

RADIO FIX AND HOLDING DATA RECORD

NAME: CRAYS

STATE: TX

COUNTRY: US

ICAO REGION CODE: K4

LATITUDE/LONGITUDE: 295506.43N/0972559.46W

TYPE: WP

AIRSPACE DOCKET: 24-ASW-4

FIX TYPE OF ACTION: MODIFY

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		WP	238.00	058.00	R	4	3000 6000	5 6
2	E		WP	083.38	263.38	R	20	6000 45000	25 30

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (48-008828)	295701.00N/0972214.00W	1520	5D
2	230	TOWER (48-008828)	295701.00N/0972214.00W	1520	5D

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:

HOLDING PAT 2: DME OUTBOUND EVALUATED TO 20 DME LEG LENGTH PER ATC.

HOLDING PAT 2, ATC REQUEST.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	T220					(US)
IAP	RNAV (GPS) RWY 35			KGYB	GIDDINGS	TX (US)
IAP	RNAV (GPS) RWY 36		1	50R	LOCKHART	TX (US)

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 13

DATE OF REVISION: 02/20/2025

REASON FOR REVISION:

TYPE: REMOVED DME AND INT.

AIRSPACE DOCKET: ADDED 24-ASW-4.

FIX MAKE-UP FACILITIES: REMOVED FAC 1 (IDU) - IDU VOR MON. REMOVED FAC 2 (CWK) - FIX HAS NO GROUND BASED NAVAID USAGE.

ESV: REMOVED IDU VORTAC ESV DATA.

HOLDING: REMOVED PAT 1 - CANCELED WITH MARCS STAR.

REMARKS: REMOVED FIX COORDINATES REMARK. REMOVED HOLDING PAT 1, 3 SHARE SAME GROUND TRACK. REPLACED HOLDING PAT 1, ATC REQUEST WITH HOLDING PAT 2, ATC REQUEST.

FIX USE: ADDED T220. REMOVED MARCS STAR AT ALL AFFECTED AIRPORTS. REMOVED V222 AND V68.

REQUIRED CHARTING: REMOVED STAR.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: BARRY SMITH

APPROVED BY:

DATE: 02/20/2025

OFFICE: AJV-A423

NAME: ALLAN WILL

SIGNATURE:

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: 24-ASW-4

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	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	4500	45000
4	COLLEGE STATION	CLL	VORTAC	L	232.87	240.87	86.00	86.00	6000	13000
5	HUMBLE	IAH	VORTAC	H	264.08	269.08	131.20	131.20	19000	45000
6	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	4500	16100
CLL	VORTAC	R-233	86	6000	13000
IAH	VORTAC	R-264	132	19000	45000

HOLDING:

HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	HOLDING ALTITUDES DME	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, 5, 6				(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, 4	1	KSAT	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSAT	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3, 4	1	KSKF	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSKF	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3, 4	1	KSSF	SAN ANTONIO	TX (US)
STAR	QERVO (RNAV)			KSSF	SAN ANTONIO	TX (US)
STAR	MARCS	1, 2, 3, 4	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: 20

DATE OF REVISION: 02/20/2025

REASON FOR REVISION:

AIRSPACE DOCKET: ADDED 24-ASW-4.

FIX MAKE-UP FACILITIES: REMOVED FAC 4 (IDU) - IDU VOR MON. ADDED FAC 4 (CLL) AND ASSOCIATED DATA.

ESV: REMOVED IDU VORTAC ESV DATA. ADDED CLL VORTAC ESV DATA - ESV IS PENDING.

HOLDING: CHANGED PAT 1 MAX ALTITUDE/TEMPLATE FROM 14000/12 TO 24000/21. UPDATED PAT 1 CONTROLLING OBSTRUCTION DATA. REMOVED PAT 2.

REMARKS: REMOVED INDUSTRY (FAC 4) FROM FIX COORDINATES REMARK. REMOVED HOLDING PAT 1 OBSTACLE LOCATED 1.58 NM FROM INNER EDGE OF THE SECONDARY.

FIX USE: ADDED T220. REMOVED V68 AND V222. REMOVED INDUSTRY DP FROM ALL AFFECTED AIRPORTS. ADDED PAT 1 TO MARCS STAR AT ALL AFFECTED AIRPORTS.

INITIATED BY: **DATE:** **ORGANIZATION:** **NAME:**

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A423 **NAME:** BARRY SMITH

APPROVED BY: **DATE:** 02/20/2025 **OFFICE:** AJV-A423 **NAME:** ALLAN WILL

SIGNATURE: