

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 18	<u>ORIGINAL/AMENDMENT</u> 2B	<u>CITY</u> MASON CITY	<u>STATE</u> IA
<u>AIRPORT ELEVATION</u> 1213	<u>TDZE</u> 1213	<u>SUPERSEDED</u> RNAV (GPS) RWY 18	<u>ORIGINAL/AMENDMENT</u> 2A	<u>DATED</u> 05/29/2014	<u>MAG VAR</u> 0E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u> 20 JUNE 2019	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2020

TERMINAL ROUTES THIS IS A CORRECTED COPY OF A PROCEDURE ORIGINALLY PUBLISHED IN TL 19-11.

<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>
LIYIK	IAF	QOJIP	NOPT	TF	FB	1.00	240.30	26.15	3000
FREED	IAF	QOJIP	NOPT	TF	FB	1.00	160.92	22.25	3000
QOJIP	IF/IAF	UHGEP		TF	FB	1.00	179.93	7.19	2800
UHGEP	FAF	FABIT/1.80 NM TO RW18		TF	FB	0.30	179.93	3.01	
FABIT/1.80 NM TO RW18		RW18	MAP	TF	FO	0.30	179.93	1.80	
RW18	MAP	1413 MSL		CA			179.93		
1413 MSL		IKUWY		DF	FO	1.00			3000

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW18

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3000 DIRECT IKUWY AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT	SIDE OF COURSE	OUTBOUND	FT WITHIN	MILES OF (IAF)				
2.	HOLD N QOJIP, RT, 179.93 INBOUND, 3000 FT. IN LIEU OF PT (IAF), MAX 6000.							
3. FAC:	179.93	FAF: UHGEP	DIST FAF TO MAP: 4.81	DIST FAF TO THLD: 4.81				
4. MIN ALT:	QOJIP 3000, UHGEP 2800, FABIT/1.80 NM TO RW18 1840*							
5. DIST TO THLD FROM OM:	MM:	IM:	150 HAT:	GS ANT:				
6. MIN GP INCPT:	2800	GP ALT AT FAF : UHGEP 2800	OM:	MM:		IM:		
7. GP ANGLE:	3.00	34:1: IS CLEAR	20:1: IS CLEAR	TCH: 55.0				
8. MSA FROM:	RW18 3800							

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

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

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT FREED ON V505 NORTHBOUND.

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT LIYIK ON V161 NORTHEAST BOUND.

CHART NOTE: BARO-VNAV AND VDP NA WHEN USING CHARLES CITY ALTIMETER SETTING.

CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C OR ABOVE 54C.

CHART NOTE: INOPERATIVE TABLE DOES NOT APPLY TO LPV AND LNAV/VNAV.

CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CHARLES CITY ALTIMETER SETTING AND INCREASE ALL DA 87 FEET; INCREASE ALL MDA 100 FT AND LNAV CATS C/D AND CIRCLING CAT C VISIBILITY 1/4 SM.

CHART NOTE: FOR INOPERATIVE MALS WHEN USING CHARLES CITY ALTIMETER SETTING, INCREASE LPV AND LNAV/VNAV ALL CATS VISIBILITY 1/8 SM; LNAV CATS C/D VISIBILITY TO 1 3/8 SM.

ADDITIONAL FLIGHT DATA:

CHART TDZE 1213

CHART VDP AT 0.97 NM TO RW18*

*LNAV ONLY

WAAS CHANNEL #40100

REFERENCE PATH ID: W18A

CHART FAS OBST: 1295 TREE 431040N/0931933W.

HOLD S, RT, 359.93 INBOUND

LTP HAE: 341.4 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
LPV DA	1413	3/4	200	1413	3/4	200	1413	3/4	200	1413	3/4	200			
LNAV/VNAV DA	1463	3/4	250	1463	3/4	250	1463	3/4	250	1463	3/4	250			
LNAV MDA	1560	3/4	347	1560	3/4	347	1560	3/4	347	1560	3/4	347			
CIRCLING	1660	1	447	1680	1	467	1760	1 1/2	547	1780	2	567			

CHANGES - REASONS

1. UPDATED ALL MAG COURSES 5 DEGREES- NEW AIRPORT MAGVAR DATA FROM 5E/1980 TO 0E/2020.
2. CHANGED LPV ALL CATS FROM 1414/200 TO 1413/2000; CHANGED CIRCLING MDA/HAA CAT D FROM 1840/627 TO 1780/567 - TDZE CHANGED/NOTAM FDC 8/1176/ CHART CORRECTION FOR CAT D CIRCLING.
3. CHANGED LOCAL ALTIMETER NOTE FROM WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CHARLES CITY ALTIMETER SETTING AND INCREASE ALL DA 87 FT AND ALL MDA 100 FT AND INCREASE LNAV/VNAV ALL CATS VISIBILITY 1/8 MILE, LNAV AND CIRCLING CAT C AND D VISIBILITY 1/4 MILE TO WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CHARLES CITY ALTIMETER SETTING AND INCREASE ALL DA 87 FEET; INCREASE ALL MDA 100 FT AND LNAV CATS C/D AND CIRCLING CAT C VISIBILITY 1/4 SM- CHART CORRECTION.
4. CHANGED INOPERATIVE MALS NOTE FROM FOR INOPERATIVE MALS, WHEN USING CHARLES CITY ALTIMETER SETTING, INCREASE LPV ALL CATS VISIBILITY 1/8 MILE, LNAV/VNAV ALL CATS VISIBILITY 3/8 MILE, LNAV CAT C AND D VISIBILITY 5/8 MILE TO FOR INOPERATIVE MALS WHEN USING CHARLES CITY ALTIMETER SETTING, INCREASE LPV AND LNAV/VNAV ALL CATS VISIBILITY 1/8 SM; LNAV CATS C/D VISIBILITY TO 1 3/8 SM- NOTAM FDC 8/1176/CHART CORRECTION.
5. CHANGED TDZE FROM 1214 TO 1213 AND ADDED TO ADDITIONAL FLIGHT DATA- CURRENT AIRNAV DATA.
6. REPLACED DME/DME RNP-0.3 NM WITH PBN REQUIREMENTS NOTE: RNP APCH - 8260.58A CHG 1, TABLE 1-2-1.
7. LTP/FTP LAT/LONG CHANGED FROM 431007.0800N-0931939.7500W TO 431007.0895N-0931939.7685W- NEW AIRNAV DATA.
8. CRC REMAINDER CHANGED FROM 98BFDA48 TO 605AF8A3- UPDATED LTP/FTP COORDINATES.
9. REMOVED V170 FROM FREED PLANVIEW NOTE- SEGMENT BEING CANCELLED AS PART OF FRM VORMON.
10. BARO-VNAV UPPER TEMPERATURE INCREASED TO 54C, FARENHEIT VALUES DELETED - AFS CALCUALTOR USED, CHARTING CHANGE TO ELIMINATE FARENHEIT VALUES FROM NOTE.

04/22/19: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 02/14/19.
1. UPDATED NOTE FROM " FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW 17C OR ABOVE 54C" TO " FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C OR ABOVE 54C".

COORDINATED WITH:

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

FLIGHT CHECKED BY
JEFFREY WAYNE HARING

Digitally signed by
WARDELL HENNING
Apr 23, 2019

OFFICE
FIOG
DATE
01/08/2019

DEVELOPED BY
WARDELL HENNING (MICHAEL W HARRIS)

Digitally signed by
WARDELL HENNING
Apr 23, 2019

OFFICE
AJV-5430
DATE
10/16/2018

APPROVED BY
PATRICK MULQUEEN

Digitally signed by
WARDELL HENNING
Apr 23, 2019

OFFICE
AJV-5430

DATE

TITLE
MANAGER

QUALITY
18
CHECKED

FAS DATA BLOCK INFORMATION**DATA FIELD****DATA**

OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KMCW
RUNWAY	RW18
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W18A
LTP/FTP LATITUDE	431007.0895N
LTP/FTP LONGITUDE	0931939.7685W
LTP/FTP ELLIPSOIDAL HEIGHT	+03414
FPAP LATITUDE	430837.9600N
FPAP LONGITUDE	0931939.6000W
THRESHOLD CROSSING HEIGHT (TCH)	00055.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	0768
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	35.0

CRC REMAINDER	605AF8A3
---------------	----------

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+03698
FPAP ORTHOMETRIC HEIGHT	+03698