

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		RNAV - STANDARD INSTRUMENT APPROACH PROCEDURE TITLE 14 CFR PART 97.33		Bearings, headings, courses, 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 in feet RVR.												
TERMINAL ROUTES										MISSED APPROACH						
FROM		TO		COURSE AND DISTANCE				ALTITUDE		LNAV: RW06						
FNT VORTAC (IAF)		HIPRA (FB)		020.73 / 23.47				3100		CLIMB TO 1100 THEN CLIMBING LEFT TURN TO 3100 DIRECT BIRRS AND HOLD.						
BIRRS (IAF)		HIPRA (FB)		093.92 / 6.50				3100								
HIPRA (IF)		YOGUS (FB)		058.32 / 5.00				2300								
YOGUS (FAF)		VOWER/1.70 NM TO RW06 (FB)		058.38 / 3.25												
VOWER/1.70 NM TO RW06		RW06 (MAP) (FO)		058.38 / 1.70						ADDITIONAL FLIGHT DATA: HOLD NW, RT, 137.00 INBOUND. CHART FAS OBST: 829 TREE 432725N/0832732W YOGUS TO RW6: 3.00/40. CHART CIRCLING ICON.						
RW06 (MAP)		1100 MSL		058.38				1100								
1100 MSL		BIRRS (FO)						3100								
1. PT _____ SIDE OF COURSE _____ OUTBOUND _____ FT WITHIN _____ MILES OF _____ (IAF)																
2. PROFILE STARTS AT HIPRA																
3. FAC: 058.38 FAF: YOGUS DIST FAF TO MAP: 4.95 THLD: 4.95																
4. MIN. ALT: HIPRA 3100, YOGUS 2300, VOWER/1.70 NM TO RW06 1260																
5. DIST TO THLD FROM OM: _____ MM: _____ IM: _____ 150 HAT: _____ 100 HAT: _____ GS ANT: _____																
6. MIN GS INCPT: _____ GS ALT AT: _____ OM: _____ MM: _____ IM: _____																
7. GS ANGLE: _____ TCH: 34:1 IS NOT CLEAR																
8. MSA FROM: RW06 3100																
MAG VAR: 8W EPOCH YEAR: 2020																
MINIMUMS																
TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT										ALTERNATE: N A		STANDARD @				
CATEGORY =====>		A			B			C			D			E		
	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	DH/MDA	VIS	HAT/HAA	
LNAV MDA	1080	1	391	1080	1	391		NA			NA					
CIRCLING	1200	1	496	1200	1	496		NA			NA					
NOTES: CHART NOTE: CIRCLING NA TO RWYS 13 AND 31. CHART NOTE: DME/DME RNP-0.3 NA. CHART NOTE: HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED. CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS ON FNT VORTAC AIRWAY RADIALS 076 CW 097. (CONTINUED ON PAGE 2)																
CITY AND STATE CARO, MI		ELEVATION: 704 TDZE: 689 AIRPORT NAME: TUSCOLA AREA		FACILITY IDENTIFIER: RNAV		PROCEDURE NO./AMDT NO./EFFECTIVE DATE: RNAV (GPS) RWY 6, AMDT 1				SUP: RNAV (GPS) RWY 5 AMDT: ORIG-A DATED 06/25/2015						

ALL AFFECTED PROCEDURES REVIEWED? <input checked="checked" type="checkbox"/> YES <input type="checkbox"/> NO	COORDINATES OF FACILITIES	REQUIRED EFFECTIVE DATE <div style="text-align: center;">ROUTINE</div>
COORDINATED WITH: <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: center;">ATA <input type="checkbox"/></div> <div style="text-align: center;">AAT <input type="checkbox"/></div> <div style="text-align: center;">ALPA <input checked="checked" type="checkbox"/></div> <div style="text-align: center;">APA <input type="checkbox"/></div> <div style="text-align: center;">AOPA <input checked="checked" type="checkbox"/></div> <div style="text-align: center;">NBAA <input checked="checked" type="checkbox"/></div> <div style="text-align: center;">OTHER (specify) <input checked="checked" type="checkbox"/> <u>ZOB, MBS APP CON, AMGR</u></div> </div>		
FLIGHT CHECKED BY		
NAME:	FIFO	DATE:
DEVELOPED BY		
NAME:	FIFO	DATE:
THOMAS L KIRKPATRICK	<i>Digitally signed by</i> THOMAS L KIRKPATRICK	AJV-5423 01/14/2016
APPROVED BY Jan 14, 2016		
NAME:	FIFO	DATE:
GEORGE GONZALEZ	MANAGER	AJV-5420
CHANGES: 1. UPDATED AIRPORT MAGVAR/EPOCH YEAR FROM 6W/1985 TO 8W/2020. 2. CHANGED ALL REFERENCE OF RUNWAYS 5/23 AND 12/30 TO 6/24 AND 13/31. 3. CHANGED COURSE/DISTANCE FNT VORTAC TO HIPRA FROM 016.80/22.9 TO 020.73/23.47. 4. CHANGED COURSE/DISTANCE BIRRS TO HIPRA FROM 095.35/5.61 TO 093.92/6.50. 5. CHANGED COURSE/DISTANCE HIPRA TO YOGUS FROM 057.65/6.01 TO 058.38/5.00. 6. ADDED FINAL STEPDOWN FIX (VOWER) AT 1.70 NM TO RWY 6 AT 1260. 7. CHANGED FAC FROM 057.72 TO 058.38, DIST FAF TO MAP/THLD FROM 4.87/4.87 TO 4.95/4.95. 8. CHANGED LNAV MDA/HAT FROM 1100/406 TO 1080/391, ALL CATS. 9. CHANGED CIRCLING MDA/HAA FROM 1220/516 TO 1200/496 ALL CATS. 10. REMOVED PLANVIEW NA NOTE AT BIRRS AND CHANGED FNT VORTAC NOTE VIA V84 TO NA ON AIRWAY RADIALS 076 CW 097. 11. MISSED APPROACH: ADDED A CLIMB TO 1100. 12. FAS OBST CHANGED FROM 975 MSL TOWER TO 829 MSL TREE. 13. ADDED CIRCLING ICON. 14. ADD PLANVIEW NOTE AT BIRRS. (SEE FORM 8260-10)		
REASONS: 1, 2, 8. AIRPORT MGR REQUEST. 3, 4. NEW MAGVAR AND HIPRA MOVED 0.97 NM NORTHEAST. 5, 7. YOGUS MOVED 827 FEET SOUTH. 6. WITHOUT STEPDOWN, MDA WOULD HAVE RAISED TO 1160 AFTER AAO ADDED TO FINAL. 9, 13. ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED. 10. TURNS EXCEED 90 DEGREES. 11. REQUIREMENT TO ENSURE AIRCRAFT IS AT LEAST 400 FEET ABOVE DER. 12. OBSTACLE DATA BASE UPDATED AND NEW TRAPEZOID DIMENSIONS. 14. RADAR REQUIRED FOR PROCEDURE ENTRY. 15. CIRCLING NA TO TURF RWYS.		

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV - STANDARD
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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NOTES, (CONT.):

CHART PLANVIEW NOTE ADJACENT TO BIRRS: RADAR REQUIRED.

CHART NOTE: PROCEDURE NA AT NIGHT.

CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE SAGINAW/MBS INTL ALTIMETER SETTING AND INCREASE ALL MDA 80 FEET.



CITY AND STATE
CARO, MI

ELEVATION: 704 **TDZE: 689**
AIRPORT NAME:
TUSCOLA AREA

FACILITY
IDENTIFIER:
RNAV

PROCEDURE NO./AMDT NO./EFFECTIVE DATE:
RNAV (GPS) RWY 6, AMDT 1

SUP: **RNAV (GPS) RWY 5**
AMDT: **ORIG-A**
DATED: **06/25/2015**

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH:					
ATA <input type="checkbox"/>	AAT <input type="checkbox"/>	ALPA <input type="checkbox"/>	APA <input type="checkbox"/>	AOPA <input type="checkbox"/>	NBAA <input type="checkbox"/>
OTHER (specify) <input type="checkbox"/> _____					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				FIFO	DATE:
APPROVED BY					
NAME:				FIFO	DATE:
CHANGES: CHANGES CONT. 15. ADDED CIRCLING NA NOTE FOR RWY 13/31.					
REASONS:					

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
FLIGHT STANDARDS SERVICES - TITLE 14 CFR PART 97.33

Bearings, headings, courses, 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 in feet RVR.

ARINC SUMMARY - KCFS

ROUTES

TRANSITION	WPT SEQ	WPT NAME	LEG TYPE	FB/FO	RNP	MAG CRS	REC NAV	ANGLE	TURN DIR	CENTER FIX	TURN RADIUS	ALTITUDE DESCRIPTION & VALUE	SPEED LIMIT DESCRIPTION & VALUE	WPT DESCRIPTION CODE
BIRRS	010	BIRRS	IF	FB										E A
BIRRS	020	HIPRA	TF	FB	1.0	093.9						AA 03100		EE B
FNT	010	FNT	IF	FB										V A
FNT	020	HIPRA	TF	FB	1.0	020.7						AA 03100		EE B
	010	HIPRA	IF	FB								AA 03100		E I
	020	YOGUS	TF	FB	1.0	058.3				RW06		AA 02300		E F
	021	VOWER	TF	FB	0.3	058.4		3.00				AA 01260 GS 01267		E S
	030	RW06	TF	FO	0.3	058.4		3.00				AT 00725		GY M
	040		CA	FB		058.4						AA 01100		M
	050	BIRRS	DF	FO					L			AA 03100		EY
	060	BIRRS	HM	FO		137.0			R			AA 03100		EE

POINTS

POINT NAME	LATITUDE	LONGITUDE
FNT	N425800.38	W0834449.08
BIRRS	N432026.48	W0834637.11
HIPRA	N432053.91	W0833743.92
VOWER	N432609.58	W0832901.25
YOGUS	N432405.37	W0833227.21

RUNWAYS

RUNWAY	THRESHOLD LATITUDE	THRESHOLD LONGITUDE	THRESHOLD ELEVATION	PROCEDURE TCH
RW06	N432714.56	W0832713.32	00685	40

QUALITY
16
CHECKED

CITY AND STATE CARO, MI	ELEVATION: 704 TDZE: 689	FACILITY IDENTIFIER: RNAV	PROCEDURE NO. / AMDT NO. / EFFECTIVE DATE: RNAV (GPS) RWY 6, AMDT 1	SUP: RNAV (GPS) RWY 5
	AIRPORT NAME: TUSCOLA AREA			AMDT: ORIG-A
				DATED: 06/25/2015

ALL AFFECTED PROCEDURES REVIEWED? <input type="checkbox"/> YES <input type="checkbox"/> NO		COORDINATES OF FACILITIES		REQUIRED EFFECTIVE DATE	
COORDINATED WITH: <div>ATA<input type="checkbox"/> AAT<input type="checkbox"/> ALPA<input type="checkbox"/> APA<input type="checkbox"/> AOPA<input type="checkbox"/> NBAA<input type="checkbox"/> OTHER (specify) <input type="checkbox"/> _____</div>					
FLIGHT CHECKED BY					
NAME:				FIFO	DATE:
DEVELOPED BY					
NAME:				NFPG	DATE:
APPROVED BY					
NAME:				NFPG	DATE:
CHANGES:					
REASONS:					

STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD		
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	PART - A OBSTRUCTION DATA
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1. APP SEGMENT		FROM		TO		OBSTRUCTION		COORDINATES		ELEV. MSL	ROC	ALT. ADJUSTMENTS		MIN. ALT.					
INITIAL		FNT VORTAC		HIPRA		1. TOWER (26-000558)		431301.00N/0834317.00W		2013 (4D)	1000			3100					
						2. TERRAIN		425515.00N/0834024.00W		831 (800)		AS1500		2300					
INITIAL		BIRRS		HIPRA		3. TOWER (26-001984)		432026.00N/0833709.00W		926 (5D)	1000	AT1174		3100					
						4. TERRAIN		432042.00N/0833830.00W		689 (700)		AS1500		2200					
INTERMEDIATE		HIPRA		YOGUS		5. TOWER (26-003237)		432205.60N/0833620.60W		940 (4D)	500	AT860		2300					
						6. TERRAIN		432339.00N/0833424.00W		709 (700)		AS1500		2200					
FINAL: LNAV		YOGUS		VOWER/1.70 NM TO		7. AAO		432447.51N/0833049.48W		900 (2C)	250	RA70 DG40		1260					
				RW06															
FINAL: LNAV STEPDOWN		VOWER/1.70 NM TO		RW06		8. TREE (KCFST0567)		432724.82N/0832731.66W		829 (1A)	250			1080					
		RW06																	
2. PROCEDURE TURN		NA																	
3. MISSED APPROACH	MAP:		RW06		BIRRS							ASC			3100				
							9. WDMLL (26-026922)		433049.72N/0832959.37W		1099 (5D)	1000			2100				
	ELEV:		980				10. TERRAIN		432645.00N/0833212.00W		775 (800)		AS1500		2300				
4. CIRCLING AREA		DISTANCE		HT. ABV. ARPT.															
CATEGORY A		1.3 NM		REQUIRED	350	ACTUAL	496		11. TREE (KCFST0682)		432814.07N/0832726.28W		891 (2C)	300			1200		
CATEGORY B		1.5 NM			450		496		12. TREE (KCFST0699)		432911.64N/0832612.22W		899 (2C)	300			1200		
CATEGORY C		1.7 NM			450														
CATEGORY D		2.3 NM			550														
CATEGORY E		4.5 NM			550														
5. MINIMUM SAFE ALTITUDES															PRIMARY NAVAID: RW06				
SECTOR		OBSTRUCTION		BRG/DIST		ELEVATION (MSL)		M S A		SECTOR		OBSTRUCTION		BRG/DIST		ELEVATION (MSL)		QUALITY M S A	
360-360		TWR (26-000558)		228/18.4		2013 (4D)		3100										16	
																		CHECKED	
CITY AND STATE				ELEVATION: 704				FACILITY				PROCEDURE AND AMENDMENT NO:				REGION			
CARO, MI				AIRPORT NAME: TUSCOLA AREA				RNAV				RNAV (GPS) RWY 6, AMDT 1				AGL			

PART B - SUPPLEMENTAL DATA										PART C - REMARKS:																			
1. COMMUNICATIONS WITH:					2. WEATHER SERVICE					3. ALTIMETER SETTING					VDP NOT ESTABLISHED - OBSTACLES PENETRATE 20:1 SURFACE.														
MBS APP CON ZOB ARTCC LAN FSS							N W S		OTHER: AWOS-3					SOURCE:KCFs / KMBS					PRECIPITOUS TERRAIN EVALUATION COMPLETED.										
							F A A							DISTANCE: 0 / 28.05															
							A / C							HOURS REMOTE OPERATION:					24										
SATISFACTORY ON:										LOCATION: KCFs					ADJUSTMENT: 0 / 70					VGSi DATA: 3.00/25.0 TCH									
4. MONITOR STATUS		PRIMARY NAVAID:								ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED. CAT A: 1.30NM CAT B: 1.83NM																			
		MONITOR POINT:																											
		HRS OPTN:		CAT 1																									
				CAT 3						NO ADDITIONAL AIRSPACE REQUIRED. RASS PRESSURE PATTERNS SAME KCFs 704, KMBS 668 RA = 69.6.																			
5. APPROACH & RUNWAY LIGHTING		ALS																		TAA NOT DEVELOPED PER ATC.									
		(S) SALS																											
		MALS																											
		HIRL																											
		X		MIRL 06 (PCL), 24 (PCL)																									
		X		REIL 06, 24 (PCL)																									
				TDZ																									
		C/LINE								UNABLE TO ESTABLISH A LOWER MDA FOR LP MINIMUMS.																			
X		OTHER (SPECIFY) PAPI-4L 06, 24 (PCL)																											
6. RUNWAY MARKINGS		BASIC								GQS PENETRATIONS: 741 TREE (KCFST0443) 432705.05N/0832724.40W (12.93) 741 TREE (KCFST0459) 432704.95N/0832727.42W (6.69) 747 TREE (KCFST0477) 432704.11N/0832730.08W (5.51)																			
		ALL WEATHER																											
		INSTRUMENT NPI-F 06, 24																											
7. RUNWAY VISUAL RANGE		APPROACH								ORDER 8260.3, VOLUME 1, "VISUAL PORTION OF FINAL" PENETRATIONS: 20:1 765 TREE (KCFST0473) 432702.13N/0832727.12W (11.06) 741 TREE (KCFST0443) 432705.05N/0832724.40W (4.21) 34:1 765 TREE (KCFST0473) 432702.13N/0832727.12W (39.61) 741 TREE (KCFST0443) 432705.05N/0832724.40W (25.70) 741 TREE (KCFST0459) 432704.95N/0832727.42W (20.46) 747 TREE (KCFST0477) 432704.11N/0832730.08W (20.42) 752 TREE (KCFST0501) 432700.53N/0832731.94W (15.52) 722 T-L TWR (26-022515) 432705.80N/0832722.63W (11.08) 722 POLE (KCFST0430) 432705.80N/0832722.63W (11.08) 739 TREE (KCFST0489) 432700.43N/0832728.62W (7.88) 723 TREE (KCFST0442) 432705.49N/0832724.82W (7.83) 727 TREE (KCFST0457) 432705.40N/0832727.56W (7.08) 718 POLE (KCFST0431) 432705.78N/0832722.63W (7.05) 738 TREE (KCFST0490) 432705.12N/0832734.12W (6.58) 738 TREE (KCFST0491) 432705.09N/0832734.14W (6.49) 731 TREE (KCFST0470) 432703.74N/0832728.52W (6.33) 719 CATENARY (KCFST0436) 432705.82N/0832723.83W (6.12) 738 TREE (KCFST0496) 432703.92N/0832734.42W (3.80) 721 POLE (KCFST0449) 432705.85N/0832726.81W (3.19) 719 CATENARY (KCFST0445) 432705.84N/0832725.62W (3.16) 723 TREE (KCFST0456) 432703.87N/0832725.82W (3.09) 720 POLE (KCFST0448) 432705.85N/0832726.80W (2.20) 731 TREE (KCFST0483) 432703.95N/0832731.49W (1.76)																			
		MIDFIELD																											
				ROLL OUT																									
8. GLIDE PATH		GP ANGLE:					ELEV RWY THRESHOLD:					VAAR: RW24 762 TREE (KCFST0104) 432750.20N/0832618.89W (17.43) 760 TREE (KCFST0103) 432750.03N/0832618.32W (14.36) 765 TREE (KCFST0071) 432747.60N/0832610.57W (5.16) 727 TREE (KCFST0137) 432747.75N/0832623.34W (2.98) 779 TREE (KCFST0045) 432750.37N/0832607.85W (2.49) 724 TREE (KCFST0138) 432747.52N/0832623.33W (0.70)																	
		DISTANCE FROM RWY:					ELEV GP ANTENNA:																						
							THRESHOLD CROSSING HEIGHT:																						
9. FINAL APPROACH COURSE AIMING				X		RUNWAY THRESHOLD					FT. FROM THRESHOLD					CAT A-B ONLY AS PER RAPT.													
				X		ON CENTERLINE					FT. FROM CENTERLINE																		
10. WAIVERS: NONE																													
PART D - PREPARED BY: THOMAS L KIRKPATRICK										DATE: 01/14/2016																			
TITLE: AERONAUTICAL INFORMATION SPECIALIST										OFFICE: AJV-5423																			

