

RADIO FIX AND HOLDING DATA RECORD

NAME: BRAUN STATE: TX COUNTRY: US ICAO REGION CODE: K4

LATITUDE/LONGITUDE: 294846.18N/0980347.63W TYPE: WP, INT, 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 | MAA |
|-----|-------------|-------|--------|-------|---------|----------|-------|------------------|------|-------|
| 1 | SAN ANTONIO | SAT | VORTAC | H | 055.99 | 063.99 | 23.12 | 23.12 | 3100 | 17500 |
| 2 | STONEWALL | STV | VORTAC | H | 117.00 | 125.00 | 40.94 | 40.94 | 5500 | 17500 |

EXPANDED SERVICE VOLUME (ESV):

| FAC IDENT | FAC TYPE | RADIAL/BEARING | DISTANCE | MIN ALTITUDE | MAX ALTITUDE |
|-----------|----------|----------------|----------|--------------|--------------|
| STV | VORTAC | R-117 | 41 | 5500 | 17500 |

FIX RESTRICTIONS:

MRA V68 5500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

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 | S | | WP | 159.89 | 339.89 | R | | 4 | 3100 | 12000 | 5 | 10 |

CONTROLLING OBSTRUCTIONS:

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|-----|----------|-------------------|------------------------|-----------|---------------|
| 1 | 200 | TOWER (48-001049) | 294936.40N/0980700.00W | 1728 | 2C |
| 1 | 310 | TOWER (48-001049) | 294936.40N/0980700.00W | 1728 | 2C |

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

| PAT | PROCEDURE TITLE | AIRPORT IDENT | CITY | STATE |
|-----|-------------------|---------------|---------------|---------|
| 1 | RNAV (GPS) RWY 35 | KBAZ | NEW BRAUNFELS | TX (US) |

REMARKS:

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

FIX USE:

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE (US) |
|----------|-------------------|------|-----|---------------|----------------|------------|
| EN ROUTE | V68 | 1, 2 | | | | |
| IAP | RNAV (GPS) RWY 35 | | 1 | KBAZ | NEW BRAUNFELS | TX (US) |
| IAP | RNAV (GPS) RWY 32 | | | KSSF | SAN ANTONIO | TX (US) |
| STAR | MARCS | 1, 2 | | KSAT | SAN ANTONIO | TX (US) |
| STAR | MARCS | 1, 2 | | KSKF | SAN ANTONIO | TX (US) |
| STAR | MARCS | 1, 2 | | KSSF | SAN ANTONIO | TX (US) |
| STAR | MARCS | 1, 2 | | KRND | UNIVERSAL CITY | TX (US) |

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 12

DATE OF REVISION: 01/25/2024

REASON FOR REVISION:

1. DELETED BRAUN (RNAV) STAR FROM KSAT, KRND, KSSF, AND KSKF FROM FIX USE.
2. CHANGED CONTROLLER TO CONTROLLER LOW IN REQUIRED CHARTING.
3. DELETED KSAT RNAV (RNP) Z RWY 22, RNAV (RNP) Z RWY 31L, AND RNAV (RNP) Z RWY 4 FROM FIX USE.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: WILLIAM MELTON

APPROVED BY:

DATE: 08/10/2023

OFFICE: AJV-A420

NAME: MARLON ROBINSON

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

| | | | | | | | |
|---|-------------------|--|------------|----------------------|-------------|-----------------------------|--|
| NAME: FELMA | | STATE: TX | | COUNTRY: US | | ICAO REGION CODE: K4 | |
| LATITUDE/LONGITUDE: 291445.10N/0982543.75W | | | | TYPE: WP | | | |
| AIRSPACE DOCKET: | | FIX TYPE OF ACTION: MODIFY | | | | | |
| HOLDING: | | HOLDING TYPE OF ACTION: NO CHANGE | | | | | |
| FIX USE: | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE | |
| USE TYPE IAP | RNAV (GPS) RWY 32 | | | KSSF | SAN ANTONIO | TX (US) | |

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 01/31/2019

REASON FOR REVISION:
DELETED KSSF R32 FROM FIX MAKE-UP FACILITIES.
DELETED REMARK KSSF R32 DISPLACED THRESHOLD COORDINATES: 291959.03N-0982755.16W.
UPDATED FIX USE.

| | | | |
|--|---|-------------------------|-------------------------------|
| INITIATED BY: | DATE: | ORGANIZATION: | NAME: |
| OFFICE OF PRIMARY RESPONSIBILITY: | | AJV-5431 | NAME: FRANK JACKSON |
| APPROVED BY: | DATE: | OFFICE: AJV-5430 | NAME: PATRICK MULQUEEN |
| SIGNATURE: | | | |
| DISTRIBUTION: | NFDC FPO: CEN ARTCC: ZHU ATC FACILITY: SAT APP CON OTHER: | | |

RADIO FIX AND HOLDING DATA RECORD

NAME: GANLE

STATE: TX

COUNTRY: US

ICAO REGION CODE: K4

LATITUDE/LONGITUDE: 290900.55N/0982319.80W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

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 MIN | ALTITUDES MAX | TEMPLATES MIN | MAX |
|-----|-----|-------|------|-------------|----------------|------------------|------------------------|----------------|------------------|------------------|-----|
| 1 | SE | | WP | 156.88 | 336.88 | R | 4 | 2500 | 6000 | 5 | 6 |

CONTROLLING OBSTRUCTIONS:

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|-----|----------|-------------------|------------------------|-----------|---------------|
| 1 | 200 | TOWER (48-009224) | 290936.87N/0982506.05W | 1049 | 4D |

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 | RNAV (GPS) RWY 28 | | 1 | KSSF | SAN ANTONIO | TX (US) |
| IAP | RNAV (GPS) RWY 32 | | 1 | KSSF | SAN ANTONIO | TX (US) |

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 06/12/2025

REASON FOR REVISION:

1. HOLDING PATTERN 1: CHANGED RAD/CRS/BRG FROM 151.88 TO 156.88 AND CRS INBOUND FROM 331.88 TO 336.88.
2. FIX USE: ADDED IAP RNAV (GPS) RWY 28 AT KSSF.

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: RAYMOND JOHNSON

APPROVED BY:

DATE: 05/08/2025

OFFICE: AJV-A423

NAME: ALLAN WILL

SIGNATURE:

NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: SAT APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

| | | | | | | | |
|---|-------------------|--|------------|----------------------|-------------|-----------------------------|--|
| NAME: JABLO | | STATE: TX | | COUNTRY: US | | ICAO REGION CODE: K4 | |
| LATITUDE/LONGITUDE: 291043.90N/0981758.00W | | | | TYPE: WP | | | |
| AIRSPACE DOCKET: | | FIX TYPE OF ACTION: MODIFY | | | | | |
| HOLDING: | | HOLDING TYPE OF ACTION: NO CHANGE | | | | | |
| FIX USE: | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE | |
| USE TYPE IAP | RNAV (GPS) RWY 32 | | | KSSF | SAN ANTONIO | TX (US) | |

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 01/31/2019

REASON FOR REVISION:
1. DELETED GANLE FROM FIX MAKE-UP FACILITIES.
2. UPDATED FIX USE.

| | | | |
|--|--|-------------------------|-------------------------------|
| INITIATED BY: | DATE: | ORGANIZATION: | NAME: |
| OFFICE OF PRIMARY RESPONSIBILITY: | | AJV-5431 | NAME: FRANK JACKSON |
| APPROVED BY: | DATE: | OFFICE: AJV-5430 | NAME: PATRICK MULQUEEN |
| SIGNATURE: | | | |
| DISTRIBUTION: | NFDC FPO: CEN ARTCC: ZHU ATC FACILITY: SAT APP CON OTHER: | | |

RADIO FIX AND HOLDING DATA RECORD

NAME: KICED
STATE: TX
COUNTRY: US
ICAO REGION CODE: K4

LATITUDE/LONGITUDE: 293838.17N/0990009.55W
TYPE: WP

AIRSPACE DOCKET: 24-ASW-13
FIX TYPE OF ACTION: MODIFY

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 MIN | ALTITUDES MAX | TEMPLATES MIN | MAX |
|-----|-----|-------|------|-------------|-------------|---------------|-----------------|-----|-------------|---------------|---------------|-----|
| 1 | NW | | WP | 323.00 | 143.00 | R | | 4 | 4100 | 6000 | 5 | 6 |

CONTROLLING OBSTRUCTIONS:

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|-----|----------|-------------------|------------------------|-----------|---------------|
| 1 | 200 | TOWER (48-009890) | 293711.97N/0990257.06W | 3048 | 1A |

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 | | RNAV (GPS) RWY 34 | | | KCVB | CASTROVILLE | TX (US) |
| IAP | | RNAV (GPS) RWY 16 | | | KSKF | SAN ANTONIO | TX (US) |
| IAP | | RNAV (GPS) RWY 32 | | 1 | KSSF | SAN ANTONIO | TX (US) |

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4

DATE OF REVISION: 08/07/2025

REASON FOR REVISION:

TYPE: REMOVED DME.

AIRSPACE DOCKET: ADDED 24-ASW-13.

FIX MAKE-UP FACILITIES: REMOVED FAC 1 (CSI) - FIX HAS NO GROUND BASED NAVAID USAGE.

FIX USE: REMOVED V161. CHANGED KSKF RNAV (GPS) RWY 15 TO RWY 16.

REQUIRED CHARTING: REMOVED CONTROLLER AND EN ROUTE LOW - ATC REQUEST.

| | | | |
|-----------------------------------|------------------|------------------|-------------------|
| INITIATED BY: | DATE: | ORGANIZATION: | NAME: |
| OFFICE OF PRIMARY RESPONSIBILITY: | | AJV-A423 | NAME: BARRY SMITH |
| APPROVED BY: | DATE: 07/03/2025 | OFFICE: AJV-A423 | NAME: ALLAN WILL |
| SIGNATURE: | | | |

RADIO FIX AND HOLDING DATA RECORD

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

LATITUDE/LONGITUDE: 292537.84N/0983017.10W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** MODIFY

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

| | | | | | | |
|-----------------|-------------------|------------|------------|----------------------|-------------|--------------|
| FIX USE: | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
| USE TYPE | RNAV (GPS) RWY 32 | | | KSSF | SAN ANTONIO | TX (US) |
| IAP | | | | | | |

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1 **DATE OF REVISION:** 01/31/2019

REASON FOR REVISION:
 DELETED FIX MAKE-UP FACILITY KSSF R32.
 DELETED REMARKS KSSF R32 DISPLACED THRESHOLD COORDINATES: 291959.03N-0982755.16W.
 UPDATED FIX USE.

| | | | |
|--|--------------|-------------------------|-------------------------------|
| INITIATED BY: | DATE: | ORGANIZATION: | NAME: |
| OFFICE OF PRIMARY RESPONSIBILITY: | | AJV-5431 | NAME: FRANK JACKSON |
| APPROVED BY: | DATE: | OFFICE: AJV-5430 | NAME: PATRICK MULQUEEN |

SIGNATURE:

DISTRIBUTION: NFDC
 FPO: CEN
 ARTCC: ZHU
 ATC FACILITY: SAT APP CON
 OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: LEMIG

STATE: TX

COUNTRY: US

ICAO REGION CODE: K4

LATITUDE/LONGITUDE: 285837.91N/0983003.52W

TYPE: WP, INT, DME

AIRSPACE DOCKET: 23-ASW-16

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 | COTULLA | COT | VORTAC | VL | 037.43 | 046.43 | 44.85 | 44.85 | | 2500 | 17500 |
| 2 | THREE RIVERS | THX | VORTAC | L | 318.89 | 326.89 | 33.77 | 33.77 | | 2000 | 17500 |
| 3 | SAN ANTONIO | SAT | VORTAC | H | 174.99 | 182.99 | 39.96 | 39.96 | | 3000 | 17500 |

EXPANDED SERVICE VOLUME (ESV):

| FAC IDENT | FAC TYPE | RADIAL/BEARING | DISTANCE | MIN ALTITUDE | MAX ALTITUDE |
|-----------|----------|----------------|----------|--------------|--------------|
| COT | VORTAC | R-037 | 45 | 2500 | 5600 |

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 | SAT | VORTAC | 174.99 | 354.99 | R | 1 | | 3000 | 14000 | 6 | 12 |

CONTROLLING OBSTRUCTIONS:

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|-----|----------|-------------------|------------------------|-----------|---------------|
| 1 | 200 | TOWER (48-008227) | 285453.00N/0982644.00W | 913 | 2C |
| 1 | 230 | TOWER (48-010040) | 285700.00N/0983706.00W | 990 | 5D |

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|----------|-------------------|---------|-----|---------------|-------------|---------|
| EN ROUTE | T499 | | | | | (US) |
| EN ROUTE | V161 | 1, 2, 3 | | | | (US) |
| EN ROUTE | V550 | 1, 2, 3 | | | | (US) |
| EN ROUTE | V568 | 1, 2, 3 | 1 | | | (US) |
| IAP | RNAV (GPS) RWY 14 | | | 0XA5 | CAMPBELLTON | TX (US) |
| IAP | RNAV (GPS) RWY 32 | | | KSSF | SAN ANTONIO | TX (US) |
| STAR | LEMIG | 1, 2, 3 | 1 | KSAT | SAN ANTONIO | TX (US) |

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 6

DATE OF REVISION: 10/31/2024

REASON FOR REVISION:

- DOCKET: ADDED "23-ASW-16"
- FIX MAKE-UP: FAC 1 COTULLA COT VORTAC CLASS UPDATED FROM "L" TO "VL"
- ESV: UPDATED COT VORTAC MAX ALTITUDE FROM "17500" TO "5600"
- FIX USE: ADDED "EN ROUTE T499"; UPDATED RNAV (GPS) RWY 14 FROM "SPECIAL IAP" TO "IAP"

INITIATED BY:

DATE:

ORGANIZATION:

NAME:

OFFICE OF PRIMARY RESPONSIBILITY:

AJV-A423

NAME: HENRY BRADSHAW

APPROVED BY:

DATE: 10/31/2024

OFFICE: AJV-A423

NAME: ALLAN WILL

SIGNATURE:

RADIO FIX AND HOLDING DATA RECORD

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

LATITUDE/LONGITUDE: 290944.75N/0983822.47W **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 | THREE RIVERS | THX | VORTAC | L | 318.89 | 326.89 | 47.03 | 47.03 | | 3000 | 17500 |
| 2 | SAN ANTONIO | SAT | VORTAC | H | 190.00 | 198.00 | 30.30 | 30.30 | | 3000 | 17500 |

EXPANDED SERVICE VOLUME (ESV):

| FAC IDENT | FAC TYPE | RADIAL/BEARING | DISTANCE | MIN ALTITUDE | MAX ALTITUDE |
|-----------|----------|----------------|----------|--------------|--------------|
| THX | VORTAC | R-319 | 48 | 3000 | 17500 |

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 | NW | | WP | 320.89 | 140.89 | R | | 4 | 3000 | 6000 | 5 | 6 |

CONTROLLING OBSTRUCTIONS:

| PAT | AIRSPEED | OBSTRUCTION | COORDINATES | ELEVATION | ACCURACY CODE |
|-----|----------|-------------------|------------------------|-----------|---------------|
| 1 | 200 | TOWER (48-007753) | 291439.85N/0984428.08W | 1211 | 5D |

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:

THREE RIVERS (FAC 1) AND SAN ANTONIO (FAC 2) USED TO ESTABLISH FIX COORDINATES.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

| USE TYPE | USE TITLE | FAC | PAT | AIRPORT IDENT | CITY | STATE |
|----------|-------------------|------|-----|---------------|-------------|---------|
| EN ROUTE | V161 | 1, 2 | | | | (US) |
| EN ROUTE | V17 | 1, 2 | | | | (US) |
| IAP | RNAV (GPS) RWY 34 | | | KCVB | CASTROVILLE | TX (US) |
| IAP | NDB RWY 35 | 1, 2 | | 23R | DEVINE | TX (US) |
| IAP | RNAV (GPS) RWY 34 | | 1 | KPEZ | PLEASANTON | TX (US) |
| IAP | RNAV (GPS) RWY 32 | | | KSSF | SAN ANTONIO | TX (US) |

REQUIRED CHARTING: IAP, EN ROUTE LOW, CONTROLLER LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9

DATE OF REVISION: 04/20/2023

REASON FOR REVISION:

1. FIX MAKE-UP FACILITY: FAC 1 MRA CHANGED FROM 4000 TO 3000FT - CHANGED TO MATCH ESV.
2. FIX USE: V17 AND V161 DECOMBINED - CORRECTED DOCUMENTATION ERROR.
3. REQUIRED CHARTING: FROM CONTROLLER TO CONTROLLER LOW - CORRECTED DOCUMENTATION ERROR.
4. FIX USE: V161/V17/NDB RWY 35 FAC POPULATED WITH FAC 1/2 - CORRECTED DOCUMENTATION ERROR.
5. ESV: FAC 1 MIN ALTITUDE CHANGED FROM 4000 TO 3000 - CHANGED TO MEET ESV.

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

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A423 **NAME:** TODD DAMRON

APPROVED BY: **DATE:** 04/20/2023 **OFFICE:** AJV-A423 **NAME:** ALLAN WILL

SIGNATURE: