U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS	TWO	THX2.THX	1	10/23/2010	

TYPE: SID RNAV

DP ROUTE DESCRIPTION:

DEPARTING SAN ANTONIO INTL:
TAKEOFF RWY 4, 12L, 12R, 22, 30L, 30R: CLIMB ON ASSIGNED HEADING FOR RADAR VECTORS TO YENNS. THENCE...
...ON DEPICTED ROUTE/TRANSITION TO CRP VORTAC, MAINTAIN 5000. EXPECTED FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

DEPARTING STINSON MUNI:
TAKEOFF RWY 9, 14, 27, 32: CLIMB ON ASSIGN HEADING AND ALTITUDE FOR RADAR VECTORS TO YENNS, THENCE...
...ON DEPICTED ROUTE/TRANSITION TO CRP VORTAC. EXPECT FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTE: RNAV 1.
NOTE: RADAR REQUIRED.
NOTE: DME/DME/IRU OR GPS REQUIRED.
NOTE: FOR NON-GPS EQUIPPED AIRCRAFT COT, THX AND VCT DMEs MUST BE OPERATIONAL.

SAN ANTONIO INTL: TAKEOFF RWY 4, 12L, 12R, 22, 30L, 30R: STANDARD.

STINSON MUNI:
TAKEOFF RWY 14, 32: STANDARD.

TAKEOFF RWY 9, STANDARD WITH MINIMUM CLIMB OF 225 FT PER NM TO 1900 OR 1000-2 1/2 FOR CLIMB IN VISUAL CONDITIONS.

TAKEOFF RWY 27, 300-1 3/4 OR STANDARD WITH A MINIMUM CLIMB OF 221 FT PER NM TO 900, OR ALTERNATIVELY, WITH STANDARD TAKEOFF MINIMUMS AND A NORMAL 200 FT PER NM CLIMB GRADIENT, TAKEOFF MUST OCCUR NO LATER THAN 1700 FT PRIOR TO DEPARTURE END OF RUNWAY.

QUALITY CHECKED

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS	TWO	THX2.THX	1	10/23/2010	

TAKEOFF OBSTACLES NOTES:

SAN ANTONIO INTL:

NOTE: RWY 12R, ANTENNA ON RTR TOWER, 1034 FT FROM DER, 723 FT RIGHT OF CENTERLINE, 42 FT AGL/820 FT MSL. BUILDING 3801 FT FROM DER, 1488 FT RIGHT OF CENTERLINE, 177 FT AGL/881 FT MSL.

NOTE: RWY 22, ANTENNA ON HANGAR AND FLAGPOLE, 1198 FT FROM DER, 700 FT RIGHT OF CENTERLINE, 39 FT AGL/825 FT MSL. POLES BEGINNING 2209 FT FROM DER, 1041 FT RIGHT OF CENTERLINE, UP TO 23 FT AGL/869 FT MSL. SIGN 2713 FT FROM DER, 1034 FT RIGHT OF CENTERLINE, 71 FT AGL/857 FT MSL.

NOTE: RWY 30L, POLE 1931 FT FROM DER, 911 FT LEFT OF CENTERLINE, 42 FT AGL/867 FT MSL. POLES BEGINNING 2356 FT FROM DER, 913 FT LEFT OF CENTERLINE, UP TO 42 FT AGL/892 FT MSL. SIGN 2435 FT FROM DER, 1032 FT RIGHT OF CENTERLINE, 42 FT AGL/873 FT MSL. TOWER 2766 FT FROM DER, 834 FT LEFT OF CENTERLINE, 54 FT AGL/891 FT MSL.

NOTE: RWY 30R, ROD ON OL GS 1261 FT FROM DER, 591 FT LEFT OF CENTERLINE, 57 FT AGL/854 FT MSL.

STINSON MUNI:

NOTE: RWY 9, VEHICLE ON ROAD 285 FT FROM DER, 380 FT LEFT OF CENTERLINE, 15 FT AGL/584 FT MSL. TREES BEGINNING 1653 FT FROM DER, 435 FT RIGHT OF CENTERLINE, UP TO 70 FT AGL/629 FT MSL.

NOTE: RWY 14, VEHICLE ON ROAD 114 FT FROM DER, ON CENTERLINE EXTENDING 373 FT LEFT OF CENTERLINE, UP TO 15 FT AGL/564 FT MSL. TREES BEGINNING 72 FT FROM DER, 79 FT RIGHT OF CENTERLINE, UP TO 70 FT AGL/607 FT MSL. TREES BEGINNING 232 FROM DER, 54 FT LEFT OF CENTERLINE, UP TO 70 FT AGL/618 FT MSL. TRANSMISSION LINE TOWER 4205 FT FROM DER, 133 FT RIGHT OF CENTERLINE, 119 FT AGL/663 FT MSL.

NOTE: RWY 27, FENCE 41 FT FROM DER, 30 FT RIGHT OF CENTERLINE, 8 FT AGL/584 FT MSL. VEHICLE ON ROAD 108 FT FROM DER, 202 FT RIGHT OF CENTERLINE, 15 FT AGL/584 FT MSL. VEHICLE ON ROAD 123 FT FROM DER, 113 FT RIGHT OF CENTERLINE, 15 FT AGL/596 FT MSL. TREES AND POLES BEGINNING 229 FT FROM DER, 117 FT RIGHT OF CENTERLINE, UP TO 70 FT AGL/645 FT MSL. TREES AND POLES BEGINNING 599 FT FROM DER, 6 FT LEFT OF CENTERLINE, UP TO 70 FT AGL/634 FT MSL. TANKS BEGINNING 1.32 NM FROM DER, 1338 FT RIGHT OF CENTERLINE, 179 FT AGL/799 FT MSL. BUILDING 1422 FT FROM DER, 432 FT RIGHT OF CENTERLINE, 40 FT AGL/627 FT MSL. BUILDING 2133 FT FROM DER, 36 FT LEFT OF CENTERLINE, 55 FT AGL/635 FT MSL.

NOTE: RWY 32, FENCE 17 FT FROM DER, 80 FT LEFT OF CENTERLINE, 8 FT AGL/578 FT MSL. VEHICLE ON ROAD 54 FT FROM DER, 199 FT LEFT OF CENTERLINE, 15 FT AGL/586 FT MSL. TREES BEGINNING 164 FT FROM DER, 125 FT RIGHT OF CENTERLINE, UP TO 70 FT AGL/639 FT MSL. TREES AND POLES BEGINNING 43 FT FROM DER, 41 FT LEFT OF CENTERLINE, UP TO 75 FT AGL/668 FT MSL.

CONTROLLING OBSTACLES:

STINSON MUNI:

RWY 9, 14: 1546 MSL TOWER (48-004668) 291938.75N/0982117.63W
RWY 27: 799 MSL TANK (48-005287) 292048.97N/0983016.50W
RWY 32: 1379 MSL TOWER (48-001577) 292509.00N/0982901.00W
VCOA: 940 MSL TOWER (48-007986) 292304.00N/0982719.00W

LOST COMMUNICATIONS PROCEDURES:

QUALITY CHECKED

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS	TWO	THX2.THX	1	10/23/2010	

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KSAT 8E/EPOCH YEAR: 1980
DME/DME ASSESMENT: SAT (RNP 2.0)
CHART: MEA FROM YENNS TO THX VORTAC, 4000.
CHART: MEA FROM THX VORTAC TO CRP VORTAC, 4000.
PILOT NAVIGATION AREA: 7 NM ARC CENTERED ON TREVA (IF), CW
FROM: POINT A (BEARING 112 DEGREES TO YENNS.)
TO: POINT B (BEARING 202 DEGREES TO YENNS.)

AIRPORTS SERVED:

SAN ANTONIO INTL	SAN ANTONIO, TX
STINSON MUNI	SAN ANTONIO, TX

COMMUNICATIONS:

ATIS: SAT, SSF; GND CON: SAT, SSF; AWOS/ASOS: SAT; SAT CLNC DEL; SAT DEP CON; SAT ATCT; SSF ATCT

FIXES AND/OR NAVAIDS:

THX VORTAC

U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

GRAPHIC DEPARTURE PROCEDURE (DP)

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation. Distances are in nautical miles. Visibilities are in statue miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS	TWO	THX2.THX	1	10/23/2010	

REMARKS:

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:

ROUTINE

DEVELOPED BY:

LARRY STROUT (THERON CYRUS) AJV-353 06/16/2012

APPROVED BY:

JILL OLSON AJV-353

COORDINATED WITH:

AOPA, ALPA, ATA, APA, NBAA, ZHU, SAT APP CON, SAT ATCT, AMGR, ST. AV. DIR

CHANGES:

1. UPDATED TAKEOFF OBS NOTES.
2. CHANGED RWY 3/21 TO RWY 4/22.

REASONS:

1. NEW OBS EVALUATION.
2. PER FPT REQUEST

09.25.12. THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 09.17.12.
ON THE 8260-15C, CORRECTED COORDINATES FOR THX VORTAC FROM 383017.99N/0980901.68W TO 283017.99N/0980901.68W.

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS	TWO	THX2.THX	1	10/23/2010	

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
YENNS	290404.59N/0981919.14W	Y	FB	IF	-	-			
THX VORTAC	283017.99N/0980901.68W	Y	FB	TF	164.93	34.88			
CRP VORTAC	275413.56N/0972641.57W	Y	FB	TF	133.72	51.90			

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS	TWO	THX2.THX	1	10/23/2010	

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS

QUALITY CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS RNAV	TWO	THX2.THX	ONE	10/23/2010	

ARINC PACKET - 424-18 - SID

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        CRP   K4011550VTHA N27541356W097264157    N27541356W097264157E0090000602     NARCORPUS CHRISTI
        SUSAD        THX   K4011140VTL  N28301799W098090168    N28301799W098090168E0080002661     NARTHREE RIVERS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   YENNS K40    C   L N29040459W098191914                      E0047     NAR           YENNS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSATK4ASAT     0     085YHN29320130W098281120E008000809         1800018000C    MNAR    SAN ANTONIO INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSATK4DTHX2  5ALL   010YENNSK4EA0E       IF                                                    18000
        SUSAP KSATK4DTHX2  5ALL   020THX  K4D 0V    010TF                    15690349
        SUSAP KSATK4DTHX2  5ALL   030CRP  K4D 0VE   010TF                    12570519

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSATK4GRW04    0085050328 N29312364W098281166-0400    +021420078600005615 0IISAT1
        SUSAP KSATK4GRW12L   0055191236 N29322507W098283971-0300    +021770079700004010 0V
        SUSAP KSATK4GRW12R   0085021236 N29323389W098290795-0400    +022140080900005815 0IIANT2
        SUSAP KSATK4GRW22    0085052128 N29322739W098270877+0400    +020440075400005515 0R
        SUSAP KSATK4GRW30L   0085023036 N29313800W098275599+0400    +021200077800006015 0IIIZR1
        SUSAP KSATK4GRW30R   0055193036 N29314878W098275302+0300    +021220077900006010 0V
```

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS RNAV	TWO	THX2.THX	ONE	10/23/2010	

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	ALL	YENNS	010		IF		FB					
	ALL	THX	020		TF		FB	1.0	156.9()	034.9		
	ALL	CRP	030		TF		FB	1.0	125.7()	051.9		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
CRP	N275413.56	W0972641.57	N2754.226	W09726.693
THX	N283017.99	W0980901.68	N2830.300	W09809.028
YENNS	N290404.59	W0981919.14	N2904.077	W09819.319
RW04	N293123.64	W0982811.66	N2931.394	W09828.194
RW12L	N293225.07	W0982839.71	N2932.418	W09828.662
RW12R	N293233.89	W0982907.95	N2932.565	W09829.133
RW22	N293227.39	W0982708.77	N2932.457	W09827.146
RW30L	N293138.00	W0982755.99	N2931.633	W09827.933
RW30R	N293148.78	W0982753.02	N2931.813	W09827.884

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW04	00786	56
RW12L	00797	40
RW12R	00809	58
RW22	00754	55
RW30L	00778	60
RW30R	00779	60

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS RNAV	TWO	THX2.THX	ONE	10/23/2010	

ARINC PACKET - 424-18 - SID

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        CRP   K4011550VTHA N27541356W097264157    N27541356W097264157E0090000602     NARCORPUS CHRISTI
        SUSAD        THX   K4011140VTL  N28301799W098090168    N28301799W098090168E0080002661     NARTHREE RIVERS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   YENNS K40    C   L N29040459W098191914                      E0047     NAR           YENNS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSSFK4ASSF     0     050YHN29201314W098281576E008000577         1800018000C    MNAR    STINSON MUNI

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSSFK4DTHX2  5ALL   010YENNSK4EA0E       IF                                                  18000
        SUSAP KSSFK4DTHX2  5ALL   020THX  K4D 0V    010TF                     15690349
        SUSAP KSSFK4DTHX2  5ALL   030CRP  K4D 0VE   010TF                     12570519

                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSSFK4GRW09    0050000945 N29201781W098284642+0000    +0150100577045040100V
        SUSAP KSSFK4GRW14    0041281374 N29202487W098281553-0500    +0148700571058435100V
        SUSAP KSSFK4GRW27    0050002745 N29200803W098275623+0000    +0146700577000040100V
        SUSAP KSSFK4GRW32    0041283174 N29195903W098275516+0500    +0144300556037240100R
```

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
THREE RIVERS RNAV	TWO	THX2.THX	ONE	10/23/2010	

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	ALL	YENNS	010		IF		FB					
	ALL	THX	020		TF		FB	1.0	156.9()	034.9		
	ALL	CRP	030		TF		FB	1.0	125.7()	051.9		

POINT DATA

WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
CRP	N275413.56	W0972641.57	N2754.226	W09726.693
THX	N283017.99	W0980901.68	N2830.300	W09809.028
YENNS	N290404.59	W0981919.14	N2904.077	W09819.319
RW09	N292017.81	W0982846.42	N2920.297	W09828.774
RW14	N292024.87	W0982815.53	N2920.415	W09828.259
RW27	N292008.03	W0982756.23	N2920.134	W09827.937
RW32	N291959.03	W0982755.16	N2919.984	W09827.919

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW09	00577	40
RW14	00571	35
RW27	00577	40
RW32	00556	40

RADIO FIX AND HOLDING DATA RECORD

INFO ONLY

NAME: CORPUS CHRISTI VORTAC **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 275413.56N/0972641.57W **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	DIST FROM FAC FEET	MRA	MAA
1	CORPUS CHRISTI	CRP	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	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	N	CRP	VORTAC	011.00	191.00	R	1-1 1/2		2100	17500	6	16
2	SE	CRP	VORTAC	138.48	318.48	R	1		3000	14000	6	10
3	SE		WP	142.67	322.67	R		5	2000	14000	5	11
4	W	CRP	VORTAC	287.00	107.00	R	1-1 1/2		1800	17500	5	16

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	230	TOWER (48-005225)	280207.00N/0972613.00W	1049	5D
1	230	TOWER (48-005225)	280207.00N/0972613.00W	1049	5D
2	230	TOWER (48-008980)	274727.48N/0972702.52W	498	2C
3	230	TOWER (48-008980)	274727.48N/0972702.52W	498	2C
4	230	TOWER (48-007623)	275604.00N/0973708.00W	579	5D

HOLDING RESTRICTIONS:
UNPLANNED HOLDING AUTHORIZED AT OR ABOVE 2100

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
CHART PAT 1 ON ENROUTE LOW.
PAT 1 LIES IN ALERT AREA A-632D. PAT 2 & 3 LIE IN ALERT AREAS A-632B & D.
PAT 4 LIES IN ALERT AREAS A-632A, B, C & D.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	INDUSTRY			KLBX	ANGLETON/LAKE JACKSON	TX (US)
DP	PALMS			KAUS	AUSTIN	TX (US)
DP	INDUSTRY			KGLS	GALVESTON	TX (US)
DP	INDUSTRY			KAXH	HOUSTON	TX (US)
DP	INDUSTRY			KCXO	HOUSTON	TX (US)
DP	INDUSTRY			KDWH	HOUSTON	TX (US)
DP	INDUSTRY			KEFD	HOUSTON	TX (US)
DP	INDUSTRY			KEYQ	HOUSTON	TX (US)
DP	INDUSTRY			KHOU	HOUSTON	TX (US)
DP	INDUSTRY			KIAH	HOUSTON	TX (US)
DP	INDUSTRY			KIWS	HOUSTON	TX (US)
DP	INDUSTRY			KSGR	HOUSTON	TX (US)
DP	INDUSTRY			KTME	HOUSTON	TX (US)
DP	INDUSTRY			KT41	LA PORTE	TX (US)
DP	BOWIE			KSAT	SAN ANTONIO	TX (US)
DP	THREE RIVERS (RNAV)			KSAT	SAN ANTONIO	TX (US)
DP	BOWIE			KSSF	SAN ANTONIO	TX (US)
DP	THREE RIVERS (RNAV)			KSSF	SAN ANTONIO	TX (US)
EN ROUTE	J22					(US)
EN ROUTE	J25					(US)
EN ROUTE	J29					(US)
EN ROUTE	V13					(US)
EN ROUTE	V163					(US)
EN ROUTE	V20					(US)
EN ROUTE	V407					(US)
EN ROUTE	V568					(US)
EN ROUTE	V70					(US)
IAP	LOC/DME RWY 31			KALI	ALICE	TX (US)
IAP	RNAV (GPS) RWY 13			KALI	ALICE	TX (US)
IAP	RNAV (GPS) RWY 31			KALI	ALICE	TX (US)
IAP	VOR RWY 31			KALI	ALICE	TX (US)
IAP	VOR-A			KALI	ALICE	TX (US)
IAP	ILS OR LOC RWY 13			KCRP	CORPUS CHRISTI	TX (US)
IAP	ILS OR LOC RWY 35			KCRP	CORPUS CHRISTI	TX (US)
IAP	LOC RWY 31			KCRP	CORPUS CHRISTI	TX (US)
IAP	RNAV (RNP) Z RWY 31			KCRP	CORPUS CHRISTI	TX (US)
IAP	RNAV (RNP) Z RWY 35			KCRP	CORPUS CHRISTI	TX (US)
IAP	VOR OR TACAN RWY 17			KCRP	CORPUS CHRISTI	TX (US)
IAP	ILS Y OR RNAV (GPS) RWY 13R			KNGP	CORPUS CHRISTI	TX (US)
IAP	ILS Z OR LOC/DME RWY 13R			KNGP	CORPUS CHRISTI	TX (US)
IAP	RNAV (GPS) RWY 13L			KNGP	CORPUS CHRISTI	TX (US)
IAP	RNAV (GPS) RWY 17			KNGP	CORPUS CHRISTI	TX (US)

QUALITY CHECKED 4

INFO ONLY

IAP	RNAV (GPS) RWY 22		KNGP	CORPUS CHRISTI	TX (US)
IAP	RNAV (GPS) RWY 31L		KNGP	CORPUS CHRISTI	TX (US)
IAP	RNAV (GPS) RWY 31R		KNGP	CORPUS CHRISTI	TX (US)
IAP	RNAV (GPS) RWY 35		KNGP	CORPUS CHRISTI	TX (US)
IAP	RNAV (GPS) RWY 4		KNGP	CORPUS CHRISTI	TX (US)
IAP	VOR RWY 22		KNGP	CORPUS CHRISTI	TX (US)
IAP	VOR/DME OR TACAN RWY 17		KNGP	CORPUS CHRISTI	TX (US)
IAP	VOR/DME OR TACAN RWY 35		KNGP	CORPUS CHRISTI	TX (US)
IAP	VOR/DME X RWY 31L		KNGP	CORPUS CHRISTI	TX (US)
IAP	VOR/DME Y OR TACAN Y RWY 13R		KNGP	CORPUS CHRISTI	TX (US)
IAP	VOR/DME Y OR TACAN Y RWY 31L		KNGP	CORPUS CHRISTI	TX (US)
IAP	VOR/DME Z OR TACAN Z RWY 13R		KNGP	CORPUS CHRISTI	TX (US)
IAP	VOR/DME Z OR TACAN Z RWY 31L		KNGP	CORPUS CHRISTI	TX (US)
IAP	NDB RWY 35		KBKS	FALFURRIAS	TX (US)
IAP	RNAV (GPS) RWY 17		KBKS	FALFURRIAS	TX (US)
IAP	NDB RWY 13		KIKG	KINGSVILLE	TX (US)
IAP	RNAV (GPS) RWY 13		KIKG	KINGSVILLE	TX (US)
IAP	RNAV (GPS) RWY 13		KRBO	ROBSTOWN	TX (US)
IAP	VOR/DME-A		KRBO	ROBSTOWN	TX (US)
IAP	VOR/DME OR TACAN-A		KRKP	ROCKPORT	TX (US)
IAP	RNAV (GPS) RWY 32 (SPECIAL)		KXS67	ROCKPORT	TX (US)
IAP	RNAV (GPS) RWY 14 (SPECIAL)		K38XS	SANTA ELENA	TX (US)
IAP	RNAV (GPS) RWY 32 (SPECIAL)		K38XS	SANTA ELENA	TX (US)
IAP	GPS RWY 14		KT69	SINTON	TX (US)
IAP	GPS RWY 32	3	KT69	SINTON	TX (US)
IAP	VOR RWY 32	2	KT69	SINTON	TX (US)
IAP	VOR/DME RWY 14		KT69	SINTON	TX (US)
STAR	CARNE		KT00	ANAHUAC	TX (US)
STAR	DYNMO (RNAV)		KT00	ANAHUAC	TX (US)
STAR	HAMMU (RNAV)		KT00	ANAHUAC	TX (US)
STAR	ROYOH		KT00	ANAHUAC	TX (US)
STAR	STROS (RNAV)		KT00	ANAHUAC	TX (US)
STAR	CARNE		KLBX	ANGLETON/LAKE JACKSON	TX (US)
STAR	DYNMO (RNAV)		KLBX	ANGLETON/LAKE JACKSON	TX (US)
STAR	HAMMU (RNAV)		KLBX	ANGLETON/LAKE JACKSON	TX (US)
STAR	ROYOH		KLBX	ANGLETON/LAKE JACKSON	TX (US)
STAR	STROS (RNAV)		KLBX	ANGLETON/LAKE JACKSON	TX (US)
STAR	CARNE		K54T	BAYTOWN	TX (US)
STAR	DYNMO (RNAV)		K54T	BAYTOWN	TX (US)
STAR	HAMMU (RNAV)		K54T	BAYTOWN	TX (US)
STAR	ROYOH		K54T	BAYTOWN	TX (US)
STAR	STROS (RNAV)		K54T	BAYTOWN	TX (US)
STAR	CARNE		KHPY	BAYTOWN	TX (US)
STAR	DYNMO (RNAV)		KHPY	BAYTOWN	TX (US)
STAR	HAMMU (RNAV)		KHPY	BAYTOWN	TX (US)
STAR	ROYOH		KHPY	BAYTOWN	TX (US)
STAR	STROS (RNAV)		KHPY	BAYTOWN	TX (US)
STAR	CARNE		KGLS	GALVESTON	TX (US)
STAR	DYNMO (RNAV)		KGLS	GALVESTON	TX (US)
STAR	HAMMU (RNAV)		KGLS	GALVESTON	TX (US)
STAR	ROYOH		KGLS	GALVESTON	TX (US)
STAR	STROS (RNAV)		KGLS	GALVESTON	TX (US)
STAR	CARNE		KAXH	HOUSTON	TX (US)
STAR	DYNMO (RNAV)		KAXH	HOUSTON	TX (US)
STAR	HAMMU (RNAV)		KAXH	HOUSTON	TX (US)
STAR	ROYOH		KAXH	HOUSTON	TX (US)
STAR	STROS (RNAV)		KAXH	HOUSTON	TX (US)
STAR	CARNE		KCXO	HOUSTON	TX (US)
STAR	DYNMO (RNAV)		KCXO	HOUSTON	TX (US)
STAR	HAMMU (RNAV)		KCXO	HOUSTON	TX (US)
STAR	ROYOH		KCXO	HOUSTON	TX (US)
STAR	STROS (RNAV)		KCXO	HOUSTON	TX (US)
STAR	CARNE		KDWH	HOUSTON	TX (US)
STAR	DYNMO (RNAV)		KDWH	HOUSTON	TX (US)
STAR	HAMMU (RNAV)		KDWH	HOUSTON	TX (US)
STAR	ROYOH		KDWH	HOUSTON	TX (US)
STAR	STROS (RNAV)		KDWH	HOUSTON	TX (US)
STAR	CARNE		KEFD	HOUSTON	TX (US)
STAR	DYNMO (RNAV)		KEFD	HOUSTON	TX (US)
STAR	HAMMU (RNAV)		KEFD	HOUSTON	TX (US)
STAR	ROYOH		KEFD	HOUSTON	TX (US)
STAR	STROS (RNAV)		KEFD	HOUSTON	TX (US)
STAR	CARNE		KEYQ	HOUSTON	TX (US)
STAR	DYNMO (RNAV)		KEYQ	HOUSTON	TX (US)
STAR	HAMMU (RNAV)		KEYQ	HOUSTON	TX (US)
STAR	ROYOH		KEYQ	HOUSTON	TX (US)
STAR	STROS (RNAV)		KEYQ	HOUSTON	TX (US)
STAR	CARNE		KHOU	HOUSTON	TX (US)
STAR	DYNMO (RNAV)		KHOU	HOUSTON	TX (US)
STAR	HAMMU (RNAV)		KHOU	HOUSTON	TX (US)
STAR	ROYOH		KHOU	HOUSTON	TX (US)
STAR	STROS (RNAV)		KHOU	HOUSTON	TX (US)
STAR	CARNE		KIAH	HOUSTON	TX (US)
STAR	DYNMO (RNAV)		KIAH	HOUSTON	TX (US)
STAR	HAMMU (RNAV)		KIAH	HOUSTON	TX (US)
STAR	ROYOH		KIAH	HOUSTON	TX (US)

STAR	STROS (RNAV)	KIAH	HOUSTON	TX (US)
STAR	CARNE	KIWS	HOUSTON	TX (US)
STAR	DYNMO (RNAV)	KIWS	HOUSTON	TX (US)
STAR	HAMMU (RNAV)	KIWS	HOUSTON	TX (US)
STAR	ROYOH	KIWS	HOUSTON	TX (US)
STAR	STROS (RNAV)	KIWS	HOUSTON	TX (US)
STAR	CARNE	KLVJ	HOUSTON	TX (US)
STAR	DYNMO (RNAV)	KLVJ	HOUSTON	TX (US)
STAR	HAMMU (RNAV)	KLVJ	HOUSTON	TX (US)
STAR	ROYOH	KLVJ	HOUSTON	TX (US)
STAR	STROS (RNAV)	KLVJ	HOUSTON	TX (US)
STAR	CARNE	KSGR	HOUSTON	TX (US)
STAR	DYNMO (RNAV)	KSGR	HOUSTON	TX (US)
STAR	HAMMU (RNAV)	KSGR	HOUSTON	TX (US)
STAR	ROYOH	KSGR	HOUSTON	TX (US)
STAR	STROS (RNAV)	KSGR	HOUSTON	TX (US)
STAR	CARNE	KTME	HOUSTON	TX (US)
STAR	DYNMO (RNAV)	KTME	HOUSTON	TX (US)
STAR	HAMMU (RNAV)	KTME	HOUSTON	TX (US)
STAR	ROYOH	KTME	HOUSTON	TX (US)
STAR	STROS (RNAV)	KTME	HOUSTON	TX (US)
STAR	CARNE	KT41	LA PORTE	TX (US)
STAR	DYNMO (RNAV)	KT41	LA PORTE	TX (US)
STAR	HAMMU (RNAV)	KT41	LA PORTE	TX (US)
STAR	ROYOH	KT41	LA PORTE	TX (US)
STAR	STROS (RNAV)	KT41	LA PORTE	TX (US)
STAR	LEMIG	KSAT	SAN ANTONIO	TX (US)
STAR	LEMIG	KSKF	SAN ANTONIO	TX (US)
STAR	LEMIG	KSSF	SAN ANTONIO	TX (US)
STAR	LEMIG	KRND	UNIVERSAL CITY	TX (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 18 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
UPDATED PAT 1, PAT 2 TEMPLATES MIN 4 TO 6, PAT 3, PAT 4 TEMPLATES MIN 4 TO 5 AND PAT 3 LEG LENGTH DME 4 TO 5.
UPDATED ALL PAT AIRSPEED 200 TO 230.
UPDATED PAT 2 AND PAT 3 CONTROLLING OBSTRUCTIONS.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 05/14/2012 **OFFICE:** AJV-353 **NAME:** PABLO ORTIZ

APPROVED BY: **DATE:** 06/28/2012 **OFFICE:** AJV-353 **NAME:** LARRY STROUT

SIGNATURE:

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

QUALITY CHECKED 4

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: THREE RIVERS VORTAC **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 283017.99N/0980901.68W **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	DIST FROM FAC FEET	MRA	MAA
1	THREE RIVERS	THX	VORTAC	L							17500

FIX RESTRICTIONS:
SPECIAL RNAV (GPS) RWY 33, K0XA4, FREER, TX
SPECIAL RNAV (GPS) RWY 17, KXS71, PAWNEE, TX

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	N	THX	VORTAC	340.06	160.06	R	1		2000	10000	4	9
2	N		WP	342.06	162.06	R		4	2000	10000	4	10
3	SW		WP	204.16	024.16	R		4	2000	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
UPN	310	TOWER (48-007873)	282007.00N/0981018.00W	804	2C
1	200	TOWER (48-008226)	283314.00N/0981117.00W	706	1A
2	200	TOWER (48-008226)	283314.00N/0981117.00W	706	1A
3	200	TOWER (48-008086)	282424.00N/0981021.00W	737	2C

HOLDING RESTRICTIONS:
UNPLANNED HOLDING APPROVED AT OR ABOVE 3000.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	PALACIOS			KLBX	ANGLETON/LAKE JACKSON	TX (US)
DP	PALACIOS			KGLS	GALVESTON	TX (US)
DP	PALACIOS			KAXH	HOUSTON	TX (US)
DP	PALACIOS			KCXO	HOUSTON	TX (US)
DP	PALACIOS			KDWH	HOUSTON	TX (US)
DP	PALACIOS			KEFD	HOUSTON	TX (US)
DP	PALACIOS			KEYQ	HOUSTON	TX (US)
DP	PALACIOS			KHOU	HOUSTON	TX (US)
DP	PALACIOS			KIAH	HOUSTON	TX (US)
DP	PALACIOS			KIWS	HOUSTON	TX (US)
DP	PALACIOS			KSGR	HOUSTON	TX (US)
DP	PALACIOS			KTME	HOUSTON	TX (US)
DP	PALACIOS			KT41	LA PORTE	TX (US)
DP	BOWIE			KSAT	SAN ANTONIO	TX (US)
DP	THREE RIVERS (RNAV)			KSAT	SAN ANTONIO	TX (US)
DP	BOWIE			KSSF	SAN ANTONIO	TX (US)
DP	THREE RIVERS (RNAV)			KSSF	SAN ANTONIO	TX (US)
EN ROUTE	V161					(US)
EN ROUTE	V163					(US)
EN ROUTE	V568					(US)
IAP	RNAV (GPS) RWY 12			KBEA	BEEVILLE	TX (US)
IAP	VOR/DME RWY 12			KBEA	BEEVILLE	TX (US)
IAP	RNAV (GPS) RWY 32			K0XA5	CAMPBELLTON	TX (US)
IAP	RNAV (GPS) RWY 13			K2TA8	ENCINO	TX (US)
IAP	RNAV (GPS) RWY 31			K2TA8	ENCINO	TX (US)
IAP	RNAV (GPS) RWY 33			K0XA4	FREER	TX (US)
IAP	RNAV (GPS) RWY 13		2	K8T6	GEORGE WEST	TX (US)
IAP	VOR/DME-A		1	K8T6	GEORGE WEST	TX (US)
IAP	VOR/DME-A			K2R9	KENEDY	TX (US)
IAP	RNAV (GPS) RWY 17		3	KXS71	PAWNEE	TX (US)
IAP	GPS RWY 14			KT69	SINTON	TX (US)
STAR	LEMIG			KSAT	SAN ANTONIO	TX (US)
STAR	LEMIG			KSKF	SAN ANTONIO	TX (US)
STAR	LEMIG			KSSF	SAN ANTONIO	TX (US)
STAR	LEMIG			KRND	UNIVERSAL CITY	TX (US)

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

COMPULSORY REPORTING POINT: NO

INFO ONLY

QUALITY CHECKED 4

RECORD REVISION NUMBER: 7 **DATE OF REVISION:** 09/20/2012

REASON FOR REVISION:
1. ADDED PATTERN 3 FOR SAN CHRISTOVAL RANCH RNAV (GPS) RWY 17 SPECIAL PROCEDURE FOR MISSED APPROACH HOLDING.
2. ADDED SAN CHRISTOVAL RANCH RNAV (GPS) RWY 17 SPECIAL PROCEDURE TO FIX USE.
3. ADDED SPECIAL IAP TO REQUIRED CHARTING.

DEVELOPED BY:	**DATE:** 08/11/2011	**OFFICE:** AJV-353	**NAME:** JERRY MCCULLOUGH
APPROVED BY:	**DATE:**	**OFFICE:** AJV-353	**NAME:** LARRY STROUT
	SIGNATURE:		

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

QUALITY 4 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: YENNS **STATE:** TX **COUNTRY:** US

LATITUDE/LONGITUDE: 290404.59N/0981919.14W **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	DIST FROM FAC FEET	MRA	MAA
1	SAN ANTONIO	SAT	VORTAC	H	160.00	168.00	35.24	35.24		3000	45000
2	COTULLA	COT	VORTAC	L	040.00	049.00	55.49	55.49		3000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
COT	VORTAC	R-040	56	3000	17500

FIX RESTRICTIONS:
MRA COT 3000

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

REMARKS:
SAT (FAC 1) USE TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BOWIE	1, 2		KSAT	SAN ANTONIO	TX (US)
DP	THREE RIVERS (RNAV)			KSAT	SAN ANTONIO	TX (US)
DP	BOWIE	1, 2		KSSF	SAN ANTONIO	TX (US)
DP	THREE RIVERS (RNAV)			KSSF	SAN ANTONIO	TX (US)
EN ROUTE	V163	1, 2				(US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
ADDED FIX MAKE-UP FAC.
UPDATE FIX USE.

DEVELOPED BY: **DATE:** 07/18/2012 **OFFICE:** AJV-353 **NAME:** LARRY STROUT (THERON CYRUS)

APPROVED BY: **DATE:** **OFFICE:** AJV-353 **NAME:** JILL OLSON

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: CEN
ARTCC: ZHU
ATC FACILITY: SAT ATCT
OTHER:

QUALITY 4 CHECKED