

**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> KSFM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> 1	<u>CITY</u> SANFORD	<u>STATE</u> ME		
<u>AIRPORT ELEVATION</u> 244	<u>TDZE</u> 239	<u>SUPERSEDED</u> RNAV (GPS) RWY 32	<u>ORIGINAL/AMENDMENT</u> ORIG-B	<u>DATED</u> 03/26/2020	<u>MAG VAR</u> 17W	<u>EPOCH YEAR</u> 1990
<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>
PEASE		SEROC		TF	FB	1.00	088.47	15.74	3000
MESHL	IAF	SACTO		TF	FB	1.00	280.93	12.99	2000
SEROC	IAF	SACTO		TF	FB	1.00	027.85	7.90	2000
SACTO	IF	RYDER		TF	FB	1.00	316.09	6.55	2000
RYDER	FAF	RW32	MAP	TF	FO	0.30	315.98	5.45	
RW32	MAP	644 MSL		CA			315.98		
644 MSL		GUNTY		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LNAV: RW32

MISSED APPROACH INSTRUCTIONS:

CLIMBING RIGHT TURN TO 3000 DIRECT GUNTY AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3000.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. PROFILE STARTS AT SACTO

3. FAC: 315.98

FAF: RYDER

DIST FAF TO MAP: 5.45

DIST FAF TO THLD: 5.45

4. MIN ALT: SACTO 2000, RYDER 2000

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 CLEAR

20:1: IS CLEAR

TCH:

8. MSA FROM: RW32 3600

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT MESH1 ON V268 NORTHEAST BOUND.
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT SEROC ON V167 SOUTHBOUND.

ADDITIONAL FLIGHT DATA:

HOLD E, RT, 255.51 INBOUND.
FAS OBST: 400 AAO 432137N/0703756W.
CHART 409 TOWER 432138N/0703507W.
CHART P67.
CHART VDP AT 1.24 NM TO RW32.
CHART CIRCLING ICON.
RYDER TO RW32: 3.00/34.

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - CAT C 1000-2 3/4, CAT D 1000-3, 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	660	1	421	660	1	421	660	1 1/4	421	660	1 1/4	421			
CIRCLING	760	1	516	760	1	516	1180	2 3/4	936	1240	3	996			



CHANGES - REASONS

1. INCORPORATED P-NOTAM IFDC 0/0537
2. TERMINAL ROUTES: REPLACED PSM VOR/DME TO ARMIE WITH PEASE TO SEROC - PSM VOR/DME DECOMMISSION AND REPLACED ARMIE; COORDINATED WITH FPT TO MEET MINIMUM LEG LENGTH, 8260.58A CHANGE 2.1-3-1.
3. TERMINAL ROUTES AND PROFILE LINE 3: CHANGED SACTO TO RYDER COURSE/DISTANCE FROM 316.08/6.63 TO 316.09/6.55 AND RYDER TO RW32 FROM 315.99/5.37 TO 315.98/5.45 - RELOCATED RYDER 486 FEET SOUTHEAST, NEW EVALUATION.
4. TERMINAL ROUTES: CHANGED DF LEG FROM 644 MSL TO ENE VORTAC TO 644 MSL TO GUNTY - CHANGED MISSED HOLDING FROM ENE VORTAC WITH GUNTY PER FPT, 8260.58A, 3-7-3A.1(B)1.
5. MISSED APPROACH INSTRUCTIONS: CHANGED FROM CLIMBING RIGHT TURN TO 3000 DIRECT ENE VOR/DME AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3000 TO CLIMBING RIGHT TURN TO 3000 DIRECT GUNTY AND HOLD, CONTINUE CLIMB-IN-HOLD TO 3000 - CHANGED MISSED APPROACH FROM ENE VOR/DME TO GUNTY PER FPT AND TO ADDRESS THE DF LOCATED INSIDE DF TURN ARCS, 8260.58A APPENDIX B 3(A).
6. PROFILE VIEW LINE 7: CHANGED 34:1 FROM IS NOT CLEAR TO IS CLEAR AND ADDED 20:1 IS CLEAR - CLEAR BY TARGETS EVALUATION; 8260.19I, 8-6-7.G(3)A.
7. REMOVED CHART NOTE: DME/DME RNP-0.3 NA AND ADDED RNP APCH TO PBN REQUIREMENTS NOTE - 8260.19I, 8-6-8.B(1).
8. CHART PLANVIEW NOTE: REMOVED PROCEDURE NA FOR ARRIVALS AT PSM VOR/DME ON V3 SOUTHBOUND; REPLACED ARRIVALS AT ARMIE ON V167 SOUTHBOUND WITH PROCEDURE NA FOR ARRIVALS AT SEROC ON V167 SOUTHBOUND - REPLACED PSM VOR/DME WITH PEASE AND ARMIE WITH SEROC, PEASE WP NOT ON V3, 5.65 FEET NORTHEAST OF PSM.
9. REMOVED CHART NOTE: WHEN RWY 32 VGSi INOPERATIVE, STRAIGHT-IN AND CIRCLING MINIMUMS NA AT NIGHT - NO VISUAL SURFACE PENETRATIONS 8260.19I, CHAPTER 8-6-11.O(2)H.
10. CHART NOTE: REMOVED HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NA - NO VISUAL PENETRATIONS, 20:1 AND 34:1 IS CLEAR.
11. ADDITIONAL FLIGHT DATA:
CHANGED HOLD NE, LT, 242.00 INBOUND TO HOLD E, RT, 255.51 INBOUND - HOLDING CHANGED FROM ENE VOR/DME TO GUNTY.
CHANGED FAS OBST: FROM 399 TREE 432215N/0704012W TO 400 AAO 432137N/0703756W - NEW CONTROLLING OBSTACLE.
CHANGED 7:1 OBSTACLE HEIGHT FROM 410 TO 409 - OBSTACLE UPDATED 06/01/2014.
ADDED CHART VDP AT 1.24 NM TO RW32 - UPDATED TARGETS EVALUATION/VDP PUBLISHABLE, 8260.3D 2-6-5.A ADDED CHART CIRCLING ICON - ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.
12. REMOVED BACKUP ALTIMETER AND ASSOCIATED NA NOTES - MOVED TO -9 AS A CONTINGENCY.

COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** AMGR, ZBOB, PWM APP CON

FLIGHT CHECKED BY

DANIEL KIRBY

*Digitally signed by***JASON KRETSCHMER**

Apr 15, 2021

OFFICE

FICO

DATE

04/14/2021

DEVELOPED BY

JASON KRETSCHMER (RAYMOND JOHNSON)

*Digitally signed by***JASON KRETSCHMER****OFFICE**

AJV-A421

DATE

03/10/2021

APPROVED BY

MARLON ROBINSON

Mar 10, 2021

OFFICE

AJV-A420

DATE**TITLE**
MANAGER*Digitally signed by***JASON KRETSCHMER**

Mar 10, 2021

QUALITY
10
CHECKED

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

<u>AIRPORT ID</u> KSFM	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 32	<u>AMDT NO.</u> 1	<u>CITY</u> SANFORD	<u>STATE</u> ME	<u>AIRPORT ELEVATION</u> 244	<u>FACILITY</u> RNAV
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PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM
PEASE

TO
SEROC

<u>RNP</u>	<u>DISTANCE</u> 15.74	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
<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>
STACK (33-000053)	430559.97N/0704728.48W		441	50	3	2A	1000				AT1559	3000
TERRAIN	430824.00N/0704354.00W		213 (200)								AS1500	1700

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL

FROM
MESHL

TO
SACTO

<u>RNP</u>	<u>DISTANCE</u> 12.99	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
<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>
SHIP	431737.76N/0702745.17W		250	50	20	2C	1000				AT750	2000
TERRAIN	431830.49N/0701838.74W		0 (0)								AS1500	1500

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

SEROC

TO

SACTO

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	7.90											
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
SHIP	431737.76N/0702745.17W		250	50	20	2C	1000				AT750	2000
TERRAIN	431355.41N/0702830.38W		0 (0)								AS1500	1500

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

SEGMENT REMARKS:

INTERMEDIATE

FROM

SACTO

TO

RYDER

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>					
	6.55											
<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>
AAO	432148.00N/0703500.00W		463	164	98	4E	500				AC98 AT939	2000
TERRAIN	432006.00N/0703600.00W		216 (200)								AS1500	1700

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

SEGMENT REMARKS:



FINAL: LNAV

FROM

RYDER

TO

RW32

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	5.45		RW32	421								
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
AAO	432137.32N/0703755.82W		400	50	20	2C	250					660

COMPUTATIONS

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

MISSED APPROACH : LNAV

FROM

RW32

TO

GUNTY

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
							560					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				3000
AAO	432748.00N/0704436.00W		804	164	98	4E	1000					1900
TERRAIN	432748.00N/0704436.00W		603 (600)								AS1500	2100

COMPUTATIONS

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



AIRPORT ID KSFM	PROCEDURE NAME RNAV (GPS) RWY 32	AMDT NO. 1	CITY SANFORD	STATE ME	AIRPORT ELEVATION 244	FACILITY RNAV					
CIRCLING <input type="checkbox"/> ALL CATS <input checked="" type="checkbox"/> CAT A <input checked="" type="checkbox"/> CAT B <input checked="" type="checkbox"/> CAT C <input checked="" type="checkbox"/> CAT D <input type="checkbox"/> CAT E <input type="checkbox"/> NOT AUTHORIZED											
OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
TREE	432353.64N/0704308.28W	1.30	516	459	50	20	2C	300			760
CATEGORY B											
TREE	432353.64N/0704308.28W	1.81	516	459	50	20	2C	300			760
CATEGORY C											
TREE (23-025637)	432300.44N/0704702.52W	2.85	936	880	20	10	1B	300			1180
CATEGORY D											
TREE	432303.00N/0704702.52W	3.72	996	926	50	20	2C	300			1240

CIRCLING REMARKS:

MSA

CENTER RW32	RADIUS 25
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SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (23-000419)	435044.24N/0704540.76W	011	27.3	2549	50	20	2C	1000			3600

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

TAA NOT DEVELOPED PER AIR TRAFFIC AND FPT.

INTERMEDIATE SEGMENT/FAF ALTITUDE OF 2000 UTILIZED TO PROVIDE 1000 FT VERTICAL SEPARATION WITH P67. P67 IS ACTIVE TO 1000 FT.

VEGETATION HEIGHT EQUALS 100 FT PLUS TERRAIN PER FPT.
SHIP HEIGHT EQUALS 250 FT PER FPT.

LPV AND LNAV/VNAV NOT DEVELOPED PER FPT REQUEST.



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH
ZBW ARTCC, PWM APP CON, BANGOR FSS

<u>WX SERVICE</u> AWOS-3PT	<u>LOCATION</u> KSFM	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KSFM	<u>DISTANCE</u> 0	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 0
<u>BACK-UP WX SERVICE</u> ASOS	<u>LOCATION</u> KDAW	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KDAW	<u>DISTANCE</u> 11.7	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 38

WX REMARKS:
RASS PRESSURE PATTERNS THE SAME
KSFM 244, KDAW 322
RA = 37.9.

<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>
RW14 - MIRL (PCL), PAPI-4L		BSC-G	
RW32 - MIRL (PCL), PAPI-4L		BSC-G	
RW25 - HIRL (PCL), PAPI-4L (PCL), ODALS (PCL)		NPI-G	
RW07 - HIRL (PCL), REIL (PCL), PAPI-4L (PCL)		PIR-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> 3.00	<u>TCH</u> 34.1
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<u>FINAL APPROACH COURSE AIMING</u>			
RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

<u>CRITICAL TEMPERATURES</u>			
<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>

CRITICAL TEMPERATURE REMARKS:

"VISUAL PORTION OF FINAL" PENETRATIONS



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:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

CONTINGENCY NOTE:
WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE ROCHESTER, NH ALTIMETER SETTING AND INCREASE ALL MDA 40 FT, LNAV INCREASE VISIBILITY CATS C AND D 1/8 SM AND CIRCLING INCREASE VISIBILITY CAT C 1/4 SM.
VDP NA WHEN USING ROCHESTER ALTIMETER SETTING.

ORDER 8260.3 CHAPTER 2 APPLIED TO 409 TOWER (23-000387) 432138.00N/0703507.00W.

ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



AIRPORT ID KSFM	PROCEDURE NAME RNAV (GPS) RWY 32	AMDT NO. 1	CITY SANFORD	STATE ME	AIRPORT ELEVATION 244	FACILITY RNAV
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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	3.45
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	298.98
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	400
DISTANCE FROM	THLD	TO 1500FT POINT	5.25
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	1.95
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	298.98
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	400

THRESHOLD
COORDINATES
(IF STR-IN)

432337.37N/0704152.23W

ARP COORDINATES

432337.70N/0704228.80W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP

RUNWAY 7 DISTANCE 0.67 NM

FAF
COORDINATES

432059.10N/0703519.99W

FIX NAME
COORDINATES

IF SACTO: 431748.22N/0702729.24W

REMARKS

QUALITY
10
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

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PART E: PREPARED BY

<u>NAME</u> JASON KRETSCHMER (RAYMOND JOHNSON)	<u>OFFICE</u> AJV-A421	<u>DATE</u>	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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