

RADIO FIX AND HOLDING DATA RECORD

NAME: BOWLING GREEN VORTAC STATE: KY COUNTRY: US ICAO REGION CODE: K5
 LATITUDE/LONGITUDE: 365543.47N/0862636.36W 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	FEET	MRA	MAA
1	BOWLING GREEN	BWG	VORTAC	H							45000

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	SW	BWG	VORTAC	204.00	024.00	R	1		2300	10000	4	9
2	SW	BWG	VORTAC	206.00	026.00	R	1		2300	10000	4	9
3	NE	BWG	VORTAC	059.37	239.37	L		15	18000	45000	28	29
4	NE		WP	062.37	242.37	L		15	18000	45000	28	30

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	230	TOWER (21-000307)	370349.22N/0862606.70W	1304	5D
1	200	AAO	364715.00N/0862618.00W	926	4E
2	200	AAO	364715.00N/0862618.00W	926	4E

REASON FOR NONSTANDARD HOLDING:

PAT 4 ATC REQUEST. 15 NM LEG LENGTHS ATC REQUEST.
 PAT 3 ATC REQUEST. 15 NM LEG LENGTHS ATC REQUEST.

HOLDING RESTRICTIONS:

UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 3000.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 ASSIGNED FAC MAG VAR 2E/1965.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	HUNTSVILLE			KHSV	HUNTSVILLE	AL (US)
DP	BLUEGRASS			KCVG	COVINGTON	KY (US)
DP	CHCLL (RNAV)			KCVG	COVINGTON	KY (US)
DP	CHATTANOOGA			KCHA	CHATTANOOGA	TN (US)
DP	KNOXVILLE			KTYS	KNOXVILLE	TN (US)
DP	NASHVILLE			KBNA	NASHVILLE	TN (US)
EN ROUTE	J6					(US)
EN ROUTE	T325					(US)
EN ROUTE	V243					(US)
EN ROUTE	V49					(US)
EN ROUTE	V5					(US)
EN ROUTE	V52					(US)
IAP	ILS OR LOC RWY 3		2	KBWG	BOWLING GREEN	KY (US)
IAP	NDB RWY 3			KBWG	BOWLING GREEN	KY (US)
IAP	VOR-A		1	KBWG	BOWLING GREEN	KY (US)
IAP	RNAV (GPS) RWY 17			KM33	GALLATIN	TN (US)
IAP	RNAV (GPS) RWY 35			KM33	GALLATIN	TN (US)
IAP	ILS OR LOC/DME RWY 2R			KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2R (CAT II)			KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2R (CAT III)			KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2R (SA CAT I)			KBNA	NASHVILLE	TN (US)
IAP	VOR/DME RWY 13			KBNA	NASHVILLE	TN (US)
IAP	LOC RWY 4		1	KM91	SPRINGFIELD	TN (US)
STAR	ROME			KATL	ATLANTA	GA (US)
STAR	DARBY			KJVV	JEFFERSONVILLE	IN (US)
STAR	DARBY			KLOU	LOUISVILLE	KY (US)
STAR	DARBY			KSDF	LOUISVILLE	KY (US)
STAR	BLUZZ (RNAV)		4	KMEM	MEMPHIS	TN (US)
STAR	WLDER		3	KMEM	MEMPHIS	TN (US)
STAR	GUIR			KMBT	MURFREESBORO	TN (US)
STAR	HEHAW			KMBT	MURFREESBORO	TN (US)
STAR	GUIR			KBNA	NASHVILLE	TN (US)
STAR	HEHAW			KBNA	NASHVILLE	TN (US)
STAR	GUIR			KJWN	NASHVILLE	TN (US)
STAR	HEHAW			KJWN	NASHVILLE	TN (US)
STAR	GUIR			KMQY	SMYRNA	TN (US)
STAR	HEHAW			KMQY	SMYRNA	TN (US)

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

QUALITY
14
CHECKED

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 19

DATE OF REVISION: 02/01/2018

REASON FOR REVISION:

CHANGED HOLDING PATTERN 4 COURSE INBOUND FROM 240.37 TO 242.37 (GROUND TRACK UNCHANGED).

DEVELOPED BY: DATE: 07/05/2017 OFFICE: AJV-5431 NAME: LIAM DONAHUE

APPROVED BY: DATE: OFFICE: AJV-5430 NAME: PATRICK MULQUEEN

SIGNATURE: *Digitally signed by*
ADOLFO D URRUTIA

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

Oct 24, 2017

QUALITY
14
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CASOT

STATE: TN

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 361625.19N/0884517.17W

TYPE: WP, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	POCKET CITY	PXV	VORTAC	H	202.96	205.96	110.00	110.00		22000	45000

HOLDING:

HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	NE	PXV	VORTAC	202.96	202.96	L		15	22000	45000	28	31
2	NE		WP	026.36	206.36	L		15	18000	45000	28	30

REASON FOR NONSTANDARD HOLDING:

PAT 1 AND PAT 2 LEFT TURNS AND 15 NM LEG LENGTHS REQUESTED BY ATC.

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BLUZZ (RNAV)		2	KMEM	MEMPHIS	TN (US)
STAR	WLDER	1	1	KMEM	MEMPHIS	TN (US)

REQUIRED CHARTING: STAR, CONTROLLER

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 02/01/2018

REASON FOR REVISION:

CHANGED PAT 2 HOLDING INBOUND COURSE FROM 204.36 TO 206.36.

DEVELOPED BY:

DATE: 06/01/2017

OFFICE: AJV-5431

NAME: LIAM DONAHUE

APPROVED BY:

DATE:

OFFICE: AJV-5430

NAME: PATRICK MULQUEEN

SIGNATURE:

Digitally signed by

ADOLFO D URRUTIA

DISTRIBUTION:

NFDC

FPO: EST

ARTCC: ZME

ATC FACILITY: MEM APP CON

OTHER:

Oct 24, 2017

QUALITY
14
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MRCEL STATE: TN COUNTRY: US ICAO REGION CODE: K7
 LATITUDE/LONGITUDE: 351611.30N/0893939.91W TYPE: WP, DME

AIRSPACE DOCKET: FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	MEMPHIS	MEM	VORTAC	H	045.00	046.00	22.00	22.00		4000	17500

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	NE	MEM	VORTAC	045.00	225.00	R		6	4000	14000	7	11
2	NE		WP	047.19	227.19	R		6	6000	14000	7	11

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (47-001735)	351633.00N/0894638.00W	1449	5D
2	230	TOWER (47-001735)	351633.00N/0894638.00W	1449	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 PAT 1 AND 2 LEG LENGTH 6 NM PER ATC REQUEST.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BLUZZ (RNAV)		2	KMEM	MEMPHIS	TN (US)
STAR	WLDER	1	1	KMEM	MEMPHIS	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 DATE OF REVISION: 02/01/2018

REASON FOR REVISION:

CHANGED HOLDING PATTERN 2 COURSE INBOUND FROM 225.19 TO 227.19.

DEVELOPED BY: DATE: 06/01/2017 OFFICE: AJV-5431 NAME: LIAM DONAHUE

APPROVED BY: DATE: OFFICE: AJV-5430 NAME: PATRICK MULQUEEN

SIGNATURE: *Digitally signed by*
ADOLFO D URRUTIA

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

Oct 24, 2017

QUALITY
14
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: NASHVILLE VORTAC STATE: TN COUNTRY: US ICAO REGION CODE: K7
 LATITUDE/LONGITUDE: 360813.06N/0864105.18W 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 FEET	MRA	MAA
1	NASHVILLE	BNA	VORTAC	H						45000

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	NW	BNA	VORTAC	315.19	135.19	R	1	3000 6000	4 5
2	NW	BNA	VORTAC	336.00	156.00	R	1-1 1/2	7000 16000	8 15
3	E	BNA	VORTAC	080.87	260.87	L	15	18000 45000	28 29
4	E		WP	080.00	260.00	L	15	18000 45000	28 30

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (47-000685)	361550.00N/0864739.00W	2049	3D
2	230	TOWER (47-000685)	361550.00N/0864739.00W	2049	3D

REASON FOR NONSTANDARD HOLDING:

PAT 4 ATC REQUEST. 15 NM LEG LENGTHS ATC REQUEST.
 PAT 3 ATC REQUEST. 15 NM LEG LENGTHS ATC REQUEST.

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

DO NOT CHART HOLD PAT 2/USED FOR ATC OVERFLOW.
 HOLD PAT 1 CONTROLLING OBSTACLE IS 4131.52 FT INTO THE SECONDARY AREA, PRIMARY EQ 1378.01 FT.
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.
 MAGVAR: 2W/1995

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BIRMINGHAM			KBHM	BIRMINGHAM	AL (US)
DP	HUNTSVILLE			KHSV	HUNTSVILLE	AL (US)
DP	PENCL (RNAV)			KATL	ATLANTA	GA (US)
DP	PLESS			KALN	ALTON/ST LOUIS	IL (US)
DP	PLESS			KBLV	BELLEVILLE	IL (US)
DP	PLESS			KCPD	CAHOKIA/ST LOUIS	IL (US)
DP	DRUSE (RNAV)			KSTL	ST LOUIS	MO (US)
DP	PLESS			KSTL	ST LOUIS	MO (US)
DP	PLESS			KSUS	ST LOUIS	MO (US)
DP	BOBZY (RNAV)			KVUJ	ALBEMARLE	NC (US)
DP	BOBZY (RNAV)			KCLT	CHARLOTTE	NC (US)
DP	BOBZY (RNAV)			KJQF	CONCORD	NC (US)
DP	BOBZY (RNAV)			KAKH	GASTONIA	NC (US)
DP	BOBZY (RNAV)			KIPJ	LINCOLNTON	NC (US)
DP	BOBZY (RNAV)			KEQY	MONROE	NC (US)
DP	BOBZY (RNAV)			KRUQ	SALISBURY	NC (US)
DP	BOBZY (RNAV)			KLKR	LANCASTER	SC (US)
DP	BOBZY (RNAV)			KUZA	ROCK HILL	SC (US)
DP	CHATTANOOGA			KCHA	CHATTANOOGA	TN (US)
DP	KNOXVILLE			KTVS	KNOXVILLE	TN (US)
DP	NASHVILLE			KBNA	NASHVILLE	TN (US)
EN ROUTE	J39					(US)
EN ROUTE	J42					(US)
EN ROUTE	J45					(US)
EN ROUTE	J46					(US)
EN ROUTE	J73					(US)
EN ROUTE	Q19					(US)
EN ROUTE	Q32					(US)
EN ROUTE	Q36					(US)
EN ROUTE	V140					(US)
EN ROUTE	V49					(US)
IAP	TACAN RWY 23	1		KHOP	FT CAMPBELL	KY (US)
IAP	RNAV (GPS) RWY 17			KM33	GALLATIN	TN (US)
IAP	RNAV (GPS) RWY 35			KM33	GALLATIN	TN (US)
IAP	VOR/DME-A			KM33	GALLATIN	TN (US)
IAP	RNAV (GPS) RWY 01			KM54	LEBANON	TN (US)
IAP	RNAV (GPS) RWY 19			KM54	LEBANON	TN (US)
IAP	VOR/DME-A			KM54	LEBANON	TN (US)
IAP	NDB RWY 18			KMBT	MURFREESBORO	TN (US)
IAP	ILS OR LOC RWY 20R			KBNA	NASHVILLE	TN (US)

QUALITY
4
CHECKED

IAP	ILS OR LOC RWY 2C		KBNA	NASHVILLE	TN (US)
IAP	ILS OR LOC RWY 2L		KBNA	NASHVILLE	TN (US)
IAP	ILS OR LOC RWY 31		KBNA	NASHVILLE	TN (US)
IAP	ILS OR LOC/DME RWY 20L		KBNA	NASHVILLE	TN (US)
IAP	ILS OR LOC/DME RWY 2R		KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2L (CAT II & III)		KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2L (SA CAT I)		KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2R (CAT II & III)		KBNA	NASHVILLE	TN (US)
IAP	ILS RWY 2R (SA CAT I)		KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) RWY 13		KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) Y RWY 20L		KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) Y RWY 20R		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	VOR/DME RWY 13		KBNA	NASHVILLE	TN (US)
IAP	ILS OR LOC/DME RWY 20		KJWN	NASHVILLE	TN (US)
IAP	RNAV (GPS) RWY 20		KJWN	NASHVILLE	TN (US)
IAP	ILS OR LOC/DME RWY 32		KMQY	SMYRNA	TN (US)
IAP	VOR/DME RWY 14	1	KMQY	SMYRNA	TN (US)
IAP	VOR/DME RWY 32		KMQY	SMYRNA	TN (US)
IAP	LOC RWY 4 (ALT MISS)	1	KM91	SPRINGFIELD	TN (US)
SPECIAL DP	ZELAN (RNP-1)		KATL	ATLANTA	GA (US)
STAR	ROME		KATL	ATLANTA	GA (US)
STAR	BOOSH (RNAV)		KSTL	ST LOUIS	MO (US)
STAR	QBALL		KSTL	ST LOUIS	MO (US)
STAR	BLUZZ (RNAV)	4	KMEM	MEMPHIS	TN (US)
STAR	WLDER	3	KMEM	MEMPHIS	TN (US)
STAR	GUITR		KMBT	MURFREESBORO	TN (US)
STAR	HEHAW		KMBT	MURFREESBORO	TN (US)
STAR	VOLLS		KMBT	MURFREESBORO	TN (US)
STAR	GUITR		KBNA	NASHVILLE	TN (US)
STAR	HEHAW		KBNA	NASHVILLE	TN (US)
STAR	VOLLS		KBNA	NASHVILLE	TN (US)
STAR	GUITR		KJWN	NASHVILLE	TN (US)
STAR	HEHAW		KJWN	NASHVILLE	TN (US)
STAR	VOLLS		KJWN	NASHVILLE	TN (US)
STAR	GUITR		KMQY	SMYRNA	TN (US)
STAR	HEHAW		KMQY	SMYRNA	TN (US)
STAR	VOLLS		KMQY	SMYRNA	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 27

DATE OF REVISION: 02/01/2018

REASON FOR REVISION:

CHANGED HOLDING PATTERN 4 COURSE INBOUND FROM 258.00 TO 260.00.

DEVELOPED BY: **DATE:** 06/01/2017 **OFFICE:** AJV-5431 **NAME:** LIAM DONAHUE

APPROVED BY: **DATE:** **OFFICE:** AJV-5430 **NAME:** PATRICK MULQUEEN

SIGNATURE: *Digitally signed by*

ADOLFO D URRUTIA

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

Oct 24, 2017

QUALITY
14
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: SPKER STATE: TN COUNTRY: US ICAO REGION CODE: K7
 LATITUDE/LONGITUDE: 354350.25N/0890412.82W TYPE: WP, DME

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	MRA FEET	MAA
1	MEMPHIS	MEM	VORTAC	H	045.00	046.00	62.00	62.00	5000	45000
2	NASHVILLE	BNA	VORTAC	H	260.87	258.87	118.75	118.75	10000	45000
3	BOWLING GREEN	BWG	VORTAC	H	239.37	241.37	146.18	146.18	22000	45000
4	POCKET CITY	PXV	VORTAC	H	202.96	205.96	145.98	145.98	22000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
MEM	VORTAC	R-045	62	5000	14900
BNA	VORTAC	R-261	119	10000	20000
BWG	VORTAC	R-239	147	22000	45000
PXV	VORTAC	R-203	146	22000	45000

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	NE		WP	047.58	227.58	L	15	10000 24000	28 28

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (47-000702)	355405.00N/0884651.00W	1462	3C

REASON FOR NONSTANDARD HOLDING:

PAT 1 LEFT TURNS AND 15 NM LEG LENGTHS REQUESTED BY ATC.

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

MEMPHIS (FAC 1) USED TO ESTABLISH FIX COORDINATES
 CHART FAC 1 AND PAT 1 ON ENROUTE LOW/HIGH PER ATC REQUEST.
 PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DANLS (RNAV)			KBNA	NASHVILLE	TN (US)
STAR	BLUZZ (RNAV)		1	KMEM	MEMPHIS	TN (US)
STAR	WLDER	1, 2, 3, 4		KMEM	MEMPHIS	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8

DATE OF REVISION: 02/01/2018

REASON FOR REVISION:

CHANGED HOLDING PATTERN 1 COURSE INBOUND FORM 225.58 TO 227.58.

DEVELOPED BY: DATE: 06/01/2017 OFFICE: AJV-5431 NAME: LIAM DONAHUE

APPROVED BY: DATE: OFFICE: AJV-5430 NAME: PATRICK MULQUEEN

SIGNATURE: *Digitally signed by*
ADOLFO D URRUTIA

DISTRIBUTION: NFDC
 FPO: EST
 ARTCC: ZME
 ATC FACILITY: MEM APP CON, BNA APP CON
 OTHER:
 Oct 24, 2017

QUALITY
14
CHECKED