV. MSL	ROC	ALT. ADJUSTMENTS	MIN. ALT.
FEEDER	ATWUS INT/SYI	ULH NDB	1. TREE	352157.14N/0862856.61W	1319 (2C)	2000	MT-319	3000
	20.00 DME		2. TERRAIN	352157.14N/0862856.61W	1219 (1200)		AS1500	2700
FEEDER	KEYSE INT/SYI	ULH NDB	3. TREE	353832.76N/0861046.26W	1349 (2C)	2000	MT-349	3000
	14.54 DME		4. TERRAIN	353624.00N/0861139.00W	1264 (1300)		AS1500	2800
INITIAL	SYI VOR/DME	LOYSI INT	5. TOWER (47-020225)	353409.80N/0861312.40W	1470 (2C)	1000	AT530	3000
			6. TERRAIN	353709.00N/0862406.00W	1270 (1300)		AS1500	2800
INTERMEDIATE	LOYSI INT	ULH NDB	5. TOWER (47-020225)	353409.80N/0861312.40W	1470 (2C)	500	DG530	2500
			7. TERRAIN	353245.00N/0861018.00W	1205 (1200)		AS1000	2200
INTERMEDIATE: PT	10 NM	ULH NDB	5. TOWER (47-020225)	353409.80N/0861312.40W	1470 (2C)	500	DG530	2500
			8. TERRAIN	353624.00N/0861139.00W	1264 (1300)		AS1000	2300
FINAL	ULH NDB	4.40 MILES AFTER	9. AAO	352631.71N/0861348.17W	1319 (2C)	300		1620
		ULH NDB						
2. PROCEDURE TURN	ULH NDB	10 NM	10. TOWER (47-000592)	352710.00N/0860819.70W	1753 (2C)	1000	AT247	3000
			11. TERRAIN	354219.20N/0861127.20W	1400 (1400)		AS1500	2900
3. MISSED APPROACH — MAP:	4.40 MILES AFTER	SYI VOR/DME				ASC	AT3000	3000
	ULH NDB		12. TOWER (47-000357)	353046.00N/0862514.00W	1427 (4D)	1000		2500
ELEV:	1320		13. TERRAIN	353027.00N/0862133.00W	1178 (1200)		AS1500	2700

4. CIRCLING AREA	DISTANCE	HT. ABV. ARPT. REQUIRED	HT. ABV. ARPT. ACTUAL							
CATEGORY A	1.3 NM	350	536	14. TREE	352330.00N/0861600.00W	1229 (2C)	300	SI	1620
CATEGORY B	1.5 NM	450	536	14. TREE	352330.00N/0861600.00W	1229 (2C)	300	SI	1620
CATEGORY C	1.7 NM	450	536	14. TREE	352330.00N/0861600.00W	1229 (2C)	300	SI	1620
CATEGORY D	2.3 NM	550	556	15. TREE	352251.00N/0861806.00W	1249 (2C)	300	HAA	1640
CATEGORY E	4.5 NM	550							

5. MINIMUM SAFE ALTITUDES — PRIMARY NAVAID: ULH NDB

SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A	SECTOR	OBSTRUCTION	BRG/DIST	ELEVATION (MSL)	M S A
360-360	SPOT ATL-S-0466	117/ 27.6	2350 (6A)	3400					

QUALITY CHECK

CITY AND STATE	ELEVATION: 1084 / AIRPORT NAME:	FACILITY	PROCEDURE AND AMENDMENT NO:	REGION
TULLAHOMA, TN	TULLAHOMA RGNL ARPT/WM NORTHERN FIELD	ULH	NDB RWY 18, AMDT 3	ASO

PART B - SUPPLEMENTAL DATA

1. COMMUNICATIONS WITH:	2. WEATHER SERVICE		3. ALTIMETER SETTING
ZME ARTCC	N W S	OTHER: AWOS-3	SOURCE: KTHA / KBNA
	F A A		DISTANCE: 0 / 49.33
SATISFACTORY ON:	A / C		HOURS REMOTE OPERATION: 24 / BACKUP
X V H F X U H F H F	LOCATION: KTHA		ADJUSTMENT: 0 / 0

4. MONITOR STATUS

PRIMARY NAVAID:	ULH NDB
MONITOR POINT:	AOCC
HRS OPTN: CAT 1	24
HRS OPTN: CAT 3	

5. APPROACH & RUNWAY LIGHTING

	ALS
	(S) SALS
	MALS
	HIRL
X	MIRL 18 (PCL), 36 (PCL), 24, 06
X	REIL 18, 36, 24, 06
	TDZ
	C/LINE
X	OTHER (SPECIFY) ODALS 18 (PCL) PAPI-2L 18, 36, 24, 06

6. RUNWAY MARKINGS

BASIC	
ALL WEATHER	
INSTRUMENT	NPI-G 24, 06; -P 18, 36

7. RUNWAY VISUAL RANGE

APPROACH	
MIDFIELD	
ROLL OUT	

8. GLIDE PATH

GP ANGLE:	ELEV RWY THRESHOLD:
DISTANCE FROM RWY:	ELEV GP ANTENNA:
	THRESHOLD CROSSING HEIGHT:

9. FINAL APPROACH COURSE AIMING

X	RUNWAY THRESHOLD	FT. FROM THRESHOLD
X	ON CENTERLINE	FT. FROM CENTERLINE

10. WAIVERS: NONE

PART D - PREPARED BY: GEORGE H. TRAMMELL	DATE: 08/15/2011
TITLE: AERONAUTICAL INFORMATION SPECIALIST	OFFICE: AJV-352

PART C - REMARKS:

VDP NOT ESTABLISHED - FINAL FACILITY DOES NOT HAVE DME.

PARA 251, 20:1 PENETRATION.

PARA 251, 34:1 PENETRATION.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

BLOCK 3:
KTHA AWOS-3 NOT ON SERVICE A.
KBNA ASOS ON SERVICE A.

VGSI DATA: 3.00/TCH 32

VGSI VERIFIED ONLY FOR RWY 24.

VGSI NOT USED TO MITIGATE 20:1 PENETRATIONS EXCEPT FOR RWY 24, PER BRANCH POLICY.

VEGETATION HEIGHT 100 FEET PER FPT.

TERPS, VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS:

20:1
1113 TREES (KTHAT0017)
352319.54N/0861441.68W (31.81)
1117 TREES (KTHAT0026)
352322.85N/0861432.78W (19.19)
1091 TREES (KTHAT0022)
352320.88N/0861433.13W (3.14)
1131 TREES (KTHAT0033)
352329.08N/0861433.19W (1.70)

34:1
1171 TREES (KTHAT0034)
352342.37N/0861430.89W (22.96)
1196 TREES (KTHAT0037)
352355.69N/0861440.09W (8.30)
1102 TREES (KTHAT0028)
352324.43N/0861435.16W (7.26)
1091 TREES (KTHAT0023)
352321.59N/0861431.94W (4.73)
1102 TREES (KTHAT0030)
352325.37N/0861431.85W (4.49)
1103 TREES (KTHAT0031)
352325.83N/0861439.10W (4.08)
1091 TREES (KTHAT0025)
352322.19N/0861439.89W (2.89)

RASS PRESSURE PATTERNS SAME
KTHA 1084, KBNA 599
RA = 181.36.
SEE ATTACHED AIRSPACE LETTER.

MISSED APPROACH OBSTACLES CONT.
ALTERNATE:
ASC 3000
16. TOWER (47-001856) 351632.30N/0862136.50W 1489 (2C)
1000 2500
17. TERRAIN 351857.00N/0861839.00W 1165 (1200) AS1500
2700

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BURWI NDB **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 352741.67N/0861430.07W **TYPE:**

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

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	BURWI	ULH	NDB	MH							17500

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	N	ULH	NDB	001.84	181.84	L	1		2600	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (47-001066)	353227.00N/0861008.00W	1524	5E

REASON FOR NONSTANDARD HOLDING:
PAT 1 ALLOW HOLDING SAME SIDE AS PT

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	NDB RWY 18	1	1	KTHA	TULLAHOMA	TN (US)
IAP	SDF RWY 18	1		KTHA	TULLAHOMA	TN (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
1. UPDATED HOLDING PATTERN OBSTACLE, NEW SURVEY NUMBER.
2. UPDATED FIX USE FORMAT.
3. UPDATED TO NEW FORMAT.

03/14/2012: THIS IS AN UNDATED COPY OF THE FORM DEVELOPED ON 8/09/2011.
1. CHANGED HOLDING PAT 1 RAD/CRS/BRG AND CRS INBOUND FROM 002.84/182.84 TO 001.84/181.84 TO ALIGN WITH NDB RWY 18 PT COURSE.
2. REMOVED PAT 1 FROM SDF RWY 18 FIX USE.
3. ADDED PAT 1 TO NDB RWY 18 FIX USE.

DEVELOPED BY: **DATE:** 08/09/2011 **OFFICE:** AJV-352 **NAME:** GEORGE TRAMMELL

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZME
ATC FACILITY:
OTHER: AMGR

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: KEYSE **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 353626.25N/0860849.95W **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	SHELBYVILLE	SYI	VOR/DME	L	080.16	079.16	14.54	14.54		5000	17500
2	TULLAHOMA	UXM	VOR	T	022.53	019.53		14.42		5000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
UXM	VOR	R-023	15	5000	17500

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

REMARKS:
SHELBYVILLE (FAC 1) AND TULLAHOMA (FAC 2) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V-16	1, 2				(US)
IAP	NDB RWY 18	1, 2		KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 18			KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 24			KTHA	TULLAHOMA	TN (US)
IAP	SDF RWY 18	1, 2		KTHA	TULLAHOMA	TN (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
1. ADDED DIST FROM FAC FOR FAC 1 AND FAC 2.
2. DELETED FAC 3.
3. UPDATED FIX USE TO NEW FORMAT.
4. UPDATED FORMAT.

03/19/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 08/09/2011.
1. ADDED GRANDFATHERED ESV FOR FAC 2.
2. CHANGED FAC 2 MAA FROM 12000 TO 17500 FOR GRANDFATHERED ESV.
3. ADDED REMARKS, SHELBYVILLE (FAC 1) AND TULLAHOMA (FAC 2) USED TO ESTABLISH FIX COORDINATES.

DEVELOPED BY: **DATE:** 08/09/2011 **OFFICE:** AJV-352 **NAME:** GEORGE TRAMMELL

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

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SHELBYVILLE VOR/DME **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 353343.12N/0862620.95W **TYPE:**

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

FIX MAKE-UP FACILITIES:

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

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	S	SYI	VOR/DME	196.00	016.00	L	1		3000	6000	4	5
2	W	SYI	VOR/DME	270.00	090.00	R	1		3000	8000	4	8
3	NW	SYI	VOR/DME	332.00	152.00	R	1		2800	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	230	TOWER (47-000628)	353936.00N/0861816.00W	1618	5E
1	200	AAO	353709.00N/0862406.00W	1479	2C
2	200	TOWER (47-000357)	353046.00N/0862514.00W	1427	4D
3	200	AAO	353709.00N/0862406.00W	1479	2C

REASON FOR NONSTANDARD HOLDING:
PAT 1 LT AT ATC RQST

HOLDING RESTRICTIONS:
UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3000

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	HUNTSVILLE			KHSV	HUNTSVILLE	AL (US)
DP	CHATTANOOGA			KCHA	CHATTANOOGA	TN (US)
DP	FREDX (RNAV)			KMEM	MEMPHIS	TN (US)
EN ROUTE	V16					(US)
EN ROUTE	V321					(US)
EN ROUTE	V67					(US)
IAP	NDB RWY 20			KFYM	FAYETTEVILLE	TN (US)
IAP	SDF RWY 20			KFYM	FAYETTEVILLE	TN (US)
IAP	NDB RWY 17			K2M2	LAWRENCEBURG	TN (US)
IAP	NDB RWY 19			KM54	LEBANON	TN (US)
IAP	NDB RWY 20			KLUG	LEWISBURG	TN (US)
IAP	LOC RWY 23			KRNC	MCMINNVILLE	TN (US)
IAP	NDB RWY 18			KMBT	MURFREESBORO	TN (US)
IAP	ILS OR LOC RWY 20L		1	KBNA	NASHVILLE	TN (US)
IAP	ILS OR LOC RWY 2R		1	KBNA	NASHVILLE	TN (US)
IAP	ILS OR LOC RWY 31			KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2R (CAT II)		1	KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2R (CAT III)		1	KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) Y RWY 2C			KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) Y RWY 2L			KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) Y RWY 2R			KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) Y RWY 31			KBNA	NASHVILLE	TN (US)
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)
IAP	RNAV (RNP) Z RWY 31			KBNA	NASHVILLE	TN (US)
IAP	VOR RWY 18		3	KSYI	SHELBYVILLE	TN (US)
IAP	VOR RWY 36		1	KSYI	SHELBYVILLE	TN (US)
IAP	VOR/DME RWY 18			KSYI	SHELBYVILLE	TN (US)
IAP	RNAV (GPS) RWY 32			KMQY	SMYRNA	TN (US)
IAP	VOR/DME RWY 32			KMQY	SMYRNA	TN (US)
IAP	NDB RWY 18		2	KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 18			KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 24			KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 36			KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 6			KTHA	TULLAHOMA	TN (US)
IAP	SDF RWY 18		2	KTHA	TULLAHOMA	TN (US)
IAP	VOR RWY 24		2	KTHA	TULLAHOMA	TN (US)
IAP	VOR RWY 6		2	KTHA	TULLAHOMA	TN (US)
IAP	NDB RWY 18			KBGF	WINCHESTER	TN (US)
STAR	VOLLS			KBNA	NASHVILLE	TN (US)

QUALITY CHECKED 5

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 18 **DATE OF REVISION:** 02/09/2012

REASON FOR REVISION:
1. CHANGED MIN HOLDING ALTITUDE FOR PATTERNS 1 AND 2 FROM 2600 TO 3000.
2. CHANGED MIN HOLDING ALTITUDE FOR PATTERN 3 FROM 2600 TO 2800.
3. UPDATED HOLDING PATTERN 2 OBSTACLE ELEVATION FROM 1421 TO 1427 FOR NEW SURVEY.
4. UPDATED PAT 3 OBSTACLE ELEVATION.

DEVELOPED BY: **DATE:** 08/09/2011 **OFFICE:** AJV-352 **NAME:** GEORGE TRAMMELL

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

SIGNATURE:

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

QUALITY 5 CHECKED

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: ATWUS **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 351406.86N/0863122.10W **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	SHELBYVILLE	SYI	VOR/DME	L	192.86	191.86	20.00	20.00		3000	17500
2	TULLAHOMA	UXM	VOR	T	240.49	237.49		16.15		3000	12000

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	S		WP	193.86	013.86	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (47-001070)	351419.30N/0863534.00W	1429	5E

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE (US)
EN ROUTE	V321	1, 2				
IAP	RNAV (GPS) RWY 36		1	KMDQ	HUNTSVILLE	AL (US)
IAP	RNAV (GPS) Z RWY 36			KSYI	SHELBYVILLE	TN (US)
IAP	NDB RWY 18	1, 2		KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 36			KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 6			KTHA	TULLAHOMA	TN (US)
IAP	SDF RWY 18	1, 2		KTHA	TULLAHOMA	TN (US)
IAP	VOR RWY 24	1, 2		KTHA	TULLAHOMA	TN (US)
IAP	VOR RWY 6	1, 2		KTHA	TULLAHOMA	TN (US)

REQUIRED CHARTING: IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6 **DATE OF REVISION:** 08/25/2011

REASON FOR REVISION:
MOVED "HOLDING LIMITED TO ESTABLISHED PATTERN" FROM REMARKS TO HOLDING RESTRICTIONS.
REMOVED ONDOW FROM FIX MAKE-UP FACILITIES.
UPDATED PAT 1 CONTROLLING OBSTACLE ID. OBSTACLE LOWERED 13 FT.
PRECIPITOUS TERRAIN EVALUATION COMPLETED. REMARK ADDED.
UPDATED FIX USE.
REMOVED FAYETTEVILLE MUNI, RNAV (GPS) RWY 20 FROM FIX USE.

DEVELOPED BY: **DATE:** 02/28/2011 **OFFICE:** AVN-110 **NAME:** DONALD SMITH (JASON YORK)

APPROVED BY: **DATE:** 06/20/2011 **OFFICE:** AVN-110 **NAME:** DARRYEL ADAMS

SIGNATURE:

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

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

NAME: LOYSI **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 353342.74N/0861438.98W **TYPE:** WP, INT

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	TULLAHOMA	THA	SDF		002.84	359.84		11.30		3000	5500
2	SHELBYVILLE	SYI	VOR/DME	L	090.98	089.98		9.55		3000	5500
3	BURWI	ULH	NDB	MH	001.84	358.84		6.01		3000	17500

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

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	N		WP	002.84	182.84	L		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (47-000628)	353936.00N/0861816.00W	1618	5E

REASON FOR NONSTANDARD HOLDING:
PAT 1 LATERAL SEPARATION FROM SYI VOR/DME HOLDING

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	NDB RWY 18	2, 3		KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 18		1	KTHA	TULLAHOMA	TN (US)
IAP	RNAV (GPS) RWY 36		1	KTHA	TULLAHOMA	TN (US)
IAP	SDF RWY 18	1, 2, 3		KTHA	TULLAHOMA	TN (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 08/25/2011

REASON FOR REVISION:
UPDATED FIX COORDINATES. FIX MOVED 6 FT NORTH.
PAT 2 BEARING CHANGED FROM 090.99M/089.99T TO 090.98M/089.98T.
DISTANCE FROM FAC (NM) ADDED TO FACS 1-3.
REMOVED FAC 4 (KTHA R18).
MOVED "HOLDING LIMITED TO ESTABLISHED PATTERNS" FROM REMARKS TO HOLDING RESTRICTIONS.
PRECIPITOUS TERRAIN EVALUATION COMPLETED. REMARK ADDED.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 03/11/2011 **OFFICE:** AVN-110 **NAME:** DONALD SMITH (JASON YORK)

APPROVED BY: **DATE:** 06/20/2011 **OFFICE:** AVN-110 **NAME:** DARRYEL ADAMS

SIGNATURE:

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

QUALITY CHECKED 5

TERMINAL AIRSPACE DATA REQUIREMENTS

CITY: **TULLAHOMA** STATE: **TN**

AIRPORT NAME: **TULLAHOMA RGNL ARPT/WM NORTHERN FIELD** ID: **KTHA**

PROCEDURE: **NDB RWY 18** AMDT: **3**

DOCKET#: **NOT REQUIRED**
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from **THLD** to 1000' point **3.07**
   (Enter THLD, FAF, ARP, FACILITY, as appropriate)
2. Width of **FINAL** segment at 1000' point **2.72**
   (Enter appropriate segment, final, intermediate, etc.)
3. True Course of **FINAL** segment containing 1000' point **181.20**
4. High Terrain in **FINAL** segment containing 1000' point **1119**
5. Distance from **THLD** to 1500' point **11.40**
   (If 1500' point in PT maneuvering area or holding pattern note in remarks)
6. Width of **INTERMEDIATE** segment at 1500' point **7.45**
7. True Course of **INTERMEDIATE** segment containing 1500' point **178.84**
8. High Terrain in **INTERMEDIATE** segment containing 1500' point **1264**
9. Threshold Coordinates (if straight-in) ... **352317.12N** / **0861436.84W**
10. ARP Coordinates ..... **352248.06N** / **0861448.08W**
11. Runway Approach End and distance furthest from ARP ..... RWY **9**
    Distance **0.52** NM
12. FAF Coordinates ..... **352741.67N** / **0861430.07W**

REMARKS: Approach/Drawing attached.