

**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.33**

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT ID</u> TPF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> 2D	<u>CITY</u> TAMPA	<u>STATE</u> FL		
<u>AIRPORT ELEVATION</u> 7	<u>TDZE</u> 7	<u>SUPERSEDED</u> RNAV (GPS) RWY 22	<u>ORIGINAL/AMENDMENT</u> 2C	<u>DATED</u> 03/26/2020	<u>MAG VAR</u> 5W	<u>EPOCH YEAR</u> 2010
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

TERMINAL ROUTES

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
PIE VORTAC		TIYOB		TF	FO	1.00	068.59	21.50	2600
LAL VORTAC	IAF	TIYOB	NOPT	TF	FB	1.00	291.58	17.04	2600
DADES	IAF	TIYOB	NOPT	TF	FB	1.00	196.77	18.07	2600
TIYOB	IF/IAF	UTOBE		TF	FB	1.00	222.01	5.95	1700
UTOBE	FAF	RW22	MAP	TF	FO	0.30	221.98	5.19	
RW22	MAP	407 MSL		CA			221.98		
407 MSL		LAL VORTAC		DF	FO	1.00			2700

MISSED APPROACH

MAP:

LNAV: RW22

MISSED APPROACH INSTRUCTIONS:

CLIMBING LEFT TURN TO 2700 DIRECT LAL VORTAC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:

PROFILE:

- | | | | | | | |
|-------|--|--------------------|--------------------|----------|------------------------|-----|
| 1. PT | SIDE OF COURSE | OUTBOUND | FT WITHIN | MILES OF | (IAF) | |
| 2. | HOLD NE TIYOB, RT, 222.01 INBOUND, 2600 FT. IN LIEU OF PT (IAF), MAX 6000. | | | | | |
| 3. | FAC: 221.98 | FAF: UTOBE | DIST FAF TO MAP: | 5.19 | DIST FAF TO THLD: 5.19 | |
| 4. | MIN ALT: TIYOB 2600, UTOBE 1700 | | | | | |
| 5. | DIST TO THLD FROM OM: | MM: | IM: | 150 HAT: | GS ANT: | |
| 6. | MIN GP INCPT: | GP ALT AT FAF: | | OM: | MM: | IM: |
| 7. | GP ANGLE: | 34:1: IS NOT CLEAR | 20:1: IS NOT CLEAR | TCH: | | |
| 8. | MSA FROM: RW22 2700 | | | | | |



PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.
CHART NOTE: RWY 22 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHART NOTE: CIRCLING NA NW OF RWY 4-22.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PIE VORTAC AIRWAY RADIALS 355 CW 157.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON LAL VORTAC AIRWAY RADIALS 262 CW 350.
CHART NOTE: CIRCLING NA TO RWY 18.
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TPA ALTIMETER SETTING AND INCREASE ALL MDA 20 FEET.

ADDITIONAL FLIGHT DATA:

HOLD W, RT, 077.00 INBOUND.
CHART FAS OBST: 313 TOWER (12-005177) 275811N/0822434W.
CHART 468 TOWER (12-001533) 275937N/0822446W.
UTOBE TO RW22: 3.00/40.
CHART CIRCLING ICON.

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☐ STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE.

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LNAV MDA	580	1	573	580	1	573		NA			NA				
CIRCLING	720	1	713	720	1	713		NA			NA				

CHANGES - REASONS

1. PBN REQUIREMENTS NOTE: CHANGED FROM “RNP APCH” TO “RNP APCH – GPS” – CRITERIA UPDATE IAW 8260.19J.
2. NOTES: REMOVED “CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT DADES ON V7-521 NORTHWEST BOUND” – V7-521 IS BEING CANCELLED.
3. NOTES: CHANGED CHART NOTE FROM "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TAMPA INTL ALTIMETER SETTING AND INCREASE ALL MDA 20 FEET" TO "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TPA ALTIMETER SETTING AND INCREASE ALL MDA 20 FEET" - UPDATED FORMAT IAW 8260.19J.



COORDINATED WITH:

A4A

ALPA

X

AOPA

X

APA

HAI

NBAA

X

OTHER: ZMA,TPA APP CON, PIE FSS, AMGR.

FLIGHT CHECKED BY

PROCESSED IAW TECHNICAL SUPPORT GROUP (AJF-17) MEMO DATED 07/07/2021, SUBJECT:
GUIDANCE FOR PROCEDURAL CHANGES REQUIRING FLIGHT INSPECTION/VALIDATION.

OFFICE

FIOG

DATE

01/20/2020

DEVELOPED BY

ROBERT G HAMILTON (CODY J. GIVEN)

Digitally signed by

ROBERT G HAMILTON

Apr 10, 2025

OFFICE

AJV-A431

DATE

03/19/2025

APPROVED BY

ROBERT G HAMILTON

Digitally signed by

ROBERT G HAMILTON

Apr 10, 2025

OFFICE

AJV-A433

DATE

08/07/2025

TITLE

MANAGER



**FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD**

<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
TPF	RNAV (GPS) RWY 22	2D	TAMPA	FL	7	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM PIE VORTAC **TO** TIYOB

RNP 1.00 **DISTANCE** 21.50 **PAT** **MAP** **HAT** **HMAS**

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (12-001775)	280347.00N/0821948.00W	476	100	20	3C	1000				AT1124	2600
TERRAIN	280230.00N/0821827.00W	115 (100)								AS1500	1600

COMPUTATIONS

ALT **KIAS** **KTAS** **HAA** **VKTW** **TR** **BA** **DTA** **COURSE CHANGE** **DVEB** **VEB OCS** **RF CENTER FIX/DISTANCE**

SEGMENT REMARKS:

INITIAL

FROM LAL VORTAC **TO** TIYOB

RNP 1.00 **DISTANCE** 17.04 **PAT** **MAP** **HAT** **HMAS**

<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (12-002927)	280114.76N/0821751.12W	483	50	20	2C	1000				AT1117	2600
TERRAIN	275945.00N/0820942.00W	155 (200)								AS1500	1700

COMPUTATIONS

ALT **KIAS** **KTAS** **HAA** **VKTW** **TR** **BA** **DTA** **COURSE CHANGE** **DVEB** **VEB OCS** **RF CENTER FIX/DISTANCE**

SEGMENT REMARKS:

QUALITY
10
CHECKED

INITIAL

FROM

DADES

TO

TIYOB

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
1.00	18.07										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (12-001775)	280347.00N/0821948.00W	476	100	20	3C	1000				AT1124	2600
TERRAIN	282209.00N/0821721.00W	197 (200)								AS1500	1700

COMPUTATIONS

ALTKIASKTASHAAVKTWTRBADTACOURSE CHANGEDVEBVEB OCSRF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INTERMEDIATE

FROM

TIYOB (IF/IAF)

TO

UTOBE

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>				<u>HAT</u>	<u>HMAS</u>			
1.00	5.95										
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
TOWER (12-001775)	280347.00N/0821948.00W	476	100	20	3C	500				AT724	1700
TERRAIN	280236.00N/0821821.00W	125 (100)								AS1500	1600

COMPUTATIONS

ALTKIASKTASHAAVKTWTRBADTACOURSE CHANGEDVEBVEB OCSRF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LNAV

FROM

UTOBE

TO

RW22

RNP

0.30

DISTANCE

5.19

PAT

MAP

RW22

HAT

573

HMAS

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TOWER (12-005177)	275810.86N/0822434.26W	313	20	3	1A	250					580

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

HOLD-IN-LIEU OF PT

FROM

TIYOB

TO

P-5

RNP

DISTANCE

PAT

P-5

MAP

HAT

HMAS

OBSTRUCTION	COORDINATES	ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TOWER (12-002927)	280114.76N/0821751.12W	483	50	20	2C	1000				AT1117	2600
TERRAIN	280236.00N/0821821.00W	125 (100)								AS1500	1600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



MISSED APPROACH: LNAV

FROM

RW22

TO

LAL VORTAC

<u>RNP</u> 0.30-1.00	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>			<u>HAT</u>	<u>HMAS</u> 480				
<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
							ASC				2700
TOWER (12-020228)	275554.90N/0822403.96W	630	50	20	2C	1000					1700
TERRAIN	280033.00N/0820530.00W	148 (100)								AS1500	1600

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☐ CAT C

☐ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
CRANE (12-026807)	275432.73N/0822552.54W	1.30	713	370	250	50	4D	300		AC50	720
CATEGORY B											
CRANE (12-026807)	275432.73N/0822552.54W	1.81	713	370	250	50	4D	300		AC50	720

CIRCLING REMARKS:

CIRCLING NORTHWEST NA TO AVOID MCDILL AFB AND KTPA AIRSPACE.
CIRCLING RESTRICTIONS APPLIED/MAINTAINED PER ATC REQUEST.
CIRCLING NA TO RWY 18 PER PRIOR AMDT/ATC REQUEST.

MSA

CENTER

RW22

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TWR (12-000647)	274947.00N/0821558.00W	124	11.0	1649	100	20	3C	1000			2700

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

TPA APP CON, PIE FSS, TPF TOWER

<u>WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>WMSCR</u>	<u>ADJUSTMENTS</u>
AWOS-3	TPF	24	TPF	0	Y	0
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>WMSCR</u>	<u>ADJUSTMENTS</u>
ASOS	TPA	24	TPA	5.72	Y	16

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME
KTPF 7, KTPA 26
RA = 15.9.

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u>	<u>HRS OPERATION</u>	<u>CAT</u>
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>	<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>	
RW04 - MIRL (PCL), PAPI-4L (PCL)	NPI-G		
RW18 - MIRL (PCL)	NPI-G		
RW22 - MIRL (PCL), REIL (PCL)	NPI-G		
RW36 - MIRL (PCL), PAPI-2R (PCL)	NPI-G		

<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u>	<u>TCH</u>
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	X	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE	180
ON CENTERLINE	X	FT FROM CENTERLINE		

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
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CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS

FINAL TYPE	CIRCLING RWY 36
20:1	
15 SIGN (12-073449) 275445.03N/0822647.72W (5.24)	8 SIGN (12-065368) 275445.13N/0822650.72W (0.38)
FINAL TYPE	CIRCLING RWY 4
20:1	

QUALITY
10
CHECKED

<u>AIRPORT ID</u> TPF	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 22	<u>AMDT NO.</u> 2D	<u>CITY</u> TAMPA	<u>STATE</u> FL	<u>AIRPORT ELEVATION</u> 7	<u>FACILITY</u> RNAV
47 TREE (12-071223) 275434.33N/0822721.73W (2.29)			45 TREE (12-045402) 275435.20N/0822722.30W (2.27)			
9 SIGN (12-045015) 275438.32N/0822713.72W (1.99)						
FINAL TYPE	LNAV FINAL RWY 22					
20:1						
89 TOWER (12-001501) 275520.00N/0822644.00W (15.33)			209 CRANE (12-069512) 275542.06N/0822631.56W (12.77)			
FINAL TYPE	LNAV FINAL RWY 22					
34:1						
136 CRANE (12-071266) 275535.15N/0822632.71W (36.08)			122 BUILDING (12-046288) 275535.48N/0822634.88W (24.74)			
122 BUILDING (12-039959) 275535.61N/0822634.69W (24.13)			63 TREE (12-074748) 275518.74N/0822645.11W (21.7)			
65 TREE (12-069554) 275520.16N/0822642.54W (16.25)			122 BUILDING (12-039960) 275537.45N/0822632.16W (15.75)			
63 TREE (12-057252) 275520.47N/0822643.82W (15.55)			63 TREE (12-066129) 275520.11N/0822642.07W (13.62)			
43 POLE (12-063088) 275513.71N/0822642.97W (10.24)			51 STACK (12-044747) 275515.22N/0822639.97W (9.9)			
71 TANK (12-087925) 275524.14N/0822639.83W (8.51)			53 TANK (12-044637) 275517.35N/0822639.83W (6.62)			
44 POLE (12-071288) 275514.71N/0822641.29W (6.21)			53 POLE (12-044640) 275520.53N/0822644.00W (5.69)			
40 POLE (12-069640) 275514.08N/0822642.19W (5.13)			42 POLE (12-071287) 275515.03N/0822641.92W (4.45)			
48 TANK (12-087924) 275516.22N/0822639.68W (4.07)			55 TANK (12-069445) 275517.78N/0822637.37W (3.7)			
49 TANK (12-056360) 275516.61N/0822639.14W (3.29)			42 POLE (12-072320) 275514.76N/0822640.69W (3.14)			
55 TANK (12-057147) 275517.49N/0822636.49W (2.99)			46 POLE (12-059793) 275517.93N/0822642.54W (2.54)			
42 POLE (12-044745) 275515.07N/0822640.76W (2.51)			51 TANK (12-045977) 275518.01N/0822639.03W (1.79)			
77 TANK (12-020127) 275525.16N/0822633.16W (1.51)						
<u>PENETRATIONS REMARKS:</u>						

HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS

and/or

5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS

<u>PENETRATIONS REMARKS:</u>



PART C: GENERAL REMARKS:

VDP NOT ESTABLISHED - OBSTACLES PENETRATE VDP SURFACES.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

185 FT USED FOR SHIPS PER FPT.

LPV AND LNAV/VNAV NOT DEVELOPED DUE TO VGS PENETRATION. AREA HAS CRUISE SHIPS ROUTINELY CROSSING FLIGHT PATH.

LP NOT DEVELOPED DUE TO NO MINIMUM REDUCTION FROM LNAV. SAME CONTROLLING OBSTACLE APPLIES TO BOTH TYPES.

25 DEGREE BANK ANGLE USED IN MISSED.

ORDER 8260.3 CHAPTER 2 APPLIED TO 468 TOWER (12-001533) 275937.28N/0822446.03W.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.

PART D: AIRSPACE

DOCKET #

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	THLD	TO 1000FT POINT	3.19
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	216.98
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	100
DISTANCE FROM	THLD	TO 1500FT POINT	4.99
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.95
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	216.98
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	100

THRESHOLD COORDINATES (IF STR-IN)	275506.14N/0822651.84W
ARP COORDINATES	275455.60N/0822657.80W
RUNWAY APCH END AND DIST FURTHEST FROM ARP	RUNWAY 4 DISTANCE 0.37 NM
FAF COORDINATES	275915.74N/0822320.30W
FIX NAME COORDINATES	

REMARKS

NO ADDITIONAL AIRSPACE REQUIRED.

THLD DISPLACED 180FT, ACTUAL COORDINATES: 275507.56N/0822650.64W

PART E: PREPARED BY

NAME	OFFICE	DATE	TITLE
ROBERT G HAMILTON (CODY J. GIVEN)	AJV-A431	03/19/2025	AERONAUTICAL INFORMATION SPECIALIST

