

**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</u> MASON CITY MUNI	<u>AIRPORT ID</u> KMCW	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 30	<u>ORIGINAL/AMENDMENT</u> 1C	<u>CITY</u> MASON CITY	<u>STATE</u> IA	
<u>AIRPORT ELEVATION</u> 1213	<u>TDZE</u> 1195	<u>SUPERSEDED</u> RNAV (GPS) RWY 30	<u>ORIGINAL/AMENDMENT</u> 1B	<u>DATED</u> 10/15/2015	<u>MAG VAR</u> 0E	<u>EPOCH YEAR</u> 2020
<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>
ALOCK	IAF	ZIGUV	NOPT	TF	FB	1.00	027.77	30.41	3000
AREDA	IAF	ZIGUV	NOPT	TF	FB	1.00	323.65	12.50	3000
FOYDE	IAF	ZIGUV	NOPT	TF	FB	1.00	252.03	28.10	3000
POUND	IAF	ZIGUV	NOPT	TF	FB	1.00	283.68	11.76	3000
ZIGUV	IF/IAF	XENYO		TF	FB	1.00	305.08	6.90	2800
XENYO	FAF	RW30	MAP	TF	FO	0.30	304.99	4.92	
RW30	MAP	2500 MSL		CA			304.99		2500
2500 MSL		ZUTIG		DF	FO	1.00			3000

**MISSED APPROACH**

**MAP:**

LP: RW30  
 LNAV: RW30

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 2500, THEN CLIMBING LEFT TURN TO 3000 DIRECT ZUTIG AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD SE ZIGUV, RT, 305.08 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 304.99FAF: XENYODIST FAF TO MAP: 4.92DIST FAF TO THLD: 4.92

4. MIN ALT: ZIGUV 3000, XENYO 2800

5. DIST TO THLD FROM OM:MM:IM:150 HAT:GS ANT:MM:IM:

6. MIN GP INCPT:GP ALT AT FAF :OM:MM:IM:

7. GP ANGLE:34:1: IS NOT CLEAR20:1: IS CLEARTCH:

8. MSA FROM: RW30 3800

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: RWY 30 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.  
CHART PROFILE NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT ALOCK ON V100 WESTBOUND.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT AREDA ON V120 SOUTHEAST BOUND.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT POUND ON V158 SOUTHEAST BOUND.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL AT FOYDE ON V138 NORTHEAST BOUND AND V67 NORTHBOUND.  
CHART NOTE: VDP NA WHEN USING CHARLES CITY ALTIMETER SETTING.  
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CHARLES CITY ALTIMETER SETTING AND INCREASE ALL MDA 100 FT AND INCREASE LP AND LNAV CAT C AND D VISIBILITY 3/8 SM AND CIRCLING CAT C AND D VISIBILITY 1/4 SM.

ADDITIONAL FLIGHT DATA:

CHART AIRPORT ELEVATION 1213.  
CHART TDZE 1195.  
XENYO TO RW30: 3.00/40.  
CHART VDP AT 1.37 NM TO RW30  
WAAS CHANNEL #40122  
REFERENCE PATH ID: W30A  
FAS OBST: 1419 AAO 430705N/0931558W.  
CHART: 1470 TOWER 430707N/0931423W.  
HOLD SW, RT, 056.07 INBOUND  
LTP HAE: 335.1 M

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
LP MDA	1680	1	485	1680	1	485	1680	1 3/8	485	1680	1 3/8	485			
LNAV MDA	1680	1	485	1680	1	485	1680	1 3/8	485	1680	1 3/8	485			
CIRCLING	1680	1	467	1680	1	467	1760	1 1/2	547	1780	2	567			

**CHANGES - REASONS**

- 1. REPLACED DME/DME RNP-0.3 NM WITH PBN REQUIREMENTS NOTE: RNP APCH - 8260.58A CHG 1, TABLE 1-2-1.
- 2. CHANGED TDZE FROM 1196 TO 1195 AND ADDED TO ADDITIONAL FLIGHT DATA- CURRENT AIRNAV DATA.
- 3. CHANGED HELICOPTER VISIBILITY REDUCTION NOTE TO INCLUDE RWY 30- NOTAM FDC 5/7795/CHARTING CHANGE.
- 4. ADDED 34 TO 1 PENETRATIONS- UPDATED AIRPORT SURVEY.
- 5. UPDATED ALL MAG COURSES 5 DEGREES- NEW AIRPORT MAGVAR DATA FROM 5E/1980 TO 0E/2020.
- 6. CHANGED AIRPORT ELEVATION FROM 1214 TO 1213 AND ADDED TO ADDITIONAL FLIGHT DATA- CURRENT AIRNAV DATA.
- 7. UPDATED CIRCLING HAA CAT A/B 467/466, CAT C 547/546, CAT D MDA 1840/HAA 627 1780/HAA 566- NOTAM FDC 5/7795.
- 8. CHANGED VDP FROM 1.43 NM TO RW30 TO 1.37 NM TO RW30- VGSi TCH CHANGED FROM 32 TO 50.6.
- 9. LTP/FTP L/L CHANGED FROM 430904.3100N-0931937.2400W TO 430904.3135N-0931937.2560W- NEW AIRNAV DATA.
- 10. CRC REMAINDER CHANGED FROM 55C773E8 TO BAFBB3A0- UPDATED LTP/FTP COORDINATES.

**COORDINATED WITH:**

A4A ☐    ALPA ☒    AOPA ☒    APA ☐    HAI ☐    NBAA ☒    OTHER: ZMP, AMGR, ATA

**FLIGHT CHECKED BY**

**OFFICE**

**DATE**

**DEVELOPED BY**

WARDELL HENNING (MICHAEL W HARRIS)

**OFFICE**

AJV-5430

**DATE**

10/22/2018

**APPROVED BY**

PATRICK MULQUEEN

**OFFICE**

AJV-5430

**DATE**

**TITLE**  
MANAGER



**FAS DATA BLOCK INFORMATION**

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMCW
RUNWAY	RW30
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W30A
LTP/FTP LATITUDE	430904.3135N
LTP/FTP LONGITUDE	0931937.2560W
LTP/FTP ELLIPSOIDAL HEIGHT	+03351
FPAP LATITUDE	430955.3300N
FPAP LONGITUDE	0932117.0600W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1072
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	0.0
CRC REMAINDER	BAFBB3A0

**ADDITIONAL PATH POINT RECORD INFORMATION**

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03634
FPAP ORTHOMETRIC HEIGHT	+03634



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

AIRPORT MASON CITY MUNI      AIRPORT ID KMCW      PROCEDURE NAME RNAV (GPS) RWY 30      AMDT NO. 1C      CITY MASON CITY      STATE IA      AIRPORT ELEVATION 1213      FACILITY RNAV

PART A: OBSTRUCTION DATA SEGMENTS

INITIAL

FROM ALOCK      TO ZIGUV

RNP      DISTANCE 30.41      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>
1.TOWER (19-001446)	424718.00N/0931845.00W	1636	500	50	5D	1000				AT364	3000
2.TERRAIN	424221.00N/0932118.00W	1313 (1300)								AS1500	2800

COMPUTATIONS

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

SEGMENT REMARKS:

INITIAL

FROM AREDA      TO ZIGUV

RNP      DISTANCE 12.50      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>
3.AAO	430151.00N/0930845.00W	1414	164	98	4E	1000				AT586	3000
4.TERRAIN	430115.00N/0930745.00W	1201 (1200)								AS1500	2700

COMPUTATIONS

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

SEGMENT REMARKS:



INITIAL

FROM

FOYDE

TO

ZIGUV

<u>RNP</u>	<u>DISTANCE</u> 28.10	<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>
5.AAO	431403.30N/0922935.00W		1600	1000	3	6A	1000				AT400	3000
6.TERRAIN	431348.00N/0923354.00W		1231 (1200)								AS1500	2700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

INITIAL

FROM

POUND

TO

ZIGUV

<u>RNP</u>	<u>DISTANCE</u> 11.76	<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>
7.AAO	430124.00N/0930751.00W		1411	164	98	4E	1000				AT589	3000
8.TERRAIN	430048.00N/0930706.00W		1195 (1200)								AS1500	2700

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:





FINAL: LNAV

FROM  
XENYO

TO  
RW30

<u>RNP</u>	<u>DISTANCE</u> 4.92	<u>PAT</u>	<u>MAP</u> RW30	<u>HAT</u> 485			<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>
11.AAO	430705.43N/0931558.41W		1419	50	20	2C	250					1680

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

SEGMENT REMARKS:

HOLD-IN-LIEU OF PT

FROM  
ZIGUV

TO  
P-5

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u> P-5	<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>
12.AAO	430357.00N/0931048.00W		1444	164	98	4E	1000				AT556	3000
13.TERRAIN	430357.00N/0931048.00W		1244 (1200)								AS1500	2700

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

SEGMENT REMARKS:



MISSED APPROACH : LP

FROM

RW30

TO

ZUTIG

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u> 1580				
<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				3000
14.TOWER (19-001289)	430528.00N/0932359.00W	1665	50	20	2C	1000					2700
15.TERRAIN	430709.00N/0933100.00W	1342 (1300)								AS1500	2800

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

MISSED APPROACH : LNAV

FROM

RW30

TO

ZUTIG

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u> 1580					
<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				3000
14.TOWER (19-001289)	430528.00N/0932359.00W		1665	50	20	2C	1000					2700
15.TERRAIN	430709.00N/0933100.00W		1342 (1300)								AS1500	2800

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											
16.ELE (19-000951)	431048.00N/0932103.00W	1.30	467	1341	50	20	1B	300		SI	1680
CATEGORY B											
16.ELE (19-000951)	431048.00N/0932103.00W	1.50	467	1341	50	20	1B	300		SI	1680
CATEGORY C											
17.TOWER (19-000339)	430847.06N/0931721.01W	1.70	547	1437	50	20		300		XP20	1760
CATEGORY D											
18.TOWER (19-002113)	430743.00N/0932128.00W	2.30	567	1474	20	3	1A	300			1780

CIRCLING REMARKS:

XP: CAT C TO MAINTAIN CURRENT MDA

MSA

CENTER

RW30

RADIUS

25

SECTOR	OBSTRUCTION	COORDINATES	BEARING	DISTANCE	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
360-360	TWR (19-000404)	432220.00N/0925000.00W	053	25.4	2799	20	50	1D	1000			3800

MSA REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

VEGETATION: 100'

TAA NOT DEVELOPED PER FPT.

LPV AND LNAV/VNAV NOT DEVELOPED. RWY NOT SUPPORTED BY VG SURVEY.



QUALITY  
18  
CHECKED



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	2.92
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	304.99
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	1244
DISTANCE FROM	THLD	TO 1500FT POINT	4.72
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	4.72
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	304.99
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	1244

THRESHOLD  
COORDINATES  
(IF STR-IN)

430904.31N/0931937.26W

ARP COORDINATES

430928.10N/0931952.50W

RUNWAY APCH END  
AND DIST FURTHEST  
FROM ARP

RUNWAY 18 DISTANCE 0.67 NM

FAF  
COORDINATES

430615.05N/0931406.73W

FIX NAME  
COORDINATES

REMARKS



