

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
COPTER RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE
TITLE 14 CFR PART 97.35

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> 1B9	<u>PROCEDURE NAME</u> COPTER RNAV (GPS) Y RWY 14	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> MANSFIELD	<u>STATE</u> MA		
<u>AIRPORT ELEVATION</u> 123	<u>TDZE</u> 121	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u> NONE	<u>DATED</u>	<u>MAG VAR</u> 16W	<u>EPOCH YEAR</u> 1995
<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>
WOONS		WAXAL		TF	FB	1.00	082.42	8.41	3000
WAXAL	IAF	ZODED		TF	FB	1.00	048.60	3.00	2700
MILIS	IAF	ZODED		TF	FB	1.00	186.25	3.44	2700
ZODED	IF	HASUM		TF	FB	1.00	138.62	3.00	1500
HASUM	FAF	RW14	MAP	TF	FO	0.30	138.56	2.21	
RW14	MAP	520 MSL		CA			138.56		
520 MSL		BURDY		DF	FO	1.00			2000

MISSED APPROACH

MAP:

LP: RW14
 LNAV: RW14

MISSED APPROACH INSTRUCTIONS:

CLIMBING LEFT TURN TO 2000 DIRECT BURDY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. PROFILE STARTS AT ZODED

3. FAC:

138.56

FAF: HASUM

DIST FAF TO MAP: 2.21

DIST FAF TO THLD: 2.21

4. MIN ALT: ZODED 2700, HASUM 1500

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: RW14 2600

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: PROCEDURE NA AT NIGHT.
CHART PLANVIEW NOTE: LIMIT FINAL AND MISSED APPROACH TO 70 KIAS.
CHART PLANVIEW NOTE: INCREASE TO 90 KIAS UPON REACHING THE MISSED APPROACH ALTITUDE; MAINTAIN 90 KIAS WHILE IN HOLDING.
CHART NOTE: USE TAUNTON ALTIMETER SETTING.

ADDITIONAL FLIGHT DATA:

CHART TAUNTON MUNI - KING FLD ASOS-3.
HASUM TO RW14: 5.70/40.
HOLD N, LT, 192.02 INBOUND.
CHART FAS OBST: 274 TOWER (25-024612) 420124N/0711308W, 230 TREE (25-037795) 420031N/0711250W.
CHART 298 TOWER 415937N/0711539W, 251 TREE 420101N/0711346W.
WAAS CHANNEL # 50444
REFERENCE PATH ID: W14B
CHART AT OR ABOVE 2700 AT MILIS.
LTP HAE: 8 M

MINIMUMS:

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

ALTERNATE: NA ☒

CATEGORY:	COPTER														
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
LP MDA	520	1	399		NA			NA			NA				
LNAV MDA	580	1	459		NA			NA			NA				

CHANGES - REASONS

ORIGINAL PROCEDURE



COORDINATED WITH:

A4A ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☒ **NBAA** ☒ **OTHER:** ZBW, BOS APP CON, BDR FSS, ARPT MGR

FLIGHT CHECKED BY

JAMES D ARNOLD

Digitally signed by

RAKE MCGRAW

Oct 20, 2022

OFFICE

FPO

DATE

09/23/2022

DEVELOPED BY

RALPH DUMAR

Digitally signed by

RALPH DUMAR

Jul 29, 2022

Digitally signed by

RAKE MCGRAW

Oct 20, 2022

OFFICE

AJV-A423

DATE

05/10/2022

APPROVED BY

MARLON ROBINSON

OFFICE

AJV-A420

DATE

10/20/2022

TITLE

MANAGER

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	1B9
RUNWAY	RW14
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	Y
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W14B
LTP/FTP LATITUDE	420006.7055N
LTP/FTP LONGITUDE	0711201.4320W
LTP/FTP ELLIPSOIDAL HEIGHT	+00080
FPAP LATITUDE	415918.6870N
FPAP LONGITUDE	0711020.7605W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	05.70
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1840
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
 CRC REMAINDER	 A544363C

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K6
LTP ORTHOMETRIC HEIGHT	+00368
FPAP ORTHOMETRIC HEIGHT	+00368



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>
1B9	COPTER RNAV (GPS) Y RWY 14	ORIG	MANSFIELD	MA	123	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

FEEDER

FROM WOONS TO WAXAL

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
	8.41											
<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>	
1.TOWER (44-000006)	415943.33N/0712651.96W	792	100	20	3C	1000				AT1208	3000	
2.TERRAIN	415942.00N/0712703.00W	541 (500)								AS1500	2000	

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL

FROM WAXAL TO ZODED

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							
	3.00											
<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>	
3.TOWER (25-000102)	420340.50N/0711715.27W	635	50	20	2C	1000				AT1065	2700	
4.TERRAIN	420321.00N/0711945.00W	393 (400)								AS1500	1900	

COMPUTATIONS

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

SEGMENT REMARKS:



FACILITY
RNAV

HMAS

RF CENTER FIX/DISTANCE

HMAS

RF CENTER FIX/DISTANCE

QUALITY
26
CHECKED

FINAL: LP

FROM
HASUM

TO
RW14

<u>RNP</u>	<u>DISTANCE</u> 2.21	<u>PAT</u>	<u>MAP</u> RW14	<u>HAT</u> 399			<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>
6.TREE (25-037795)	420030.57N/0711249.91W		230	20	3	1A	250				RA37	520

COMPUTATIONS

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

FINAL: LNAV

FROM
HASUM

TO
RW14

<u>RNP</u>	<u>DISTANCE</u> 2.21	<u>PAT</u>	<u>MAP</u> RW14	<u>HAT</u> 459			<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>
7.TOWER (25-024612)	420124.32N/0711307.70W		274	20	3	1A	250				RA37	580

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 : LP

FROM

RW14

TO

BURDY

RNP	DISTANCE	PAT	MAP	HAT			HMAS 383					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				2000
8.AAO	415745.00N/0710433.00W		378	164	98	4E	1000					1400
9.TERRAIN	420033.00N/0710824.00W		193 (200)								AS1500	1700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH : LNAV

FROM

RW14

TO

BURDY

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
443												
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				2000
8.AAO	415745.00N/0710433.00W		378	164	98	4E	1000					1400
9.TERRAIN	420033.00N/0710824.00W		193 (200)								AS1500	1700

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



MSA

CENTER

RW14

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TOWER (25-000622)	420313.00N/0714904.00W	293	27.8	1548	500	50	5D	1000			2600

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

MAXIMUM VEGETATION HEIGHT 100 FT PER FPT.
LPV NOT DEVELOPED TO OBTAIN A LOWER TCH FOR COPTER ONLY OPERATIONS.
LNAV/VNAV NOT DEVELOPED DUE TO REMOTE ALTIMETER USE.



PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH

BOS APP CON, BDR FSS, ZBW ARTCC

<u>WX SERVICE</u> ASOS	<u>LOCATION</u> KTAN	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KTAN	<u>DISTANCE</u> 11.12	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 37
<u>BACK-UP WX SERVICE</u>	<u>LOCATION</u>	<u>HRS OPERATION</u>	<u>ALTIMETER SOURCE</u>	<u>DISTANCE</u>	<u>SERVICE-A</u>	<u>ADJUSTMENTS</u>

WX REMARKS:

RASS PRESSURE PATTERNS THE SAME
K1B9 123, KTAN 42
RA=37

<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)		BSC-G	
RW32 - MIRL (PCL), PAPI-4L		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	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE	509
ON CENTERLINE	<input checked="" type="checkbox"/>	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	LP AND LNAV
20:1	
215 TREE (25-044162) 420015.55N/0711222.17W (14.33)	181 TREE (25-037782) 420014.80N/0711212.59W (12.85)



AIRPORT ID	PROCEDURE NAME	AMDT NO.	CITY	STATE	AIRPORT ELEVATION	FACILITY
1B9	COPTER RNAV (GPS) Y RWY 14	ORIG	MANSFIELD	MA	123	RNAV
215 TREE (25-047415) 420017.10N/0711221.54W (12.11)			218 TREE (25-037787) 420018.41N/0711221.86W (10.52)			
191 TREE (25-046576) 420016.00N/0711215.52W (10.25)			226 TREE (25-037788) 420019.28N/0711223.77W (10.07)			
219 TREE (25-040152) 420016.30N/0711224.57W (8.65)			181 TREE (25-047414) 420011.48N/0711217.06W (7.68)			
202 TREE (25-044797) 420013.95N/0711222.67W (4.1)			190 TREE (25-043848) 420012.89N/0711220.19W (2.88)			
177 TREE (25-037783) 420015.06N/0711214.39W (2.41)			221 TREE (25-037790) 420016.89N/0711226.85W (1.79)			
218 TREE (25-044163) 420017.43N/0711225.57W (1.39)			205 TREE (25-045738) 420015.00N/0711223.68W (1.02)			
223 TREE (25-043843) 420019.20N/0711225.80W (0.83)						
Final Type	LP AND LNAV					
34:1						
224 TREE (25-042514) 420017.48N/0711227.86W (42.56)			229 TREE (25-045696) 420022.32N/0711227.08W (41.26)			
222 TREE (25-047044) 420016.41N/0711228.51W (41.06)			222 TREE (25-037754) 420019.83N/0711226.94W (38.51)			
222 TREE (25-037755) 420019.00N/0711227.95W (37.95)			220 TREE (25-037753) 420020.72N/0711225.44W (37.89)			
225 TREE (25-037758) 420021.46N/0711228.12W (36.69)			222 TREE (25-037756) 420018.48N/0711229.99W (34.97)			
222 TREE (25-045695) 420020.51N/0711228.29W (34.9)			226 TREE (25-041139) 420021.83N/0711229.57W (34.38)			
224 TREE (25-045697) 420020.56N/0711229.90W (33.8)			219 TREE (25-044798) 420019.28N/0711228.59W (33.31)			
224 TREE (25-045967) 420019.31N/0711231.38W (33.04)			210 TREE (25-037789) 420015.56N/0711227.17W (32.93)			
219 TREE (25-037757) 420017.43N/0711230.99W (31.78)			198 TREE (25-041128) 420015.97N/0711221.56W (30.77)			
197 TREE (25-040151) 420018.27N/0711220.18W (28.66)			195 TREE (25-037786) 420016.78N/0711220.87W (27.76)			
192 TREE (25-037785) 420017.77N/0711218.91W (26.84)			219 TREE (25-044799) 420020.15N/0711231.68W (26.13)			
200 TREE (25-042518) 420015.50N/0711225.61W (25.94)			183 TREE (25-045737) 420017.23N/0711216.91W (22.45)			
217 TREE (25-044154) 420022.63N/0711230.57W (22.23)			222 TREE (25-041141) 420023.20N/0711233.73W (20.4)			
219 TREE (25-041140) 420022.14N/0711233.55W (19.44)			216 TREE (25-040198) 420022.22N/0711232.08W (19.06)			
213 TREE (25-037746) 420021.05N/0711231.94W (18.2)			215 TREE (25-037747) 420021.26N/0711232.85W (18.16)			
210 TREE (25-037745) 420023.28N/0711228.72W (17.65)			178 TREE (25-045969) 420016.70N/0711217.30W (17.57)			
179 TREE (25-037784) 420017.33N/0711217.61W (16.98)			181 TREE (25-050239) 420013.67N/0711221.83W (16.95)			
213 TREE (25-045698) 420023.44N/0711232.67W (13)			214 TREE (25-045656) 420022.92N/0711234.14W (12.09)			
220 TREE (25-037728) 420022.78N/0711238.40W (10.34)			220 TREE (25-045954) 420023.19N/0711239.15W (8.28)			
216 TREE (25-037775) 420022.35N/0711238.87W (6.15)			208 TREE (25-047045) 420019.73N/0711237.10W (5.66)			
206 TREE (25-043844) 420021.72N/0711234.95W (4.49)			208 TREE (25-037750) 420024.69N/0711233.56W (4.33)			

QUALITY

26



201 TREE (25-046578) 420021.07N/0711233.94W (2.43)	221 TREE (25-045646) 420025.77N/0711240.63W (2.37)
163 TREE (25-046577) 420013.48N/0711220.97W (0.86)	

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 - 20:1 PENETRATIONS.

THRESHOLD DISPLACED 509 FT.

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

ORDER 8260.3 CHAPTER 2 APPLIED TO 251 TREE (25-043818) 420100.93N/0711346.43W.
ORDER 8260.3 CHAPTER 2 APPLIED TO 298 TOWER (25-024618) 415937.03N/0711538.99W.



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	1.71
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.67
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	122.56
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	200
DISTANCE FROM	THLD	TO 1500FT POINT	3.61
WIDTH OF	INTERMEDIATE	SEGMENT AT 1500FT POINT	3.44
TRUE COURSE OF	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	122.62
HIGH TERRAIN IN	INTERMEDIATE	SEGMENT CONTAINING 1500FT POINT	400

THRESHOLD
COORDINATES
(IF STR-IN) 420006.71N/0711201.43W

ARP COORDINATES 420003.17N/0711152.95W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP RUNWAY 32 DISTANCE 0.37 NM

FAF
COORDINATES 420118.07N/0711431.22W

FIX NAME
COORDINATES IF ZODED: 420255.24N/0711754.74W

REMARKS

THLD DISPLACED 509FT, ACTUAL COORDINATES: 420009.41N/0711207.12W.



PART E: PREPARED BY

<u>NAME</u> RALPH DUMAR	<u>OFFICE</u> AJV-A423	<u>DATE</u> 05/10/2022	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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