

# RADIO FIX AND HOLDING DATA RECORD

NAME: DEAKN

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 355825.28N/0801152.55W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:**

USE TYPE

STAR

STAR

USE TITLE

TRAKS (RNAV)

TRAKS (RNAV)

FAC

PAT

AIRPORT IDENT

KGSO

KINT

CITY

GREENSBORO

WINSTON SALEM

STATE

NC (US)

NC (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 01/05/2017

DEVELOPED BY:

DATE: 09/03/2016

OFFICE: AJV-5422

NAME: DAVID DOWLING

APPROVED BY:

DATE: 11/08/2016

OFFICE: AJV-5410

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: EST

ARTCC: ZDC

ATC FACILITY: GSO APP CON, CLT APP CON

OTHER: ZTL

**INFORMATION ONLY**

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: DEMNZ

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 360529.82N/0802036.06W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:**

USE TYPE

STAR  
STAR

USE TITLE

TRAKS (RNAV)  
TRAKS (RNAV)

FAC

PAT

AIRPORT IDENT

KGSO  
KINT

CITY

GREENSBORO  
WINSTON SALEM

STATE

NC (US)  
NC (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 01/05/2017

DEVELOPED BY:

DATE: 09/19/2016

OFFICE: AJV-5422

NAME: DAVID DOWLING

APPROVED BY:

DATE: 11/08/2016

OFFICE: AJV-5410

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: EST

ARTCC: ZDC

ATC FACILITY: CLT APP CON, GSO APP CON

OTHER: ZTL ARTCC

**INFORMATION ONLY**

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: GLFRD

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 361150.35N/0800320.01W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:**

**USE TYPE**

STAR

STAR

**USE TITLE**

TRAKS (RNAV)

TRAKS (RNAV)

**FAC**

**PAT**

**AIRPORT IDENT**

KGSO

KINT

**CITY**

GREENSBORO

WINSTON SALEM

**STATE**

NC (US)

NC (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 01/05/2017

DEVELOPED BY:

DATE: 09/19/2016

OFFICE: AJV-5422

NAME: DAVID DOWLING

APPROVED BY:

DATE: 11/08/2016

OFFICE: AJV-5410

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: EST

ARTCC: ZDC

ATC FACILITY: CLT APP CON, GSO APP CON

OTHER: ZTL ARTCC

**INFORMATION ONLY**

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: KHAOS

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 354358.55N/0812214.49W

TYPE: WP, 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	FAC FEET	MRA	MAA
1	SPARTANBURG	SPA	VORTAC	H	034.93	032.93	50.00	50.00		6000	45000

## EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
SPA	VORTAC	R-035	50	6000	45000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BROOK	1		KGSO	GREENSBORO	NC (US)
STAR	TRAKS (RNAV)			KGSO	GREENSBORO	NC (US)
STAR	TRAKS (RNAV)			KINT	WINSTON SALEM	NC (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 01/05/2017

## REASON FOR REVISION:

ADDED WP TO FIX TYPE.  
ADDED FAC 1 NM DISTANCE.  
ADDED FAC 1 ESV INFORMATION.  
ADDED TRAKS STAR IN FIX USE AT KGSO AND KINT.  
UPDATED FIX USE FORMAT FOR BROOK STAR.

DEVELOPED BY:

DATE: 09/20/2016

OFFICE: AJV-5422

NAME: DAVID DOWLING

APPROVED BY:

DATE: 11/08/2016

OFFICE: AJV-5410

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: ATL  
ARTCC: ZTL, ZDC  
ATC FACILITY: GSO ATCT  
OTHER: ZDC ARTCC

**INFORMATION ONLY**

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: KVILL

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 360546.78N/0801114.62W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:**

USE TYPE

STAR

STAR

USE TITLE

TRAKS (RNAV)

TRAKS (RNAV)

FAC

PAT

AIRPORT IDENT

KGSO

KINT

CITY

GREENSBORO

WINSTON SALEM

STATE

NC (US)

NC (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 01/05/2017

DEVELOPED BY:

DATE: 09/20/2016

OFFICE: AJV-5422

NAME: DAVID DOWLING

APPROVED BY:

DATE: 11/08/2016

OFFICE: AJV-5410

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: EST

ARTCC: ZTL

ATC FACILITY: CLT APP CON, GSO APP CON

OTHER: ZDC ARTCC

**INFORMATION ONLY**

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: MURKY

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 351849.18N/0814220.30W

TYPE: WP, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

## FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	SPARTANBURG	SPA	VORTAC	H	034.92	032.92	20.00	20.00		11000	29000

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BROOK	1		KGSO	GREENSBORO	NC (US)
STAR	TRAKS (RNAV)			KGSO	GREENSBORO	NC (US)
STAR	TRAKS (RNAV)			KINT	WINSTON SALEM	NC (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 01/05/2017

## REASON FOR REVISION:

ADDED WP TO FIX TYPE.  
ADDED FAC 1 NM DISTANCE.  
CHANGED MAG BEARING FROM 034.93 TO 034.92.  
REFORMATTED BROOK STAR IN FIX USE.  
ADDED TRAKS STAR AT KGSO AND KINT IN FIX USE.

**INFORMATION ONLY**

DEVELOPED BY:

DATE: 09/20/2016

OFFICE: AJV-5422

NAME: DAVID DOWLING

APPROVED BY:

DATE: 11/08/2016

OFFICE: AJV-5410

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC  
FPO: EST  
ARTCC: ZTL  
ATC FACILITY: GSO APP CON  
OTHER: ZDC ARTCC

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: PDMNT

STATE: NC

COUNTRY: US

ICAO REGION CODE: K7

LATITUDE/LONGITUDE: 355625.41N/0801409.53W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: ESTABLISH

**FIX USE:**

USE TYPE

STAR

STAR

USE TITLE

TRAKS (RNAV)

TRAKS (RNAV)

FAC

PAT

AIRPORT IDENT

KGSO

KINT

CITY

GREENSBORO

WINSTON-SALEM

STATE

NC (US)

NC (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG

DATE OF REVISION: 01/05/2017

DEVELOPED BY:

DATE: 09/20/2016

OFFICE: AJV-5422

NAME: DAVID DOWLING

APPROVED BY:

DATE: 11/08/2016

OFFICE: AJV-5410

NAME: GEORGE DAVIS

SIGNATURE:

DISTRIBUTION:

NFDC

FPO: EST

ARTCC: ZTL

ATC FACILITY: GSO APP CON, CLT APP CON

OTHER: ZDC ARTCC

**INFORMATION ONLY**

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: SPARTANBURG VORTAC STATE: SC COUNTRY: US ICAO REGION CODE: K7  
 LATITUDE/LONGITUDE: 350201.05N/0815537.24W 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	MRA	MAA
1	SPARTANBURG	SPA	VORTAC	H						45000

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

## 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	S	SPA	VORTAC	194.00	014.00	R	1-1 1/2	2700 17500	4 16

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (45-000043)	345853.00N/0815913.00W	1336	4D

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

PRECIPITOUS TERRAIN EVAL COMPLETE.  
 MAGVAR 2W/1965.

# INFORMATION ONLY

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	PLMMR (RNAV)			KATL	ATLANTA	GA (US)
DP	ASHEVILLE			KAVL	ASHEVILLE	NC (US)
DP	CHARLOTTE			KCLT	CHARLOTTE	NC (US)
DP	TRIAD			KGSO	GREENSBORO	NC (US)
DP	HICKORY			KHKY	HICKORY	NC (US)
DP	TRIAD			KINT	WINSTON-SALEM	NC (US)
DP	KNOXVILLE			KTYS	KNOXVILLE	TN (US)
EN ROUTE	J118					(US)
EN ROUTE	J14					(US)
EN ROUTE	J37					(US)
EN ROUTE	J47					(US)
EN ROUTE	J53					(US)
EN ROUTE	J83					(US)
EN ROUTE	J85					(US)
EN ROUTE	Q22					(US)
EN ROUTE	Q60					(US)
EN ROUTE	V266					(US)
EN ROUTE	V415					(US)
EN ROUTE	V53					(US)
EN ROUTE	V54					(US)
EN ROUTE	V605					(US)
IAP	ILS OR LOC RWY 35			KAVL	ASHEVILLE	NC (US)
IAP	LOC RWY 1			KFQD	RUTHERFORDTON	NC (US)
IAP	RNAV (GPS) RWY 1			KFQD	RUTHERFORDTON	NC (US)
IAP	NDB RWY 23			KEHO	SHELBY	NC (US)
IAP	RNAV (GPS) RWY 5			KEHO	SHELBY	NC (US)
IAP	NDB RWY 35			KDCM	CHESTER	SC (US)
IAP	ILS Z OR LOC Z RWY 1			KGMU	GREENVILLE	SC (US)
IAP	ILS OR LOC RWY 5			KGYH	GREENVILLE	SC (US)
IAP	RNAV (GPS) RWY 23			KGYH	GREENVILLE	SC (US)
IAP	ILS OR LOC RWY 22		1	KGSP	GREER	SC (US)
IAP	ILS OR LOC/DME RWY 4		1	KGSP	GREER	SC (US)
IAP	ILS RWY 4 (CAT II-III)		1	KGSP	GREER	SC (US)
IAP	ILS RWY 4 (SA CAT I)		1	KGSP	GREER	SC (US)
IAP	ILS OR LOC RWY 5		1	KSPA	SPARTANBURG	SC (US)
STAR	DIRTY (RNAV)			KATL	ATLANTA	GA (US)
STAR	WHINZ			KATL	ATLANTA	GA (US)
STAR	UNARM			KVUJ	ALBEMARLE	NC (US)
STAR	UNARM			KCLT	CHARLOTTE	NC (US)
STAR	UNARM			KJQF	CONCORD	NC (US)
STAR	UNARM			KAKH	GASTONIA	NC (US)
STAR	BROOK			KGSO	GREENSBORO	NC (US)
STAR	TRAKS (RNAV)			KGSO	GREENSBORO	NC (US)
STAR	UNARM			KIPJ	LINCOLNTON	NC (US)
STAR	UNARM			KEQY	MONROE	NC (US)
STAR	UNARM			KRUQ	SALISBURY	NC (US)
STAR	UNARM			KEHO	SHELBY	NC (US)
STAR	UNARM			KAFP	WADESBORO	NC (US)
STAR	UNARM			KN52	WAXHAW	NC (US)
STAR	BROOK			KINT	WINSTON SALEM	NC (US)
STAR	TRAKS (RNAV)			KINT	WINSTON SALEM	NC (US)

QUALITY  
14  
CHECKED



STAR	UNARM		KDCM	CHESTER	SC (US)
STAR	JUNNR (RNAV)	1	KGMU	GREENVILLE	SC (US)
STAR	JUNNR (RNAV)	1	KGYH	GREENVILLE	SC (US)
STAR	JUNNR (RNAV)	1	KGSP	GREER	SC (US)
STAR	UNARM		KLKR	LANCASTER	SC (US)
STAR	UNARM		KUZA	ROCK HILL	SC (US)
STAR	JUNNR (RNAV)	1	KSPA	SPARTANBURG	SC (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 19

**DATE OF REVISION:** 08/17/2017

**REASON FOR REVISION:**

UPDATED FIX USE: DELETED DP WINSTON, AIRPORT KINT WINSTON-SALEM NC(US); DELETED DP BOBCAT FROM AIRPORTS KRUQ, KCLT, KJQF, KAKH, KEQY, KUZA, KLKR, KIPJ, AND KVUJ.

**DEVELOPED BY:**            **DATE:** 12/12/2016            **OFFICE:** AJV-5422            **NAME:** JOHN THORNTON

**APPROVED BY:**            **DATE:**            **OFFICE:** AJV-5420            **NAME:** JULIE MORGAN

**SIGNATURE:**

**DISTRIBUTION:**    **NFDC**  
                         **FPO: EST**  
                         **ARTCC: ZTL**  
                         **ATC FACILITY: GSP APP CON**  
                         **OTHER: AVL APP CON**

QUALITY  
14  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

NAME: TRAKS STATE: NC COUNTRY: US ICAO REGION CODE: K7  
 LATITUDE/LONGITUDE: 360805.89N/0804115.52W TYPE: WP, 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	MRA	MAA
1	GREENSBORO	GSO	VORTAC	H	282.00	279.00	35.00	35.00	5000	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	W	GSO	VORTAC	282.00	102.00	L	1-1 1/2	5000 17500	9 18

## CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (37-001936)	360750.00N/0805731.00W	2253	2C

## REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQUEST

## HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

## REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

## FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	BROOKS	1		KGSO	GREENSBORO	NC (US)
STAR	TRAKS (RNAV)			KGSO	GREENSBORO	NC (US)
STAR	TRAKS (RNAV)			KINT	WINSTON-SALEM	NC (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 01/05/2017

## REASON FOR REVISION:

ADDED WP TO FIX TYPE.  
 ADDED FAC 1 NM DISTANCE.  
 REMOVED PAT 1 DME DISTANCE FROM HOLDING LEG.  
 NEW PAT 1 ONTROLLING OBSTACLE.  
 REFORMATTED BROOK STAR IN FIX USE.  
 MOVED HOLDING RESTRICTION FROM REMARKS TO RESTRICTIONS AREA.  
 ADDED PRECIPITOUS TERRAIN REMARK.  
 ADDED TRAKS STAR AT KGSO AND KINT IN FIX USE.

**INFORMATION ONLY**

DEVELOPED BY: DATE: 09/20/2016 OFFICE: AJV-5420 NAME: DAVID DOWLING

APPROVED BY: DATE: 11/08/2016 OFFICE: AJV-5410 NAME: GEORGE DAVIS

SIGNATURE:

## DISTRIBUTION:

NFDC  
 FPO: ATL  
 ARTCC: ZTL, ZDC  
 ATC FACILITY: GSO ATCT, GSO APP CON  
 OTHER: ZDC ARTCC

QUALITY  
 14  
 CHECKED