

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** BLEWE **STATE:** TX **COUNTRY:** US **ICAO REGION CODE:** K4

**LATITUDE/LONGITUDE:** 311227.65N/0971232.47W **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	FEET	MRA	MAA
1	CENTEX	CWK	VORTAC	VH	012.39	018.39	52.33	52.33		6000	45000
2	GOOCH SPRINGS	AGJ	VORTAC	H	083.17	088.17		48.02		6000	45000
3	WACO	ACT	VORTAC	VH	164.53	173.53	27.39	27.39		6000	45000

**EXPANDED SERVICE VOLUME (ESV):**

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
CWK	VORTAC	R-012	53	8000	15100
AGJ	VORTAC	R-083	49	8000	15700

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

**REMARKS:**

CENTEX (FAC 1) AND GOOCH SPRINGS (FAC 2) AND WACO (FAC 3) USED TO ESTABLISH FIX COORDINATES.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE (US)
EN ROUTE	PITCH/CATCH POINT					
STAR	BLEWE	1, 2, 3		KAUS	AUSTIN	TX (US)
STAR	BLEWE	1, 2, 3		KEDC	AUSTIN	TX (US)
STAR	QERVO (RNAV)			KCVB	CASTROVILLE	TX (US)
STAR	BLEWE	1, 2, 3		KRYW	LAGO VISTA	TX (US)
STAR	BLEWE	1, 2, 3		3R9	LAKEWAY	TX (US)
STAR	QERVO (RNAV)			KBAZ	NEW BRAUNFELS	TX (US)
STAR	QERVO (RNAV)			KPEZ	PLEASANTON	TX (US)
STAR	QERVO (RNAV)			5C1	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3		KSAT	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSAT	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3		KSKF	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSKF	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3		KSSF	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSSF	SAN ANTONIO	TX (US)
STAR	BLEWE	1, 2, 3		KHYI	SAN MARCOS	TX (US)
STAR	BLEWE	1, 2, 3		T74	TAYLOR	TX (US)
STAR	MARCS	1, 2, 3		KRND	UNIVERSAL CITY	TX (US)
STAR	QERVO (RNAV)			KRND	UNIVERSAL CITY	TX (US)

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

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** 8 **DATE OF REVISION:** 02/20/2025

**REASON FOR REVISION:**

CHANGED ALL 3 FACILITIES MRA FROM 8000 TO 6000 IN FIX MAKE-UP FACILITIES.  
ADDED CONTROLLER HIGH TO REQUIRED CHARTING.

**INITIATED BY:** **DATE:** **ORGANIZATION:** **NAME:**  
**OFFICE OF PRIMARY RESPONSIBILITY:** AJV-A432 **NAME:** SILVIA YOUNG  
**APPROVED BY:** **DATE:** 01/16/2025 **OFFICE:** AJV-A432 **NAME:** CASIMIR TABAKA

**SIGNATURE:** *Digitally signed by*  
**CASIMIR L TABAKA**  
Dec 19, 2024



# RADIO FIX AND HOLDING DATA RECORD

**NAME:** MARCS **STATE:** TX **COUNTRY:** US **ICAO REGION CODE:** K4

**LATITUDE/LONGITUDE:** 295352.04N/0975140.70W **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	FEET	MRA	MAA
1	SAN ANTONIO	SAT	VORTAC	H	055.99	063.99	34.82	34.82		3100	45000
2	CENTEX	CWK	VORTAC	H	205.02	211.02		33.55		2900	45000
3	STONEWALL	STV	VORTAC	H	104.60	112.60	47.70	47.70		5000	45000
4	HUMBLE	IAH	VORTAC	H	264.08	269.08	131.20	131.20		19000	45000
5	JUNCTION	JCT	VORTAC	H	103.91	111.91		109.96		18000	45000

**EXPANDED SERVICE VOLUME (ESV):**

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
STV	VORTAC	R-105	48	5000	16100
IAH	VORTAC	R-264	132	19000	45000

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

**PATTERNS:**

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN MAX	TEMPLATES MIN MAX
1	NE	SAT	VORTAC	055.99	235.99	R	1		6000 24000	7 21

**CONTROLLING OBSTRUCTIONS:**

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	295654.00N/0975645.00W	1096	4B

**HOLDING RESTRICTIONS:**

HOLDING LIMITED TO ESTABLISHED PATTERN.

**REMARKS:**

SAN ANTONIO (FAC 1) AND CENTEX (FAC 2) AND STONEWALL (FAC 3) USED TO ESTABLISH FIX COORDINATES. PRECIPITOUS TERRAIN EVALUATION COMPLETED.

**FIX USE:**

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BORRN (RNAV)			T00	ANAHUAC	TX (US)
DP	BORRN (RNAV)			KLBX	ANGLETON/LAKE JACKSON	TX (US)
DP	BORRN (RNAV)			54T	BAYTOWN	TX (US)
DP	BORRN (RNAV)			KHPY	BAYTOWN	TX (US)
DP	BORRN (RNAV)			6R3	CLEVELAND	TX (US)
DP	BORRN (RNAV)			KGLS	GALVESTON	TX (US)
DP	BORRN (RNAV)			KAXH	HOUSTON	TX (US)
DP	BORRN (RNAV)			KCXO	HOUSTON	TX (US)
DP	BORRN (RNAV)			KDWH	HOUSTON	TX (US)
DP	BORRN (RNAV)			KEFD	HOUSTON	TX (US)
DP	RETYR (RNAV)			KHOU	HOUSTON	TX (US)
DP	BNDTO (RNAV)			KIAH	HOUSTON	TX (US)
DP	PITZZ (RNAV)			KIAH	HOUSTON	TX (US)
DP	BORRN (RNAV)			KIWS	HOUSTON	TX (US)
DP	BORRN (RNAV)			KLVJ	HOUSTON	TX (US)
DP	BORRN (RNAV)			KSGR	HOUSTON	TX (US)
DP	BORRN (RNAV)			KTME	HOUSTON	TX (US)
DP	BORRN (RNAV)			T41	LA PORTE	TX (US)
DP	BORRN (RNAV)			T78	LIBERTY	TX (US)
EN ROUTE	J15	2, 4, 5				(US)
EN ROUTE	J27	1, 3				(US)
EN ROUTE	T220					(US)
EN ROUTE	T466					(US)
IAP	RNAV (GPS) RWY 35			KBAZ	NEW BRAUNFELS	TX (US)
STAR	QERVO (RNAV)			KCVB	CASTROVILLE	TX (US)
STAR	QERVO (RNAV)			KBAZ	NEW BRAUNFELS	TX (US)
STAR	QERVO (RNAV)			KPEZ	PLEASANTON	TX (US)
STAR	QERVO (RNAV)			5C1	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3	1	KSAT	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSAT	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3	1	KSKF	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSKF	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3	1	KSSF	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSSF	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3	1	KRND	UNIVERSAL CITY	TX (US)
STAR	QERVO (RNAV)			KRND	UNIVERSAL CITY	TX (US)

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

**COMPULSORY REPORTING POINT:** NO



RECORD REVISION NUMBER: 21

DATE OF REVISION: 04/17/2025

**REASON FOR REVISION:**

- 1. DELETED FAC 4 (CLL) VORTAC FROM FIX MAKE UP.
- 2. DELETED CLL VORTAC ESV.
- 3. FIX USE REMOVED FAC 4 FROM MARCS STAR AT KSAT, KSKF, KSSF, KRND.
- 4. FIX MAKE-UP: RAISED STV VORTAC MRA FROM 4500 TO 5000.
- 5. ESV: UPDATED STV MIN ALTITUDE FROM 4500 TO 5000.
- 6. DELETED AIRSPACE DOCKET.

**INITIATED BY:**

**DATE:**

**ORGANIZATION:**

**NAME:**

**OFFICE OF PRIMARY RESPONSIBILITY:**

AJV-A432

**NAME:** JOSEPH ZEDER

**APPROVED BY:**

**DATE:** 03/13/2025

**OFFICE:** AJV-A432

**NAME:** CASIMIR TABAKA

**SIGNATURE:**

*Digitally signed by*  
**CASIMIR L TABAKA**  
 Dec 19, 2024

